TABLES

Table 3-1

Groundwater Elevations
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
LF1-G01	26-Apr-00	30.77	796.00	796.36	765.23
LF1-G02	26-Apr-00	0.16	743.53	743.53	743.37
LF1-G03	26-Apr-00	5.01	742.41	739.91	737.40
LF1-G04	26-Apr-00	4.85	739.64	737.22	734.79

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - below top of casing.

ft - Feet.

msl - Mean sea level.

Table 3-2

Well Construction Summary
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Well Construction Material
LF1-G01	1170290.75	664874.42	796.36	796.00	40	10	30 - 40	4" ID PVC Sch 40
LF1-G02	1170126.76	665573.49	743.53	743.53	16	10	NA	4" ID PVC Sch 40
LF1-G03	1169724.79	665328.47	739.91	742.41	22	10	NA	4" ID PVC Sch 40
LF1-G04	1169634.65	664832.90	737.22	739.64	22	10	NA	4" ID PVC Sch 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.

Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.

4" ID PVC Sch 40 - 4-inch inside-diameter polyvinyl chloride, Schedule 40.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

NA - Not available.

TOC - Top of casing.

Table 3-3

Summary of Trenching Information
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T78-1	40 ft	3 ft	10 ft/10 ft bgs	0 to 40 ft Fill E/W view	Yellowish orange fine to medium grained SAND, some Silt and Clay, some quarter to half inch diameter Chert Gravel, plastic pieces, broken china, glass jars/bottles, scrap metal, MK II grenade, and coal.
T78-2	55 ft	3 ft	6 ft/9 ft bgs	0 to 35 ft Fill 35 to 55 ft Native W/E view	Yellowish orange to light brown CLAY and SAND, scrap metal, glass, broken plates, pieces of bone, newspaper, and shot gun shell end caps.
T78-3	70 ft	3 ft	7.5 ft/7.5 ft bgs	0 to 20 ft Fill and 20 to 70 ft Native N/S view	Light gray SAND and SILT, numerous 1-8 inch diameter Chert and Sandstone cobbles, yellowish orange to light brown SAND and CLAY, glass bottles, scrap metal, plastic tooth brush, and a broken plate.
T78-4	59 ft	3 ft	6 ft/6 ft bgs	0 to 38 ft Fill and 38 to 59 ft Native N/S view	Yellowish orange CLAY and SAND, 4-8 inch diameter well rounded Chert Cobbles, glass bottles, light gray CLAY, some Sand, steel cable, pieces from a boot, and wood pieces.
T78-5	59 ft	3 ft	8 ft/8 ft bgs	0 to 39 ft Fill and 39 to 59 ft Native NW/SE view	Yellowish orange, stiff, plastic CLAY and medium to fine grained Sand, numerous glass bottles, coal, metal pieces, bone pieces, leather pieces, yellowish to light red CLAY, some Sand, high plasticity, 3 medical bottles, (glass with rubber septum), pieces of coal, broken plates, pieces of wire, ceramic light bulb socket, steel piping, gray-green shale and bedrock.

Table 3-3

Summary of Trenching Information
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T78-6	22 ft	3 ft	5 ft/6 ft bgs	0 to 17 Fill and 17 to 22 Native SW/NE	Yellowish orange Clay, some Sand and Silt, glass bottles, broken plates, wood pieces, plastic pieces, and scrap metal.
T78-7	30 ft	3 ft	7.5 ft/10 ft bgs	0 to 25 ft Fill and 25 to 30 ft Native S/N view	Brown to orange CLAY, some medium to fine grained Sand, steel cable (extended from 1 to 7 ft bgs), dark ash-like material, glass bottles, coal, and scrap metal.
T78-8	19 ft	3 ft	No Fill Material encountered/8 ft bgs	0 to 19 ft Native NW/SE view	No Fill Material encountered
T78-8	12 ft	3 ft	4 ft/4 ft bgs	0 to 10.5 ft Fill and 10.5 ft to 12 Native S/N view	Yellowish orange to light gray CLAY, some Silt and Sand, yellow/tan CLAY, glass jars/bottles, broken plates, leather boot, wood, and newspaper.
T78-9	50 ft	3 ft	6 ft/6 ft bgs	0 to 50 ft Fill SW/NE view	Yellowish orange CLAY, some Sand and Silt, broken plates, deformed glass bottles, brick wood, coal, sardine tin, black to gray ash, and sheet metal (anomaly).
T78-10	50 ft	3 ft	7 ft/10 ft bgs	0 to 50 ft Fill NW/SE view	Yellowish orange CLAY, some Sand, glass bottles, broken plates, pieces of bone, shoe soles, wood pieces, fork, mirror, baseball glove, glass syringe (no needle), 3 medical bottles, toothbrush, ash, bucket lid, D cell battery, and scrap metal.

Table 3-3

Summary of Trenching Information
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T78-11	16.25 ft	3 ft	5 ft/7.5 ft bgs	0 to 16.25 ft Fill NW/SE view	Light brown to greenish gray silt, some clay, trace sand, yellowish-orange clay, black ash, wood glass, some metal, cement fragments, and sandstone cobbles.
T78-12	33 ft	3 ft	8 ft/8 ft bgs	0 to 33 ft Fill N/S view	Light brown to greenish gray silt, some clay, trace sand, yellowish-orange to light gray clay, black ash, wood, glass, and some metal.
T78-13	25.6 ft	3 ft	4.5 ft/6 ft bgs	0 to 24 ft Fill and 24 to 25.6 ft Native SE/NW view	Light brown to greenish gray silt, some clay, trace sand, yellowish-orange to light gray clay, black ash, wood, glass, and some metal.

ft - Feet.
bgs - Below ground surface.
E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.

Table 3-4

Summary of Fill Material Borings
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-78-SB01	3.5 - 15 ft bgs	15 ft/ 15.5 ft bgs	Yellow to brown clay and dark brown to black sand, glass, paper, wood fragments, and charcoal.	8 - 10 ft bgs and 14 - 15 ft bgs
FA-78-SB02	7.5 - 14.6 ft bgs	14.6 ft/18.0 ft bgs	Yellowish to reddish-orange clay, dark brown to black silt and sand, glass, paper, and wood.	12 – 14.5 ft bgs
FA-78-SB03	1 - 13 ft bgs	13 ft/14.8 ft bgs	Brown clay layer with black to olive gray silt and sand, glass, pottery, and brick fragments.	8 - 13 ft bgs

ft - Feet.
bgs - Below ground surface.

Table 3-5

Detected Compounds in Fill Material Samples
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

			Parcel	FA-78-SB01				FA-78-SB01				FA-78-SB02				FA-78-SB03			
			Sample Location	FA-78				FA-78				FA-78				FA-78			
			Sample Number	DD0001				DD0027				DD0002				DD0003			
			Sample Date	22-Mar-00				22-Mar-00				22-Mar-00				21-Mar-00			
			Sample Depth (Feet)	8-10				14-15				12-15				8-13			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES																			
4,4'-DDD	mg/kg	NA	2.54E+00	2.60E-02				1.70E-01				2.80E-03				ND			
4,4'-DDE	mg/kg	NA	1.79E+00	9.10E-03				4.20E-03	J			1.00E-03	J			9.20E-04	J		
4,4'-DDT	mg/kg	NA	1.79E+00	8.20E-04	J			3.90E-03	J			ND				ND			
METALS																			
Aluminum	mg/kg	1.36E+04	7.80E+03	8.29E+03			YES	6.33E+03				1.01E+04			YES	1.61E+04		YES	YES
Antimony	mg/kg	1.31E+00	3.11E+00	7.90E-01	J			ND				ND				1.10E+00	J		
Arsenic	mg/kg	1.83E+01	4.26E-01	2.20E+01		YES	YES	5.30E+00			YES	3.00E+00			YES	1.04E+01			YES
Barium	mg/kg	2.34E+02	5.47E+02	1.70E+02				9.90E+01				1.03E+02				9.36E+01			
Beryllium	mg/kg	NA	9.60E+00	1.20E+00		YES		7.10E-01	J			9.20E-01		YES		6.10E-01	J		
Boron	mg/kg	NA	NA	2.80E-01	J	YES		ND				ND				ND			
Cadmium	mg/kg	2.20E-01	6.25E+00	4.53E+03	J	YES		3.22E+03	J	YES		9.58E+02	J	YES		2.15E+03	J	YES	
Calcium	mg/kg	6.37E+02	NA	3.36E+01	J		YES	1.64E+01	J			1.57E+01	J			2.98E+01	J		YES
Chromium	mg/kg	3.83E+01	2.32E+01	1.24E+01				6.40E+00	J			4.70E+00	J			4.30E+00	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	4.15E+01	J	YES		1.82E+01	J			2.01E+01	J	YES		7.17E+01	J	YES	
Copper	mg/kg	1.94E+01	3.13E+02	3.96E+04			YES	1.74E+04			YES	1.85E+04			YES	4.42E+04			YES
Iron	mg/kg	4.48E+04	2.34E+03	4.76E+01	J	YES		9.47E+01	J	YES		2.21E+01	J			1.96E+01	J		
Lead	mg/kg	3.85E+01	4.00E+02	1.55E+03		YES		1.31E+03		YES		2.28E+03		YES		8.82E+02		YES	
Magnesium	mg/kg	7.66E+02	NA	2.54E+02				1.97E+02				2.68E+01				8.23E+01			
Manganese	mg/kg	1.36E+03	3.63E+02	2.90E+01		YES		1.31E+01		YES		1.53E+01		YES		8.00E+00			
Mercury	mg/kg	7.00E-02	2.33E+00	2.20E-01		YES		4.90E-01		YES		4.60E-02				8.30E-02		YES	
Nickel	mg/kg	1.29E+01	1.54E+02	7.34E+02		YES		6.76E+02	J			7.22E+02		YES		1.05E+03		YES	
Potassium	mg/kg	7.11E+02	NA	1.28E+02	J			ND				1.12E+02	J			ND			
Sodium	mg/kg	7.02E+02	NA	5.40E-01	B		YES	ND				ND				8.60E-01	B		YES
Thallium	mg/kg	1.40E+00	5.08E-01	2.96E+01				1.74E+01				2.50E+01				5.40E+01			YES
Vanadium	mg/kg	6.49E+01	5.31E+01	4.51E+02		YES		1.11E+02		YES		4.97E+01		YES		5.08E+01		YES	
Zinc	mg/kg	3.49E+01	2.34E+03	NR				NR				NR				NR			
SEMIVOLATILE ORGANIC COMPOUNDS																			
2-Methylnaphthalene	mg/kg	NA	1.55E+02	ND				1.50E-01	J			ND				ND			
Diethyl phthalate	mg/kg	NA	6.23E+03	ND				ND				ND				5.90E-02	J		
Naphthalene	mg/kg	NA	1.55E+02	ND				1.40E-01	J			ND				ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				5.50E-02	J			ND				ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND				ND				6.70E-02	J		
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	2.00E-01	B			3.80E-01	B			2.10E+00				3.30E+00			

Table 3-5

Detected Compounds in Fill Material Samples
Landfill No. 1, Parcel 78(6)
Fort McClellan, Calhoun County, Alabama

(Page 2 of 2)

			Parcel	FA-78-SB01				FA-78-SB01				FA-78-SB02				FA-78-SB03			
			Sample Location	FA-78				FA-78				FA-78				FA-78			
			Sample Number	DD0001				DD0027				DD0002				DD0003			
			Sample Date	22-Mar-00				22-Mar-00				22-Mar-00				21-Mar-00			
			Sample Depth (Feet)	8-10				14-15				12-15				8-13			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
VOLATILE ORGANIC COMPOUNDS																			
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	2.00E-03	J			5.20E-03	J			8.80E-04	J			ND			
1,2-Dichlorobenzene	mg/kg	NA	6.99E+02	ND				7.50E-03	J			ND				ND			
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	ND				2.30E-03	J			ND				ND			
1,4-Dichlorobenzene	mg/kg	NA	2.62E+01	ND				1.10E-02				ND				ND			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				5.30E-03	B			ND			
Acetone	mg/kg	NA	7.76E+02	1.90E-01	J			2.90E-02	B			1.50E-02	B			ND			
Carbon disulfide	mg/kg	NA	7.77E+02	ND				3.40E-03	J			1.60E-03	J			ND			
Chlorobenzene	mg/kg	NA	1.55E+02	ND				1.20E-02				ND				ND			
Cumene	mg/kg	NA	7.77E+02	1.80E-03	J			1.60E-02				7.90E-04	J			ND			
Methylene chloride	mg/kg	NA	8.41E+01	4.80E-03	B			7.90E-03	B			4.20E-03	B			5.00E-03	B		
Naphthalene	mg/kg	NA	1.55E+02	6.40E-03	B			3.10E-02				3.50E-03	B			ND			
Toluene	mg/kg	NA	1.55E+03	ND				1.50E-03	J			ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	2.80E-03	J			3.50E-03	J			1.70E-03	J			1.80E-03	J		
n-Butylbenzene	mg/kg	NA	7.77E+01	ND				1.90E-02				1.10E-03	J			ND			
n-Propylbenzene	mg/kg	NA	7.77E+01	2.10E-03	J			1.80E-02				ND				ND			
o-Chlorotoluene	mg/kg	NA	1.55E+02	ND				6.40E-03	J			ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	2.60E-03	J			7.30E-02				6.10E-03				ND			
sec-Butylbenzene	mg/kg	NA	7.77E+01	6.10E-03	J			2.80E-02				1.60E-03	J			ND			
tert-Butylbenzene	mg/kg	NA	7.77E+01	1.90E-03	J			8.80E-03	J			1.00E-03	J			ND			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

NR - Not requested.

Qual - Data validation qualifier.

Table 4-1

Groundwater Elevations
Landfill No. 2 , Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
LF2-G01	13-Mar-00	24.95	809.59	807.53	784.64
LF2-G02	13-Mar-00	9.57	793.89	791.66	784.32
LF2-G03	13-Mar-00	7.10	796.88	794.53	789.78

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 4-2

Well Construction Summary
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Well Construction Material
LF2-G01	1175440.33	672890.59	807.53	809.59	27.0	10	16.1 - 26.1	4" ID PVC Sch 40
LF2-G02	1175137.16	672752.47	791.66	793.89	23.0	10	12.4 - 22.4	4" ID PVC Sch 40
LF2-G03	1175215.24	673113.92	794.53	796.88	20.5	10	9.3 - 19.3	4" ID PVC Sch 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.

Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.

4" ID PVC Sch 40 - 4-inch inside-diameter polyvinyl chloride, Schedule 40.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

TOC - Top of casing.

Table 4-3

Detected Compounds in Surface Soil Samples
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

				Parcel	FA-79					FA-79					FA-79				
				Sample Location	FA-79-SS01					FA-79-SS02					FA-79-SS03				
				Sample Number	DD0028					DD0029					DD0030				
				Sample Date	1-Mar-01					1-Mar-01					1-Mar-01				
				Sample Depth (Feet)	0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	1.66E+04		YES	YES	YES	1.54E+04			YES	YES	9.42E+03			YES	YES
Antimony	mg/kg	1.99E+00	3.11E+00	3.50E+00	1.31E+01	J	YES	YES	YES	1.19E+01	J	YES	YES	YES	ND				
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	2.91E+01		YES	YES	YES	4.36E+01		YES	YES	YES	8.31E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	9.63E+02		YES	YES	YES	1.11E+03		YES	YES	YES	1.30E+02		YES		
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	2.15E+00		YES		YES	1.31E+00	J	YES		YES	4.37E-01	J			
Cadmium	mg/kg	2.90E-01	6.25E+00	1.60E+00	3.86E+00		YES		YES	3.13E+00		YES		YES	2.77E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	2.27E+04		YES			1.33E+04		YES			2.33E+03		YES		
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.27E+02		YES	YES	YES	1.40E+02		YES	YES	YES	2.13E+01				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	1.28E+01					8.51E+00					3.38E+00				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	2.21E+02		YES		YES	3.59E+02		YES	YES	YES	5.51E+01		YES		YES
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	7.45E+04		YES	YES	YES	3.48E+04		YES	YES	YES	2.52E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.37E+03		YES	YES	YES	1.87E+03		YES	YES	YES	2.59E+02		YES		YES
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	4.92E+03		YES			3.43E+03		YES			6.08E+02				
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	1.14E+03			YES	YES	6.27E+02			YES	YES	2.07E+02				YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	2.15E-01		YES		YES	7.09E-01		YES		YES	7.70E-02	J			
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	4.15E+01		YES		YES	2.99E+01		YES			1.05E+01		YES		
Potassium	mg/kg	8.00E+02	NA	NA	2.00E+03		YES			1.31E+03		YES			3.48E+02	B			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	ND					6.95E-01	J	YES			ND				
Silver	mg/kg	3.60E-01	3.91E+01	2.00E+00	ND					ND					ND				
Sodium	mg/kg	6.34E+02	NA	NA	2.56E+02					2.22E+02					5.08E+01	J			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	1.32E+00	J		YES	YES	1.12E+00	J		YES	YES	ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	3.39E+01				YES	3.02E+01				YES	3.58E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.47E+03		YES		YES	2.96E+03		YES	YES	YES	3.34E+02		YES		YES
SEMIVOLITILE ORGANIC COMPOUNDS																			
Acenaphthene	mg/kg	NA	4.63E+02	2.00E+01	1.30E+00					ND					ND				
Anthracene	mg/kg	NA	2.33E+03	1.00E-01	3.00E+00				YES	ND					ND				
Benzo(a)anthracene	mg/kg	NA	8.51E-01	5.21E+00	6.70E+00			YES	YES	ND					ND				
Benzo(a)pyrene	mg/kg	NA	8.51E-02	1.00E-01	6.00E+00			YES	YES	ND					ND				
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	5.98E+01	1.20E+01			YES		ND					ND				
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	1.19E+02	2.20E+00					ND					ND				
Carbazole	mg/kg	NA	3.11E+01	NA	2.40E+00					ND					ND				
Chrysene	mg/kg	NA	8.61E+01	4.73E+00	6.70E+00				YES	ND					ND				
Dibenz(a,h)anthracene	mg/kg	NA	8.61E-02	1.84E+01	7.40E-01	J		YES		ND					ND				
Dibenzofuran	mg/kg	NA	3.09E+01	NA	6.20E-01	J				ND					ND				
Fluoranthene	mg/kg	NA	3.09E+02	1.00E-01	7.80E+00				YES	ND					ND				
Fluorene	mg/kg	NA	3.09E+02	1.22E+02	1.40E+00					ND					ND				
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	1.09E+02	2.20E+00			YES		ND					ND				
Phenanthrene	mg/kg	NA	2.32E+03	1.00E-01	6.80E+00				YES	ND					ND				
Pyrene	mg/kg	NA	2.33E+02	1.00E-01	9.80E+00				YES	ND					ND				
VOLATILE ORGANIC COMPOUNDS																			
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	2.10E-02	B				ND					1.90E-02	B			
Acetone	mg/kg	NA	7.76E+02	2.50E+00	3.30E-01	J				ND					3.20E-01	J			
Benzene	mg/kg	NA	2.17E+01	5.00E-02	1.80E-03	J				ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	ND					ND					ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND				

Table 4-3

Detected Compounds in Surface Soil Samples
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

				Parcel	FA-79					FA-79				
				Sample Location	FA-79-SS04					FA-79-SS05				
				Sample Number	DD0031					DD0032				
				Sample Date	1-Mar-01					1-Mar-01				
				Sample Depth (Feet)	0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS														
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	8.72E+03			YES	YES	1.64E+04		YES	YES	YES
Antimony	mg/kg	1.99E+00	3.11E+00	3.50E+00	ND					1.84E+01		YES	YES	YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	4.38E+00			YES		6.20E+01		YES	YES	YES
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	1.52E+02		YES			1.56E+03		YES	YES	YES
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.21E-01	J				1.18E+00	J	YES		YES
Cadmium	mg/kg	2.90E-01	6.25E+00	1.60E+00	ND					3.70E+00		YES		YES
Calcium	mg/kg	1.72E+03	NA	NA	2.13E+03		YES			1.83E+04		YES		
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.39E+01				YES	1.27E+02		YES	YES	YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	3.83E+00					2.00E+01		YES		YES
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	2.83E+01		YES			1.22E+03		YES	YES	YES
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	1.24E+04			YES	YES	1.60E+05		YES	YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.31E+02		YES		YES	2.52E+03		YES	YES	YES
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	6.59E+02					3.71E+03		YES		
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	4.59E+02			YES	YES	1.73E+03		YES	YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	6.40E-02	J				1.24E+00		YES		YES
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	5.41E+00					8.25E+01		YES		YES
Potassium	mg/kg	8.00E+02	NA	NA	3.81E+02	B				1.46E+03		YES		
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	ND					ND				
Silver	mg/kg	3.60E-01	3.91E+01	2.00E+00	ND					2.40E+01		YES		YES
Sodium	mg/kg	6.34E+02	NA	NA	3.93E+01	J				2.74E+02				
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					1.86E+00	J		YES	YES
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	2.13E+01				YES	2.59E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.63E+02		YES		YES	1.79E+03		YES		YES
SEMIVOLITILE ORGANIC COMPOUNDS														
Acenaphthene	mg/kg	NA	4.63E+02	2.00E+01	ND					ND				
Anthracene	mg/kg	NA	2.33E+03	1.00E-01	ND					ND				
Benzo(a)anthracene	mg/kg	NA	8.51E-01	5.21E+00	ND					ND				
Benzo(a)pyrene	mg/kg	NA	8.51E-02	1.00E-01	ND					ND				
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	5.98E+01	ND					ND				
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	1.19E+02	ND					ND				
Carbazole	mg/kg	NA	3.11E+01	NA	ND					ND				
Chrysene	mg/kg	NA	8.61E+01	4.73E+00	ND					ND				
Dibenz(a,h)anthracene	mg/kg	NA	8.61E-02	1.84E+01	ND					ND				
Dibenzofuran	mg/kg	NA	3.09E+01	NA	ND					ND				
Fluoranthene	mg/kg	NA	3.09E+02	1.00E-01	ND					ND				
Fluorene	mg/kg	NA	3.09E+02	1.22E+02	ND					ND				
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	1.09E+02	ND					ND				
Phenanthrene	mg/kg	NA	2.32E+03	1.00E-01	ND					ND				
Pyrene	mg/kg	NA	2.33E+02	1.00E-01	ND					ND				
VOLATILE ORGANIC COMPOUNDS														
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	1.60E-02	B				ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	2.60E-01	J				ND				
Benzene	mg/kg	NA	2.17E+01	5.00E-02	ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	2.10E-03	B				ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	1.50E-03	B				ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	2.90E-03	J				ND				

Table 4-3

Detected Compounds in Surface Soil Samples
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 4-4

Summary of Trenching Information
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T79-1	29 ft	3 ft	3 ft/3 ft bgs	0 to 22 ft Fill 22 to 29 ft Native S/N view	Light brown SAND, medium to fine grained, little Silt, brown to light green SILT and CLAY, bricks, ash, glass, and wood.
T79-2	61 ft	3 ft	3 ft/8 ft bgs	0 to 56 ft Fill 56 to 61 ft Native SW/NE view	Yellow-orange SAND, medium to fine grained with 4-6 diameter Sandstone Cobbles (well rounded), brick, concrete with rebar, broken plate, sheet metal, steel piping, steel screen, and parade flag anchors.
T79-3	66 ft	3 ft	4 ft/5 ft bgs	0 to 56 ft Fill and 56 to 66 ft Native SE/NW view	Dark brown to black Silt with Sand, tan to light brown SILT and SAND, bricks, bottles, metal, broken plates, pieces of wood, 4- 10 inch diameter rounded stones, and stone tile.
T79-4	40 ft	3 ft	2 ft/6 ft	0 to 18 ft Fill and 18 to 40 ft Native SE/NW view	Olive gray SILT with Sand, black ash, metal, wire, glass, and nails.
T79-4A	40 ft	3 ft	No fill encountered/ 6 ft bgs	0 to 40 ft Native NW/SE view	No fill material encountered.

Table 4-4

Summary of Trenching Information
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T79-5	30 ft	3 ft	3 ft/3 ft bgs	0 to 5 ft Fill, and 5 to 30 ft Native SSW/NNE view	Yellowish orange SAND and SILT with little Clay, broken glass, brick, ceramic insulator, wire, and ash in soil.
T79-6	64 ft	3 ft	2 ft/ 3 ft bgs	0 to 59 ft Fill, and 59 to 64 ft Native NW/SE	Light brown medium to fine grained SAND, some Silt, glass bottles, scrap metal, broken plates, brick, cylindrical glass, vial-like bottle, tin roofing, steel cable, and pieces of steel.
T79-7	48 ft	3 ft	18 ft/18 ft bgs	0 to 48 ft Fill N/S view	Light to dark brown SILT with Sand, light brown Clay with Silt, metal pipe, glass (50 percent melted), burnt wood, brick, broken plates, steel pipe, steel casing from 100 pound bomb, 8-10 inch diameter rounded rock, pieces of concrete, numerous scrap metal pieces, coal, ashes, 4 inch diameter steel piping, and a horseshoe.
T79-8	55 ft	3 ft	No fill encountered/ 5 ft bgs	0 to 55 ft Native N/S view	No fill material encountered.

Table 4-4

Summary of Trenching Information
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T79-9	50 ft	3 ft	6 ft/ 6 ft bgs	0 to 50 ft Fill N/S view	Yellowish orange SAND with Silt, brick, bottles, rusted metal, cable, high concentration of metal/steel (anomaly), and 2 flattened drums.
T79-10	85 ft	3 ft	2.5 ft/10 ft bgs	0 to 85 ft Fill W/E view	Yellowish orange moist SAND and CLAY, concrete rubble, metal piece (4 ft by 2 ft), steel cable, car seat, frame and springs, sheet metal, 12 ft long steel pipes (2), and pieces of metal.
T79-11	30 ft	3 ft	2.5 ft/ 6 ft bgs	0 to 30 ft Fill S/N view	Yellowish orange CLAY and SAND with 4 to 8 inch diameter Sandstone, trace glass, and brick.

ft - Feet.
bgs - Below ground surface.
E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.

Table 4-5

Summary of Fill Material Borings
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/ Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-79-SB01	8 inches - 12 ft bgs	12 ft/14 ft bgs	Orange to dark brown to black sand, glass, pottery, porcelain, rusted metal, sandstone rock, and clay.	6 - 10 ft bgs

ft - Feet.
bgs - Below ground surface.

Table 4-6

Detected Compounds in Fill Material Samples
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

			Parcel	FA-79			
			Sample Location	FA-79-SB01			
			Sample Number	DD0004			
			Sample Date	23-Mar-00			
			Sample Depth (Feet)	6-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL
PESTICIDES							
Methoxychlor	mg/kg		3.89E+01	2.00E-03	J		
METALS							
Aluminum	mg/kg	1.36E+04	7.80E+03	1.13E+04			YES
Antimony	mg/kg	1.31E+00	3.11E+00	3.50E+00	J	YES	YES
Arsenic	mg/kg	1.83E+01	4.26E-01	4.25E+01		YES	YES
Barium	mg/kg	2.34E+02	5.47E+02	1.13E+03		YES	YES
Beryllium	mg/kg	8.60E-01	9.60E+00	1.20E+00		YES	
Cadmium	mg/kg	2.20E-01	6.25E+00	2.60E+00		YES	
Calcium	mg/kg	6.37E+02		2.32E+04		YES	
Chromium	mg/kg	3.83E+01	2.32E+01	4.92E+01		YES	YES
Cobalt	mg/kg	1.75E+01	4.68E+02	1.31E+01			
Copper	mg/kg	1.94E+01	3.13E+02	2.22E+02		YES	
Iron	mg/kg	4.48E+04	2.34E+03	1.26E+05		YES	YES
Lead	mg/kg	3.85E+01	4.00E+02	2.01E+03		YES	YES
Magnesium	mg/kg	7.66E+02		2.17E+03		YES	
Manganese	mg/kg	1.36E+03	3.63E+02	9.85E+02			YES
Mercury	mg/kg	7.00E-02	2.33E+00	2.90E-01		YES	
Nickel	mg/kg	1.29E+01	1.54E+02	7.23E+01		YES	
Potassium	mg/kg	7.11E+02		1.68E+03		YES	
Silver	mg/kg	2.40E-01	3.91E+01	8.80E-01	J	YES	
Sodium	mg/kg	7.02E+02		4.49E+02	J		
Thallium	mg/kg	1.40E+00	5.08E-01	8.90E-01	J		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	4.22E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	3.42E+03	J	YES	YES
SEMIVOLATILE ORGANIC COMPOUNDS							
Benzo(a)anthracene	mg/kg	NA	8.51E-01	3.70E-02	J		
Benzo(a)pyrene	mg/kg	NA	8.51E-02	5.50E-02	J		
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	4.80E-02	J		
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	6.70E-02	J		
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	5.30E-02	J		
Chrysene	mg/kg	NA	8.61E+01	5.10E-02	J		
Fluoranthene	mg/kg	NA	3.09E+02	4.90E-02	J		
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	4.50E-02	J		
Pyrene	mg/kg	NA	2.33E+02	5.60E-02	J		
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.00E-01	B		
VOLATILE ORGANIC COMPOUNDS							
Acetone	mg/kg	NA	7.76E+02	9.60E-03	B		
Benzene	mg/kg	NA	2.17E+01	1.40E-03	J		
Methylene chloride	mg/kg	NA	8.41E+01	4.10E-03	B		
Naphthalene	mg/kg	NA	1.55E+02	2.00E-03	B		
Toluene	mg/kg	NA	1.55E+03	1.60E-03	J		

Table 4-6

Detected Compounds in Fill Material Samples
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estmated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

Qual - Data validation qualifier.

Table 4-7

Variances to the Site-Specific Field Sampling Plan
Landfill No. 2, Parcel 79(6)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
Geophysical survey grid was expanded from seven acres to 11.4 acres.	To increase survey area so that additional data could be collected to delineate the extent of the fill area.	Additional acreage was surveyed by the geophysics crew to better delineate the extent of the fill area.

Table 5-1

Groundwater Elevations
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
OLF-G01	14-Mar-00	26.10	743.67	742.28	717.57
OLF-G02	14-Mar-00	21.68	744.28	742.65	722.60
OLF-G03	14-Mar-00	22.08	739.92	737.25	717.84
OLF-G04	14-Mar-00	52.57	747.49	744.96	694.92
OLF-G05	14-Mar-00	42.30	740.25	737.73	697.95
OLF-G06	14-Mar-00	dry	749.93	747.73	dry
OLF-G07	14-Mar-00	51.80	741.42	739.01	689.62
OLF-G08	14-Mar-00	40.25	739.34	737.64	699.09
OLF-G09	14-Mar-00	30.65	741.20	738.96	710.55
OLF-G10	14-Mar-00	26.67	748.53	746.62	721.86
OLF-G11	14-Mar-00	28.96	747.11	744.61	718.15
OLF-G12	14-Mar-00	40.67	743.88	743.53	703.21
OLF-G15	14-Mar-00	17.00	735.45	732.92	718.45
OLF-G16	14-Mar-00	dry	737.80	735.31	dry
OLF-G17	14-Mar-00	32.10	740.11	738.46	708.01
OLF-G18	14-Mar-00	49.66	740.41	740.83	690.75
OLF-G19	14-Mar-00	56.36	742.79	742.30	686.43

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 5-2

Well Construction Summary
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Well Construction Material
OLF-G01	1180313.27	668699.37	742.28	743.67	50.9	30	20.0 - 50.0	4" ID PVC Sch 40
OLF-G02	1179623.48	668753.92	742.65	744.28	50.6	30	20.0 - 50.0	4" ID PVC Sch 40
OLF-G03	1180616.59	669736.52	737.25	739.92	50.3	30	20.0 - 50.0	4" ID PVC Sch 40
OLF-G04	1180741.70	669120.99	744.96	747.49	60.5	30	30.5 - 60.5	4" ID PVC Sch 40
OLF-G05	1179942.20	668429.36	737.73	740.25	60.4	30	30.4 - 60.4	4" ID PVC Sch 40
OLF-G06	1180678.06	668744.93	747.73	749.93	71.0	10	60.0 - 70.0	4" ID PVC Sch 40
OLF-G07	1180152.14	668518.71	739.01	741.42	62.5	10	52.0 - 62.0	4" ID PVC Sch 40
OLF-G08	1179949.38	668446.11	737.64	739.34	45.0	10	32.3 - 42.3	4" ID PVC Sch 40
OLF-G09	1180821.12	669510.22	738.96	741.2	32.0	10	19.8 - 29.8	4" ID PVC Sch 40
OLF-G10	1179341.58	668705.21	746.62	748.53	28.0	10	17.5 - 27.5	4" ID PVC Sch 40
OLF-G11	1179329.56	669337.88	744.61	747.11	29.2	10	19.0 - 29.0	4" ID PVC Sch 40
OLF-G12	1180514.40	668522.68	743.53	743.88	87.0	10	75.0 - 85.0	4" ID PVC Sch 40
OLF-G15	1181196.96	669312.80	732.92	735.45	28.0	10	17.0 - 27.0	4" ID PVC Sch 40
OLF-G16	1180964.31	668872.93	735.31	737.8	35.0	10	25.0 - 35.0	4" ID PVC Sch 40
OLF-G17	1179394.37	668242.81	738.46	740.11	42.0	10	28.0 -38.0	4" ID PVC Sch 40
OLF-G18	1179782.13	668210.94	740.83	740.41	58.3	11	47.0 - 58.0	4" ID PVC Sch 40
OLF-G19	1180126.12	668362.30	742.3	742.79	68.0	11	57.0 - 68.0	4" ID PVC Sch 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.

Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.

4" ID PVC Sch 40 - 4-inch inside-diameter polyvinyl chloride, Schedule 40.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

TOC - Top of casing.

Table 5-3

Summary of Trenching Information
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T80-1	60 ft	3 ft	10 ft/10 ft bgs	0 to 60 ft Fill SW/NE view	Yellowish-orange clay, some silt, plastic sheeting, glass, wood, paper, metal cans, electrical wire, brick, shaving cream bottles/cans, scrap metal, cloth, two 55 gallon drum lids, and beer cans and bottles.
T80-2	88 ft	3 ft	12 ft/12 ft bgs	0 to 88 ft Fill NW/SE view	Yellowish-orange clay, brick, bottle caps, wood, ash, glass, tin cans, aluminum foil, steel sprocket, plastic sheeting, paper, cloth, newspaper, two metal chairs, coat hangers, food cans, concrete bollard shaped like a bomb, steel sheeting, wire, hoe handle, cardboard, and aerosol cans.
T80-3	117 ft	3 ft	15 ft/15 ft bgs	0 to 100 ft Fill and 100 to 117 ft. Native N/S view	Yellowish-orange clay, some silt and sand, ash, medical bottle with septum, linoleum flooring, light bulbs, metal spoon, glass jar with glass pipette, animal bones, shoes, cinder blocks, glass bottles, scrap metal, wood, wire, shoes, metal five gallon pail, plastic soap dish, and metal cans.
T80-4	106 ft	10 ft	10 ft/10 ft bgs	0 to 89 ft Fill and 89 to 106 ft Native N/S view	Greenish-gray clay, some silt, ash, glass bottles, broken plates, metal, steel rebar, wood, fabric, paper, plastic spoon, metal five gallon pail, nylon fabric, metal containers, concrete rubble, wire grate, plastic pieces, plastic sheeting, building tiles, cinder blocks, bone, wire, and leather shoes.
T80-5	135 ft	3 ft	5 ft/5 ft bgs	0 to 125 ft Fill and 125 to 135 ft Native N/S view	Yellowish-orange clay, some silt, glass bottles, steel rebar, concrete rubble, plastic, concrete bollards shaped like bombs, and cinder block.

Table 5-3

Summary of Trenching Information
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

ft - Feet.
bgs - Below ground surface.

E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.

Table 5-4

Summary of Fill Material Borings
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/ Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-80-SB01	6 - 14 ft bgs	14 ft/14 ft bgs	Yellowish-orange clay, glass, rubber bands, metal, plywood, styrofoam, and plastic.	12 - 14 ft bgs
FA-80-SB02	6 - 15 ft bgs	15 ft/18 ft bgs	Light brown to yellowish and light brown to olive gray clay, plastic sheeting, glass, sawdust, and wood.	14 - 16 ft bgs
FA-80-SB03	4 - 22 ft bgs	22 ft/24 ft bgs	Yellowish orange to olive green to greenish gray clay, aluminum foil, paper, gravel, plastic, newspaper, fabric, electrical wire, and glass.	20 - 22 ft bgs
FA-80-SB04	2 - 18 ft bgs	18 ft/20 ft bgs	Brown to olive green clay, sand, metal, cloth, paper, and glass.	16 - 18 ft bgs
FA-80-SB05	4 - 12 ft bgs	12 ft/14 ft bgs	Black sand to olive gray coarse sand, silt and glass.	8 - 10 ft bgs

ft - Feet.
bgs - Below ground surface.

Table 5-5

Detected Compounds in Fill Material Samples
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 3)

			Parcel	FA-80				FA-80				FA-80				FA-80				FA-80			
			Sample Location	FA-80-SB01				FA-80-SB02				FA-80-SB03				FA-80-SB04				FA-80-SB05			
			Sample Number	DD0007				DD0008				DD0009				DD0010				DD0011			
			Sample Date	27-Mar-00				27-Mar-00				27-Mar-00				23-Mar-00				23-Mar-00			
			Sample Depth (Feet)	12-14				14-16				20-22				16-18				8-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES																							
4,4'-DDD	mg/kg	NA	2.54E+00	2.20E-02				9.00E-02				8.10E-02				2.00E-03	J			7.20E-02			
4,4'-DDE	mg/kg	NA	1.79E+00	1.40E-02				1.20E-02				8.40E-03	J			1.90E-03	J			1.20E-02	J		
4,4'-DDT	mg/kg	NA	1.79E+00	1.50E-03	J			3.90E-02				1.20E-03	J			ND				1.20E-02			
Aldrin	mg/kg	NA	3.65E-02	ND				ND				1.70E-03	J			ND				2.00E-03	J		
Chlordane	mg/kg	NA	1.69E+00	ND				3.70E-01	J			3.10E-01	J			ND				5.50E-01	J		
Endosulfan II	mg/kg	NA	4.66E+01	ND				8.80E-04	J			1.00E-03	J			1.20E-03	J			5.30E-03	J		
Endrin	mg/kg	NA	2.32E+00	ND				ND				ND				ND				1.60E-03	J		
Heptachlor	mg/kg	NA	1.40E-01	9.60E-04	J			1.50E-03	J			2.40E-03	J			ND				3.40E-03	J		
Heptachlor epoxide	mg/kg	NA	6.91E-02	ND				ND				ND				ND				4.60E-03	J		
beta-BHC	mg/kg	NA	3.50E-01	ND				ND				1.50E-03	J			ND				3.70E-03	J		
delta-BHC	mg/kg	NA	2.33E+00	ND				ND				ND				ND				2.10E-03	J		
gamma-BHC (Lindane)	mg/kg	NA	4.85E-01	1.90E-03	J			ND				6.30E-04	J			ND				7.90E-04	J		
METALS																							
Aluminum	mg/kg	1.36E+04	7.80E+03	7.77E+03				1.05E+04			YES	1.29E+04			YES	8.77E+03			YES	7.97E+03			YES
Antimony	mg/kg	1.31E+00	3.11E+00	ND				ND				ND				ND				6.50E-01	J		
Arsenic	mg/kg	1.83E+01	4.26E-01	1.90E+00			YES	3.10E+00			YES	4.10E+00			YES	4.30E+00			YES	2.30E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	6.20E+01				3.13E+01				8.40E+01				3.90E+01				8.86E+01			
Beryllium	mg/kg	8.60E-01	9.60E+00	4.80E-01	J			4.00E-01	J			5.80E-01	J			3.50E-01	J			3.40E-01	J		
Boron	mg/kg	NA	NA																				
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND				ND				2.70E-01	J	YES		ND			
Calcium	mg/kg	6.37E+02	NA	3.22E+03		YES		1.14E+03		YES		8.24E+02		YES		7.56E+02		YES		1.95E+03		YES	
Chromium	mg/kg	3.83E+01	2.32E+01	1.49E+01	J			1.06E+01	J			2.52E+01	J		YES	2.81E+01	J		YES	1.41E+01	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	2.70E+00	J			2.80E+00	J			4.20E+00	J			3.60E+00	J			2.70E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	1.58E+01				1.30E+01				4.37E+01		YES		2.20E+01		YES		2.38E+01		YES	
Iron	mg/kg	4.48E+04	2.34E+03	1.73E+04			YES	2.26E+04			YES	1.78E+04			YES	3.03E+04			YES	1.48E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	5.09E+01	J	YES		2.08E+01	J			2.43E+01	J			9.59E+01	J	YES		3.08E+01	J		
Magnesium	mg/kg	7.66E+02	NA	1.62E+03		YES		8.14E+02		YES		7.54E+02				4.95E+02	J			4.78E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	1.02E+02	J			1.19E+02	J			1.08E+02	J			8.94E+01	J			8.20E+01	J		
Mercury	mg/kg	7.00E-02	2.33E+00	1.40E-01	J	YES		6.90E-02	B			1.00E-01	J	YES		1.40E-01	J	YES		6.20E-01	J	YES	
Nickel	mg/kg	1.29E+01	1.54E+02	5.50E+00	J			6.20E+00				5.10E+00	J			6.60E+00				7.00E+00			
Potassium	mg/kg	7.11E+02	NA	1.01E+03	J	YES		1.08E+03	J	YES		8.44E+02	J	YES		4.77E+02	J			5.76E+02	J		
Silver	mg/kg	2.40E-01	3.91E+01	1.10E+00	J	YES		ND				ND				ND				1.11E+01		YES	
Sodium	mg/kg	7.02E+02	NA	ND				ND				1.22E+02	J			ND				7.61E+01	J		
Thallium	mg/kg	1.40E+00	5.08E-01	6.60E-01	J		YES	7.50E-01	J		YES	1.10E+00	J		YES	1.40E+00	B	YES	YES	ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	1.99E+01				2.63E+01				3.35E+01				2.53E+01				1.99E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	5.48E+01	J	YES		3.70E+01	J	YES		5.78E+01	J	YES		9.90E+01	J	YES		8.53E+01	J	YES	
PCBs																							
Aroclor 1242	mg/kg	NA	2.93E-01	4.10E-01	J		YES	2.70E-01	J			ND				1.10E-01	J			ND			

Table 5-5

Detected Compounds in Fill Material Samples
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

(Page 2 of 3)

			Parcel	FA-80				FA-80				FA-80				FA-80				FA-80			
			Sample Location	FA-80-SB01				FA-80-SB02				FA-80-SB03				FA-80-SB04				FA-80-SB05			
			Sample Number	DD0007				DD0008				DD0009				DD0010				DD0011			
			Sample Date	27-Mar-00				27-Mar-00				27-Mar-00				23-Mar-00				23-Mar-00			
			Sample Depth (Feet)	12-14				14-16				20-22				16-18				8-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
SEMIVOLATILE ORGANIC COMPOUNDS																							
2-Methylnaphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND				6.20E-01			
Acenaphthene	mg/kg	NA	4.63E+02	ND				ND				ND				ND				1.30E-01	J		
Anthracene	mg/kg	NA	2.33E+03	ND				ND				ND				ND				1.30E-01	J		
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				1.30E-01	J		
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				ND				8.40E-02	J		
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				1.10E-01	J		
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	ND				ND				ND				ND				4.90E-02	J		
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND				5.70E-02	J		
Benzyl Alcohol	mg/kg	NA	NA																				
Chrysene	mg/kg	NA	8.61E+01	ND				ND				ND				ND				2.00E-01	J		
Dibenzofuran	mg/kg	NA	3.09E+01	ND				ND				ND				ND				9.80E-02	J		
Fluoranthene	mg/kg	NA	3.09E+02	4.90E-02	J			ND				ND				ND				2.40E-01	J		
Fluorene	mg/kg	NA	3.09E+02	ND				ND				ND				ND				2.00E-01	J		
Naphthalene	mg/kg	NA	1.55E+02	6.40E-02	J			ND				ND				ND				7.20E-01			
Phenanthrene	mg/kg	NA	2.32E+03	5.50E-02	J			ND				ND				ND				6.00E-01			
Pyrene	mg/kg	NA	2.33E+02	5.50E-02	J			ND				ND				ND				3.30E-01	J		
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.20E+00				5.60E-01	B			1.10E+00				1.20E+00				3.10E+00			
VOLATILE ORGANIC COMPOUNDS																							
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	4.40E-02				2.80E-03	J			4.40E-03	J			2.20E-02				7.00E-01			
1,2-Dichlorobenzene	mg/kg	NA	6.99E+02	ND				8.00E-04	J			ND				ND				ND			
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	ND				ND				ND				ND				5.50E-02			
1,3,5-Trimethylbenzene	mg/kg	NA	3.88E+02	6.20E-03	J			ND				1.40E-03	J			7.10E-03				2.90E-01			
1,4-Dichlorobenzene	mg/kg	NA	2.62E+01	1.30E-03	J			ND				ND				9.80E-04	J			ND			
Acetone	mg/kg	NA	7.76E+02	1.10E-02	B			ND				8.90E-03	B			1.00E-02	B			2.20E-02	B		
Benzene	mg/kg	NA	2.17E+01	ND				1.30E-03	J			ND				ND				9.20E-03	J		
Carbon disulfide	mg/kg	NA	7.77E+02	1.80E-03	J			ND				ND				ND				3.30E-03	J		
Chloroform	mg/kg	NA	1.03E+02	2.90E-03	J			ND				ND				ND				ND			
Cumene	mg/kg	NA	7.77E+02	4.10E-03	J			ND				ND				2.30E-03	J			7.00E-02			
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				ND				ND				2.40E-02			
Methylene chloride	mg/kg	NA	8.41E+01	7.60E-03	B			6.70E-03	B			3.60E-03	B			3.50E-03	B			1.00E-02	B		
Naphthalene	mg/kg	NA	1.55E+02	1.10E-02				3.10E-03	J			2.00E-03	J			6.10E-03	B			3.50E-01			
Toluene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				3.40E-03	J		
Trichlorofluoromethane	mg/kg	NA	2.33E+03	2.00E-03	J			2.30E-03	J			ND				ND				ND			
m,p-Xylenes	mg/kg	NA	1.55E+04	ND				2.20E-03	J			ND				ND				2.50E-01			
n-Butylbenzene	mg/kg	NA	7.77E+01	1.50E-02				ND				1.20E-03	J			8.30E-03				1.00E-01			
n-Propylbenzene	mg/kg	NA	7.77E+01	1.30E-02				ND				ND				2.10E-03	J			1.10E-01			
p-Cymene	mg/kg	NA	1.55E+03	1.70E-03	J			1.20E-03	J			ND				2.20E-03	J			8.80E-02			
sec-Butylbenzene	mg/kg	NA	7.77E+01	8.20E-03				ND				ND				3.80E-03	J			4.40E-02			
tert-Butylbenzene	mg/kg	NA	7.77E+01	2.30E-03	J			ND				ND				ND				2.90E-02			

Table 5-5

Detected Compounds in Fill Material Samples
Landfill No. 3, Parcel 80(6)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 6-1

Groundwater Elevations
Landfill No. 4 and Industrial Landfill, Parcels 81(5) and 175(5)
Fort McClellan, Calhoun County, Georgia

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
LF4-MW1	14-Mar-00	20.90	739.79	737.13	718.89
LF4-MW2	14-Mar-00	27.80	738.50	738.50	710.70
LF4-MW3	14-Mar-00	12.60	739.78	739.78	727.18
LF4-MW4	14-Mar-00	8.45	743.35	743.35	734.90
LF4-MW5	14-Mar-00	12.27	753.32	753.32	741.05

Elevations referenced to the North American Datum of 1988.
msl - Mean sea level.
BTOC - Below top of casing.
ft - Feet.

Table 7-1

Groundwater Elevations
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
PPMP-230-GP01	13-Mar-00	3.58	805.12	803.45	801.54
PPMP-230-GP02	13-Mar-00	2.72	812.17	811.12	809.45
PPMP-230-GP03	13-Mar-00	4.00	814.24	812.12	810.24

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 7-2

Well Construction Summary
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Sump Interval (ft bgs)	Well Construction Material
PPMP-230-GP01	1175663.52	673754.24	803.45	805.12	5.00	3.3	1.0 - 4.3	4.3 - 4.5	2" ID PVC SCH 40
PPMP-230-GP02	1176089.47	673868.04	811.12	812.17	14.30	10.0	4.0-14.0	14.0 - 14.3	2" ID PVC SCH 40
PPMP-230-GP03	1176188.64	673865.27	812.12	814.24	8.45	5.0	3.2 - 8.2	8.2 - 8.45	2" ID PVC SCH 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.
Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.
2" ID PVC Sch 40 - 2-inch inside-diameter polyvinyl chloride, Schedule 40.
bgs - Below ground surface.
ft - Feet.
msl - Mean sea level.
TOC - Top of casing.

Table 7-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230					PPMP-230					PPMP-230				
				Sample Location	PPMP-230-DEP01					PPMP-230-DEP02					PPMP-230-DEP03				
				Sample Number	KCC0017					KCC0018					KCC0019				
				Sample Date	10-Mar-99					10-Mar-99					10-Mar-99				
				Sample Depth (Feet)	0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																			
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND				
METALS																			
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	3.67E+03				YES	3.50E+03				YES	3.52E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	2.80E+00			YES		2.80E+00			YES		2.30E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	4.22E+01					3.29E+01					4.40E+01				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	6.10E-01	J				3.50E-01	J				7.60E-01				
Calcium	mg/kg	1.72E+03	NA	NA	3.26E+03		YES			1.65E+03					8.98E+02				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	6.80E+00				YES	6.00E+00				YES	8.10E+00				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	2.80E+00	J				1.80E+00	J				1.50E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	4.20E+00					5.30E+00					3.30E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	8.37E+03			YES	YES	8.11E+03			YES	YES	7.71E+03			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	2.53E+01					2.17E+01					1.52E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	2.77E+02	J				1.62E+02	J				1.93E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	7.15E+01					1.63E+02				YES	1.21E+02				YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	7.00E-02					6.20E-02					5.70E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	2.40E+00	J				1.90E+00	J				2.40E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	2.33E+02	J				1.90E+02	J				1.41E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	1.10E+00		YES		YES	7.50E-01		YES			7.20E-01		YES		
Sodium	mg/kg	6.34E+02	NA	NA	1.02E+02	B				9.83E+01	B				7.05E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.14E+01				YES	1.20E+01				YES	1.23E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.95E+01					1.45E+01					1.19E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																			
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	ND					ND					ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	ND					ND					ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																			
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND				
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.10E-02	B				1.80E-02	J				1.60E-02	J			
Ethylbenzene	mg/kg	NA	7.77E+02	5.00E-02	ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	7.20E-03	B				5.20E-03	B				5.80E-03	B			
Naphthalene	mg/kg	3.30E-02	1.55E+02	1.00E-01	ND					ND					ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					ND				
m,p-Xylenes	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					ND				
n-Butylbenzene	mg/kg	NA	7.77E+01	NA	ND					ND					ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	5.00E-03	J				ND					ND				

Table 7-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230					PPMP-230					PPMP-230				
				Sample Location	PPMP-230-GP01					PPMP-230-GP02					PPMP-230-GP03				
				Sample Number	KCC0001					KCC0005					KCC0007				
				Sample Date	9-Feb-99					9-Feb-99					9-Feb-99				
				Sample Depth (Feet)	0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																			
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND				
METALS																			
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	5.86E+03	J			YES	5.15E+03	J			YES	5.41E+03	J			YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	1.80E+00	J		YES		1.60E+00	J		YES		1.30E+00	J		YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	3.38E+01	J				2.56E+01	J				3.46E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	5.00E-01	J				3.90E-01	J				4.40E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	6.44E+02	J				1.57E+02	J				2.72E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	7.10E+00	J			YES	5.70E+00	J			YES	6.20E+00	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	1.50E+00	J				1.30E+00	J				1.20E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	2.00E+00	J				1.70E+00	J				2.40E+00	J			
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	9.20E+03	J		YES	YES	6.10E+03	J		YES	YES	3.82E+03	J		YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.09E+01	J				9.00E+00	J				1.06E+01	J			
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	3.19E+02	J				2.19E+02	J				2.80E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	5.58E+01	J				1.70E+01	J				3.83E+01	J			
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	3.10E-02	J				3.90E-02	J				4.50E-02	J			
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	2.10E+00	J				2.10E+00	J				2.70E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	1.95E+02	J				1.57E+02	J				1.77E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	8.20E-01	J	YES		YES	5.10E-01	J	YES			6.00E-01	J	YES		
Sodium	mg/kg	6.34E+02	NA	NA	8.65E+01	B				8.21E+01	B				7.77E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.27E+01	J			YES	9.80E+00	J			YES	8.30E+00	J			YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	7.70E+00	J				6.70E+00	J				8.30E+00	J			
SEMIVOLATILE ORGANIC COMPOUNDS																			
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	ND					ND					ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	ND					ND					ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																			
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND				
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	4.70E-02	B				8.00E-03	B				3.10E-02	B			
Ethylbenzene	mg/kg	NA	7.77E+02	5.00E-02	ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	2.00E-02	B				1.60E-02	B				1.60E-02	B			
Naphthalene	mg/kg	3.30E-02	1.55E+02	1.00E-01	ND					ND					ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					ND				
m,p-Xylenes	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					ND				
n-Butylbenzene	mg/kg	NA	7.77E+01	NA	ND					ND					ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	4.80E-03	J				ND					5.10E-03	J			

Table 7-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230					PPMP-230					PPMP-230				
				Sample Location	PPMP-230-GP04					PPMP-230-GP05					PPMP-230-GP06				
				Sample Number	KCC0009					KCC0011					KCC0013				
				Sample Date	24-Feb-99					24-Feb-99					24-Feb-99				
				Sample Depth (Feet)	0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																			
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	6.20E-03	J			YES	ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	5.10E-03	J			YES	ND					3.50E-03	J			YES
METALS																			
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	4.53E+03				YES	3.45E+03				YES	3.69E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	3.70E+00			YES		5.80E+00			YES		3.20E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	4.15E+01					8.04E+01					3.85E+01				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.80E-01	J				2.90E-01	J				2.60E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	1.56E+03					1.53E+03					9.38E+02				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.29E+01				YES	6.30E+00				YES	8.00E+00				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	4.10E+00	J				2.20E+00	J				3.10E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	9.60E+00					1.36E+01		YES			5.20E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	1.14E+04			YES	YES	1.10E+04			YES	YES	1.52E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	2.12E+01					7.95E+01		YES		YES	1.81E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	5.05E+02	J				2.03E+02	J				1.88E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.77E+02				YES	1.85E+02				YES	1.89E+02				YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	6.70E-02					1.50E+00		YES		YES	5.20E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	6.60E+00					4.30E+00	J				3.50E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	2.53E+02	J				1.50E+02	J				1.22E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	4.80E-01	J	YES			4.40E-01	J				6.70E-01		YES		
Sodium	mg/kg	6.34E+02	NA	NA	3.35E+01	B				3.18E+01	B				8.60E+00	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					4.70E-01	B				ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.50E+01				YES	9.70E+00				YES	1.33E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	2.98E+01					6.70E+01		YES		YES	1.60E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																			
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	6.50E-02	J				ND					ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	5.40E-02	J				ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	6.90E-02	J				ND					ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	6.00E-02	J				ND					ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	9.30E-02	J				ND					ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	7.10E-02	J				ND					ND				
VOLATILE ORGANIC COMPOUNDS																			
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					7.00E-03	J				ND				
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	5.00E-02	ND					3.30E-02					7.30E-03				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	ND					ND					ND				
Ethylbenzene	mg/kg	NA	7.77E+02	5.00E-02	2.30E-03	J				3.50E-02					7.50E-03				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	5.00E-03	B				4.70E-03	B				4.20E-03	B			
Naphthalene	mg/kg	3.30E-02	1.55E+02	1.00E-01	ND					3.90E-03	J				ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					1.70E-02					2.30E-03	J			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	4.10E-03	J				3.10E-03	J				ND				
m,p-Xylenes	mg/kg	NA	1.55E+04	5.00E-02	7.40E-03	J				1.10E-01				YES	2.40E-02				
n-Butylbenzene	mg/kg	NA	7.77E+01	NA	ND					3.70E-03	J				ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND				

Table 7-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230				
				Sample Location	PPMP-230-GP07				
				Sample Number	KCC0015				
				Sample Date	9-Feb-99				
				Sample Depth (Feet)	0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES									
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND				
METALS									
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	8.98E+03	J		YES	YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	4.70E+00	J		YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	2.57E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	2.80E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	5.94E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.40E+01	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	2.50E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	6.10E+00	J			
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	1.55E+04	J		YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.87E+01	J			
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	2.94E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	3.11E+02	J			YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	5.10E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	4.00E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	2.19E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	7.90E-01	J	YES		
Sodium	mg/kg	6.34E+02	NA	NA	9.89E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	2.71E+01	J			YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.23E+01	J			
SEMIVOLATILE ORGANIC COMPOUNDS									
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	ND				
VOLATILE ORGANIC COMPOUNDS									
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND				
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	5.00E-02	ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	ND				
Ethylbenzene	mg/kg	NA	7.77E+02	5.00E-02	ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	1.60E-02	B			
Naphthalene	mg/kg	3.30E-02	1.55E+02	1.00E-01	ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND				
m,p-Xylenes	mg/kg	NA	1.55E+04	5.00E-02	ND				
n-Butylbenzene	mg/kg	NA	7.77E+01	NA	ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND				

Table 7-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 7-4

Detected Compounds in Subsurface Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230				PPMP-230				PPMP-230			
			Sample Location	PPMP-230-GP01				PPMP-230-GP02				PPMP-230-GP03			
			Sample Number	KCC0004				KCC0006				KCC0008			
			Sample Date	9-Feb-99				9-Feb-99				9-Feb-99			
			Sample Depth (Feet)	1-3				3-5.5				3-5.5			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES															
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				ND			
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				ND			
Aldrin	mg/kg	NA	3.65E-02	ND				ND				ND			
Dieldrin	mg/kg	NA	3.88E-02	ND				ND				ND			
METALS															
Aluminum	mg/kg	1.36E+04	7.80E+03	3.69E+03	J			3.29E+03	J			2.95E+03	J		
Antimony	mg/kg	1.31E+00	3.11E+00	ND				ND				ND			
Arsenic	mg/kg	1.83E+01	4.26E-01	1.30E+00	J		YES	3.00E+00	J		YES	5.70E+00	J		YES
Barium	mg/kg	2.34E+02	5.47E+02	2.56E+01	J			1.39E+01	J			1.44E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	6.80E-01	J			6.30E-01	J			5.30E-01	J		
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND				ND			
Calcium	mg/kg	6.37E+02	NA	5.22E+02	J			1.42E+02	J			1.35E+02	J		
Chromium	mg/kg	3.83E+01	2.32E+01	6.00E+00	J			1.85E+01	J			1.58E+01	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	1.10E+00	J			2.00E+00	J			2.40E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	8.10E-01	J			4.30E+00	J			3.40E+00	J		
Iron	mg/kg	4.48E+04	2.34E+03	4.77E+03	J		YES	1.40E+04	J		YES	1.61E+04	J		YES
Lead	mg/kg	3.85E+01	4.00E+02	7.10E+00	J			8.20E+00	J			1.35E+01	J		
Magnesium	mg/kg	7.66E+02	NA	2.22E+02	J			1.21E+02	J			1.47E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	1.01E+02	J			3.17E+01	J			1.07E+02	J		
Mercury	mg/kg	7.00E-02	2.33E+00	2.20E-02	J			2.90E-02	J			3.30E-02	J		
Nickel	mg/kg	1.29E+01	1.54E+02	1.50E+00	J			4.00E+00	J			3.60E+00	J		
Potassium	mg/kg	7.11E+02	NA	1.26E+02	J			1.65E+02	J			1.44E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	ND				7.30E-01	J	YES		7.80E-01	J	YES	
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	8.72E+01	B			6.60E+01	B			7.48E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	8.30E+00	J			1.77E+01	J			1.32E+01	J		
Zinc	mg/kg	3.49E+01	2.34E+03	3.40E+00	J			6.60E+00	J			3.90E+00	J		
POLYCHLORINATED BIPHENYLS															
Aroclor 1260	mg/kg	NA	2.93E-01	ND				ND				ND			

Table 7-4

Detected Compounds in Subsurface Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230				PPMP-230				PPMP-230			
			Sample Location	PPMP-230-GP01				PPMP-230-GP02				PPMP-230-GP03			
			Sample Number	KCC0004				KCC0006				KCC0008			
			Sample Date	9-Feb-99				9-Feb-99				9-Feb-99			
			Sample Depth (Feet)	1-3				3-5.5				3-5.5			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
SEMIVOLATILE ORGANIC COMPOUNDS															
Acenaphthene	mg/kg	NA	4.63E+02	ND				ND				ND			
Anthracene	mg/kg	NA	2.33E+03	ND				ND				ND			
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				ND				ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	ND				ND				ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND			
Butyl benzyl phthalate	mg/kg	NA	1.56E+03	ND				ND				ND			
Chrysene	mg/kg	NA	8.61E+01	ND				ND				ND			
Dibenz(a,h)anthracene	mg/kg	NA	8.61E-02	ND				ND				ND			
Fluoranthene	mg/kg	NA	3.09E+02	ND				ND				ND			
Fluorene	mg/kg	NA	3.09E+02	ND				ND				ND			
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	ND				ND				ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				ND				ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS															
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND			
Acetone	mg/kg	NA	7.76E+02	6.30E-01	J			2.20E-02	B			8.10E-01	J		
Methylene chloride	mg/kg	NA	8.41E+01	1.80E-02	B			1.40E-02	B			5.20E-03	B		
Styrene	mg/kg	NA	1.55E+03	ND				ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				ND			

Table 7-4

Detected Compounds in Subsurface Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230				PPMP-230				PPMP-230				PPMP-230			
			Sample Location	PPMP-230-GP04				PPMP-230-GP05				PPMP-230-GP06				PPMP-230-GP07			
			Sample Number	KCC0010				KCC0012				KCC0014				KCC0016			
			Sample Date	24-Feb-99				24-Feb-99				24-Feb-99				9-Feb-99			
			Sample Depth (Feet)	5.5-7				5-6				10-12				7-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES																			
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				ND				1.20E-03	J		
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				2.90E-03	J		
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				ND				1.30E-03	J		
Aldrin	mg/kg	NA	3.65E-02	ND				ND				ND				ND			
Dieldrin	mg/kg	NA	3.88E-02	ND				ND				ND				ND			
METALS																			
Aluminum	mg/kg	1.36E+04	7.80E+03	1.06E+04			YES	4.11E+03				2.85E+03				4.57E+03	J		
Antimony	mg/kg	1.31E+00	3.11E+00	ND				ND				ND				ND			
Arsenic	mg/kg	1.83E+01	4.26E-01	3.03E+01		YES	YES	1.39E+01			YES	8.10E-01	J		YES	1.50E+00	J		YES
Barium	mg/kg	2.34E+02	5.47E+02	9.27E+02		YES	YES	1.87E+01	J			2.23E+01	J			3.73E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	1.40E+00		YES		3.40E-01	J			2.80E-01	J			3.10E-01	J		
Cadmium	mg/kg	2.20E-01	6.25E+00	1.20E+00		YES		ND				ND				ND			
Calcium	mg/kg	6.37E+02	NA	1.15E+04		YES		2.39E+02	J			9.16E+02		YES		3.84E+02	J		
Chromium	mg/kg	3.83E+01	2.32E+01	3.02E+01			YES	7.39E+01		YES	YES	2.30E+00				4.50E+00	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	8.50E+00				2.20E+00	J			1.10E+00	J			2.00E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	9.14E+01		YES		4.70E+00				1.20E+00	J			2.90E+00	J		
Iron	mg/kg	4.48E+04	2.34E+03	7.48E+04		YES	YES	4.56E+04		YES	YES	2.49E+03			YES	4.84E+03	J		YES
Lead	mg/kg	3.85E+01	4.00E+02	5.97E+02		YES	YES	1.77E+01				3.10E+00				7.90E+00	J		
Magnesium	mg/kg	7.66E+02	NA	9.67E+02		YES		1.21E+02	J			1.48E+02	J			1.65E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	3.67E+02			YES	1.59E+02				4.40E+01				1.27E+02	J		
Mercury	mg/kg	7.00E-02	2.33E+00	2.50E-01		YES		2.70E-02	J			3.10E-02	J			3.60E-02	J		
Nickel	mg/kg	1.29E+01	1.54E+02	1.56E+01		YES		3.60E+00	J			1.50E+00	J			2.40E+00	J		
Potassium	mg/kg	7.11E+02	NA	7.95E+02		YES		1.77E+02	J			1.00E+02	J			1.16E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	3.70E+00		YES		1.70E+00		YES		ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	1.80E+00		YES		ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	4.92E+02	J			3.86E+01	B			3.46E+01	B			6.68E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				4.10E-01	B			ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	4.02E+01				5.77E+01			YES	5.10E+00	J			7.70E+00	J		
Zinc	mg/kg	3.49E+01	2.34E+03	3.51E+02		YES		1.65E+01				3.80E+00				1.05E+01	J		
POLYCHLORINATED BIPHENYLS																			
Aroclor 1260	mg/kg	NA	2.93E-01	ND				ND				ND				ND			

Table 7-4

Detected Compounds in Subsurface Soil Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230				PPMP-230				PPMP-230				PPMP-230			
			Sample Location	PPMP-230-GP04				PPMP-230-GP05				PPMP-230-GP06				PPMP-230-GP07			
			Sample Number	KCC0010				KCC0012				KCC0014				KCC0016			
			Sample Date	24-Feb-99				24-Feb-99				24-Feb-99				9-Feb-99			
			Sample Depth (Feet)	5.5-7				5-6				10-12				7-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
SEMIVOLATILE ORGANIC COMPOUNDS																			
Acenaphthene	mg/kg	NA	4.63E+02	ND				ND				ND				ND			
Anthracene	mg/kg	NA	2.33E+03	ND				ND				ND				ND			
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				ND				9.60E-02	J			ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				8.80E-02	J		YES	ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				7.70E-02	J			ND			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	9.80E-02	J			ND				8.10E-02	J			ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND			
Butyl benzyl phthalate	mg/kg	NA	1.56E+03	ND				ND				ND				ND			
Chrysene	mg/kg	NA	8.61E+01	ND				ND				9.60E-02	J			ND			
Dibenz(a,h)anthracene	mg/kg	NA	8.61E-02	ND				ND				ND				ND			
Fluoranthene	mg/kg	NA	3.09E+02	ND				ND				1.40E-01	J			ND			
Fluorene	mg/kg	NA	3.09E+02	ND				ND				ND				ND			
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	ND				ND				ND				ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				ND				ND				ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND				1.10E-01	J			ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				ND				ND				9.50E-02	B		
VOLATILE ORGANIC COMPOUNDS																			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				4.40E-03	J		
Acetone	mg/kg	NA	7.76E+02	ND				ND				1.10E-02	B			1.00E-01	J		
Methylene chloride	mg/kg	NA	8.41E+01	8.40E-03	B			4.70E-03	B			3.70E-03	B			1.50E-02	B		
Styrene	mg/kg	NA	1.55E+03	ND				ND				ND				3.20E-03	J		
Trichlorofluoromethane	mg/kg	NA	2.33E+03	8.80E-03	J			4.20E-03	J			ND				ND			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), Final Human Health *and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 7-5

Detected Compounds in Groundwater Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230				PPMP-230				PPMP-230			
			Sample Location	PPMP-230-GP01				PPMP-230-GP02				PPMP-230-GP03			
			Sample Number	KCC3001				KCC3004				KCC3005			
			Sample Date	1-Apr-99				1-Apr-99				2-Apr-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
METALS															
Aluminum	mg/L	2.34E+00	1.56E+00	3.27E+00		YES	YES	3.12E+00		YES	YES	9.15E-01			
Arsenic	mg/L	1.78E-02	4.00E-05	ND				4.20E-03	J		YES	ND			
Barium	mg/L	1.27E-01	1.10E-01	9.22E-02	J			1.35E-01	J	YES	YES	7.82E-02	J		
Calcium	mg/L	5.65E+01	NA	1.17E+02		YES		5.77E+01		YES		1.53E+01			
Cobalt	mg/L	2.34E-02	9.39E-02	8.00E-03	J			6.50E-03	J			ND			
Iron	mg/L	7.04E+00	4.69E-01	1.46E+01		YES	YES	1.63E+01		YES	YES	4.08E+00			YES
Lead	mg/L	7.99E-03	1.50E-02	2.80E-03	J			8.50E-03		YES		ND			
Magnesium	mg/L	2.13E+01	NA	1.55E+01				1.32E+01				8.06E+00			
Manganese	mg/L	5.81E-01	7.35E-02	2.91E+00		YES	YES	2.46E+00		YES	YES	1.21E+00		YES	YES
Potassium	mg/L	7.20E+00	NA	1.05E+01		YES		1.74E+00	J			8.83E-01	B		
Sodium	mg/L	1.48E+01	NA	9.64E+00				1.49E+00	B			8.03E+00			
Vanadium	mg/L	1.70E-02	1.10E-02	ND				7.60E-03	J			ND			
SEMIVOLATILE ORGANIC COMPOUNDS															
4-Methylphenol	mg/L	NA	7.68E-03	4.40E-03	J			ND				ND			
VOLATILE ORGANIC COMPOUNDS															
2-Butanone	mg/L	NA	7.14E-01	8.30E-03	J			ND				ND			
Acetone	mg/L	NA	1.56E-01	1.70E-02	J			ND				2.20E-03	B		
Bromomethane	mg/L	NA	2.17E-03	ND				ND				1.90E-04	B		
Ethylbenzene	mg/L	NA	1.40E-01	3.60E-04	B			ND				ND			
Methylene chloride	mg/L	NA	7.85E-03	1.50E-03	B			1.50E-03	B			ND			
Naphthalene	mg/L	NA	3.00E-03	ND				ND				3.00E-04	B		
Styrene	mg/L	NA	2.90E-01	6.60E-04	B			ND				ND			
Toluene	mg/L	NA	2.59E-01	2.30E-04	B			2.20E-04	B			ND			
p-Cymene	mg/L	NA	2.26E-01	8.20E-03	J			5.70E-04	B			7.30E-04	J		

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 7-6

Groundwater and Surface Water Field Parameters
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Date	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
PPMP-230-GP01	1-Apr-99	0.782	3.70	-54	15.06	103	6.83
PPMP-230-GP02	1-Apr-99	0.393	0.08	40	13.31	140	6.15
PPMP-230-GP03	2-Apr-99	0.165	0.13	32	13.55	17	6.09
PPMP-230-SW/SD01	29-Jan-99	0.094	2.13	0	14.45	6.3	8.01
PPMP-230-SW/SD02	29-Jan-99	0.121	2.83	NA	14.28	6.0	7.20
PPMP-230-SW/SD03	29-Jan-99	0.040	2.86	NA	13.35	2.1	6.73

Specific conductivity units standardized to milliSiemens per centimeter.
°C - degrees Celsius.
mg/L - Milligrams per liter.
mS/cm - MilliSiemens per centimeter.
mV- Millivolts.
NA - Not available.
NTU - Nephelometric turbidity unit.
ORP - Oxidation reduction potential.
SU - Standard unit.

Table 7-7

Detected Compounds in Surface Water Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230					PPMP-230					PPMP-230				
				Sample Location	PPMP-230-SW/SD01					PPMP-230-SW/SD02					PPMP-230-SW/SD03				
				Sample Number	KCC2001					KCC2002					KCC2003				
				Sample Date	29-Jan-99					29-Jan-99					29-Jan-99				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	1.69E-01	J			YES	1.80E-01	J			YES	1.24E-01	B			YES
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	1.70E-02	J			YES	1.53E-02	J			YES	1.72E-02	J			YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	5.03E+00					5.82E+00					1.64E+00	J			
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	1.05E-01					1.16E-01					5.83E-02	J			
Magnesium	mg/L	1.10E+01	NA	8.20E+01	2.57E+00	J				3.13E+00	J				9.63E-01	J			
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	6.00E-03	J				5.00E-03	J				5.60E-03	J			
Sodium	mg/L	3.44E+00	NA	6.80E+02	1.18E+00	B				9.92E-01	B				8.35E-01	B			
Thallium	mg/L	2.40E-03	1.01E-03	4.00E-03	6.80E-03	B	YES	YES	YES	ND					ND				
SEMIVOLATILE ORGANIC COMPOUNDS																			
bis(2-Ethylhexyl)phthalate	mg/L	NA	5.17E-02	3.00E-04	ND					ND					1.30E-03	J			YES

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 7-8

Detected Compounds in Sediment Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230					PPMP-230					PPMP-230				
				Sample Location	PPMP-230-SW/SD01					PPMP-230-SW/SD02					PPMP-230-SW/SD03				
				Sample Number	KCC1001					KCC1003					KCC1004				
				Sample Date	29-Jan-99					29-Jan-99					29-Jan-99				
				Sample Depth (Feet)	0-0.5					0-0.5					0-0.5				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																			
4,4'-DDT	mg/kg	NA	1.66E+02	3.30E-03	ND					ND					1.40E-03	J			
Endosulfan sulfate	mg/kg	NA	6.12E+03	3.46E-02	ND					ND					1.10E-03	J			
METALS																			
Aluminum	mg/kg	8.59E+03	1.15E+06	NA	1.37E+03					1.35E+03					2.25E+03				
Arsenic	mg/kg	1.13E+01	5.58E+01	7.24E+00	1.60E+00					8.00E-01	J				7.20E-01	J			
Barium	mg/kg	9.89E+01	8.36E+04	NA	8.80E+00	J				8.70E+00	J				1.86E+01	J			
Beryllium	mg/kg	9.70E-01	1.50E+02	NA	3.30E-01	J				1.60E-01	J				3.80E-01	J			
Calcium	mg/kg	1.11E+03	NA	NA	1.77E+02	J				1.71E+02	J				3.65E+02	J			
Chromium	mg/kg	3.12E+01	2.79E+03	5.23E+01	3.50E+00					2.90E+00					3.30E+00				
Cobalt	mg/kg	1.10E+01	6.72E+04	5.00E+01	1.00E+00	J				6.90E-01	J				7.50E-01	J			
Copper	mg/kg	1.71E+01	4.74E+04	1.87E+01	1.40E+00	J				2.10E+00	J				3.70E+00				
Iron	mg/kg	3.53E+04	3.59E+05	NA	5.76E+03					3.71E+03					2.56E+03				
Lead	mg/kg	3.78E+01	4.00E+02	3.02E+01	4.20E+00					3.80E+00					1.05E+01				
Magnesium	mg/kg	9.06E+02	NA	NA	1.08E+02	J				1.12E+02	J				1.51E+02	J			
Manganese	mg/kg	7.12E+02	4.38E+04	NA	6.29E+01					2.92E+01					3.01E+01				
Mercury	mg/kg	1.10E-01	2.99E+02	1.30E-01	1.80E-02	J				2.40E-02	J				2.30E-01		YES		YES
Potassium	mg/kg	1.01E+03	NA	NA	1.03E+02	B				1.15E+02	J				ND				
Sodium	mg/kg	6.92E+02	NA	NA	5.74E+01	B				4.41E+01	B				4.60E+01	B			
Vanadium	mg/kg	4.09E+01	4.83E+03	NA	9.10E+00					5.20E+00	J				5.40E+00	J			
Zinc	mg/kg	5.27E+01	3.44E+05	1.24E+02	5.90E+00					4.80E+00					7.10E+00				
SEMIVOLATILE ORGANIC COMPOUNDS																			
Di-n-butyl phthalate	mg/kg	NA	1.14E+05	1.11E-01	1.30E-01	B			YES	4.70E-02	B				5.80E-02	B			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	5.41E+03	1.82E-01	1.20E-01	B				5.30E-02	B				7.00E-02	B			
VOLATILE ORGANIC COMPOUNDS																			
2-Butanone	mg/kg	NA	6.23E+05	1.37E-01	ND					ND					3.90E-03	J			
Acetone	mg/kg	NA	1.03E+05	4.53E-01	ND					7.20E-03	J				1.90E-02	J			
Methylene chloride	mg/kg	NA	9.84E+03	1.26E+00	4.30E-03	B				3.40E-03	B				3.90E-03	B			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 7-9

Detected Compounds in Seep Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-230					PPMP-230					PPMP-230				
				Sample Location	PPMP-230-SEP01					PPMP-230-SEP02					PPMP-230-SEP03				
				Sample Number	KCC2004					KCC2005					KCC2006				
				Sample Date	11-Feb-99					11-Feb-99					11-Feb-99				
Parameter	**Units**	**BKG[a]**	**SSSL[b]**	**ESV[b]**	**Result**	**Qual**	**>BKG**	**>SSSL**	**>ESV**	**Result**	**Qual**	**>BKG**	**>SSSL**	**>ESV**	**Result**	**Qual**	**>BKG**	**>SSSL**	**>ESV**
METALS																			
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	2.54E-01				YES	7.01E-01				YES	1.35E+00				YES
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	5.35E-02	J			YES	3.40E-02	J			YES	6.38E-02	J			YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	1.09E+02		YES			8.44E+00					1.95E+01				
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	2.46E+00				YES	9.96E-01					1.29E+00				YES
Lead	mg/L	8.60E-03	1.50E-02	1.32E-03	ND					1.60E-03	B			YES	1.50E-03	B			YES
Magnesium	mg/L	1.10E+01	NA	8.20E+01	7.86E+00					2.71E+00	J				5.58E+00				
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	5.10E-01				YES	8.45E-01		YES	YES	YES	2.51E-01				YES
Potassium	mg/L	2.56E+00	NA	5.30E+01	2.11E+00	J				1.74E+00	J				2.69E+00	J	YES		
Sodium	mg/L	3.44E+00	NA	6.80E+02	2.49E+00	B				1.61E+00	B				1.49E+00	B			
Zinc	mg/L	4.03E-02	4.65E+00	5.89E-02	1.16E-02	J				ND					ND				
VOLATILE ORGANIC COMPOUNDS																			
Acetone	mg/L	NA	1.57E+00	7.80E+01	7.60E-03	B				ND					6.70E-03	B			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 7-10

Summary of Trenching Information
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T230-1	45 ft North Trench and 20 ft East Trench	3 ft North Trench and 3 ft East Trench	4 ft bgs North Trench and 7 ft bgs East Trench/ 4 ft bgs North Trench and 7 ft bgs East Trench	0 to 12 ft Native and 12 to 45 ft Fill in North Trench N/S view/ 0 to 20 ft Fill in East Trench W/E view	Orange red sand and clay, gray sand, black clay pipe, metal scraps, ceramic pieces, empty shotgun shell, piece of concrete bollard shaped like a bomb, plastic, tin foil, brick, burnt wood, and glass
T230-2	50 ft	3 ft	4 ft/4 ft bgs	0 to 24 ft Native and 24 to 50 ft Fill E/W view	Light brown silt, angular chert gravel, metal sheet, pipe, wire, ceramic pieces, glass, cement blocks, and metal u-rings.
T230-3	50 ft	3 ft	4 ft/4 ft bgs	0 to 25 ft Fill and 25 to 50 ft Native SE/NW view	Fill consists of a burn pit with glass bottles and jars, ceramic pieces, burnt newspaper, red bricks, and pieces of a 55-gallon steel drum.
T230-4	20 ft	3 ft	2 ft/2 ft bgs	0 to 20 ft Fill NE/SW view	Brown silt, cobble, glass pieces, 100 lb concrete bombs, coal chunks, quartz sandstone, and rebar.
T230-5	25 ft	3 ft	4 ft/4 ft	0 to 12 ft Fill and 12 to 25 ft Native NNW/SSE view	Light brown silt and sand, some angular chert cobbles, rebar, concrete, metal tubing, and asphalt pieces.

ft - Feet.
bgs - Below ground surface.

E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.

Table 7-11

Summary of Fill Material Borings
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/ Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-230-SB01	0 to 15 ft bgs	15 ft/18 ft bgs	Light brown to yellowish-orange clay with some sand, ash, concrete, black ash, brick, burnt wood, and glass.	8 to 10 ft bgs and 14 to 15 ft bgs

ft - Feet.
bgs - Below ground surface.

Table 7-12

Detected Compounds in Fill Material Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230			
			Sample Location	FA-230-SB01			
			Sample Number	DD0019			
			Sample Date	30-Mar-00			
			Sample Depth (Feet)	14-16			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL
PESTICIDES							
4,4'-DDD	mg/kg	NA	2.54E+00	3.10E+00			YES
4,4'-DDE	mg/kg	NA	1.79E+00	ND			
4,4'-DDT	mg/kg	NA	1.79E+00	7.40E-01			
Aldrin	mg/kg	NA	3.65E-02	7.70E-02	J		YES
Dieldrin	mg/kg	NA	3.88E-02	8.90E-02	J		YES
METALS							
Aluminum	mg/kg	1.36E+04	7.80E+03	8.86E+03			YES
Antimony	mg/kg	1.31E+00	3.11E+00	8.50E-01	J		
Arsenic	mg/kg	1.83E+01	4.26E-01	5.80E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	1.05E+02			
Beryllium	mg/kg	8.60E-01	9.60E+00	1.30E+00		YES	
Cadmium	mg/kg	2.20E-01	6.25E+00	ND			
Calcium	mg/kg	6.37E+02	NA	2.74E+04		YES	
Chromium	mg/kg	3.83E+01	2.32E+01	1.09E+01			
Cobalt	mg/kg	1.75E+01	4.68E+02	4.30E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	2.12E+01		YES	
Iron	mg/kg	4.48E+04	2.34E+03	1.22E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	4.11E+01		YES	
Magnesium	mg/kg	7.66E+02	NA	5.00E+03		YES	
Manganese	mg/kg	1.36E+03	3.63E+02	3.31E+02			
Mercury	mg/kg	7.00E-02	2.33E+00	5.60E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	5.40E+00			
Potassium	mg/kg	7.11E+02	NA	9.14E+02		YES	
Selenium	mg/kg	4.70E-01	3.91E+01	ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND			
Sodium	mg/kg	7.02E+02	NA	2.16E+02	J		
Thallium	mg/kg	1.40E+00	5.08E-01	ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	1.74E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	5.01E+01		YES	
POLYCHLORINATED BIPHENYLS							
Aroclor 1260	mg/kg	NA	2.93E-01	3.50E-01	J		YES

Table 7-12

Detected Compounds in Fill Material Samples
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-230			
			Sample Location	FA-230-SB01			
			Sample Number	DD0019			
			Sample Date	30-Mar-00			
			Sample Depth (Feet)	14-16			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL
SEMIVOLATILE ORGANIC COMPOUNDS							
Acenaphthene	mg/kg	NA	4.63E+02	5.80E-02	J		
Anthracene	mg/kg	NA	2.33E+03	5.60E-02	J		
Benzo(a)anthracene	mg/kg	NA	8.51E-01	1.50E-01	J		
Benzo(a)pyrene	mg/kg	NA	8.51E-02	1.60E-01	J		YES
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	1.60E-01	J		
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	1.30E-01	J		
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	1.70E-01	J		
Butyl benzyl phthalate	mg/kg	NA	1.56E+03	6.90E-02	J		
Chrysene	mg/kg	NA	8.61E+01	1.40E-01	J		
Dibenz(a,h)anthracene	mg/kg	NA	8.61E-02	7.80E-02	J		
Fluoranthene	mg/kg	NA	3.09E+02	2.80E-01	J		
Fluorene	mg/kg	NA	3.09E+02	4.20E-02	J		
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	1.20E-01	J		
Phenanthrene	mg/kg	NA	2.32E+03	7.40E-02	J		
Pyrene	mg/kg	NA	2.33E+02	2.60E-01	J		
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.70E-01	B		
VOLATILE ORGANIC COMPOUNDS							
2-Butanone	mg/kg	NA	4.66E+03	ND			
Acetone	mg/kg	NA	7.76E+02	1.30E-02	J		
Methylene chloride	mg/kg	NA	8.41E+01	3.00E-03	B		
Styrene	mg/kg	NA	1.55E+03	ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report,* Fort McClellan, Alabama, July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report,* Fort McClellan, Calhoun County, Alabama, July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 7-13

Variances to the Site-Specific Field Sampling Plan
Fill Area North of Landfill No. 2, Parcel 230(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
Soil boring location for FA-230-SB01 was moved approximately 27 feet southeast of the proposed location.	A potential unexploded ordinance was encountered at approximately 2 feet below ground surface.	Relocating the soil boring provided an accurate characterization of the fill material, vertical extent of the fill material to be determined, and successful collection of soil samples from fill material for chemical analysis.
Seep water sample locations PPMP-230-SEP01 and PPMP-230-SEP02 were relocated, PPMP-230-SEP01 approximately 200 feet north-northeast, and PPMP-230-SEP02 approximately 60 feet north-northeast of the proposed sample locations.	The proposed locations shown on Figure 4-1 of the Site-Specific Field Sampling Plan were dry.	The proposed sample locations were dry. Therefore, relocation of the sample locations allowed for a seep water sample to be taken from a pool of water.

Table 8-1

Groundwater Elevations
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
FTA-126-GP01	13-Mar-00	5.93	731.60	729.17	725.67
FTA-126-GP02	13-Mar-00	3.80	730.03	727.68	726.23
FTA-126-GP03	13-Mar-00	8.35	737.14	736.32	728.79
PPMP-227-GP01	13-Mar-00	25.25	753.71	751.83	728.46
PPMP-227-GP02	13-Mar-00	24.60	749.53	747.55	724.93
PPMP-227-GP03	13-Mar-00	29.94	751.43	748.60	721.49
PPMP-227-GP04	13-Mar-00	28.35	751.58	749.45	723.23
PPMP-227-GP05	13-Mar-00	26.58	750.36	747.10	723.78
PPMP-227-GP06	13-Mar-00	3.27	731.30	729.15	728.03
PPMP-227-GP07	13-Mar-00	31.40	760.08	759.08	728.68
PPMP-227-GP08	13-Mar-00	NR	741.29	738.46	NR
PPMP-227-GP09	13-Mar-00	9.75	751.31	749.90	741.56
PPMP-227-GP10	13-Mar-00	32.05	763.19	760.89	731.14
PPMP-227-GP11	13-Mar-00	30.28	759.38	758.76	729.10
PPMP-227-GP12	13-Mar-00	33.75	762.00	759.11	728.25
PPMP-227-GP13	13-Mar-00	26.38	755.50	753.79	729.12

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

NR - Not recorded.

Table 8-2

Well Construction Summary
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Well Construction Material
FTA-126-GP01	1181535.96	673088.33	729.17	731.60	9.00	8	1.0 - 9.0	2" ID PVC Sch 40
FTA-126-GP02	1181693.20	673212.31	727.68	730.03	9.00	8	1.0 - 9.0	2" ID PVC Sch 40
FTA-126-GP03	1181455.11	673451.49	736.32	737.14	9.50	4	5.5 - 9.5	2" ID PVC Sch 40
PPMP-227-GP01	1180764.49	673161.15	751.83	753.71	34.00	15	18.25 - 33.25	2" ID PVC Sch 40
PPMP-227-GP02	1180902.49	672542.59	747.55	749.53	30.00	15	14.25 - 29.25	2" ID PVC Sch 40
PPMP-227-GP03	1181164.45	672599.45	748.60	751.43	31.00	15	15.75 - 30.75	2" ID PVC Sch 40
PPMP-227-GP04	1181059.82	672933.44	749.45	751.58	32.00	15	16.5 - 31.5	2" ID PVC Sch 40
PPMP-227-GP05	1181317.03	672953.27	747.10	750.36	30.25	15	15.0 - 30.0	2" ID PVC Sch 40
PPMP-227-GP06	1181473.90	673323.99	729.15	731.30	8.00	7	0.5 - 7.5	2" ID PVC Sch 40
PPMP-227-GP07	1181247.24	673514.61	759.08	760.08	34.00	15	18.50 - 33.50	2" ID PVC Sch 40
PPMP-227-GP08	1181422.85	673999.48	738.46	741.29	11.50	10	1.0 - 11.0	2" ID PVC Sch 40
PPMP-227-GP09	1181345.05	674153.60	749.90	751.31	26.00	15	10.0 - 25.0	2" ID PVC Sch 40
PPMP-227-GP10	1181047.79	674343.49	760.89	763.19	33.00	15	17.5 - 32.5	2" ID PVC Sch 40
PPMP-227-GP11	1180995.29	673728.39	758.76	759.38	34.00	25	8.25 - 33.25	2" ID PVC Sch 40
PPMP-227-GP12	1181111.25	673465.86	759.11	762.00	42.50	25	17.0 - 42.0	2" ID PVC Sch 40
PPMP-227-GP13	1180894.93	673377.15	753.79	755.50	38.00	15	22.75 - 37.75	2" ID PVC Sch 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.

Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.

2" ID PVC Sch 40 - 2-inch inside-diameter polyvinyl chloride, Schedule 40.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

NA - Not available.

TOC - Top of casing.

Table 8-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	FTA-126					FTA-126					FTA-126					FTA-126				
				Sample Location	FTA-126-DEP01					FTA-126-DEP02					FTA-126-DEP03					FTA-126-DEP03				
				Sample Number	EF0009					EF0010					EF0011					EF0011R				
				Sample Date	12-Nov-98					12-Nov-98					12-Nov-98					23-Nov-98				
				Sample Depth (Feet)	0- 1					0- 1					0- 1					0- 0.5				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					NR				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					NR				
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	4.94E+03				YES	7.61E+03				YES	4.94E+03				YES	NR				
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	2.50E+00			YES		5.00E+00			YES		4.50E+00			YES		NR				
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	4.46E+01					8.75E+01					7.21E+01					NR				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	ND					7.20E-01					ND					NR				
Calcium	mg/kg	1.72E+03	NA	NA	1.32E+03					4.01E+03		YES			3.64E+03		YES			NR				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.01E+01				YES	1.35E+01				YES	1.07E+01				YES	NR				
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	ND					1.03E+01					1.11E+01					NR				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	8.30E+00					1.28E+01		YES			1.45E+01		YES			NR				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	8.77E+03			YES	YES	1.71E+04			YES	YES	1.44E+04			YES	YES	NR				
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.92E+01					4.27E+01		YES			4.32E+01		YES			NR				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	ND					ND					ND					NR				
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.57E+02				YES	7.93E+02			YES	YES	4.72E+02			YES	YES	NR				
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	7.20E-02					1.60E-01		YES		YES	ND					NR				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	ND					5.90E+00					7.00E+00					NR				
Potassium	mg/kg	8.00E+02	NA	NA	ND					ND					ND					NR				
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	ND					8.90E-01		YES		YES	8.40E-01		YES		YES	NR				
Sodium	mg/kg	6.34E+02	NA	NA	ND					ND					ND					NR				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.24E+01				YES	1.90E+01				YES	1.76E+01				YES	NR				
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.97E+01					4.24E+01		YES			9.36E+01		YES		YES	NR				
SEMIVOLATILE ORGANIC COMPOUNDS																								
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	ND					ND					ND					NR				
VOLATILE ORGANIC COMPOUNDS																								
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	1.50E-02	B				ND					NR					1.60E-02	J			
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.90E-01	J				6.90E-02	J				NR					2.20E-01	J			
Bromomethane	mg/kg	NA	1.09E+01	NA	2.10E-03	B				ND					NR					ND				
Cumene	mg/kg	NA	7.77E+02	NA	3.50E-03	J				ND					NR					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	3.70E-03	B				5.30E-03	B				NR					9.30E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					2.40E-03	J				NR					3.00E-03	J			
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	8.20E-03	B			YES	ND					NR					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					NR					5.40E-03	J			
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					NR					ND				

Table 8-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	FTA-126					FTA-126					FTA-126					PPMP-227				
				Sample Location	FTA-126-GP01					FTA-126-GP02					FTA-126-GP03					PPMP-227-DEP01				
				Sample Number	EF0001					EF0003					EF0007					KB0019				
				Sample Date	23-Feb-99					23-Feb-99					22-Feb-99					10-Mar-99				
				Sample Depth (Feet)	0- 1					0- 1					0- 1.5					0- 1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	5.31E+03	J			YES	5.64E+03	J			YES	5.32E+03	J			YES	4.20E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	4.60E+00			YES		5.20E+00			YES		4.40E+00			YES		5.60E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	2.99E+01	J				8.89E+01	J				9.33E+01	J				1.48E+02		YES		
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.10E-01	J				8.40E-01		YES			8.10E-01		YES			8.60E-01		YES		
Calcium	mg/kg	1.72E+03	NA	NA	8.57E+02	J				8.55E+02	J				9.35E+02	J				2.30E+03		YES		
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.26E+01	J			YES	8.10E+00	J			YES	7.40E+00	J			YES	7.80E+00				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	2.90E+00	J				5.90E+00	J				7.90E+00	J				6.80E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	5.00E+00	J				7.40E+00	J				4.75E+01	J	YES		YES	8.20E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	1.55E+04	J		YES	YES	1.21E+04	J		YES	YES	8.48E+03	J		YES	YES	1.92E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.17E+01	J				2.76E+01	J				2.24E+01	J				1.80E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	2.05E+02	J				1.94E+02	J				2.07E+02	J				6.14E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.24E+02	J			YES	1.27E+03	J		YES	YES	1.35E+03	J		YES	YES	1.82E+03		YES	YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	6.50E-02					6.30E-02					6.30E-02					7.40E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	2.90E+00	J				4.30E+00	J				5.90E+00					5.60E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	4.69E+02	J				1.18E+02	B				1.83E+02	J				4.04E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	8.60E-01		YES		YES	6.40E-01		YES			ND					1.20E+00		YES		YES
Sodium	mg/kg	6.34E+02	NA	NA	3.54E+01	B				6.00E+00	B				5.83E+01	B				1.10E+02	B			
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	2.25E+01	J			YES	2.01E+01	J			YES	1.25E+01	J			YES	1.93E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.94E+01	J				2.45E+01	J				1.63E+01	J				2.34E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																								
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	ND					ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																								
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	4.20E-02	J				4.90E-02	J				2.80E-02	B				1.70E-02	J			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	4.40E-03	B				4.70E-03	B				4.10E-03	B				7.40E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND					ND				
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	ND					ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	4.80E-03	J				ND					3.20E-03	J				ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND					6.40E-02	J			

Table 8-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-227					PPMP-227					PPMP-227					PPMP-227				
				Sample Location	PPMP-227-DEP02					PPMP-227-DEP03					PPMP-227-DEP04					PPMP-227-GP14				
				Sample Number	KB0020					KB0023					KB0024					KB0016				
				Sample Date	11-Mar-99					10-Mar-99					17-Mar-99					26-Mar-99				
				Sample Depth (Feet)	0- 1					0- 1					0- 1					0.5- 1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	2.79E+03				YES	3.07E+03				YES	6.23E+03				YES	1.08E+04	J		YES	YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	3.90E+00			YES		3.10E+00			YES		9.80E+00			YES		6.10E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	4.07E+01					4.21E+01					7.03E+01					5.67E+01				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.30E-01	J				6.10E-01	J				6.50E-01					4.80E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	1.46E+03					1.87E+03		YES			6.25E+02	J				5.18E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	8.10E+00				YES	6.90E+00				YES	1.33E+01				YES	1.92E+01				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	2.80E+00	J				4.10E+00	J				1.14E+01					6.30E+00				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	4.00E+00					7.40E+00					9.50E+00					9.80E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	8.06E+03			YES	YES	8.88E+03			YES	YES	2.46E+04			YES	YES	2.07E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.11E+01					1.74E+01					5.15E+01		YES		YES	2.33E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	5.05E+02	J				6.77E+02	J				2.50E+02	J				3.34E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	4.95E+02	J		YES	YES	4.33E+02			YES	YES	9.82E+02			YES	YES	4.95E+02			YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	3.50E-02	B				3.80E-02	B				7.20E-02					1.20E-01		YES		YES
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	2.80E+00	J				3.50E+00	J				6.20E+00					6.10E+00				
Potassium	mg/kg	8.00E+02	NA	NA	2.48E+02	J				1.31E+02	J				2.80E+02	J				6.22E+02				
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	5.10E-01	J	YES			8.40E-01		YES		YES	1.20E+00		YES		YES	9.20E-01		YES		YES
Sodium	mg/kg	6.34E+02	NA	NA	1.11E+02	B				1.27E+02	B				1.13E+02	B				5.31E+01	B			
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.26E+01				YES	1.29E+01				YES	3.26E+01				YES	3.16E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	6.90E+00					1.73E+01					2.10E+01					2.67E+01	J			
SEMIVOLATILE ORGANIC COMPOUNDS																								
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	1.40E-01	B				1.70E-01	B				ND					ND				
VOLATILE ORGANIC COMPOUNDS																								
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.90E-02	B				ND					1.50E-02	J				9.50E-03	B			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	5.70E-03	B				5.80E-03	B				3.70E-03	B				4.50E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND					ND				
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	ND					ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	3.30E-03	J				ND					ND					ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND					ND				

Table 8-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-227					PPMP-227				
				Sample Location	PPMP-227-GP15					PPMP-227-GP16				
				Sample Number	KB0017					KB0018				
				Sample Date	26-Mar-99					26-Mar-99				
				Sample Depth (Feet)	0.5- 1					0.5- 1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES														
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					1.20E-02				YES
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					9.40E-03				YES
METALS														
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	8.17E+03	J		YES	YES	6.03E+03	J			YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	4.70E+00			YES		3.60E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	7.54E+01					6.88E+01				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	6.80E-01					4.50E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	3.02E+02	J				5.23E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	9.50E+00				YES	4.79E+01		YES	YES	YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	5.80E+00	J				5.00E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	5.20E+00					5.90E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	1.20E+04			YES	YES	1.73E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	5.11E+01		YES		YES	3.28E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	2.12E+02	J				2.93E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	1.25E+03			YES	YES	5.90E+02			YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	6.30E-02	B				5.30E-02	B			
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	4.50E+00	J				5.40E+00				
Potassium	mg/kg	8.00E+02	NA	NA	3.42E+02	J				3.16E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	7.70E-01		YES			6.70E-01		YES		
Sodium	mg/kg	6.34E+02	NA	NA	5.38E+01	B				4.32E+01	B			
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.96E+01				YES	2.04E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.81E+01	J				1.73E+01	J			
SEMIVOLATILE ORGANIC COMPOUNDS														
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	ND					ND				
VOLATILE ORGANIC COMPOUNDS														
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.80E-02	B				2.50E-02	B			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	5.00E-03	B				4.60E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND				
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND				

Table 8-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7), 126(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
NR - Not requested.
Qual - Data validation qualifier.

Table 8-4

Detected Compounds in Subsurface Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-126				FTA-126				FTA-126				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	FTA-126-GP01				FTA-126-GP02				FTA-126-GP03				PPMP-227-GP01				PPMP-227-GP02				PPMP-227-GP03			
			Sample Number	EF0002				EF0004				EF0008				KB0001				KB0002				KB0003			
			Sample Date	31-Mar-99				31-Mar-99				24-Feb-99				8-Feb-99				3-Feb-99				4-Feb-99			
			Sample Depth (Feet)	2-3				2-3				4-5				10-12				8-10				10-12			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																											
Dinoseb	mg/kg	NA	7.77E+02	ND				ND				ND				ND				ND				ND			
PESTICIDES																											
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				ND				ND				ND				ND			
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND			
Chlordane	mg/kg	NA	1.69E+00	ND				ND				ND				ND				ND				ND			
delta-BHC	mg/kg	NA	2.33E+00	ND				ND				ND				ND				ND				ND			
METALS																											
Aluminum	mg/kg	1.36E+04	7.80E+03	5.97E+03	J			4.31E+03	J			4.01E+03	J			5.73E+03				6.25E+03				5.47E+03			
Arsenic	mg/kg	1.83E+01	4.26E-01	1.20E+01			YES	4.00E+00			YES	3.70E+00			YES	1.84E+01		YES	YES	9.20E+00			YES	1.07E+01			YES
Barium	mg/kg	2.34E+02	5.47E+02	1.46E+02	J			7.08E+01	J			9.18E+01	J			1.44E+01	J			8.22E+01				1.51E+02			
Beryllium	mg/kg	8.60E-01	9.60E+00	9.00E-01		YES		4.20E-01	J			3.20E-01	J			4.80E-01	J			5.10E-01	J			7.60E-01			
Calcium	mg/kg	6.37E+02	NA	4.61E+02	J			5.17E+02	J			1.56E+03	J	YES		3.81E+01	B			3.95E+02	J			4.45E+02	J		
Chromium	mg/kg	3.83E+01	2.32E+01	8.90E+00	J			7.80E+00	J			8.50E+00	J			2.00E+01	J			5.61E+01	J	YES	YES	1.19E+01	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	8.71E+01		YES		4.30E+00	J			2.50E+00	J			1.21E+01	J			3.59E+01	J	YES		4.17E+01	J	YES	
Copper	mg/kg	1.94E+01	3.13E+02	2.13E+01		YES		5.50E+00				1.24E+01	J			1.39E+01	J			1.02E+01	J			1.21E+01	J		
Iron	mg/kg	4.48E+04	2.34E+03	1.98E+04	J		YES	1.00E+04	J		YES	7.45E+03	J		YES	3.04E+04			YES	3.83E+04			YES	2.76E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	5.88E+01	J	YES		2.26E+01	J			1.12E+02	J	YES		3.45E+01	J			7.20E+01	J	YES		5.93E+01	J	YES	
Magnesium	mg/kg	7.66E+02	NA	2.39E+02	J			1.43E+02	J			1.95E+02	J			9.68E+01	J			1.11E+02	J			1.94E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	2.53E+03	J	YES	YES	5.96E+02	J		YES	1.79E+02	J			4.05E+02	J		YES	1.37E+03	J	YES	YES	1.79E+03	J	YES	YES
Mercury	mg/kg	7.00E-02	2.33E+00	5.80E-02				1.20E-01		YES		4.50E-02				4.80E-02				4.70E-02				5.30E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	1.96E+01		YES		3.10E+00	J			3.40E+00	J			9.20E+00				7.20E+00				2.15E+01		YES	
Potassium	mg/kg	7.11E+02	NA	4.09E+02	J			1.95E+02	J			1.88E+02	J			2.60E+02	J			2.43E+02	J			3.13E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	1.10E+00	J	YES		6.80E-01	J	YES		ND				1.20E+00		YES		1.40E+00		YES		1.30E+00		YES	
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				ND				ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	7.68E+01	B			6.78E+01	B			4.96E+01	B			4.73E+01	B			3.10E+01	B			3.31E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				ND				ND				ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	3.46E+01	J			1.69E+01	J			1.17E+01	J			4.76E+01	J			3.72E+01	J			3.75E+01	J		
Zinc	mg/kg	3.49E+01	2.34E+03	3.03E+01	J			2.34E+01	J			8.73E+01	J	YES		3.54E+01	J	YES		1.92E+01	J			3.72E+01	J	YES	
SEMIVOLATILE ORGANIC COMPOUNDS																											
2-Methylnaphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND				ND				ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				ND				ND				ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				ND				ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND				ND				ND			
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	ND				ND				ND				1.70E-01	B			ND				8.70E-02	B		
Naphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND				ND				ND			
Phenol	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				ND				ND				2.40E-01	B			ND				1.20E-01	B		
VOLATILE ORGANIC COMPOUNDS																											
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	ND				ND				ND				ND				ND				ND			
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	ND				ND				ND				ND				ND				ND			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND				ND			
Acetone	mg/kg	NA	7.76E+02	ND				2.50E-02	B			ND				ND				ND				8.30E-03	B		
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				ND				ND				ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	4.40E-03	B			7.00E-03	B			4.10E-03	B			6.20E-03	B			3.50E-03	B			6.00E-03	B		
Toluene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				3.10E-03	J			ND				ND				ND				ND			
m,p-Xylenes	mg/kg	NA	1.55E+04	ND				ND				ND				ND				ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				ND				ND			

Table 8-4

Detected Compounds in Subsurface Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-227				PPMP-227				PPMP-227				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	PPMP-227-GP04				PPMP-227-GP05				PPMP-227-GP06				PPMP-227-GP07				PPMP-227-GP08				PPMP-227-GP09			
			Sample Number	KB0004				KB0005				KB0006				KB0007				KB0008				KB0009			
			Sample Date	9-Feb-99				9-Feb-99				31-Mar-99				2-Mar-99				23-Mar-99				10-Feb-99			
			Sample Depth (Feet)	6-8				1-3				1.5- 2.5				10-12				1 - 2.5				6-9			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																											
Dinoseb	mg/kg	NA	7.77E+02	ND				ND				ND				ND				ND				ND			
PESTICIDES																											
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				ND				ND				ND				ND			
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	3.80E-04	J			5.30E-04	J			ND				ND				ND				ND			
Chlordane	mg/kg	NA	1.69E+00	ND				ND				ND				ND				ND				ND			
delta-BHC	mg/kg	NA	2.33E+00	ND				3.70E-04	J			ND				ND				ND				ND			
METALS																											
Aluminum	mg/kg	1.36E+04	7.80E+03	6.92E+03				6.89E+03				5.58E+03				7.79E+03	J			7.07E+03	J			6.62E+03			
Arsenic	mg/kg	1.83E+01	4.26E-01	7.60E+00			YES	4.60E+00			YES	4.60E+00			YES	5.40E+00			YES	8.20E+00			YES	5.60E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	1.22E+01	J			2.61E+01				9.25E+01				1.74E+01	J			3.23E+01				1.54E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	2.40E-01	J			3.00E-01	J			5.60E-01	J			4.20E-01	J			4.90E-01	J			2.90E-01	J		
Calcium	mg/kg	6.37E+02	NA	3.53E+01	B			3.96E+02	J			5.43E+02	J			8.52E+01	B			1.89E+02	J			3.63E+01	B		
Chromium	mg/kg	3.83E+01	2.32E+01	1.99E+01	J			1.78E+01	J			8.30E+00				2.05E+01	J			1.36E+01				2.94E+01	J		YES
Cobalt	mg/kg	1.75E+01	4.68E+02	1.90E+00	J			2.30E+00	J			5.70E+00	J			2.70E+00	J			4.90E+00	J			4.20E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	6.60E+00	J			5.00E+00	J			5.20E+00				5.10E+00				1.06E+01				5.70E+00	J		
Iron	mg/kg	4.48E+04	2.34E+03	2.84E+04			YES	1.77E+04			YES	1.09E+04			YES	2.69E+04			YES	2.18E+04			YES	2.25E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	8.50E+00	J			9.30E+00	J			8.32E+01		YES		8.90E+00				3.92E+01		YES		1.02E+01	J		
Magnesium	mg/kg	7.66E+02	NA	1.01E+02	J			2.97E+02	J			1.95E+02	J			1.67E+02	B			2.10E+02	J			1.58E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	4.87E+01	J			2.39E+02	J			1.12E+03			YES	9.39E+01	J			6.08E+02			YES	1.80E+02	J		
Mercury	mg/kg	7.00E-02	2.33E+00	4.70E-02				4.90E-02				8.50E-02		YES		5.10E-02				5.50E-02	B			4.80E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	2.30E+00	B			3.00E+00	B			4.30E+00	J			3.50E+00	J			5.00E+00				2.60E+00	B		
Potassium	mg/kg	7.11E+02	NA	2.44E+02	J			4.21E+02	J			2.63E+02	J			2.93E+02	J			2.69E+02	J			5.14E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	1.30E+00		YES		9.40E-01		YES		7.10E-01		YES		1.10E+00		YES		1.20E+00		YES		9.30E-01		YES	
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				ND				ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	4.03E+01	B			4.92E+01	B			6.77E+01	B			6.83E+01	B			5.39E+01	B			3.95E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				ND				ND				ND				4.00E-01	J		
Vanadium	mg/kg	6.49E+01	5.31E+01	4.23E+01	J			2.61E+01	J			1.81E+01				4.00E+01	J			3.30E+01				3.01E+01	J		
Zinc	mg/kg	3.49E+01	2.34E+03	9.50E+00	J			1.15E+01	J			2.95E+01				1.36E+01	J			2.13E+01	J			9.80E+00	J		
SEMIVOLATILE ORGANIC COMPOUNDS																											
2-Methylnaphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND				ND				ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				ND				ND				ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				ND				ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND				ND				ND			
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	1.30E-01	B			1.50E-01	B			ND				ND				ND				ND			
Naphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND				ND				ND			
Phenol	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.60E-01	B			2.00E-01	B			ND				ND				ND				9.00E-02	B		
VOLATILE ORGANIC COMPOUNDS																											
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	ND				ND				ND				ND				2.80E-03	J			ND			
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	ND				ND				ND				ND				4.20E-03	J			ND			
2-Butanone	mg/kg	NA	4.66E+03	4.30E-03	J			ND				ND				ND				3.50E-03	J			ND			
Acetone	mg/kg	NA	7.76E+02	7.30E-01	J			7.40E-03	B			ND				ND				2.00E-02	B			1.80E-01	J		
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				ND				ND				9.40E-03	J			ND			
Methylene chloride	mg/kg	NA	8.41E+01	2.00E-02	B			1.40E-02	B			4.90E-03	B			4.60E-03	B			7.40E-03	B			1.40E-02	B		
Toluene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				3.00E-03	J			ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				ND				3.30E-03	J			ND				ND			
m,p-Xylenes	mg/kg	NA	1.55E+04	ND				ND				ND				ND				2.40E-02	J			ND			
p-Cymene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				ND				ND			

Table 8-4

Detected Compounds in Subsurface Soil Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-227				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	PPMP-227-GP10				PPMP-227-GP11				PPMP-227-GP12				PPMP-227-GP13			
			Sample Number	KB0010				KB0011				KB0014				KB0015			
			Sample Date	8-Feb-99				11-Feb-99				10-Feb-99				1-Mar-99			
			Sample Depth (Feet)	10-12				3-6				0 - 3				10-12			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																			
Dinoseb	mg/kg	NA	7.77E+02	ND				ND				ND				ND			
PESTICIDES																			
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				ND				ND			
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				ND				ND			
Chlordane	mg/kg	NA	1.69E+00	ND				ND				ND				ND			
delta-BHC	mg/kg	NA	2.33E+00	3.60E-04	J			ND				ND				ND			
METALS																			
Aluminum	mg/kg	1.36E+04	7.80E+03	7.19E+03				5.86E+03				1.06E+04			YES	6.49E+03	J		
Arsenic	mg/kg	1.83E+01	4.26E-01	5.70E+00			YES	5.20E+00			YES	5.30E+00			YES	4.20E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	2.10E+01	J			1.39E+01	J			6.38E+01				1.38E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	4.70E-01	J			2.70E-01	J			5.80E-01	J			2.00E-01	J		
Calcium	mg/kg	6.37E+02	NA	5.01E+01	J			ND				4.91E+02	J			2.14E+02	B		
Chromium	mg/kg	3.83E+01	2.32E+01	2.28E+01	J			1.69E+01				1.19E+01	J			9.50E+00	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	2.20E+00	J			1.70E+00	J			8.60E+00	J			4.10E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	7.60E+00	J			5.10E+00				4.30E+00	J			4.20E+00			
Iron	mg/kg	4.48E+04	2.34E+03	2.33E+04			YES	2.06E+04			YES	1.65E+04			YES	1.71E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	7.10E+00	J			6.60E+00				1.72E+01	J			1.60E+01			
Magnesium	mg/kg	7.66E+02	NA	1.57E+02	J			9.03E+01	J			2.73E+02	J			1.59E+02	B		
Manganese	mg/kg	1.36E+03	3.63E+02	7.66E+01	J			7.37E+01				1.41E+03	J	YES	YES	1.44E+02	J		
Mercury	mg/kg	7.00E-02	2.33E+00	3.60E-02	J			5.70E-02				6.50E-02				2.80E-02	J		
Nickel	mg/kg	1.29E+01	1.54E+02	4.60E+00				2.70E+00	J			6.30E+00				2.80E+00	J		
Potassium	mg/kg	7.11E+02	NA	6.53E+02				3.63E+02	J			2.56E+02	J			2.76E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	8.60E-01		YES		9.20E-01		YES		7.20E-01		YES		7.80E-01		YES	
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	5.00E+01	B			5.11E+01	B			5.35E+01	B			5.17E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	3.02E+01	J			2.82E+01				2.64E+01	J			2.40E+01	J		
Zinc	mg/kg	3.49E+01	2.34E+03	1.42E+01	J			9.00E+00				1.32E+01	J			1.11E+01	J		
SEMIVOLATILE ORGANIC COMPOUNDS																			
2-Methylnaphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND			
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	1.50E-01	B			ND				ND				ND			
Naphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				ND			
Phenol	mg/kg	NA	4.66E+03	ND				ND				4.70E-02	J			ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.80E-01	B			ND				9.50E-02	B			ND			
VOLATILE ORGANIC COMPOUNDS																			
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	ND				ND				ND				ND			
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	ND				ND				ND				ND			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND			
Acetone	mg/kg	NA	7.76E+02	9.80E-03	B			2.60E-01	J			8.50E+00	J			1.60E-01	J		
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	6.20E-03	B			2.90E-03	B			1.40E-02	B			4.20E-03	B		
Toluene	mg/kg	NA	1.55E+03	ND				ND				ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				ND				ND			
m,p-Xylenes	mg/kg	NA	1.55E+04	ND				ND				ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	ND				ND				ND				ND			

Table 8-4

Detected Compounds in Subsurface Soil Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7), 126(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 8-5

Detected Compounds in Groundwater Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-126				FTA-126				FTA-126				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	FTA-126-GP01				FTA-126-GP02				FTA-126-GP03				PPMP-227-GP01				PPMP-227-GP02				PPMP-227-GP03			
			Sample Number	EF3001				EF3002				EF3005				KB3001				KB3002				KB3003			
			Sample Date	17-Mar-99				18-Mar-99				18-Mar-99				8-Mar-99				9-Mar-99				9-Mar-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																											
2,2-Dichloropropanoic Acid	mg/L	NA	4.68E-02	ND				ND				ND				ND				ND				ND			
METALS																											
Aluminum	mg/L	2.34E+00	1.56E+00	2.66E-01				1.29E+00				7.80E-02	B			6.14E-02	B			1.63E+01	J	YES	YES	3.87E+00	J	YES	YES
Arsenic	mg/L	1.78E-02	4.00E-05	ND				ND				ND				3.30E-03	J		YES	8.10E-03	J		YES	4.50E-03	J		YES
Barium	mg/L	1.27E-01	1.10E-01	2.27E-02	J			5.10E-02	J			4.60E-03	J			1.86E-02	J			4.23E-02	J			3.74E-02	J		
Beryllium	mg/L	1.24E-03	3.12E-03	ND				ND				ND				ND				2.20E-03	J	YES		1.70E-03	J	YES	
Calcium	mg/L	5.65E+01	NA	2.78E+01				1.91E+01				1.43E+01				2.49E+01				2.88E+00	J			3.69E+01			
Chromium	mg/L	NA	4.69E-03	ND				ND				ND				ND				2.32E-02			YES	6.70E-03	J		YES
Cobalt	mg/L	2.34E-02	9.39E-02	ND				ND				ND				ND				ND				ND			
Copper	mg/L	2.55E-02	6.26E-02	ND				ND				ND				ND				8.50E-03	B			ND			
Iron	mg/L	7.04E+00	4.69E-01	2.06E-01				1.59E+00			YES	5.84E-02	B			8.75E-02	B			1.61E+01	J	YES	YES	5.06E+00	J		YES
Lead	mg/L	7.99E-03	1.50E-02	ND				ND				ND				ND				1.47E-02		YES		7.30E-03			
Magnesium	mg/L	2.13E+01	NA	1.25E+01				8.68E+00				7.72E+00				1.38E+01				2.44E+00	J			2.08E+01			
Manganese	mg/L	5.81E-01	7.35E-02	1.73E-02				1.41E+00		YES	YES	4.20E-03	J			3.80E-03	J			3.44E-01			YES	1.80E-01			YES
Mercury	mg/L	NA	4.60E-04	6.30E-05	J			5.90E-05	J			ND				ND				1.00E-04	B			4.90E-05	B		
Nickel	mg/L	NA	3.13E-02	ND				ND				ND				ND				1.52E-02	J			ND			
Potassium	mg/L	7.20E+00	NA	1.33E+00	J			7.56E-01	J			ND				7.75E-01	J			2.18E+00	J			2.21E+00	J		
Sodium	mg/L	1.48E+01	NA	2.27E+00	B			1.51E+00	B			1.38E+00	B			1.38E+00	B			1.16E+01				2.49E+00	B		
Thallium	mg/L	1.45E-03	1.00E-04	4.60E-03	B	YES	YES	ND				ND				5.80E-03	B	YES	YES	ND				ND			
Vanadium	mg/L	1.70E-02	1.10E-02	ND				ND				ND				ND				2.79E-02	J	YES	YES	2.06E-02	J	YES	YES
Zinc	mg/L	2.20E-01	4.69E-01	ND				1.20E-02	J			ND				ND				6.96E-02				2.32E-02			
SEMIVOLATILE ORGANIC COMPOUNDS																											
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	ND				ND				ND				ND				3.90E-03	J			ND			
VOLATILE ORGANIC COMPOUNDS																											
Acetone	mg/L	NA	1.56E-01	ND				ND				ND				ND				ND				ND			
Bromomethane	mg/L	NA	2.17E-03	ND				ND				1.70E-04	J			ND				ND				ND			

Table 8-5

Detected Compounds in Groundwater Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-227				PPMP-227				PPMP-227				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	PPMP-227-GP04				PPMP-227-GP05				PPMP-227-GP06				PPMP-227-GP07				PPMP-227-GP08				PPMP-227-GP09			
			Sample Number	KB3004				KB3005				KB3006				KB3007				KB3008				KB3009			
			Sample Date	9-Mar-99				15-Mar-99				10-Mar-99				17-Mar-99				1-Apr-99				15-Mar-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																											
2,2-Dichloropropanoic Acid	mg/L	NA	4.68E-02	ND				ND				ND				ND				ND				ND			
METALS																											
Aluminum	mg/L	2.34E+00	1.56E+00	6.72E-01	J			2.96E+00		YES	YES	2.17E-01	J			6.91E+00		YES	YES	7.95E+00		YES	YES	2.10E+00			YES
Arsenic	mg/L	1.78E-02	4.00E-05	3.40E-03	J		YES	4.80E-03	J		YES	3.00E-03	J		YES	1.87E-02		YES	YES	ND				ND			
Barium	mg/L	1.27E-01	1.10E-01	3.00E-02	J			2.97E-02	J			1.59E-02	J			7.52E-02	J			2.34E-02	J			2.45E-02	J		
Beryllium	mg/L	1.24E-03	3.12E-03	ND				2.00E-03	J	YES		ND				3.00E-03	J	YES		6.10E-04	B			ND			
Calcium	mg/L	5.65E+01	NA	3.89E+01				2.50E+01				1.71E+01				3.36E+01				1.65E+01				7.99E+00			
Chromium	mg/L	NA	4.69E-03	ND				3.58E-02			YES	ND				3.24E-02			YES	ND				7.80E-03	B		YES
Cobalt	mg/L	2.34E-02	9.39E-02	ND				ND				ND				8.10E-03	J			ND				5.30E-03	J		
Copper	mg/L	2.55E-02	6.26E-02	ND				ND				ND				1.26E-02	J			ND				ND			
Iron	mg/L	7.04E+00	4.69E-01	8.70E-01	J		YES	5.01E+00			YES	2.35E-01	J			1.96E+01		YES	YES	5.16E+00			YES	3.70E+00			YES
Lead	mg/L	7.99E-03	1.50E-02	ND				5.50E-03				ND				3.25E-02		YES	YES	7.50E-03				ND			
Magnesium	mg/L	2.13E+01	NA	2.13E+01		YES		1.38E+01				9.74E+00				1.93E+01				9.74E+00				5.02E+00			
Manganese	mg/L	5.81E-01	7.35E-02	6.54E-02				3.16E-01			YES	4.13E-02				9.44E-01		YES	YES	9.40E-02			YES	7.65E-01		YES	YES
Mercury	mg/L	NA	4.60E-04	ND				6.40E-05	J			ND				9.50E-05	J			ND				5.10E-05	J		
Nickel	mg/L	NA	3.13E-02	ND				2.42E-02	J			ND				3.39E-02	J		YES	ND				ND			
Potassium	mg/L	7.20E+00	NA	1.46E+00	J			1.39E+00	J			ND				3.35E+00	J			1.35E+00	B			ND			
Sodium	mg/L	1.48E+01	NA	2.82E+00	B			1.94E+00	B			1.25E+00	B			3.45E+00	B			8.58E+00	J			1.54E+00	B		
Thallium	mg/L	1.45E-03	1.00E-04	ND				ND				ND				6.30E-03	B	YES	YES	ND				ND			
Vanadium	mg/L	1.70E-02	1.10E-02	ND				1.29E-02	J		YES	ND				5.34E-02	J	YES	YES	ND				ND			
Zinc	mg/L	2.20E-01	4.69E-01	ND				3.14E-02				ND				7.15E-02				1.67E-02	J			ND			
SEMIVOLATILE ORGANIC COMPOUNDS																											
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	ND				ND				ND				ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS																											
Acetone	mg/L	NA	1.56E-01	ND				ND				ND				3.50E-03	B			ND				2.10E-02	B		
Bromomethane	mg/L	NA	2.17E-03	ND				ND				ND				ND				ND				ND			

Table 8-5

Detected Compounds in Groundwater Samples
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-227				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	PPMP-227-GP10				PPMP-227-GP11				PPMP-227-GP12				PPMP-227-GP13			
			Sample Number	KB3010				KB3011				KB3014				KB3015			
			Sample Date	15-Mar-99				17-Mar-99				16-Mar-99				4-Mar-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																			
2,2-Dichloropropanoic Acid	mg/L	NA	4.68E-02	ND				ND				ND				3.70E-03	J		
METALS																			
Aluminum	mg/L	2.34E+00	1.56E+00	1.11E-01	B			5.89E-02	B			1.09E+01		YES	YES	3.32E-01	J		
Arsenic	mg/L	1.78E-02	4.00E-05	ND				ND				1.74E-02			YES	5.10E-03	J		YES
Barium	mg/L	1.27E-01	1.10E-01	4.56E-02	J			7.00E-03	J			1.34E-01	J	YES	YES	2.79E-01		YES	YES
Beryllium	mg/L	1.24E-03	3.12E-03	ND				ND				3.20E-03	J	YES	YES	ND			
Calcium	mg/L	5.65E+01	NA	1.35E+00	J			1.88E+00	J			7.75E+01		YES		3.49E+01			
Chromium	mg/L	NA	4.69E-03	ND				ND				2.78E-02			YES	ND			
Cobalt	mg/L	2.34E-02	9.39E-02	ND				ND				9.30E-03	J			2.13E-02	J		
Copper	mg/L	2.55E-02	6.26E-02	ND				ND				1.31E-01		YES	YES	ND			
Iron	mg/L	7.04E+00	4.69E-01	9.96E-02	B			6.48E-02	B			2.18E+01		YES	YES	1.45E+00	J		YES
Lead	mg/L	7.99E-03	1.50E-02	ND				ND				5.80E-02		YES	YES	ND			
Magnesium	mg/L	2.13E+01	NA	1.19E+00	J			8.00E-01	J			4.62E+01		YES		1.53E+01			
Manganese	mg/L	5.81E-01	7.35E-02	5.11E-02				4.58E-02				9.13E-01		YES	YES	7.13E+00		YES	YES
Mercury	mg/L	NA	4.60E-04	5.40E-05	J			ND				2.40E-04				ND			
Nickel	mg/L	NA	3.13E-02	ND				ND				3.46E-02	J		YES	2.17E-02	J		
Potassium	mg/L	7.20E+00	NA	ND				ND				5.30E+00				3.37E+00	J		
Sodium	mg/L	1.48E+01	NA	1.32E+00	B			1.69E+00	B			5.64E+00	J			3.50E+00	B		
Thallium	mg/L	1.45E-03	1.00E-04	4.80E-03	B	YES	YES	5.70E-03	B	YES	YES	5.00E-03	B	YES	YES	7.80E-03	B	YES	YES
Vanadium	mg/L	1.70E-02	1.10E-02	ND				ND				4.98E-02	J	YES	YES	ND			
Zinc	mg/L	2.20E-01	4.69E-01	ND				ND				2.16E-01				9.90E-03	J		
SEMIVOLATILE ORGANIC COMPOUNDS																			
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	ND				ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS																			
Acetone	mg/L	NA	1.56E-01	7.20E-02	B			1.90E-03	B			ND				ND			
Bromomethane	mg/L	NA	2.17E-03	ND				ND				ND				ND			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 8-6

Groundwater and Surface Water Field Parameters
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Location Code	Date	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
FTA-126-GP01	17-Mar-99	0.210	1.86	240	14.79	0	6.61
FTA-126-GP02	18-Mar-99	0.152	0.23	123	11.70	14.4	6.55
FTA-126-GP03	18-Mar-99	0.020	6.28	221	13.66	0	6.33
FTA-126-SW/SD01	21-Oct-98	0.345	8.14	293	19.24	127	6.41
FTA-126-SW/SD02	21-Oct-98	0.726	10.78	272	19.69	926	5.26
FTA-126-SW/SD03	21-Oct-98	0.255	6.79	168	21.20	50	6.30
PPMP-227-GP01	8-Mar-99	0.279	5.29	149	18.03	7.5	7.11
PPMP-227-GP01	29-Jun-99	0.199	3.22	266	20.37	5.3	6.66
PPMP-227-GP02	9-Mar-99	0.066	5.99	208	16.37	140	6.01
PPMP-227-GP02	29-Jun-99	0.032	6.64	312	20.92	13.9	5.37
PPMP-227-GP03	9-Mar-99	0.386	3.53	218	17.07	78	6.80
PPMP-227-GP03	28-Jun-99	0.359	4.54	186	19.37	407	6.95
PPMP-227-GP04	9-Mar-99	0.385	2.42	192	17.08	37.2	6.90
PPMP-227-GP04	28-Jun-99	0.083	3.90	266	17.71	111	5.89
PPMP-227-GP05	15-Mar-99	0.289	5.55	236	15.21	>1000	6.72
PPMP-227-GP05	29-Jun-99	0.259	4.45	199	21.05	31.9	6.93
PPMP-227-GP06	10-Mar-99	0.192	3.63	262	14.50	0	6.98
PPMP-227-GP06	1-Jul-99	0.173	5.53	217	18.08	613	7.22
PPMP-227-GP07	17-Mar-99	0.253	4.86	128	16.28	1000	6.42
PPMP-227-GP07	30-Jun-99	0.235	6.42	218	21.14	621	6.42
PPMP-227-GP08	1-Apr-99	0.149	4.30	243	13.99	159	6.50
PPMP-227-GP08	1-Jul-99	0.192	3.05	228	19.23	142	6.40
PPMP-227-GP09	15-Mar-99	0.104	5.31	213	14.86	77	5.87
PPMP-227-GP09	30-Jun-99	0.094	6.25	266	20.01	NA	5.88
PPMP-227-GP10	15-Mar-99	0.027	3.04	222	16.00	0	4.87
PPMP-227-GP10	30-Jun-99	0.024	6.22	333	19.07	0	4.82
PPMP-227-GP11	17-Mar-99	0.020	6.29	256	14.05	2.6	5.47
PPMP-227-GP11	30-Jun-99	0.023	7.36	273	20.42	0	5.30
PPMP-227-GP12	16-Mar-99	0.845	1.10	107	17.02	>1000	6.77
PPMP-227-GP12	29-Jun-99	0.620	1.08	175	19.24	863	6.64
PPMP-227-GP13	4-Mar-99	0.405	0.43	70.3	17.90	37.2	4.94
PPMP-227-GP13	29-Jun-99	0.427	0.18	225	19.68	0	6.35
PPMP-227-SW/SD01	1-Jul-99	0.120	2.82	122	25.37	0	6.95
PPMP-227-SW/SD02	28-Jan-99	0.609	9.59	NA	15.23	0.7	7.87
PPMP-227-SW/SD02	30-Jun-99	0.192	7.91	213	28.82	0	7.90
PPMP-227-SW/SD03	28-Jan-99	0.599	9.94	NA	14.56	10.1	8.31
PPMP-227-SW/SD03	30-Jun-99	0.192	6.89	244	29.06	0	7.76
PPMP-227-SW/SD04	11-Feb-99	0.212	9.04	144.3	17.54	1.5	7.71
PPMP-227-SW/SD04	1-Jul-99	0.230	3.20	112	25.48	0	7.19
PPMP-227-SW/SD05	1-Jul-99	0.053	4.04	177	25.39	695	6.38

Specific conductivity units standardized to milliSiemens per centimeter.
°C- Degrees Celsius.
mg/L - Milligrams per liter.
mS/cm - MilliSiemens per centimeter.
mV - Millivolts.
NA - Not available.
NTU - Nephelometric turbidity unit.
ORP - Oxidation reduction potential.
SU - Standard unit.

Table 8-7

Detected Compounds in Surface Water Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

				Parcel	FTA-126					FTA-126					FTA-126					PPMP-227				
				Sample Location	FTA-126-SW/SD01					FTA-126-SW/SD02					FTA-126-SW/SD03					PPMP-227-SW/SD01				
				Sample Number	EF2001					EF2004					EF2005					KB2001				
				Sample Date	21-Oct-98					21-Oct-98					21-Oct-98					9-Feb-99				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																								
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	1.15E+00				YES	1.54E+00				YES	3.65E-01				YES	5.75E-01				YES
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	ND					ND					ND					2.10E-02	J			YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	4.00E+01		YES			8.60E+01		YES			2.11E+01					1.09E+01				
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	1.19E+01			YES	YES	5.57E+01		YES	YES	YES	7.90E+00			YES	YES	6.60E-01	J			
Lead	mg/L	8.60E-03	1.50E-02	1.32E-03	ND					6.50E-03	B			YES	ND					ND				
Magnesium	mg/L	1.10E+01	NA	8.20E+01	1.55E+01		YES			2.16E+01		YES			1.07E+01					5.65E+00				
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	5.34E+00		YES	YES	YES	1.11E+01		YES	YES	YES	9.38E+00		YES	YES	YES	1.10E-01	J			YES
Mercury	mg/L	NA	4.25E-03	1.00E-05	ND					ND					ND					5.60E-05	J			YES
Potassium	mg/L	2.56E+00	NA	5.30E+01	ND					ND					ND					9.19E-01	J			
Sodium	mg/L	3.44E+00	NA	6.80E+02	ND					ND					ND					1.56E+00	B			
Zinc	mg/L	4.03E-02	4.65E+00	5.89E-02	ND					3.46E-02					ND					ND				
SEMIVOLATILE ORGANIC COMPOUNDS																								
Phenol	mg/L	NA	9.06E+00	2.56E-01	5.40E-03	B				3.30E-03	B				6.20E-03	B				ND				
bis(2-Ethylhexyl)phthalate	mg/L	NA	5.17E-02	3.00E-04	2.30E-03	J			YES	1.10E-03	J			YES	1.70E-03	J			YES	ND				
VOLATILE ORGANIC COMPOUNDS																								
Acetone	mg/L	NA	1.57E+00	7.80E+01	3.00E-03	B				3.60E-03	B				1.70E-03	B				1.60E-03	J			
Methylene chloride	mg/L	NA	1.42E-01	1.93E+00	ND					ND					ND					ND				
Toluene	mg/L	NA	2.32E+00	1.75E-01	ND					ND					ND					ND				

Table 8-7

Detected Compounds in Surface Water Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-227					PPMP-227					PPMP-227				
				Sample Location	PPMP-227-SW/SD02					PPMP-227-SW/SD03					PPMP-227-SW/SD04				
				Sample Number	KB2004					KB2005					KB2006				
				Sample Date	28-Jan-99					28-Jan-99					11-Feb-99				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	5.37E-02	B				9.37E-02	B			YES	8.35E-02	B			
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	1.53E-02	J			YES	1.63E-02	J			YES	1.57E-02	J			YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	2.49E+01					2.56E+01		YES			2.32E+01				
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	8.06E-02	J				2.31E-01					1.14E-01	B			
Lead	mg/L	8.60E-03	1.50E-02	1.32E-03	ND					ND					ND				
Magnesium	mg/L	1.10E+01	NA	8.20E+01	1.35E+01		YES			1.37E+01		YES			1.25E+01		YES		
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	2.18E-02					5.89E-02					2.15E-02				
Mercury	mg/L	NA	4.25E-03	1.00E-05	1.70E-04	J			YES	6.40E-05	J			YES	5.30E-05	J			YES
Potassium	mg/L	2.56E+00	NA	5.30E+01	ND					8.38E-01	J				7.36E-01	B			
Sodium	mg/L	3.44E+00	NA	6.80E+02	1.14E+00	B				1.05E+00	B				1.40E+00	B			
Zinc	mg/L	4.03E-02	4.65E+00	5.89E-02	ND					ND					ND				
SEMIVOLATILE ORGANIC COMPOUNDS																			
Phenol	mg/L	NA	9.06E+00	2.56E-01	ND					ND					ND				
bis(2-Ethylhexyl)phthalate	mg/L	NA	5.17E-02	3.00E-04	ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																			
Acetone	mg/L	NA	1.57E+00	7.80E+01	ND					ND					ND				
Methylene chloride	mg/L	NA	1.42E-01	1.93E+00	1.10E-03	B				1.20E-03	B				ND				
Toluene	mg/L	NA	2.32E+00	1.75E-01	ND					2.20E-04	J				ND				

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 8-8

Detected Compounds in Sediment Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

				Parcel	FTA-126					FTA-126					FTA-126					PPMP-227				
				Sample Location	FTA-126-SW/SD01					FTA-126-SW/SD02					FTA-126-SW/SD03					PPMP-227-SW/SD01				
				Sample Number	EF1001					EF1002					EF1003					KB1001				
				Sample Date	21-Oct-98					21-Oct-98					21-Oct-98					9-Feb-99				
				Sample Depth (Feet)	0-0.5					0-0.5					0-0.5					0-0.5				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																								
Aluminum	mg/kg	8.59E+03	1.15E+06	NA	1.35E+04		YES			6.95E+03					1.97E+04		YES			4.78E+03				
Arsenic	mg/kg	1.13E+01	5.58E+01	7.24E+00	9.70E+00				YES	1.45E+01		YES		YES	6.00E+01		YES	YES	YES	2.80E+00				
Barium	mg/kg	9.89E+01	8.36E+04	NA	1.08E+02		YES			7.96E+01					5.15E+02		YES			4.14E+01				
Beryllium	mg/kg	9.70E-01	1.50E+02	NA	1.30E+00		YES			ND					ND					6.10E-01	J			
Calcium	mg/kg	1.11E+03	NA	NA	3.14E+03		YES			2.10E+03		YES			5.04E+03		YES			9.26E+02				
Chromium	mg/kg	3.12E+01	2.79E+03	5.23E+01	1.70E+01					1.01E+01					3.69E+01		YES			8.10E+00				
Cobalt	mg/kg	1.10E+01	6.72E+04	5.00E+01	ND					ND					6.86E+01		YES		YES	3.70E+00	J			
Copper	mg/kg	1.71E+01	4.74E+04	1.87E+01	2.66E+01		YES		YES	1.87E+01		YES		YES	4.29E+01		YES		YES	1.37E+01				
Iron	mg/kg	3.53E+04	3.59E+05	NA	3.12E+04					3.66E+04		YES			1.83E+05		YES			7.45E+03				
Lead	mg/kg	3.78E+01	4.00E+02	3.02E+01	1.06E+02		YES		YES	4.75E+01		YES		YES	1.22E+02		YES		YES	2.44E+01				
Magnesium	mg/kg	9.06E+02	NA	NA	ND					ND					ND					3.25E+02	J			
Manganese	mg/kg	7.12E+02	4.38E+04	NA	5.46E+02					1.23E+03		YES			1.96E+04		YES			1.47E+02				
Mercury	mg/kg	1.10E-01	2.99E+02	1.30E-01	1.20E-01		YES			ND					ND					7.20E-02				
Nickel	mg/kg	1.30E+01	1.76E+04	1.59E+01	1.33E+01		YES			ND					2.37E+01		YES		YES	5.20E+00	J			
Potassium	mg/kg	1.01E+03	NA	NA	ND					ND					ND					2.30E+02	J			
Selenium	mg/kg	7.20E-01	5.96E+03	NA	ND					2.10E+00		YES			3.20E+00		YES			ND				
Sodium	mg/kg	6.92E+02	NA	NA	ND					ND					ND					1.10E+02	B			
Vanadium	mg/kg	4.09E+01	4.83E+03	NA	2.39E+01					ND					ND					1.71E+01				
Zinc	mg/kg	5.27E+01	3.44E+05	1.24E+02	4.85E+01					2.54E+01	B				9.90E+01		YES			2.60E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																								
bis(2-Ethylhexyl)phthalate	mg/kg	NA	5.41E+03	1.82E-01	2.50E-01	B			YES	2.40E-01	B			YES	5.30E-01	B			YES	1.00E-01	B			
TOTAL ORGANIC CARBON																								
Total Organic Carbon	mg/kg	NA	NA	NA	7.64E+04					1.96E+05					4.59E+04					1.80E+04				
VOLATILE ORGANIC COMPOUNDS																								
2-Butanone	mg/kg	NA	6.23E+05	1.37E-01	ND					ND					2.50E-02	J				ND				
Acetone	mg/kg	NA	1.03E+05	4.53E-01	1.50E-01	J				2.70E-01	J				4.80E-01	J			YES	ND				
Carbon disulfide	mg/kg	NA	1.04E+05	1.34E-01	7.70E-03	J				2.30E-02	J				ND					ND				
Methylene chloride	mg/kg	NA	9.84E+03	1.26E+00	3.70E-02	B				6.00E-02	B				4.70E-02	B				2.60E-02	B			
Toluene	mg/kg	NA	2.11E+05	6.70E-01	ND					ND					ND					ND				

Table 8-8

Detected Compounds in Sediment Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-227					PPMP-227					PPMP-227				
				Sample Location	PPMP-227-SW/SD02					PPMP-227-SW/SD03					PPMP-227-SW/SD04				
				Sample Number	KB1002					KB1003					KB1004				
				Sample Date	28-Jan-99					28-Jan-99					11-Feb-99				
				Sample Depth (Feet)	0- 1					0-0.5					0-0.5				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/kg	8.59E+03	1.15E+06	NA	2.87E+03					2.89E+03					7.20E+03				
Arsenic	mg/kg	1.13E+01	5.58E+01	7.24E+00	3.90E+00					7.70E+00				YES	4.70E+00				
Barium	mg/kg	9.89E+01	8.36E+04	NA	3.75E+01					1.54E+02		YES			5.02E+01	J			
Beryllium	mg/kg	9.70E-01	1.50E+02	NA	4.40E-01	J				7.30E-01					8.90E-01	J			
Calcium	mg/kg	1.11E+03	NA	NA	4.80E+02	J				5.12E+02	J				1.71E+03		YES		
Chromium	mg/kg	3.12E+01	2.79E+03	5.23E+01	1.22E+01					9.00E+00					1.11E+01				
Cobalt	mg/kg	1.10E+01	6.72E+04	5.00E+01	3.70E+00	J				2.18E+01		YES			6.50E+00	J			
Copper	mg/kg	1.71E+01	4.74E+04	1.87E+01	7.30E+00					9.00E+00					3.08E+01		YES		YES
Iron	mg/kg	3.53E+04	3.59E+05	NA	9.41E+03					1.56E+04					1.45E+04				
Lead	mg/kg	3.78E+01	4.00E+02	3.02E+01	1.18E+01					6.28E+01		YES		YES	2.49E+01				
Magnesium	mg/kg	9.06E+02	NA	NA	1.86E+02	J				1.83E+02	J				7.22E+02	J			
Manganese	mg/kg	7.12E+02	4.38E+04	NA	5.57E+01					1.19E+03		YES			3.20E+02				
Mercury	mg/kg	1.10E-01	2.99E+02	1.30E-01	2.40E-02	J				3.10E-02	J				5.90E-02	J			
Nickel	mg/kg	1.30E+01	1.76E+04	1.59E+01	4.40E+00	J				1.69E+01		YES		YES	6.90E+00	J			
Potassium	mg/kg	1.01E+03	NA	NA	1.35E+02	J				2.04E+02	J				3.85E+02	J			
Selenium	mg/kg	7.20E-01	5.96E+03	NA	6.00E-01	J				7.80E-01		YES			ND				
Sodium	mg/kg	6.92E+02	NA	NA	5.68E+01	B				5.71E+01	B				2.32E+02	B			
Vanadium	mg/kg	4.09E+01	4.83E+03	NA	1.63E+01					2.52E+01					1.98E+01				
Zinc	mg/kg	5.27E+01	3.44E+05	1.24E+02	1.76E+01					2.96E+01					3.48E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	5.41E+03	1.82E-01	ND					5.90E-02	B				ND				
TOTAL ORGANIC CARBON																			
Total Organic Carbon	mg/kg	NA	NA	NA	8.39E+03					8.94E+03					3.68E+04				
VOLATILE ORGANIC COMPOUNDS																			
2-Butanone	mg/kg	NA	6.23E+05	1.37E-01	6.70E-03	J				6.70E-03	J				3.40E-02	J			
Acetone	mg/kg	NA	1.03E+05	4.53E-01	4.50E-02	J				2.60E-02	J				1.60E-01	J			
Carbon disulfide	mg/kg	NA	1.04E+05	1.34E-01	ND					ND					ND				
Methylene chloride	mg/kg	NA	9.84E+03	1.26E+00	3.90E-03	B				3.70E-03	B				1.40E-02	B			
Toluene	mg/kg	NA	2.11E+05	6.70E-01	ND					3.50E-03	J				6.80E-03	J			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in IT Corporation (2000) *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 8-9

Summary of Trenching Information
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T227-1	50 ft	3 ft	6 ft/12 ft bgs	0 to 26 ft Fill and 26 to 50 ft Native S/N view	Yellowish-orange sand with some clay and sandstone gravel. Fill material consists of concrete rubble, wire, and brick.
T227-2	55 ft	3 ft	6 ft/10 ft bgs	0 to 45 ft fill and 45 to 55 ft Native E/W view	Reddish-brown sand with some clay. Fill material consists of concrete rubble, strips of metal banding, wood, glass bottles, and broken plates.
T227-3	63 ft	3 ft	0 ft/12 ft bgs	0 to 63 ft Native W/E view	No fill material encountered.
T227-4	61 ft	3 ft	11 ft/13 ft bgs	0 to 47 ft Fill and 47 to 61 ft Native N/S view	Reddish-brown silt and clay. Fill material consists of concrete rubble, wire, cable, steel pipe, concrete with steel mesh, glass bottles, steel cable, and strips of metal.
T227-5	50 ft	3 ft	6 ft/12 ft bgs	0 to 26 ft Fill and 26 to 50 ft Native W/E view	Reddish-brown to yellowish-orange clay with some sand. Fill consists of broken plates, concrete rubble, brick, melted glass, ash, and coal.
T227-6	55 ft	3 ft	1.5 ft/12 ft bgs	0 to 19 ft Fill and 19 to 55 ft Native N/S view	Red clay with some silt. Fill material consists of glass bottles, broken plates, and pieces of drainage tile/culvert.
T227-7	50 ft	3 ft	3 ft/12 ft bgs	0 to 26 ft Fill and 26 to 50 ft Native N/S view	Yellowish-orange sand with some rounded chert cobbles. Fill consists of black ash, glass bottles, coal, broken plates, cinderblocks, and brick.
T227-8	60 ft	3 ft	5 ft/10 ft bgs	0 to 35 ft Fill and 35 to 60 ft Native S/N view	Reddish-orange sand and silt with little clay. Fill consists of coal, broken plates, glass bottles, broken glass, fabric, and a D-cell battery.

Table 8-9

Summary of Trenching Information
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T227-9	63 ft	3 ft	11 ft/15 ft bgs	0 to 63 ft Fill E/W view	Dark brown sand and silt with little clay. Fill consists of broken plates, glass bottles, ash, wood, wire coat hangers, a metal bucket, bones, coal, plastic sheeting, a rubber mat, metal cans, sheet metal, bottle caps, glass test tubes, medical bottles with septums, glass syringes(no needles), newspaper, nails, light bulb, flattened drums, shoes/boots, a sardine can, plastic soap dish, tree limbs, and a D-cell battery.
T227-10	81 ft	3 ft	3 ft/12 ft bgs	0 to 7 ft Native, 7 to 19 ft Fill, 19 to 48 ft Native, 48 to 67 ft Fill, 67 to 81 ft Native E/W view	White coarse-grain to gravel-size sand. Fill consists of steel culvert and concrete culvert.
T227-11	50 ft	3 ft	11 ft/13 ft bgs	0 to 50 ft Fill S/N view	Yellowish-orange sand and silt with some clay. Fill material consists of broken plates, bottles, ash, scrap metal, bone, wood, clear glass tube with dome-shaped red top and receptacle on opposite end, 5 one gallon glass jars, glass/metal window, crushed 50 gallon drum, chicken wire, metal shipping bands, shoe soles, wire, concrete, and shelving boards.

Table 8-9

Summary of Trenching Information
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T227-12	68 ft	3 ft	10 ft/12 ft bgs	0 to 58 ft fill and 58 to 68 ft Native W/E view	Yellowish-orange silt and sand. Fill material consists of glass bottles and jars, shingles, ash, scrap metal, 1 quart oil can, nails, newspaper, syringe (no needle), broken plates, wire, bone, black fabric, wood, steel pipe, 1 gallon glass jug with liquid, shoes, gas cap, sealed glass jar with red paintlike substance, toothbrush, metal leg brace, license plate pieces, coal, white fabric, and glass vial containers.
T227-13	55 ft	3 ft	11 ft/13 ft bgs	0 to 55 ft Fill W/E view	Dark brown sand and silt with a little clay. Fill material consists of wood planks, glass bottles, ash, broken plates, razor blades, toothbrush, shoes, metal cans, wire coat hangers, metal trash cans, bottle caps, rubber strips, pencils, black fabric, metal scraps, bones, plastic bags, 5 gallon can lid, electrical wire, and a large piece of steel.
T227-14	53 ft	3 ft	11 ft/11 ft bgs	0 to 30 ft Fill and 30 to 53 ft Native N/S view	Reddish dark-brown sand and clay. Fill material consists of ash, bottles, metal, cans, wood pieces, bone, shoe soles, newspaper, rifle cartridge casing, and scrap metal.

Table 8-9

Summary of Trenching Information
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T227-15	50 ft	3 ft	10 ft/12 ft bgs	0 to 50 ft Fill S/N view	Yellowish-orange sand and clay. Fill material consists of wood crate pieces, glass, bottles, ash, bottle caps, logs, broken plates, shoes, green glass jar container with dry yellow powder, toothbrush, coal, angle iron, cloth/fabric, wire mesh screen, broken mirror, wire coat hanger, bone, steel containers, brick cups/bowls, sardine cans, glass syringe (no needle), glass dropper, glass vial with red band on one end, and several pieces of large steel.
T227-16	50 ft	3 ft	10 ft/12 ft bgs	0 to 50 ft Fill N/S view	Red sand with some silt and clay. Fill consists of glass bottles/jars, ash, coal, wood, steel pipes, broken plates, scrap metal, negative film, bone, newspaper, filters, glass, metal gasket, pliable rubber, u-joint, steel ball bearing, rubber hose, metal garbage can, shoe, wire, rubber auto belts, bottle caps, gallon paint can lid, glass vial with red band, and concrete rubble.
T227-17	50 ft	3 ft	7 ft/12 ft bgs	0 to 16 ft Fill and 16 to 50 ft Native E/W view	Reddish-brown clay with some sand. Fill consists of steel pipes with concrete cylinders on each end of pipe.

ft - Feet.
bgs - Below ground surface.
E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.

Table 8-10

Summary of Fill Material Borings
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-227-SB01	4 – 12 ft bgs	12 ft/14 ft bgs	Yellow-orange clay, nails, burnt paper, wood, burnt wood, and metal.	10 - 12 ft bgs
FA-227-SB02	0 – 8 ft bgs	8 ft/10 ft bgs	Yellowish-orange clay, glass, ash, and wood.	6 - 8 ft bgs
FA-227-SB03	4 – 14 ft bgs	14 ft/18 ft bgs	Light brown sand and silt, yellowish-orange sand and clay, ash, and glass.	12 - 14 ft bgs
FA-227-SB04	1 – 12 ft bgs	12 ft/14 ft bgs	Red clay with trace sand and gravel, ash, wood, and coal.	8 - 10 ft bgs
FA-227-SB05	0 – 8 ft bgs	8 ft/12 ft bgs	Red to light brown clay w/ trace medium grain sand, ash, and burnt wood.	6 - 8 ft bgs

ft - Feet.

bgs - below ground surface.

Table 8-11

Detected Compounds in Fill Material Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

			Parcel	PPMP-227				PPMP-227				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	FA-227-SB01				FA-227-SB02				FA-227-SB03				FA-227-SB04				FA-227-SB05			
			Sample Number	DD0012				DD0013				DD0014				DD0015				DD0016			
			Sample Date	29-Mar-00				29-Mar-00				28-Mar-00				28-Mar-00				29-Mar-00			
			Sample Depth (Feet)	10-12				6-8				12-14				8-10				6-8			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																							
Dinoseb	mg/kg	NA	7.77E+02	ND				ND				6.90E-04	J			ND				ND			
PESTICIDES																							
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				4.40E-03				ND				ND			
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				9.00E-03	J			ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				3.00E-03				ND				ND			
Chlordane	mg/kg	NA	1.69E+00	ND				ND				9.90E-02	J			ND				ND			
delta-BHC	mg/kg	NA	2.33E+00	ND				ND				ND				ND				ND			
METALS																							
Aluminum	mg/kg	1.36E+04	7.80E+03	8.74E+03			YES	1.10E+04			YES	9.26E+03			YES	9.62E+03			YES	7.80E+03			
Arsenic	mg/kg	1.83E+01	4.26E-01	5.40E+00			YES	9.50E+00			YES	6.00E+00			YES	6.80E+00			YES	4.50E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	3.89E+01				1.39E+02				5.59E+01				5.10E+01				4.52E+01			
Beryllium	mg/kg	8.60E-01	9.60E+00	3.30E-01	B			5.50E-01	J			4.70E-01	J			5.50E-01	J			4.40E-01	B		
Calcium	mg/kg	6.37E+02	NA	6.21E+02	J			8.52E+02		YES		1.44E+03		YES		1.21E+03		YES		5.75E+02			
Chromium	mg/kg	3.83E+01	2.32E+01	1.94E+01				2.33E+01			YES	1.18E+01				1.51E+01				1.09E+01			
Cobalt	mg/kg	1.75E+01	4.68E+02	1.36E+01	J			5.90E+00	J			5.30E+00	J			3.50E+00	J			4.10E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	2.35E+01		YES		4.50E+01		YES		9.00E+00				1.91E+01				7.60E+00			
Iron	mg/kg	4.48E+04	2.34E+03	2.18E+04			YES	2.07E+04			YES	1.70E+04			YES	2.02E+04			YES	1.62E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	4.57E+01		YES		1.24E+02		YES		1.66E+01				3.19E+01				1.58E+01			
Magnesium	mg/kg	7.66E+02	NA	2.47E+02	J			3.30E+02	J			3.00E+02	J			3.29E+02	J			2.30E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	4.88E+02			YES	3.06E+02				5.39E+02			YES	2.36E+02				4.14E+02			YES
Mercury	mg/kg	7.00E-02	2.33E+00	5.60E-02				1.90E-01		YES		6.80E-02				6.00E-01		YES		4.60E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	5.30E+00	J			8.80E+00				5.30E+00				6.50E+00				4.60E+00			
Potassium	mg/kg	7.11E+02	NA	4.20E+02	J			6.56E+02				3.68E+02	J			5.36E+02	J			4.14E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND				ND				ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND				3.00E-01	J	YES		ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	ND				ND				ND				ND				ND			
Thallium	mg/kg	1.40E+00	5.08E-01	7.30E-01	J		YES	7.00E-01	J		YES	8.20E-01	B		YES	6.50E-01	J		YES	ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	3.02E+01				3.19E+01				2.70E+01				2.97E+01				2.24E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	4.56E+01	J	YES		9.20E+01	J	YES		2.72E+01	J			4.40E+01	J	YES		2.57E+01	J		
SEMIVOLATILE ORGANIC COMPOUNDS																							
2-Methylnaphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				6.60E-02	J			ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				4.50E-02	J			ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				4.30E-02	J			ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				6.80E-02	J			ND			
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	ND				ND				ND				ND				ND			
Naphthalene	mg/kg	NA	1.55E+02	ND				ND				ND				4.90E-02	J			ND			
Phenol	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.60E-01	B			1.70E-01	B			8.10E-02	B			9.80E-02	B			1.00E-01	B		

Table 8-11

Detected Compounds in Fill Material Samples
Fill Area East of Reilly Airfield and the Former Post Garbage Dump, Parcels 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-227				PPMP-227				PPMP-227				PPMP-227				PPMP-227			
			Sample Location	FA-227-SB01				FA-227-SB02				FA-227-SB03				FA-227-SB04				FA-227-SB05			
			Sample Number	DD0012				DD0013				DD0014				DD0015				DD0016			
			Sample Date	29-Mar-00				29-Mar-00				28-Mar-00				28-Mar-00				29-Mar-00			
			Sample Depth (Feet)	10-12				6-8				12-14				8-10				6-8			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
VOLATILE ORGANIC COMPOUNDS																							
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	ND				ND				ND				ND				ND			
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	ND				ND				ND				ND				ND			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND			
Acetone	mg/kg	NA	7.76E+02	6.50E-02	J			8.30E-02	J			5.20E-02	J			1.60E-02	J			7.50E-02	J		
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				ND				ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	4.00E-03	B			4.20E-03	B			4.80E-03	B			4.30E-03	B			4.10E-03	B		
Toluene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				1.40E-03	J			ND				1.40E-03	J		
m,p-Xylenes	mg/kg	NA	1.55E+04	ND				ND				ND				ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	1.70E-03	J			ND				ND				ND				ND			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 8-12

Variances to the Site-Specific Field Sampling Plan
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels Parcel 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
Subsurface soil sample FTA-126-GP01 was collected approximately 25 feet south of temporary well FTA-126-GP01.	The water table at temporary well FTA-126-GP01 is approximately one foot below land surface, therefore, to take a subsurface sample that was not saturated with water, the subsurface sample location was relocated.	Moving the subsurface soil sample location provided a more accurate representation of the presence or absence of soil contamination.
Subsurface soil sample FTA-126-GP02 was collected approximately 60 feet south of temporary well FTA-126-GP02.	The water table at temporary well FTA-126-GP02 is approximately one foot below land surface, therefore, to take a subsurface sample that was not saturated with water, the subsurface sample location was relocated.	Moving the subsurface soil sample location provided a more accurate representation of the presence or absence of soil contamination.
Subsurface soil sample PPMP-227-GP06 was collected approximately 100 feet south of temporary well PPMP-227-GP06.	The water table at temporary well PPMP-227-GP06 is approximately one foot below land surface, therefore, to take a subsurface sample that was not saturated with water, the subsurface sample location was relocated.	Moving the subsurface soil sample location provided a more accurate representation of the presence or absence of soil contamination.
Soil boring location for FA-227-SB01 was moved approximately 100 feet north of proposed location.	Fill material was not present at the proposed location during drilling and split spoon sampling procedures.	Moving the soil boring location provided characterization of the fill material, an accurate determination of the vertical extent of fill, and allowed the collection of the fill material for chemical analysis.
Soil boring location for FA-227-SB04 was moved approximately 75 feet northwest of its proposed location.	Fill material was not present at the proposed location during drilling and split spoon sampling procedures.	Moving the soil boring location provided characterization of the fill material, an accurate determination of the vertical extent of fill, and allowed the collection of the fill material for chemical analysis.

Table 8-12

Variances to the Site-Specific Field Sampling Plan
Fill Area East of Reilly Airfield and Former Post Garbage Dump, Parcels Parcel 227(7) and 126(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
A depositional soil sample PPMP-227-DEP04 was collected in close proximity to sample location PPMP-227-SW/SD05.	Surface water was not present at the location at the initial time of sample collection. Because surface water was not present, a depositional soil sample was collected in lieu of surface water and sediment samples to determine the presence or absence of contamination. On a subsequent visit to the site, surface water was present and both a surface water and sediment sample was collected and analyzed for nitroexplosives.	A depositional soil sample was collected at this location to determine the presence or absence of contamination; therefore, the variance does not alter the scope or intent of the investigations.
The geophysical grid was expanded approximately 10 acres.	The geophysical grid was expanded so that additional data could be collected to delineate the extent of the fill area.	Expanding the grid allowed the geophysics crew to more accurately delineate the extent of anomalies and the fill area so that proposed monitoring wells and sample locations could be determined and samples collected for chemical analysis.

Table 9-1

Groundwater Elevations
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
PPMP-229-GP01	13-Mar-00	19.77	740.46	740.70	720.69
PPMP-229-GP02	13-Mar-00	24.40	742.55	741.52	718.15
PPMP-229-GP03	13-Mar-00	16.83	746.82	744.30	729.99
PPMP-229-GP04	13-Mar-00	11.28	745.50	743.79	734.22
PPMP-229-GP05	13-Mar-00	dry	746.59	743.91	dry
PPMP-229-GP07	13-Mar-00	21.95	744.04	741.37	722.09

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 9-2

Well Construction Summary
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Sump Interval (ft bgs)	Well Construction Material
PPMP-229-GP01	1181164.46	670201.80	740.70	740.46	22.0	15.0	6.75 - 21.75	22 - 21.75	2" ID PVC Sch 40
PPMP-229-GP02	1181036.04	670414.10	741.52	742.55	44.0	15.0	28.75 - 43.75	44 - 43.75	2" ID PVC Sch 40
PPMP-229-GP03	1180875.89	670440.22	744.30	746.82	32.5	15.0	17 - 32	32.5 - 32	2" ID PVC Sch 40
PPMP-229-GP04	1180897.40	669877.20	743.79	745.50	24.0	15.0	8.75 - 23.75	24 - 23.75	2" ID PVC Sch 40
PPMP-229-GP05	1181101.56	670064.51	743.91	746.59	19.0	15.0	2.75 - 17.75	19 - 17.75	2" ID PVC Sch 40
PPMP-229-GP06	1180978.81	670382.48	744.19	NA	12	NA	NA	NA	No well installed
PPMP-229-GP07	1181227.66	669868.17	741.37	744.04	27.5	15.3	12 - 27.25	NA	2" ID PVC Sch 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.
Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.
2" ID PVC Sch 40 - 2-inch inside-diameter polyvinyl chloride, Schedule 40.
bgs - Below ground surface.
ft - Feet.
msl - Mean sea level.
NA - Not applicable.
TOC - Top of casing.

Table 9-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-229					PPMP-229					PPMP-229					PPMP-229				
				Sample Location	PPMP-229-DEP01					PPMP-229-DEP02					PPMP-229-GP01					PPMP-229-GP02				
				Sample Number	KC0016					KC0017					KC0001					KC0003				
				Sample Date	9-Mar-99					9-Mar-99					25-Feb-99					15-Feb-99				
				Sample Depth (Feet)	0-1					0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					2.00E-03	J			
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
Endosulfan sulfate	mg/kg	NA	4.66E+01	3.58E-02	ND					ND					ND					ND				
Endrin ketone	mg/kg	NA	2.32E-01	1.05E-02	ND					ND					ND					ND				
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	4.79E+03				YES	5.15E+03				YES	7.80E+03				YES	6.52E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	3.20E+00			YES		4.50E+00			YES		6.30E+00			YES		5.00E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	4.05E+01					1.09E+02					2.69E+01					8.85E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.50E-01	J				7.40E-01					2.60E-01	J				4.80E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	1.06E+03					8.59E+02					3.28E+02	J				5.93E+02				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.17E+01				YES	7.50E+00				YES	1.56E+01	J			YES	9.10E+00	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	4.80E+00	J				8.40E+00					3.80E+00	J				7.80E+00				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	1.53E+01		YES			7.00E+00					5.10E+00	J				6.80E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	9.87E+03			YES	YES	9.06E+03			YES	YES	2.04E+04			YES	YES	1.14E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	2.14E+01					2.42E+01					1.31E+01					1.84E+01	J			
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	2.46E+02	J				2.22E+02	J				2.00E+02	J				2.23E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.92E+02				YES	1.67E+03		YES	YES	YES	1.97E+02	J			YES	1.04E+03	J		YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	9.40E-02		YES			8.70E-02		YES			1.10E-01		YES		YES	6.90E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	4.70E+00	J				4.30E+00	J				3.30E+00	J				4.80E+00				
Potassium	mg/kg	8.00E+02	NA	NA	2.24E+02	J				2.44E+02	J				2.76E+02	J				2.23E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	5.30E-01	J	YES			7.40E-01		YES			7.10E-01		YES			7.80E-01		YES		
Sodium	mg/kg	6.34E+02	NA	NA	9.76E+01	B				9.24E+01	B				3.25E+01	B				6.35E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					5.60E-01	B		YES		ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	2.26E+01				YES	1.55E+01				YES	3.34E+01				YES	2.07E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	4.63E+01		YES			2.43E+01					1.17E+01	J				1.37E+01	J			
VOLATILE ORGANIC COMPOUNDS																								
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					4.30E-02					ND				
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					2.80E-01				YES	ND				
1,3,5-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					1.10E-02					ND				
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	4.70E-03	J				ND					ND					3.50E-03	J			
Acetone	mg/kg	NA	7.76E+02	2.50E+00	9.60E-02	J				7.00E-02	J				2.30E-02	B				2.20E-01	J			
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					1.60E-02					ND				
Ethylbenzene	mg/kg	NA	7.77E+02	5.00E-02	ND					ND					2.60E-01				YES	ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	4.40E-03	B				6.10E-03	B				5.50E-03	B				4.10E-03	B			
Naphthalene	mg/kg	3.30E-02	1.55E+02	1.00E-01	ND					ND					2.90E-02					ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					4.20E-02	J				ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					4.50E-03	J				ND				
m,p-Xylenes	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					7.60E-01	J			YES	ND				
n-Butylbenzene	mg/kg	NA	7.77E+01	NA	ND					ND					1.40E-02					ND				
n-Propylbenzene	mg/kg	NA	7.77E+01	NA	ND					ND					4.20E-03	J				ND				
o-Chlorotoluene	mg/kg	NA	1.55E+02	1.00E-01	ND					ND					3.10E-03	J				ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					9.80E-03	J				5.30E-03	J				ND				

Table 9-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-229					PPMP-229					PPMP-229					PPMP-229				
				Sample Location	PPMP-229-GP03					PPMP-229-GP04					PPMP-229-GP05					PPMP-229-GP06				
				Sample Number	KC0005					KC0007					KC0009					KC0011				
				Sample Date	12-Feb-99					11-Feb-99					26-Feb-99					15-Feb-99				
				Sample Depth (Feet)	0-1					0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					1.60E-03	J				ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					1.20E-03	J				ND				
Endosulfan sulfate	mg/kg	NA	4.66E+01	3.58E-02	ND					ND					ND					6.00E-03	J			
Endrin ketone	mg/kg	NA	2.32E-01	1.05E-02	ND					ND					ND					1.60E-03	J			
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	6.83E+03				YES	6.30E+03				YES	7.35E+03				YES	1.10E+04			YES	YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	8.90E+00			YES		5.80E+00			YES		6.40E+00			YES		6.60E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	3.50E+01	J				2.60E+01	J				2.16E+01	J				7.39E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.60E-01	J				2.00E-01	J				2.10E-01	J				3.10E-01	J			
Calcium	mg/kg	1.72E+03	NA	NA	2.27E+02	J				4.01E+02	J				2.60E+02	J				7.04E+02				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	2.74E+01	J		YES	YES	1.68E+01	J			YES	1.47E+01	J			YES	1.42E+01	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	9.30E+00					2.70E+00	J				2.30E+00	J				8.80E+00				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	1.02E+01					7.10E+00					7.40E+00	J				7.30E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	3.38E+04			YES	YES	1.85E+04			YES	YES	2.07E+04			YES	YES	2.05E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.73E+01	J				1.22E+01	J				1.02E+01					1.74E+01	J			
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	1.76E+02	J				2.26E+02	J				1.93E+02	J				3.51E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	6.18E+02	J		YES	YES	1.73E+02	J			YES	1.35E+02	J			YES	7.03E+02	J		YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	3.90E-02	J				6.70E-02					8.20E-02		YES			1.40E-01	J	YES		YES
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	7.30E+00					3.80E+00	J				2.50E+00	J				6.20E+00				
Potassium	mg/kg	8.00E+02	NA	NA	1.98E+02	J				2.87E+02	J				2.59E+02	J				3.66E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	1.50E+00		YES		YES	1.10E+00		YES		YES	6.00E-01		YES			1.00E+00		YES		YES
Sodium	mg/kg	6.34E+02	NA	NA	6.23E+01	B				6.74E+01	B				2.88E+01	B				7.07E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					4.20E-01	B				ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	4.35E+01				YES	2.95E+01				YES	3.75E+01				YES	4.04E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.85E+01	J				1.37E+01	J				1.09E+01	J				1.51E+01	J			
VOLATILE ORGANIC COMPOUNDS																								
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND					ND				
1,2-Dimethylbenzene	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					ND					ND				
1,3,5-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND					ND				
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					4.00E-03	J				ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.40E-02	B				ND					9.40E-02	J				3.40E-02	J			
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					4.00E-03	J				ND				
Ethylbenzene	mg/kg	NA	7.77E+02	5.00E-02	ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	2.20E-03	B				2.20E-03	B				3.60E-03	B				4.20E-03	B			
Naphthalene	mg/kg	3.30E-02	1.55E+02	1.00E-01	ND					ND					ND					ND				
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					6.00E-03	J				ND				
m,p-Xylenes	mg/kg	NA	1.55E+04	5.00E-02	ND					ND					ND					ND				
n-Butylbenzene	mg/kg	NA	7.77E+01	NA	ND					ND					ND					ND				
n-Propylbenzene	mg/kg	NA	7.77E+01	NA	ND					ND					ND					ND				
o-Chlorotoluene	mg/kg	NA	1.55E+02	1.00E-01	ND					ND					ND					ND				
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND					ND				

Table 9-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July. For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 9-4

Detected Compounds in Subsurface Soil Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

			Parcel	PPMP-229				PPMP-229				PPMP-229				PPMP-229				PPMP-229				PPMP-229				PPMP-229			
			Sample Location	PPMP-229-GP01				PPMP-229-GP02				PPMP-229-GP03				PPMP-229-GP04				PPMP-229-GP05				PPMP-229-GP06				PPMP-229-GP07			
			Sample Number	KC0002				KC0004				KC0006				KC0008				KC0010				KC0012				KC0015			
			Sample Date	25-Feb-99				15-Feb-99				12-Feb-99				11-Feb-99				26-Feb-99				15-Feb-99				12-Feb-99			
			Sample Depth (Feet)	9-10				3-6				9-12				2-4				4-5				9-12				6-9			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES																															
Dinoseb	mg/kg	NA	7.77E+02	ND				ND				ND				ND				ND				ND				ND			
PESTICIDES		NA	NA																												
4,4'-DDD	mg/kg	NA	2.54E+00	ND				ND				ND				ND				ND				ND				3.10E-03	J		
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND				ND			
Endosulfan sulfate	mg/kg	NA	4.66E+01	ND				ND				ND				ND				ND				1.20E-03	J			ND			
METALS																															
Aluminum	mg/kg	1.36E+04	7.80E+03	6.36E+03				6.64E+03				1.16E+04			YES	1.21E+04			YES	9.36E+03			YES	9.63E+03			YES	8.78E+03			YES
Antimony	mg/kg	1.31E+00	3.11E+00	ND				ND				ND				ND				ND				ND				ND			
Arsenic	mg/kg	1.83E+01	4.26E-01	4.10E+00			YES	6.90E+00			YES	7.60E+00			YES	1.12E+01			YES	9.60E+00			YES	5.50E+00			YES	8.00E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	7.30E+01				2.23E+01	J			1.87E+01	J			1.78E+01	J			2.41E+01	J			2.23E+01	J			2.63E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	7.50E-01				2.30E-01	J			5.70E-01	J			4.50E-01	J			3.80E-01	J			5.60E-01	J			3.30E-01	J		
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND				ND				ND				ND				ND				ND			
Calcium	mg/kg	6.37E+02	NA	5.78E+02	J			1.36E+02	J			5.71E+02	J			5.09E+02	J			1.07E+03		YES		4.85E+02	J			5.84E+02	J		
Chromium	mg/kg	3.83E+01	2.32E+01	1.52E+01	J			1.79E+01	J			2.32E+01	J		YES	1.83E+01	J			2.06E+01	J			1.92E+01	J			1.54E+01	J		
Cobalt	mg/kg	1.75E+01	4.68E+02	5.90E+00	J			3.60E+00	J			1.80E+00	J			2.40E+00	J			3.70E+00	J			1.14E+01	J			2.00E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	4.80E+00	J			1.39E+01				2.39E+01		YES		2.46E+01		YES		1.55E+01	J			1.85E+01				2.20E+01		YES	
Iron	mg/kg	4.48E+04	2.34E+03	7.70E+03			YES	2.94E+04			YES	4.22E+04			YES	3.34E+04			YES	3.80E+04			YES	3.08E+04			YES	2.91E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	1.60E+01				1.05E+01	J			1.19E+01	J			1.43E+01	J			1.23E+01				1.69E+01	J			1.26E+01	J		
Magnesium	mg/kg	7.66E+02	NA	1.64E+02	J			2.08E+02	J			8.16E+02		YES		6.24E+02	J			4.52E+02	J			5.52E+02	J			4.83E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	1.15E+03	J		YES	1.56E+02	J			3.42E+01	J			6.38E+01	J			1.11E+02	J			8.22E+02	J		YES	5.03E+01	J		
Mercury	mg/kg	7.00E-02	2.33E+00	4.30E-02				1.10E-01	J	YES		3.90E-02	J			6.90E-02				8.80E-02		YES		3.10E-02	J			4.20E-02	J		
Nickel	mg/kg	1.29E+01	1.54E+02	3.80E+00	J			2.90E+00	J			7.00E+00				6.40E+00				3.00E+00	J			1.44E+01		YES		3.20E+00	J		
Potassium	mg/kg	7.11E+02	NA	1.56E+02	J			2.85E+02	J			7.17E+02	J	YES		5.92E+02	J			6.99E+02				4.39E+02	J			7.04E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	ND				1.40E+00		YES		2.00E+00		YES		1.50E+00		YES		1.40E+00		YES		1.40E+00		YES		1.30E+00		YES	
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				ND				ND				ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	5.82E+01	B			4.75E+01	B			8.76E+01	B			7.63E+01	B			2.63E+01	B			8.84E+01	B			6.89E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				7.00E-01	J		YES	6.80E-01	J		YES	ND				ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	1.74E+01				3.55E+01				4.14E+01				4.45E+01				4.70E+01				5.80E+01			YES	3.49E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	9.40E+00	J			1.16E+01	J			2.44E+01	J			1.78E+01	J			1.89E+01	J			2.59E+01	J			1.79E+01	J		
SEMIVOLATILE ORGANIC COMPOUNDS																															
1,4-Dichlorobenzene	mg/kg	NA	2.62E+01	ND				ND				ND				ND				ND				ND				ND			
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				1.00E-01	J			ND				ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				ND				1.10E-01	J		YES	ND				ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				1.20E-01	J			ND				ND			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	ND				ND				ND				ND				8.50E-02	J			ND				ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND				1.20E-01	J			ND				ND			
Chrysene	mg/kg	NA	8.61E+01	ND				ND				ND				ND				1.40E-01	J			ND				ND			
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	ND				ND				ND				ND				ND				ND				ND			
Fluoranthene	mg/kg	NA	3.09E+02	ND				ND				ND				ND				3.20E-01	J			ND				ND			
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	ND				ND				ND				ND				9.70E-02	J			ND				ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				ND				ND				ND				8.90E-02	J			ND				ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND				ND				ND				2.90E-01	J			ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				ND				ND				ND				ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS																															
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.40E-02				ND				ND				ND				ND				ND				ND			
1,3,5-Trimethylbenzene	mg/kg	NA	3.88E+02	3.40E-03	J			ND				ND				ND				ND				ND				ND			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND				ND				5.20E-03	J		
Acetone	mg/kg	NA	7.76E+02	1.40E-02	B			1.30E-01	J			1.40E-02	B			2.10E-01	J			ND				1.10E-02	B			2.80E-01	J		
Carbon disulfide	mg/kg	NA	7.77E+02	3.00E-03	J			ND				ND				ND				ND				ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	5.00E-03	B			4.20E-03	B			3.00E-03	B			2.70E-03	B			3.50E-03	B			5.20E-03	B			3.90E-03	B		
Naphthalene	mg/kg	NA	1.55E+02	6.00E-03				ND				ND				ND				ND				ND				ND			
Toluene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				ND				ND				2.80E-03	J		
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				3.50E-03	J			ND				ND				ND				6.70E-03	J		
Vinyl chloride	mg/kg	NA	3.32E-01	ND				ND				ND				ND				ND				ND				4.90E-03	J		
n-Butylbenzene	mg/kg	NA	7.77E+01	6.80E-03				ND				ND				ND				ND				ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	4.20E-03	J			6.00E-03				ND				ND				ND				ND				ND			

Table 9-4

Detected Compounds in Subsurface Soil Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama*, July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama*, July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 9-5

Detected Compounds in Groundwater Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

			Parcel	PPMP-229				PPMP-229				PPMP-229				PPMP-229				PPMP-229				PPMP-229			
			Sample Location	PPMP-229-GP01				PPMP-229-GP02				PPMP-229-GP03				PPMP-229-GP04				PPMP-229-GP05				PPMP-229-GP07			
			Sample Number	KC3001				KC3002				KC3005				KC3006				KC3008				KC3007			
			Sample Date	23-Mar-99				22-Mar-99				22-Mar-99				18-Mar-99				23-Mar-99				22-Mar-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES																											
4,4'-DDD	mg/L	NA	1.80E-04	ND				ND				ND				ND				ND				3.00E-05	J		
METALS																											
Aluminum	mg/L	2.34E+00	1.56E+00	9.54E-02	B			1.01E+01		YES	YES	1.44E-01	B			2.12E-01				4.38E-02	B			2.84E-01			
Barium	mg/L	1.27E-01	1.10E-01	5.23E-01		YES	YES	9.82E-02	J			1.13E-02	J			4.10E-02	J			2.12E-01		YES	YES	3.71E-01		YES	YES
Beryllium	mg/L	1.24E-03	3.12E-03	ND				9.40E-04	B			ND				ND				ND				ND			
Calcium	mg/L	5.65E+01	NA	7.24E+01		YES		1.91E+00	J			1.64E+00	J			4.79E+00	J			1.96E+02		YES		3.09E+01			
Chromium	mg/L	NA	4.69E-03	ND				1.37E-02			YES	ND				ND				ND				ND			
Cobalt	mg/L	2.34E-02	9.39E-02	ND				ND				ND				7.20E-03	J			ND				ND			
Copper	mg/L	2.55E-02	6.26E-02	ND				1.00E-02	J			ND				ND				ND				ND			
Iron	mg/L	7.04E+00	4.69E-01	4.32E+01		YES	YES	1.25E+01		YES	YES	1.03E-01				7.32E-02	B			3.69E+01		YES	YES	4.91E+01		YES	YES
Lead	mg/L	7.99E-03	1.50E-02	ND				6.30E-03				ND				ND				ND				ND			
Magnesium	mg/L	2.13E+01	NA	1.16E+01				5.25E+00				1.00E+00	J			2.47E+00	J			1.32E+01				3.40E+00	J		
Manganese	mg/L	5.81E-01	7.35E-02	6.32E-01		YES	YES	3.77E-01			YES	6.18E-02				3.45E-01			YES	1.39E+00		YES	YES	8.50E-01		YES	YES
Mercury	mg/L	NA	4.60E-04	1.00E-04	B			1.20E-04	B			1.10E-04	B			ND				9.30E-05	B			1.00E-04	B		
Nickel	mg/L	NA	3.13E-02	ND				1.54E-02	J			ND				1.15E-02	J			ND				ND			
Potassium	mg/L	7.20E+00	NA	1.81E+01		YES		6.07E+00				ND				2.02E+00	J			6.07E+00				4.18E+00	J		
Sodium	mg/L	1.48E+01	NA	1.78E+01	J	YES		1.77E+00	B			5.40E+00	J			3.89E+00	J			3.50E+00	B			2.77E+00	B		
Vanadium	mg/L	1.70E-02	1.10E-02	ND				1.75E-02	J	YES	YES	ND				ND				ND				ND			
Zinc	mg/L	2.20E-01	4.69E-01	ND				5.64E-02				ND				2.03E-02				3.37E-02				ND			
NITROAROMATICS																											
RDX	mg/L	NA	6.60E-04	4.50E-03			YES	ND				ND				ND				4.30E-03			YES	ND			
SEMIVOLATILE ORGANIC COMPOUNDS																											
1,4-Dichlorobenzene	mg/L	NA	1.75E-03	3.00E-03	J		YES	ND				ND				ND				ND				ND			
2-Methylnaphthalene	mg/L	NA	2.48E-02	1.30E-03	J			ND				ND				ND				ND				ND			
Acenaphthene	mg/L	NA	6.58E-02	ND				ND				ND				ND				2.10E-03	J			ND			
Dibenzofuran	mg/L	NA	4.34E-03	ND				ND				ND				ND				1.50E-03	J			ND			
Fluorene	mg/L	NA	4.66E-02	ND				ND				ND				ND				1.90E-03	J			ND			
Naphthalene	mg/L	NA	3.00E-03	6.60E-02			YES	ND				ND				ND				ND				1.70E-03	J		
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	ND				3.00E-03	J			ND				ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS																											
1,2,4-Trimethylbenzene	mg/L	NA	6.00E-03	1.50E-04	J			ND				ND				ND				ND				ND			
1,2-Dimethylbenzene	mg/L	NA	2.80E+00	1.30E-04	J			ND				ND				ND				ND				ND			
1,3,5-Trimethylbenzene	mg/L	NA	6.00E-03	2.40E-04	J			ND				ND				ND				ND				ND			
1,4-Dichlorobenzene	mg/L	NA	1.75E-03	6.20E-03			YES	3.70E-04	J			ND				ND				ND				9.40E-04	J		
Benzene	mg/L	NA	1.40E-03	1.00E-04	J			ND				ND				ND				ND				2.40E-04	J		
Cumene	mg/L	NA	1.27E-01	5.30E-04	J			ND				ND				ND				ND				ND			
Methylene chloride	mg/L	NA	7.85E-03	ND				4.00E-03	B			1.00E-03	B			1.40E-03	B			ND				ND			
Naphthalene	mg/L	NA	3.00E-03	1.60E-01	J		YES	ND				ND				ND				3.20E-04	J			5.50E-04	J		
Trichloroethene	mg/L	NA	4.50E-03	ND				1.60E-04	J			ND				ND				ND				ND			
Vinyl chloride	mg/L	NA	3.00E-05	ND				ND				ND				ND				ND				6.80E-04	J		YES
n-Butylbenzene	mg/L	NA	9.57E-03	4.30E-04	J			ND				ND				ND				ND				ND			
n-Propylbenzene	mg/L	NA	1.30E-02	6.00E-04	J			ND				ND				ND				ND				ND			
o-Chlorotoluene	mg/L	NA	2.82E-02	1.80E-04	J			ND				ND				ND				ND				ND			
p-Cymene	mg/L	NA	2.26E-01	1.40E-04	J			ND				ND				ND				3.50E-04	J			1.90E-04	J		
sec-Butylbenzene	mg/L	NA	1.06E-02	5.90E-04	J			ND				ND				ND				ND				1.10E-04	J		
tert-Butylbenzene	mg/L	NA	1.14E-02	2.20E-04	J			ND				ND				ND				ND				ND			

Table 9-5

Detected Compounds in Groundwater Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 9-6

Groundwater and Surface Water Field Parameters
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Date	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
PPMP-229-GP01	23-Mar-99	0.826	0.18	-38	15.58	3.4	6.28
PPMP-229-GP02	22-Mar-99	0.043	2.3	327	15.96	268	5.25
PPMP-229-GP03	22-Mar-99	0.036	4.55	335	17.98	0	5.05
PPMP-229-GP04	18-Mar-99	0.072	0.73	395	17.36	0	4.68
PPMP-229-GP05	23-Mar-99	0.895	0.12	-23	16.07	0	6.28
PPMP-229-GP07	22-Mar-99	0.264	0.08	-79	14.28	6.2	6.08
PPMP-229-SW/SD01	10-Feb-99	0.117	9.34	179.2	15.94	69	6.90
PPMP-229-SW/SD02	10-Feb-99	0.118	10.02	164.0	16.12	62	7.06

Specific conductivity units standardized to milliSiemens per centimeter.
°C - Degrees Celsius.
mg/L - Milligrams per liter.
mS/cm - MilliSiemens per centimeter.
mV - Millivolts.
NTU - Nephelometric turbidity units.
ORP - Oxidation reduction potential.
SU - Standard unit.

Table 9-7

Detected Compounds in Surface Water Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-229					PPMP-229					PPMP-229				
				Sample Location	PPMP-229-SW/SD01					PPMP-229-SW/SD02					PPMP-229-SW/SD03				
				Sample Number	KC2001					KC2002					KC2003				
				Sample Date	10-Feb-99					10-Feb-99					11-Feb-99				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	2.51E+00				YES	2.44E+00				YES	2.36E+00				YES
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	4.97E-02	J			YES	5.08E-02	J			YES	4.22E-02	J			YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	1.23E+01					1.30E+01	J				8.57E+00				
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	2.47E+00				YES	2.44E+00				YES	2.40E+00				YES
Magnesium	mg/L	1.10E+01	NA	8.20E+01	4.23E+00	J				4.48E+00	J				2.66E+00	J			
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	1.39E-01				YES	1.17E-01				YES	9.72E-02				YES
Mercury	mg/L	NA	4.25E-03	1.00E-05	5.80E-05	J			YES	4.80E-05	J			YES	6.20E-05	J			YES
Potassium	mg/L	2.56E+00	NA	5.30E+01	1.89E+00	J				2.08E+00	J				1.52E+00	B			
Sodium	mg/L	3.44E+00	NA	6.80E+02	2.32E+00	B				2.45E+00	J				1.48E+00	B			
Zinc	mg/L	4.03E-02	4.65E+00	5.89E-02	1.88E-02	J				1.71E-02	J				1.63E-02	J			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

Qual - Data validation qualifier.

Table 9-8

Detected Compounds in Sediment Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-229					PPMP-229					PPMP-229				
				Sample Location	PPMP-229-SW/SD01					PPMP-229-SW/SD02					PPMP-229-SW/SD03				
				Sample Number	KC1001					KC1002					KC1003				
				Sample Date	10-Feb-99					10-Feb-99					11-Feb-99				
				Sample Depth (Feet)	0-0.5					0-1					0-0.5				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/kg	8.59E+03	1.15E+06	NA	3.64E+03					5.65E+03					1.81E+03				
Arsenic	mg/kg	1.13E+01	5.58E+01	7.24E+00	3.40E+00					3.60E+00					9.30E-01	J			
Barium	mg/kg	9.89E+01	8.36E+04	NA	7.35E+02		YES			6.72E+01					1.44E+01	J			
Beryllium	mg/kg	9.70E-01	1.50E+02	NA	2.20E+00		YES			1.00E+00		YES			1.20E-01	J			
Cadmium	mg/kg	4.30E-01	1.71E+02	1.00E+00	2.50E+00		YES		YES	ND					ND				
Calcium	mg/kg	1.11E+03	NA	NA	3.76E+02	J				6.66E+02	J				3.16E+02	J			
Chromium	mg/kg	3.12E+01	2.79E+03	5.23E+01	7.70E+00					9.70E+00					3.20E+00				
Cobalt	mg/kg	1.10E+01	6.72E+04	5.00E+01	6.20E+01		YES		YES	1.10E+01					7.30E-01	J			
Copper	mg/kg	1.71E+01	4.74E+04	1.87E+01	2.10E+01		YES		YES	1.67E+01					2.60E+00	J			
Iron	mg/kg	3.53E+04	3.59E+05	NA	2.33E+04					2.10E+04					3.53E+03				
Lead	mg/kg	3.78E+01	4.00E+02	3.02E+01	3.13E+01				YES	2.44E+01					3.70E+00				
Magnesium	mg/kg	9.06E+02	NA	NA	2.34E+02	J				1.49E+03		YES			1.24E+02	J			
Manganese	mg/kg	7.12E+02	4.38E+04	NA	9.50E+03		YES			1.08E+03		YES			5.55E+01				
Mercury	mg/kg	1.10E-01	2.99E+02	1.30E-01	4.80E-02					2.90E-02	J				2.70E-02	J			
Nickel	mg/kg	1.30E+01	1.76E+04	1.59E+01	7.11E+01		YES		YES	2.07E+01		YES		YES	ND				
Potassium	mg/kg	1.01E+03	NA	NA	1.85E+02	J				1.13E+03		YES			9.34E+01	B			
Selenium	mg/kg	7.20E-01	5.96E+03	NA	2.00E+00		YES			9.90E-01		YES			ND				
Sodium	mg/kg	6.92E+02	NA	NA	6.84E+01	B				8.73E+01	B				4.40E+01	B			
Vanadium	mg/kg	4.09E+01	4.83E+03	NA	2.40E+01					1.84E+01					7.00E+00				
Zinc	mg/kg	5.27E+01	3.44E+05	1.24E+02	1.18E+02		YES			6.48E+01		YES			5.30E+00				
SEMIVOLATILE ORGANIC COMPOUNDS																			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	5.41E+03	1.82E-01	7.20E-02	B				1.10E-01	B				ND				
TOTAL ORGANIC CARBON																			
Total Organic Carbon	mg/kg	NA	NA	NA	2.26E+03					1.28E+03					1.02E+03				
VOLATILE ORGANIC COMPOUNDS																			
Methylene chloride	mg/kg	NA	9.84E+03	1.26E+00	1.70E-02	B				2.20E-02	B				2.30E-03	B			
p-Cymene	mg/kg	NA	2.08E+05	NA	ND					7.50E-03					ND				

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 9-9

Summary of Trenching Information
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T229-1	114 ft	3 ft	2 ft/6 ft bgs	0 to 58 ft Native, 58 to 109 ft Fill, 109 to 114 ft Native N/S view	Yellowish-orange to light brown SILT, some Clay, glass bottles, brick, and steel concentration: mesh wire, perforated steel box, steel pipe, metal buckets (3 gallon), and steel spring.
T229-2	60 ft	3 ft	2 ft/8 ft bgs	0 to 44 ft Native, 44 to 60 ft Fill E/W view	Yellowish-orange SILT and CLAY, glass, wire, wood, ash, steel anomaly, coal, and nails.
T229-3	114 ft	3 ft	2 ft/6 ft bgs	0 to 58 ft Native, 58 to 109 ft Fill, 109 to 114 ft Native N/S view	Yellowish-orange to light brown SILT, some Clay, glass bottles, brick, and steel concentration: mesh wire, perforated steel box, steel pipe, metal buckets (3 gallon), and steel spring.
T229-4	50 ft	3 ft	14 ft/14 ft bgs	0 to 50 ft Fill E/W view	Yellowish-orange moist CLAY, some Silt, glass bottles, broken glass, plastic wood, metal cans, scrap metal, wire, metal reinforced wooden crate, brick, 2 tires, concrete rubble, light bulb, rubber tubing, burnt wood scraps, paper, aluminum car body trim piece, shoe, 30 gallon drum crushed, three 5-gallon steel cans, steel spring, and two 10-gallon drums.
T229-5	55 ft	3 ft	8 ft/10 ft bgs	0 to 17 ft Fill, 17 to 29 ft Native, 29 to 55 ft Fill E/W view	Yellowish-orange CLAY, some silt, scrap metal, wood, glass bottles, ash, broken plates, bones, shoes, shaving bush, shoes, concrete rubble, steel pipe, flattened 30 gallon metal container, steel cable, rubber tubing, coal, and 3 stove eyes.
T229-6	50 ft	3 ft	15 ft/15 ft bgs	0 to 20 ft Fill, 20 to 30 ft Native, 30 to 50 ft Fill E/W view	Yellowish-orange SILT, some Clay glass metal, wire coat hangers, wire, wood, broken plates, steel shovel, metal buckets, leather shoe, metal cans, 5 ft long steel pipe, 3 inch long spring, plastic, metal sheeting, burlap, plastic comb, shovel handle, ash, 2 inch diameter rubber hose, metal pan with handles, wooden box of nails, plywood, brick, wire, wire screen, and burnt material

Table 9-9

Summary of Trenching Information
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T229-7	50 ft	3 ft	10 ft/11 ft bgs	0 to 50 ft SW/NE view	Red orange CLAY and SILT, metal cans, glass bottles, ash boards, metal conduit, bed springs, steel piping, door knob, light bulb, 3 medical bottles with septum's (2 clear, 1 amber), syringe with needle, 1 foot by 2 inch aluminum sheets (2), newspaper, concrete rubble, and rebar.
T229-8	50 ft	3 ft	12 ft/13 ft bgs	0 to 40 ft Fill, 40 to 50 ft Native N/S view	Yellowish-orange CLAY, 9 rubber gas masks, wood, wire coat hanger, rubber hoses (for masks), pieces of roofing shingles, 2 ft long crushed steel canister, tire, golf ball, army manual, glass test tube, glass dropper, quarter inch diameter rubber tubing, rubber mat, steel tubing, shoe, rolling pin, metal, newspaper, coal, broken plates, and a 50 gallon drum (crushed).
T229-9	50 ft	3 ft	10 ft/11 ft	0 to 25 ft Fill, 25 to 50 ft Native W/E view	Yellowish- orange CLAY, some Sand, trace Silt, brick, glass bottles, broken glass, broken plate, plastic, scrap metal pieces, 3 inch long by one half inch diameter steel pipe, steel door hinge, 6 plastic vials with screw on lids, wire, green burlap fabric, bones, 18 practice hand grenades, 7 test tubes (6 containing white granular substance), leather shoe, wood planks, steel cable, steel pieces, leather belt, canteen, and 2 lead/acid batteries.
T229-10	56 ft	3 ft	10 ft/10 ft	0 to 49 ft Fill, 49 to 56 ft Native E/W view	Red to orange CLAY, some Silt, 1-2 inch diameter Chert, glass, rebar in concrete, 3 glass medical bottles, wood, shoe sole, metal cans, wire, elastic comb, metal fork, rusted 1 gallon metal can, and a small plastic bottle.

Table 9-9

Summary of Trenching Information
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T229-11	55 ft	3 ft	9 ft/14 ft	0 to 55 ft Fill SE/NW view	Red orange CLAY, some Silt, yellow SAND, some Silt, glass, wire, cable, 1 inch steel pipe, 4 inch diameter by 10 inches long steel pipe, wood, concrete rubble, chicken wire, brick, light socket cover, railroad spike, rebar/bolt in concrete, 2 x 2 inch x 10 foot angle iron, coiled copper line, sheet metal, steel electrical box, 4 x 4 inch x 4 foot angle iron, cinder block, and 4 x 4 ft steel grate.
T229-12	40 ft	3 ft	12 ft/12 ft	0 to 40 ft Fill SW/NE view	Red orange CLAY, some Silt, 50 gallon drum (crushed) with spigot, 2 pieces of one inch diameter steel pipe, newspaper, scrap metal, wood, 6 tires, springs, wire coat hangers, electrical wire, 3 metal canisters containing glass jars with white powder and IV tubing with needles on 2 pieces of tubing, glass vial, 3 crushed 50 gallon drums, propane canister, and a helmet liner.
T-229-13	50 ft	3 ft	13.4 ft/14 ft	0 to 50 ft Fill E/W view	Yellowish-orange CLAY, glass bottles, plywood, D-cell batteries, newspaper, 2 shoes, sheet rock, wood, bone, plastic bags, ash, bottle caps, scrap metal, steel, broken porcelain, wire, green cotton fabric, metal canisters, pieces of a railroad cross tie, table knife, spoon, shaving brush, metal trash can, wire coat hangers, small glass bottle with liquid and plastic lid, 5 gallon metal bucket, steel cable, 1 quart motor oil can, helmet liner, and 3 medical bottles with septum's.

ft - Feet.
bgs - Below ground surface.
E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.
Note: Trenches T229-1 and T229-3 were combined due to the close proximity of the trench end points.

Table 9-10

Summary of Fill Material Borings
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/ Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-229-SB01	2–8 ft bgs	8 ft/10 ft bgs	Yellow-orange clay, ash, glass, plastic sheeting, wood, metal, and rubber.	6-8 ft bgs
FA-229-SB02	2-10 ft bgs	10 ft/12 ft bgs	Tan-orange clay, burnt paper, wood, and ash.	8-10 ft bgs

ft - Feet.
bgs - Below ground surface.

Table 9-11

Detected Compounds in Fill Material Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

			Parcel	PPMP-229				PPMP-229			
			Sample Location	FA-229-SB01				FA-229-SB02			
			Sample Number	DD0017				DD0018			
			Sample Date	29-Mar-00				28-Mar-00			
			Sample Depth (Feet)	6-8				8-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
HERBICIDES											
Dinoseb	mg/kg	NA	7.77E+02	8.70E-04	J			ND			
PESTICIDES											
4,4'-DDD	mg/kg	NA	2.54E+00	3.10E-02	J			ND			
4,4'-DDE	mg/kg	NA	1.79E+00	5.10E-03	J			ND			
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	J			ND			
Endosulfan sulfate	mg/kg	NA	4.66E+01	ND				ND			
METALS											
Aluminum	mg/kg	1.36E+04	7.80E+03	9.72E+03			YES	1.88E+04		YES	YES
Antimony	mg/kg	1.31E+00	3.11E+00	1.50E+00	J	YES		ND			
Arsenic	mg/kg	1.83E+01	4.26E-01	1.03E+01			YES	7.50E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	4.36E+02		YES		2.28E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	3.50E-01	B			6.70E-01	J		
Cadmium	mg/kg	2.20E-01	6.25E+00	1.70E-01	J			ND			
Calcium	mg/kg	6.37E+02	NA	4.23E+03		YES		2.37E+02	J		
Chromium	mg/kg	3.83E+01	2.32E+01	2.63E+01			YES	4.22E+01		YES	YES
Cobalt	mg/kg	1.75E+01	4.68E+02	3.90E+00	J			3.30E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	2.85E+01		YES		2.27E+01		YES	
Iron	mg/kg	4.48E+04	2.34E+03	4.05E+04			YES	7.30E+04		YES	YES
Lead	mg/kg	3.85E+01	4.00E+02	1.64E+02		YES		1.94E+01			
Magnesium	mg/kg	7.66E+02	NA	7.62E+02				9.90E+02	J	YES	
Manganese	mg/kg	1.36E+03	3.63E+02	2.13E+02				1.20E+02			
Mercury	mg/kg	7.00E-02	2.33E+00	1.50E+00		YES		1.20E+00		YES	
Nickel	mg/kg	1.29E+01	1.54E+02	6.60E+00				5.40E+00	J		
Potassium	mg/kg	7.11E+02	NA	1.10E+03		YES		1.28E+03		YES	
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	2.50E-01	J	YES		ND			
Sodium	mg/kg	7.02E+02	NA	8.21E+01	J			ND			
Thallium	mg/kg	1.40E+00	5.08E-01	7.50E-01	J		YES	1.00E+00	J		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	3.61E+01				9.45E+01		YES	YES
Zinc	mg/kg	3.49E+01	2.34E+03	1.99E+02		YES		4.84E+01	J	YES	
SEMIVOLATILE ORGANIC COMPOUNDS											
1,4-Dichlorobenzene	mg/kg	NA	2.62E+01	5.00E-02	J			ND			
Benzo(a)anthracene	mg/kg	NA	8.51E-01	4.30E-02	J			ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	7.20E-02	J			ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	7.40E-02	J			ND			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	8.20E-02	J			ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	6.90E-02	J			ND			
Chrysene	mg/kg	NA	8.61E+01	5.40E-02	J			ND			
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	7.40E-02	J			ND			
Fluoranthene	mg/kg	NA	3.09E+02	ND				ND			
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	6.80E-02	J			ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	3.10E-01	B			1.20E-01	B		

Table 9-11

Detected Compounds in Fill Material Samples
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-229				PPMP-229			
			Sample Location	FA-229-SB01				FA-229-SB02			
			Sample Number	DD0017				DD0018			
			Sample Date	29-Mar-00				28-Mar-00			
			Sample Depth (Feet)	6-8				8-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
VOLATILE ORGANIC COMPOUNDS											
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	ND				ND			
1,3,5-Trimethylbenzene	mg/kg	NA	3.88E+02	ND				ND			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND			
Acetone	mg/kg	NA	7.76E+02	4.80E-01	J			3.70E-02	J		
Carbon disulfide	mg/kg	NA	7.77E+02	ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	5.20E-03	B			6.50E-03	B		
Naphthalene	mg/kg	NA	1.55E+02	ND				ND			
Toluene	mg/kg	NA	1.55E+03	ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				1.90E-03	J		
Vinyl chloride	mg/kg	NA	3.32E-01	ND				ND			
n-Butylbenzene	mg/kg	NA	7.77E+01	ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	ND				ND			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 9-12

Variances to the Site-Specific Field Sampling Plan
Fill Area Northwest of Reilly Airfield, Parcel 229(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
Soil boring location FA-229-SB01 was moved approximately 30 feet west-northwest of proposed location.	Fill material was not present at the proposed location during drilling and split spoon sampling procedures.	Moving the soil boring location provided characterization of the fill material, an accurate determination of the vertical extent of fill, and allowed the collection of the fill material for chemical analysis.

Table 10-1

Groundwater Elevations
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
PPMP-231-GP01	13-Mar-00	32.26	767.41	765.60	735.15
PPMP-231-GP02	13-Mar-00	20.38	770.91	770.57	750.53
PPMP-231-GP03	13-Mar-00	37.13	770.71	769.30	733.58
PPMP-231-GP11	13-Mar-00	38.80	774.08	773.79	735.28

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 10-2

Well Construction Summary
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Sump Interval (ft bgs)	Well Construction Material
PPMP-231-GP01	1180250.12	674902.70	765.60	767.41	39	15	23.0 - 38.0	38.0 - 38.25	2" ID PVC SCH 40
PPMP-231-GP02	1180468.27	675290.82	770.57	770.91	35	15	19.5 - 34.5	34.5 - 34.75	2" ID PVC SCH 40
PPMP-231-GP03	1180105.56	674934.89	769.30	770.71	39	15	22.75 - 37.75	37.75 - 38	2" ID PVC SCH 40
PPMP-231-GP11	1179996.19	674959.13	773.79	774.08	40	20	18.75 - 38.75	38.75 - 39	2" ID PVC SCH 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger.

Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983.

2" ID PVC Sch 40 - 2-inch inside-diameter polyvinyl chloride, Schedule 40.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

TOC - Top of casing.

Table 10-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-231-DEP01					PPMP-231-DEP02					PPMP-231-DEP03					PPMP-231-GP01					PPMP-231-GP02				
				Sample Location	PPMP-231					PPMP-231					PPMP-231					PPMP-231					PPMP-231				
				Sample Number	KT0024					KT0030					KT0031					KT0001					KT0003				
				Sample Date	10-Mar-99					25-Mar-99					25-Mar-99					25-Jan-99					1-Feb-99				
				Sample Depth (Feet)	0-1					0-0.25					0-0.3					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																													
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND					2.30E-02				YES
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND					1.70E-02				YES
Aldrin	mg/kg	NA	3.65E-02	2.50E-03	ND					ND					ND					ND					ND				
Endosulfan sulfate	mg/kg	NA	4.66E+01	3.58E-02	ND					ND					ND					ND					ND				
Endrin ketone	mg/kg	NA	2.32E-01	1.05E-02	ND					ND					ND					ND					ND				
delta-BHC	mg/kg	NA	2.33E+00	9.94E+00	ND					ND					ND					ND					ND				
METALS																													
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	9.47E+03			YES	YES	4.83E+03				YES	6.75E+03				YES	1.53E+04	J		YES	YES	6.24E+03	J			YES
Antimony	mg/kg	1.99E+00	3.11E+00	3.50E+00	ND					ND					ND					1.10E+00	J				ND				
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	7.40E+00			YES		4.80E+00			YES		3.00E+00			YES		1.45E+01		YES	YES	YES	4.70E+00	J		YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	7.77E+01					2.22E+01	J				2.51E+01					8.26E+01					5.77E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	7.80E-01					3.00E-01	J				3.00E-01	J				8.20E-01		YES			3.80E-01	J			
Cadmium	mg/kg	2.90E-01	6.25E+00	1.60E+00	ND					ND					ND					2.90E-01	J	YES			ND				
Calcium	mg/kg	1.72E+03	NA	NA	1.01E+03					4.16E+02	J				2.24E+02	J				7.11E+02					4.68E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.47E+01				YES	1.05E+01				YES	5.00E+00				YES	2.72E+01	J		YES	YES	7.90E+00	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	5.50E+00	J				2.70E+00	J				2.80E+00	J				1.01E+01					3.20E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	1.47E+01		YES			7.90E+00					2.90E+00	J				2.63E+01		YES			1.03E+01	J			
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	3.06E+04			YES	YES	1.51E+04			YES	YES	8.19E+03			YES	YES	4.47E+04		YES	YES	YES	1.08E+04	J		YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	2.75E+01					3.08E+01					7.80E+00					9.26E+01	J	YES		YES	1.51E+01	J			
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	6.92E+02					2.84E+02	J				1.94E+02	J				5.48E+02	J				1.98E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	3.81E+02			YES	YES	2.50E+02				YES	5.71E+02			YES	YES	1.07E+03			YES	YES	5.98E+02	J		YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	6.10E-02					4.60E-02	B				5.00E-02	B				1.40E-01		YES		YES	6.20E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	7.90E+00					4.40E+00	J				3.20E+00	J				9.50E+00					3.20E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	4.72E+02	J				2.58E+02	J				1.62E+02	J				5.01E+02	J				1.40E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	1.50E+00		YES		YES	4.90E-01	J	YES			5.40E-01	J	YES			3.00E-01	J				6.10E-01	J	YES		
Sodium	mg/kg	6.34E+02	NA	NA	1.04E+02	B				6.29E+01	B				2.36E+01	B				3.70E+01	B				6.29E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					ND					1.10E+00	B		YES	YES	ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	3.49E+01				YES	2.12E+01				YES	1.43E+01				YES	6.33E+01		YES	YES	YES	1.81E+01	J			YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	2.61E+01					1.48E+01					7.40E+00					3.34E+01	J				4.35E+01	J	YES		
SEMIVOLATILE ORGANIC COMPOUNDS																													
Acenaphthylene	mg/kg	8.91E-01	4.63E+02	6.82E+02	ND					ND					ND					ND					ND				
Anthracene	mg/kg	9.35E-01	2.33E+03	1.00E-01	ND					ND					ND					ND					ND				
Benzo(a)anthracene	mg/kg	1.19E+00	8.51E-01	5.21E+00	ND					ND					ND					ND					ND				
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					ND					ND					ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	ND					ND					ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					ND					ND					ND				
Benzo(k)fluoranthene	mg/kg	1.45E+00	8.51E+00	1.48E+02	ND					ND					ND					ND					ND				
Carbazole	mg/kg	NA	3.11E+01	NA	ND					ND					ND					ND					ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	ND					ND					ND					ND					ND				
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	2.00E+02	ND					ND					ND					ND					ND				
Dibenz(a,h)anthracene	mg/kg	7.20E-01	8.61E-02	1.84E+01	ND					ND					ND					ND					ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	ND					ND					ND					ND					ND				
Indeno(1,2,3-cd)pyrene	mg/kg	9.37E-01	8.51E-01	1.09E+02	ND					ND					ND					ND					ND				
Phenanthrene	mg/kg	1.08E+00	2.32E+03	1.00E-01	ND					ND					ND					ND					ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	ND					ND					ND					ND					ND				
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	ND					ND					ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																													
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND					ND					ND				
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	4.60E-03	J				ND					ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	4.90E-02	J				ND					ND					ND					6.50E-03	B			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					1.50E-03	J				ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	7.40E-03	B				4.80E-03	B				5.10E-03	B				2.20E-03	B				3.40E-03	B			
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND					ND					ND				

Table 10-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

(Page 2 of 4)

				Parcel	PPMP-231-GP03					PPMP-231-GP04					PPMP-231-GP05					PPMP-231-GP06					PPMP-231-GP07				
				Sample Location	PPMP-231					PPMP-231					PPMP-231					PPMP-231					PPMP-231				
				Sample Number	KT0005					KT0007					KT0009					KT0013					KT0016				
				Sample Date	27-Jan-99					3-Feb-99					10-Feb-99					4-Feb-99					4-Feb-99				
				Sample Depth (Feet)	0-1					0-1					0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																													
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND					ND				
Aldrin	mg/kg	NA	3.65E-02	2.50E-03	ND					ND					ND					ND					8.20E-04	J			
Endosulfan sulfate	mg/kg	NA	4.66E+01	3.58E-02	ND					ND					ND					ND					1.00E-03	J			
Endrin ketone	mg/kg	NA	2.32E-01	1.05E-02	ND					ND					ND					ND					ND				
delta-BHC	mg/kg	NA	2.33E+00	9.94E+00	ND					ND					ND					ND					ND				
METALS																													
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	3.91E+03				YES	6.23E+03	J			YES	7.74E+03				YES	9.31E+03	J		YES	YES	6.41E+03	J			YES
Antimony	mg/kg	1.99E+00	3.11E+00	3.50E+00	ND					ND					ND					ND					ND				
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	2.40E+00			YES		6.10E+00	J		YES		5.70E+00			YES		4.60E+00	J		YES		3.50E+00	J		YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	9.90E+00	J				4.14E+01	J				2.17E+01	J				8.68E+01	J				5.33E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	1.40E-01	B				4.80E-01	J				2.50E-01	J				5.40E-01	J				3.80E-01	J			
Cadmium	mg/kg	2.90E-01	6.25E+00	1.60E+00	ND					ND					ND					ND					ND				
Calcium	mg/kg	1.72E+03	NA	NA	8.94E+01	J				5.28E+02	J				5.91E+02					4.20E+02	J				2.35E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	9.20E+00				YES	1.00E+01	J			YES	1.49E+01				YES	1.18E+01	J			YES	6.00E+00	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	8.60E-01	J				4.60E+00	J				1.70E+00	J				6.00E+00	J				3.30E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	2.40E+00	J				2.18E+01	J	YES			7.30E+00					5.10E+00	J				1.31E+01	J	YES		
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	8.78E+03			YES	YES	1.84E+04	J		YES	YES	1.91E+04			YES	YES	1.27E+04	J		YES	YES	8.94E+03	J		YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	5.50E+00					8.48E+01	J	YES		YES	1.33E+01					1.96E+01	J				6.20E+01	J	YES		YES
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	1.02E+02	J				2.45E+02	J				6.59E+02					2.65E+02	J				1.62E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	8.10E+01					6.96E+02	J		YES	YES	1.69E+02				YES	1.06E+03	J		YES	YES	8.72E+02	J		YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	4.00E-02					5.30E-02					3.90E-02					5.30E-02					4.70E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	1.40E+00	B				5.70E+00	J				5.00E+00					4.90E+00	J				3.70E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	1.02E+02	B				2.52E+02	J				ND					3.59E+02	J				9.40E+01	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	ND					7.00E-01	J	YES			6.20E-01		YES			6.50E-01	J	YES			4.30E-01	J			
Sodium	mg/kg	6.34E+02	NA	NA	3.45E+01	B				6.30E+01	B				4.92E+01	B				7.27E+01	B				5.06E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					ND					ND					ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.56E+01				YES	2.44E+01	J			YES	3.21E+01				YES	2.22E+01	J			YES	1.63E+01	J			YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	5.00E+00					2.18E+01	J				1.40E+01					1.79E+01	J				9.20E+00	J			
SEMIVOLATILE ORGANIC COMPOUNDS																													
Acenaphthylene	mg/kg	8.91E-01	4.63E+02	6.82E+02	ND					ND					ND					ND					ND				
Anthracene	mg/kg	9.35E-01	2.33E+03	1.00E-01	ND					ND					ND					ND					ND				
Benzo(a)anthracene	mg/kg	1.19E+00	8.51E-01	5.21E+00	ND					ND					ND					ND					ND				
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					ND					ND					ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	ND					ND					ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					ND					ND					ND				
Benzo(k)fluoranthene	mg/kg	1.45E+00	8.51E+00	1.48E+02	ND					ND					ND					ND					ND				
Carbazole	mg/kg	NA	3.11E+01	NA	ND					ND					ND					ND					ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	ND					ND					ND					ND					ND				
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	2.00E+02	ND					6.70E-02	J				ND					1.20E-01	B				1.40E-01	B			
Dibenz(a,h)anthracene	mg/kg	7.20E-01	8.61E-02	1.84E+01	ND					ND					ND					ND					ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	ND					ND					ND					ND					ND				
Indeno(1,2,3-cd)pyrene	mg/kg	9.37E-01	8.51E-01	1.09E+02	ND					ND					ND					ND					ND				
Phenanthrene	mg/kg	1.08E+00	2.32E+03	1.00E-01	ND					ND					ND					ND					ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	ND					ND					ND					ND					ND				
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	ND					ND					5.60E-02	B				1.60E-01	B				1.70E-01	B			
VOLATILE ORGANIC COMPOUNDS																													
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND					4.10E-03	J				ND				
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					ND					3.40E-03	J				ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.40E-02	J				ND					4.90E-01	J				9.70E-02	B				9.60E-03	B			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	3.40E-03	B				3.30E-03	B				1.50E-02	B				6.50E-03	B				6.20E-03	B			
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					ND					ND					ND				

Table 10-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-231-GP08					PPMP-231-GP09					PPMP-231-GP10					PPMP-231-GP11				
				Sample Location	PPMP-231					PPMP-231					PPMP-231					PPMP-231				
				Sample Number	KT0018					KT0020					KT0021					KT0025				
				Sample Date	10-Feb-99					4-Feb-99					3-Feb-99					25-Jan-99				
				Sample Depth (Feet)	0-1					0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	1.50E-02	J			YES	ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	3.90E-02				YES	ND					ND					ND				
Aldrin	mg/kg	NA	3.65E-02	2.50E-03	ND					ND					ND					ND				
Endosulfan sulfate	mg/kg	NA	4.66E+01	3.58E-02	ND					ND					ND					ND				
Endrin ketone	mg/kg	NA	2.32E-01	1.05E-02	1.80E-03	J				ND					ND					ND				
delta-BHC	mg/kg	NA	2.33E+00	9.94E+00	2.70E-03	J				ND					ND					ND				
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	8.92E+03			YES	YES	4.83E+03	J			YES	9.02E+03	J		YES	YES	4.00E+03	J			YES
Antimony	mg/kg	1.99E+00	3.11E+00	3.50E+00	ND					ND					ND					2.80E-01	J			
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	3.20E+00			YES		4.70E+00	J		YES		5.60E+00	J		YES		6.40E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	7.19E+01					1.92E+01	J				3.65E+01	J				1.38E+01	J			
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	8.40E-01		YES			2.80E-01	B				3.70E-01	J				1.70E-01	B			
Cadmium	mg/kg	2.90E-01	6.25E+00	1.60E+00	ND					ND					ND					5.00E-02	J			
Calcium	mg/kg	1.72E+03	NA	NA	7.64E+03		YES			4.56E+02	J				2.44E+02	J				1.73E+02	J			
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.16E+01				YES	1.50E+01	J			YES	1.64E+01	J			YES	1.91E+01	J			YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	1.11E+01					4.40E+00	J				4.50E+00	J				2.60E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	1.53E+01		YES			7.00E+00	J				6.20E+00	J				4.40E+00				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	1.85E+04			YES	YES	1.67E+04	J		YES	YES	1.77E+04	J		YES	YES	1.84E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	3.20E+01					2.10E+01	J				2.38E+01	J				1.14E+01	J			
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	3.31E+03		YES			3.64E+02	J				2.36E+02	J				9.83E+01	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	5.32E+02			YES	YES	2.77E+02	J			YES	6.61E+02	J		YES	YES	1.71E+02				YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	3.90E-02					3.50E-02	J				7.50E-02					6.00E-02	J			
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	1.26E+01		YES			4.10E+00	J				4.40E+00	J				3.30E+00	J			
Potassium	mg/kg	8.00E+02	NA	NA	5.05E+02	J				2.50E+02	J				2.76E+02	J				1.65E+02	B			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	1.00E+00		YES		YES	7.20E-01	J	YES			7.50E-01	J	YES			2.90E-01	B			
Sodium	mg/kg	6.34E+02	NA	NA	8.81E+01	B				5.38E+01	B				7.19E+01	B				2.00E+01	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					ND					6.70E-01	B		YES	
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	1.84E+01				YES	2.18E+01	J			YES	2.89E+01	J			YES	3.39E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	4.10E+01		YES			1.37E+01	J				1.29E+01	J				1.10E+01	J			
SEMIVOLATILE ORGANIC COMPOUNDS																								
Acenaphthylene	mg/kg	8.91E-01	4.63E+02	6.82E+02	1.90E-01	J				ND					ND					ND				
Anthracene	mg/kg	9.35E-01	2.33E+03	1.00E-01	1.60E-01	J			YES	ND					ND					ND				
Benzo(a)anthracene	mg/kg	1.19E+00	8.51E-01	5.21E+00	1.20E-01	J				ND					ND					ND				
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	1.80E-01	J		YES	YES	ND					ND					ND				
Benzo(b)fluoranthene	mg/kg	1.66E+00	8.51E-01	5.98E+01	2.00E-01	J				ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	2.00E-01	J				ND					ND					ND				
Benzo(k)fluoranthene	mg/kg	1.45E+00	8.51E+00	1.48E+02	1.90E-01	J				ND					ND					ND				
Carbazole	mg/kg	NA	3.11E+01	NA	8.20E-02	J				ND					ND					ND				
Chrysene	mg/kg	1.40E+00	8.61E+01	4.73E+00	1.30E-01	J				ND					ND					ND				
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	2.00E+02	ND					9.70E-02	B				ND					ND				
Dibenz(a,h)anthracene	mg/kg	7.20E-01	8.61E-02	1.84E+01	6.10E-02	J				ND					ND					ND				
Fluoranthene	mg/kg	2.03E+00	3.09E+02	1.00E-01	1.60E-01	J			YES	ND					ND					ND				
Indeno(1,2,3-cd)pyrene	mg/kg	9.37E-01	8.51E-01	1.09E+02	1.50E-01	J				ND					ND					ND				
Phenanthrene	mg/kg	1.08E+00	2.32E+03	1.00E-01	5.50E-02	J				ND					ND					ND				
Pyrene	mg/kg	1.63E+00	2.33E+02	1.00E-01	1.70E-01	J			YES	ND					ND					ND				
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	4.90E-02	B				1.20E-01	B				ND					ND				
VOLATILE ORGANIC COMPOUNDS																								
1,2,4-Trimethylbenzene	mg/kg	NA	3.88E+02	1.00E-01	ND					ND					ND					ND				
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.00E-01	J				ND					2.60E-02	B				1.50E-02	J			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					4.20E-03	J				ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	1.80E-02	B				6.10E-03	B				3.90E-03	B				6.90E-03	B			
p-Cymene	mg/kg	NA	1.55E+03	NA	ND					ND					3.90E-03	J				ND				

Table 10-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 10-4

Detected Compounds in Subsurface Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-231				PPMP-231				PPMP-231				PPMP-231				PPMP-231			
			Sample Location	PPMP-231-GP01				PPMP-231-GP02				PPMP-231-GP03				PPMP-231-GP04				PPMP-231-GP05			
			Sample Number	KT0002				KT0004				KT0006				KT0008				KT0012			
			Sample Date	25-Jan-99				1-Feb-99				27-Jan-99				3-Feb-99				10-Feb-99			
			Sample Depth (Feet)	9-11				10-12				9-11				9-12				6-9			
Parameter	Units	BKG[a]	>SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES																							
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				3.50E-03				ND				ND				ND			
METALS																							
Aluminum	mg/kg	1.36E+04	7.80E+03	9.12E+03	J		YES	4.44E+03	J			7.08E+03				5.58E+03	J			6.75E+03			
Antimony	mg/kg	1.31E+00	3.11E+00	1.80E-01	J			ND				ND				ND				ND			
Arsenic	mg/kg	1.83E+01	4.26E-01	6.40E+00			YES	6.30E+00	J		YES	6.80E+00			YES	4.40E+00	J		YES	1.01E+01			YES
Barium	mg/kg	2.34E+02	5.47E+02	3.65E+01				9.40E+00	J			1.75E+01	J			1.24E+01	J			1.30E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	3.90E-01	B			3.50E-01	J			3.00E-01	J			2.80E-01	B			2.60E-01	J		
Cadmium	mg/kg	2.20E-01	6.25E+00	9.00E-02	J			ND				ND				ND				ND			
Calcium	mg/kg	6.37E+02	NA	2.10E+02	J			2.76E+01	J			3.36E+01	J			3.41E+01	J			2.84E+01	B		
Chromium	mg/kg	3.83E+01	2.32E+01	1.19E+01	J			2.94E+01	J		YES	3.06E+01			YES	1.22E+01	J			2.18E+01			
Cobalt	mg/kg	1.75E+01	4.68E+02	4.70E+00	J			5.10E+00	J			5.80E+00				1.80E+00	J			6.00E+00			
Copper	mg/kg	1.94E+01	3.13E+02	9.40E+00				5.50E+00	J			6.40E+00				4.60E+00	J			6.20E+00			
Iron	mg/kg	4.48E+04	2.34E+03	2.31E+04			YES	2.59E+04	J		YES	2.13E+04			YES	1.69E+04	J		YES	3.24E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	1.54E+01	J			1.25E+01	J			9.20E+00				7.70E+00	J			1.97E+01			
Magnesium	mg/kg	7.66E+02	NA	2.53E+02	J			7.47E+01	J			1.65E+02	J			1.01E+02	J			9.43E+01	J		
Manganese	mg/kg	1.36E+03	3.63E+02	3.82E+02			YES	1.24E+02	J			3.55E+02				1.31E+02	J			3.02E+02			
Mercury	mg/kg	7.00E-02	2.33E+00	6.00E-02	J			3.20E-02	J			5.90E-02				7.50E-02		YES		5.00E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	4.20E+00	J			3.40E+00	J			2.90E+00	J			3.10E+00	J			3.60E+00	J		
Potassium	mg/kg	7.11E+02	NA	6.68E+02				1.65E+02	J			3.06E+02	J			3.70E+02	J			1.13E+02	B		
Selenium	mg/kg	4.70E-01	3.91E+01	4.70E-01	J	YES		1.10E+00	J	YES		7.90E-01		YES		7.70E-01	J	YES		1.50E+00		YES	
Sodium	mg/kg	7.02E+02	NA	2.86E+01	B			5.69E+01	B			3.44E+01	B			5.98E+01	B			4.80E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	7.50E-01	B		YES	ND				ND				ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	3.05E+01				2.31E+01	J			2.94E+01				2.51E+01	J			5.08E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	2.50E+01	J			1.04E+01	J			1.00E+01				1.00E+01	J			1.35E+01			
SEMIVOLATILE ORGANIC COMPOUNDS																							
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	ND				ND				5.90E-02	J			ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				ND				ND				ND				4.90E-02	B		
VOLATILE ORGANIC COMPOUNDS																							
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND				4.50E-03	J		
Acetone	mg/kg	NA	7.76E+02	4.90E-01	J			1.10E-02	B			1.20E-02	J			6.50E-02	B			2.50E+00	J		
Methylene chloride	mg/kg	NA	8.41E+01	5.90E-03	B			3.30E-03	B			3.00E-03	B			3.10E-03	B			1.40E-02	B		
p-Cymene	mg/kg	NA	1.55E+03	1.20E-02				ND				ND				ND				ND			

Table 10-4

Detected Compounds in Subsurface Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-231				PPMP-231				PPMP-231				PPMP-231				PPMP-231				PPMP-231			
			Sample Location	PPMP-231-GP06				PPMP-231-GP07				PPMP-231-GP08				PPMP-231-GP09				PPMP-231-GP10				PPMP-231-GP11			
			Sample Number	KT0014				KT0017				KT0019				KT0029				KT0022				KT0026			
			Sample Date	4-Feb-99				4-Feb-99				10-Feb-99				4-Feb-99				3-Feb-99				25-Jan-99			
			Sample Depth (Feet)	9-12				9-12				9-12				4-7				9-12				10-12			
Parameter	Units	BKG[a]	>SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES																											
4,4'-DDE	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND			
4,4'-DDT	mg/kg	NA	1.79E+00	ND				ND				ND				ND				ND				ND			
METALS																											
Aluminum	mg/kg	1.36E+04	7.80E+03	6.65E+03	J			9.81E+03	J		YES	5.47E+03				6.27E+03	J			5.24E+03	J			5.14E+03	J		
Antimony	mg/kg	1.31E+00	3.11E+00	ND				ND				ND				ND				ND				4.70E-01	J		
Arsenic	mg/kg	1.83E+01	4.26E-01	4.80E+00	J		YES	8.80E+00	J		YES	6.10E+00			YES	5.10E+00	J		YES	4.60E+00	J		YES	7.60E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	1.57E+01	J			1.50E+01	J			1.22E+01	J			1.32E+01	J			1.60E+01	J			1.83E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	2.70E-01	B			5.40E-01	J			2.50E-01	J			2.10E-01	B			3.10E-01	J			2.10E-01	B		
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND				ND				ND				ND				9.00E-02	J		
Calcium	mg/kg	6.37E+02	NA	1.50E+01	J			ND				2.80E+01	B			9.60E+01	J			1.65E+01	J			8.19E+01	J		
Chromium	mg/kg	3.83E+01	2.32E+01	1.03E+01	J			1.95E+01	J			1.31E+01				9.50E+00	J			2.14E+01	J			2.34E+01	J		YES
Cobalt	mg/kg	1.75E+01	4.68E+02	2.70E+00	J			2.80E+00	J			3.80E+00	J			7.20E+00	J			1.80E+00	J			5.60E+00	J		
Copper	mg/kg	1.94E+01	3.13E+02	5.50E+00	J			1.12E+01	J			5.20E+00				4.70E+00	J			5.40E+00	J			5.30E+00			
Iron	mg/kg	4.48E+04	2.34E+03	1.85E+04	J		YES	3.56E+04	J		YES	2.19E+04			YES	1.76E+04	J		YES	1.88E+04	J		YES	2.71E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	8.90E+00	J			1.11E+01	J			9.90E+00				8.90E+00	J			6.20E+00	J			1.37E+01	J		
Magnesium	mg/kg	7.66E+02	NA	1.01E+02	J			1.23E+02	J			6.87E+01	J			1.25E+02	J			8.96E+01	J			1.04E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	1.29E+02	J			1.29E+02	J			1.98E+02				2.50E+02	J			1.09E+02	J			2.91E+02			
Mercury	mg/kg	7.00E-02	2.33E+00	5.60E-02				5.60E-02				5.80E-02				5.50E-02				3.10E-02	J			1.40E-01		YES	
Nickel	mg/kg	1.29E+01	1.54E+02	2.90E+00	J			4.90E+00	J			2.40E+00	J			2.50E+00	J			2.80E+00	J			3.10E+00	B		
Potassium	mg/kg	7.11E+02	NA	3.15E+02	J			4.10E+02	J			1.20E+02	J			1.44E+02	J			5.17E+02	J			2.06E+02	B		
Selenium	mg/kg	4.70E-01	3.91E+01	6.10E-01	J	YES		1.50E+00	J	YES		9.30E-01		YES		8.60E-01	J	YES		8.40E-01	J	YES		ND			
Sodium	mg/kg	7.02E+02	NA	6.25E+01	B			6.20E+01	B			3.80E+01	B			6.28E+01	B			5.54E+01	B			3.01E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				6.60E-01	B		YES	ND				ND				ND				6.40E-01	B		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	2.57E+01	J			4.46E+01	J			3.18E+01				2.68E+01	J			2.50E+01	J			4.69E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	1.00E+01	J			1.77E+01	J			9.90E+00				8.20E+00	J			9.50E+00	J			1.23E+01	J		
SEMIVOLATILE ORGANIC COMPOUNDS																											
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	1.20E-01	B			1.20E-01	B			ND				1.10E-01	B			ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.50E-01	B			1.50E-01	B			5.10E-02	B			1.50E-01	B			ND				ND			
VOLATILE ORGANIC COMPOUNDS																											
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND				ND				ND			
Acetone	mg/kg	NA	7.76E+02	1.00E-02	B			1.50E-02	B			5.40E-02	B			6.10E-03	B			7.80E-03	B			1.10E-02	J		
Methylene chloride	mg/kg	NA	8.41E+01	6.70E-03	B			7.00E-03	B			1.10E-02	B			6.10E-03	B			3.30E-03	B			9.00E-03	B		
p-Cymene	mg/kg	NA	1.55E+03	ND				ND				ND				ND				ND				ND			

Table 10-4

Detected Compounds in Subsurface Soil Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 10-5

Detected Compounds in Groundwater Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-231				PPMP-231				PPMP-231				PPMP-231			
			Sample Location	PPMP-231-GP01				PPMP-231-GP02				PPMP-231-GP03				PPMP-231-GP11			
			Sample Number	KT3001				KT3002				KT3005				KT3006			
			Sample Date	7-Apr-99				8-Apr-99				7-Apr-99				7-Apr-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
METALS																			
Aluminum	mg/L	2.34E+00	1.56E+00	2.96E+01		YES	YES	1.28E-01	B			4.11E-01				3.01E-02	B		
Arsenic	mg/L	1.78E-02	4.00E-05	3.03E-02		YES	YES	ND				ND				ND			
Barium	mg/L	1.27E-01	1.10E-01	1.15E-01	J		YES	6.50E-02	J			1.31E-02	J			9.30E-03	J		
Beryllium	mg/L	1.24E-03	3.12E-03	1.80E-03	J	YES		ND				ND				ND			
Calcium	mg/L	5.65E+01	NA	2.34E+00	J			1.22E+00	J			8.55E-01	B			7.67E-01	B		
Chromium	mg/L	NA	4.69E-03	5.80E-02	J		YES	ND				ND				ND			
Cobalt	mg/L	2.34E-02	9.39E-02	3.06E-02	J	YES		5.70E-03	B			ND				ND			
Copper	mg/L	2.55E-02	6.26E-02	3.41E-02		YES		ND				ND				ND			
Iron	mg/L	7.04E+00	4.69E-01	7.48E+01		YES	YES	1.19E-01	B			3.48E-01				5.36E-02	B		
Lead	mg/L	7.99E-03	1.50E-02	1.26E-01		YES	YES	ND				ND				ND			
Magnesium	mg/L	2.13E+01	NA	2.49E+00	J			4.29E-01	J			3.20E-01	B			3.48E-01	B		
Manganese	mg/L	5.81E-01	7.35E-02	1.82E+00		YES	YES	2.63E-01			YES	6.38E-02				4.92E-02			
Mercury	mg/L	NA	4.60E-04	1.30E-04	B			ND				ND				ND			
Nickel	mg/L	NA	3.13E-02	4.44E-02			YES	ND				ND				ND			
Potassium	mg/L	7.20E+00	NA	5.24E+00				ND				ND				ND			
Sodium	mg/L	1.48E+01	NA	1.02E+00	B			1.66E+00	B			3.30E+00	B			9.20E-01	B		
Thallium	mg/L	1.45E-03	1.00E-04	5.30E-03	B	YES	YES	ND				ND				ND			
Vanadium	mg/L	1.70E-02	1.10E-02	1.20E-01		YES	YES	ND				ND				ND			
Zinc	mg/L	2.20E-01	4.69E-01	1.86E-01	J			ND				ND				ND			
SEMIVOLATILE ORGANIC COMPOUNDS																			
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	3.80E-03	B			ND				1.80E-03	B			ND			
VOLATILE ORGANIC COMPOUNDS																			
Acetone	mg/L	NA	1.56E-01	1.20E-03	B			2.70E-03	B			3.60E-03	B			2.60E-03	B		
Carbon disulfide	mg/L	NA	1.51E-01	ND				ND				1.40E-04	J			ND			
Chloroform	mg/L	NA	1.15E-03	ND				ND				2.30E-04	J			ND			

Table 10-5

Detected Compounds in Groundwater Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 10-6

Groundwater, Seep, and Surface Water Field Parameters
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Location Code	Date	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
PPMP-231-GP01	7-Apr-99	0.300	4.00	292.0	21.58	>1000	na
PPMP-231-GP02	8-Apr-99	0.026	5.38	280.0	17.73	9.1	4.93
PPMP-231-GP03	7-Apr-99	0.021	6.45	385.0	21.04	1.1	4.91
PPMP-231-GP11	7-Apr-99	0.015	6.50	315.0	17.91	2.1	4.86
PPMP-231-SEP01	8-Feb-99	0.438	10.36	224.3	16.98	1.2	7.85
PPMP-231-SW/SD01	10-Mar-99	0.030	6.35	NA	10.60	33	6.05

[a]Specific conductivity units standardized to milliSiemens per centimeter.

°C- degrees Celsius.
NA - Not available.
NTU - Nephelometric turbidity unit.
ppm - Parts per million.
mS/cm - MilliSiemens per centimeter.
mV - milliVolts.
mg/L - milligrams per liter.
ORP - Oxidation-reduction potential.
SU - Standard Units.

Table 10-7

Detected Compounds in Surface Water Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-231				
				Sample Location	PPMP-231-SW/SD01				
				Sample Number	KT2004				
				Sample Date	10-Mar-99				
Parameter	**Units**	**BKG[a]**	**SSSL[b]**	**ESV[b]**	**Result**	**Qual**	**>BKG**	**>SSSL**	**>ESV**
METALS									
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	3.44E-01				YES
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	7.00E-03	J			YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	2.47E-01	J			
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	2.63E-01				
Magnesium	mg/L	1.10E+01	NA	8.20E+01	1.84E-01	J			
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	4.21E-02				
Sodium	mg/L	3.44E+00	NA	6.80E+02	1.08E+00	B			
VOLATILE ORGANIC COMPOUNDS									
Acetone	mg/L	NA	1.57E+00	7.80E+01	2.50E-03	J			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

Qual - Data validation qualifier.

Table 10-8

Detected Compounds in Sediment Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-231				
				Sample Location	PPMP-231-SW/SD01				
				Sample Number	KT1001				
				Sample Date	10-Mar-99				
				Sample Depth (Feet)	0-1.0				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV
METALS									
Aluminum	mg/kg	8.59E+03	1.15E+06	1.15E+06	3.81E+03				
Arsenic	mg/kg	1.13E+01	5.58E+01	5.58E+01	3.70E+00				
Barium	mg/kg	9.89E+01	8.36E+04	8.36E+04	8.40E+00	J			
Beryllium	mg/kg	9.70E-01	1.50E+02	1.50E+02	1.30E-01	J			
Calcium	mg/kg	1.11E+03	NA	NA	1.98E+01	B			
Chromium	mg/kg	3.12E+01	2.79E+03	2.79E+03	1.20E+01				
Cobalt	mg/kg	1.10E+01	6.72E+04	6.72E+04	1.30E+00	J			
Copper	mg/kg	1.71E+01	4.74E+04	4.74E+04	1.70E+00	J			
Iron	mg/kg	3.53E+04	3.59E+05	3.59E+05	1.07E+04				
Lead	mg/kg	3.78E+01	4.00E+02	4.00E+02	4.20E+00				
Magnesium	mg/kg	9.06E+02	NA	NA	4.47E+01	J			
Manganese	mg/kg	7.12E+02	4.38E+04	4.38E+04	1.51E+02				
Mercury	mg/kg	1.10E-01	2.99E+02	2.99E+02	4.20E-02	B			
Selenium	mg/kg	7.20E-01	5.96E+03	5.96E+03	5.10E-01	J			
Sodium	mg/kg	6.92E+02	NA	NA	8.65E+01	B			
Vanadium	mg/kg	4.09E+01	4.83E+03	4.83E+03	2.23E+01				
Zinc	mg/kg	5.27E+01	3.44E+05	3.44E+05	2.60E+00				
TOTAL ORGANIC CARBON									
Total Organic Carbon	mg/kg	NA	NA	NA	4.71E+02				
VOLATILE ORGANIC COMPOUNDS									
Methylene chloride	mg/kg	NA	9.84E+03	9.84E+03	4.60E-03	B			

Table 10-8

Detected Compounds in Sediment Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

Qual - Data validation qualifier.

Table 10-9

Detected Compounds in Seep Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-231				
				Sample Location	PPMP-231-SEP01				
				Sample Number	KT2001				
				Sample Date	8-Feb-99				
Parameter	**Units**	**BKG[a]**	**SSSL[b]**	**ESV[b]**	**Result**	**Qual**	**>BKG**	**>SSSL**	**>ESV**
METALS									
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	4.26E-01				YES
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	8.52E-02	J	YES		YES
Calcium	mg/L	2.52E+01	NA	1.16E+02	6.25E+01		YES		
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	7.12E-01				
Lead	mg/L	8.60E-03	1.50E-02	1.32E-03	3.20E-03				YES
Magnesium	mg/L	1.10E+01	NA	8.20E+01	1.74E+01		YES		
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	2.77E-02				
Potassium	mg/L	2.56E+00	NA	5.30E+01	1.09E+00	J			
Sodium	mg/L	3.44E+00	NA	6.80E+02	9.79E-01	B			
SEMIVOLATILE ORGANIC COMPOUNDS									
bis(2-Ethylhexyl)phthalate	mg/L	NA	5.17E-02	3.00E-04	3.00E-03	B			YES

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

Qual - Data validation qualifier.

Table 10-10

Summary of Trenching Information
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Fill Material Encountered in Trench	Description of Fill Material
T231-1	50 ft	3 ft	3 ft/6 ft bgs northwest end to 1 ft southeast end	0 to 15 ft Fill, 15 to 20 ft Native, 20 to 40 ft Fill, and 40 to 50 ft Native NW/SE view	Light brown silt, some clay, cobbles, concrete chunks, steel pipe, pieces of coal, glass, red bricks, ceramic pieces, tree limbs, leaves, and pine needles.
T231-2	35 ft	3 ft	8 ft/8 ft bgs	0 to 20 ft Fill and 20 to 35 ft Native SW/NE view	Light brown clay with sand, some silt, roots, concrete chunks, sardine can, and cobbles.
T231-3	50 ft	3 ft	No Fill Material encountered/6 ft bgs	0 to 50 ft Native SE/NW view	Fill Material not encountered.
T231-4	50 ft	3 ft	2 ft/2.5 ft bgs	0 to 50 ft Fill SE/NW view	Red-orange sand and silt, some limestone, concrete chunks, metal straps, plastic oil containers, metal corrugated pipe, styrofoam, a beer can, plastic sheeting, and plastic food container.
T231-5	50 ft	3 ft	4 ft/4.5 ft bgs	0 to 35 ft Fill and 35 to 50 ft Native E/W view	Red-orange sand and silt, some clay, concrete chunks, metal wrapped wire, metal straps, tree limbs, pine needles, and leaves.
T231-6	50 ft	3 ft	5 ft/5.5 ft bgs	0 to 50 ft Fill E/W view	Light brown silt, some clay, some gravel, roots, piping, pieces of carpet, plastic trash bags, red bricks, and a beer can.

ft - Feet.
bgs - Below ground surface.
E/W – East/west.
N/S – North/south.
NW/SE – Northwest/southeast.
S/N – South/north.
SE/NW – Southeast/northwest.
SW/NE – Southwest/northeast.
W/E – West/east.

Table 10-11

Summary of Fill Material Borings
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-231-SB01	0-4 ft bgs	4 ft/6 ft bgs	Yellow-orange clay and rounded 1-2" diameter quartz gravel, some greenish gray shale (highly weathered), pieces of coal, and trace of ash.	2-4 ft bgs
FA-231-SB02	0-2 ft bgs	2 ft/6 ft bgs	Various colored brown to yellowish-orange clay, trace silt, some rounded and angular 1-2" diameter gravel.	0-2 ft bgs

ft - Feet.
bgs - Below ground surface.

Table 10-12

Detected Compounds in Fill Material Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-231				PPMP-231			
			Sample Location	FA-231-SB01				FA-231-SB02			
			Sample Number	DD0021				DD0022			
			Sample Date	30-Mar-00				30-Mar-00			
			Sample Depth (Feet)	2-4				0-2			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES											
4,4'-DDE	mg/kg	NA	1.79E+00	8.10E-04	J			1.00E-03	J		
4,4'-DDT	mg/kg	NA	1.79E+00	6.60E-04	J			3.10E-03			
METALS											
Aluminum	mg/kg	1.36E+04	7.80E+03	1.08E+04			YES	1.00E+04			YES
Antimony	mg/kg	1.31E+00	3.11E+00	ND				ND			
Arsenic	mg/kg	1.83E+01	4.26E-01	6.70E+00			YES	6.20E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	8.70E+01				8.16E+01			
Beryllium	mg/kg	8.60E-01	9.60E+00	6.50E-01				7.00E-01			
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND			
Calcium	mg/kg	6.37E+02	NA	8.93E+03		YES		8.46E+03	J	YES	
Chromium	mg/kg	3.83E+01	2.32E+01	1.38E+01				1.30E+01			
Cobalt	mg/kg	1.75E+01	4.68E+02	5.30E+00	J			7.20E+00			
Copper	mg/kg	1.94E+01	3.13E+02	2.53E+01		YES		2.45E+01		YES	
Iron	mg/kg	4.48E+04	2.34E+03	2.68E+04			YES	2.19E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	1.64E+01				3.94E+01		YES	
Magnesium	mg/kg	7.66E+02	NA	1.25E+03		YES		5.14E+03	J	YES	
Manganese	mg/kg	1.36E+03	3.63E+02	1.13E+02				5.97E+02			YES
Mercury	mg/kg	7.00E-02	2.33E+00	2.30E-02	J			5.50E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	1.22E+01				1.57E+01		YES	
Potassium	mg/kg	7.11E+02	NA	4.66E+02	J			3.32E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND			
Sodium	mg/kg	7.02E+02	NA	ND				ND			
Thallium	mg/kg	1.40E+00	5.08E-01	7.80E-01	J		YES	7.80E-01	J		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	3.01E+01				2.20E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	3.64E+01		YES		5.19E+01		YES	
SEMIVOLATILE ORGANIC COMPOUNDS											
Di-n-butyl phthalate	mg/kg	NA	7.80E+02	ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	8.50E-02	B			9.10E-02	B		
VOLATILE ORGANIC COMPOUNDS											
2-Butanone	mg/kg	NA	4.66E+03	ND				ND			
Acetone	mg/kg	NA	7.76E+02	ND				2.80E-01	J		
Methylene chloride	mg/kg	NA	8.41E+01	3.20E-03	B			3.10E-03	B		
p-Cymene	mg/kg	NA	1.55E+03	ND				ND			

Table 10-12

Detected Compounds in Fill Material Samples
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 10-13

Variances to the Site-Specific Field Sampling Plan
Fill Area at Range 30, Parcel 231(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
Sample location PPMP-231-GP01 was moved approximately 70 feet southwest of its proposed location.	Fill material and construction debris was encountered during drilling operations.	The temporary well was moved so that the integrity of the well screen and filter pack was not jeopardized.
Sample location FTA-151-GP07 was renamed PPMP-231-GP11 and advanced at Range 30.	The sample location could not be advanced at Parcel 151(7), so it was moved to a separate parcel to satisfy data quality objectives.	The sample location could be advanced at Range 30, satisfying data quality objectives.
Soil boring location for FA-231-SB01 was moved approximately 50 feet north of the proposed location.	Fill material was not present at the proposed location during drilling and split spoon sampling procedures.	Moving the soil boring location provided characterization of the fill material, an accurate determination of the vertical extent of fill, and allowed the collection of the fill material for chemical analysis.
Soil boring location FA-231-SB02 was moved approximately 15 feet southeast of its proposed location.	Fill material was not present at the proposed location during drilling and split spoon sampling procedures.	Relocating the soil boring provided an accurate characterization of the fill material, the vertical extent of the fill was determined, and soil samples were successfully collected from the fill material for chemical analysis.
A seep water sample was not collected at sample location PPMP-231-SEP02.	Seep water was not collected at this location because seep water was not present; therefore, a depositional sample (PPMP-231-DEP02) was collected.	A depositional soil sample was collected to determine the presence or absence of contamination; therefore, the variance does not alter the scope or intent of the investigations.

Table 11-1

Groundwater Elevations
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
PPMP-233-GP04	14-Jul-00	69.9	829.54	827.06	759.64

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 11-2

Well Construction Summary
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Well Construction Material
PPMP-233-GP03	1165091.23	664302.44	826.00	828.31	78.0	20	57.7 - 77.7	2" ID PVC SCH 40
PPMP-233-GP04	1165184.79	664160.21	827.06	829.54	79.0	20	57.0 - 77.0	2" ID PVC SCH 40
PPMP-233-GP05	1164930.11	664258.95	830.68	833.23	69.0	30	39.0 - 69.0	2" ID PVC SCH 40
PPMP-233-GP06	1164777.03	664175.11	841.05	843.51	81.1	20	60.8 - 80.8	2" ID PVC SCH 40

Wells were installed using a 4.25-inch inside-diameter hollow-stem auger
Elevations were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum, 1983 (NAD83).
2" ID PVC Sch 40 - 2-inch inside-diameter polyvinyl chloride, Schedule 40
bgs - below ground surface
ft - feet
msl - mean sea level
TOC - top of casing

Table 11-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-233					PPMP-233					PPMP-233					PPMP-233				
				Sample Location	PPMP-233-DEP01					PPMP-233-GP01					PPMP-233-GP02					PPMP-233-GP03				
				Sample Number	KZ0015					KZ0001					KZ0005					KZ0007				
				Sample Date	2-Jun-00					8-Feb-00					21-Feb-00					21-Feb-00				
				Sample Depth (Feet)	0-1					0-1					0-2					0-2				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	8.29E+03			YES	YES	8.35E+03			YES	YES	1.22E+04	J		YES	YES	1.14E+04	J		YES	YES
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	5.71E+01					7.63E+01					1.44E+02	J	YES			1.45E+02	J	YES		
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	7.70E-01					5.40E-01	J				1.70E+00	J	YES		YES	1.50E+00	J	YES		YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	1.09E+01					7.90E+00					3.05E+01	J	YES		YES	2.56E+01	J	YES		YES
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	3.21E+04			YES	YES	1.31E+04			YES	YES	2.07E+04	J		YES	YES	2.86E+04	J		YES	YES
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	5.59E+02			YES	YES	7.84E+02			YES	YES	3.82E+03	J	YES	YES	YES	3.38E+03	J	YES	YES	YES

Table 11-3

Detected Compounds in Surface and Depositional Soil Samples
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	PPMP-233					PPMP-233					PPMP-233				
				Sample Location	PPMP-233-GP04					PPMP-233-GP05					PPMP-233-GP06				
				Sample Number	KZ0009					KZ0011					KZ0013				
				Sample Date	22-Feb-00					8-Feb-00					23-Feb-00				
				Sample Depth (Feet)	0-2					0-1					0-2				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																			
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	1.08E+04	J		YES	YES	1.23E+04			YES	YES	7.61E+03	J			YES
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	1.49E+02	J	YES			5.43E+01					1.82E+03	J	YES	YES	YES
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	1.30E+00	J	YES		YES	9.20E-01		YES			1.60E+00	J	YES		YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	1.52E+01	J	YES			1.91E+01		YES			1.20E+02	J	YES		YES
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	2.23E+04	J		YES	YES	2.94E+04			YES	YES	2.85E+04	J		YES	YES
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.34E+03	J	YES	YES	YES	1.16E+03			YES	YES	9.07E+03	J	YES	YES	YES

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

Qual - Data validation qualifier.

Table 11-4

Detected Compounds in Subsurface Soil Samples
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-233				PPMP-233				PPMP-233				PPMP-233			
			Sample Location	PPMP-233-GP01				PPMP-233-GP02				PPMP-233-GP03				PPMP-233-GP04			
			Sample Number	KZ0004				KZ0006				KZ0008				KZ0010			
			Sample Date	8-Feb-00				21-Feb-00				21-Feb-00				22-Feb-00			
			Sample Depth (Feet)	10-12				10-12				10-12				10-12			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
SUBSURFACE SOILS																			
METALS																			
Aluminum	mg/kg	1.36E+04	7.80E+03	6.04E+03				4.03E+03	J			4.34E+03	J			1.22E+04	J		YES
Arsenic	mg/kg	1.83E+01	4.26E-01	1.34E+01			YES	1.01E+01	J		YES	7.90E+00	J		YES	5.80E+00	J		YES
Barium	mg/kg	2.34E+02	5.47E+02	2.07E+01	J			5.33E+01	J			1.06E+03	J	YES	YES	3.55E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	1.10E+00		YES		1.80E+00	J	YES		4.60E+00	J	YES		6.60E-01	B		
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND				1.20E+00	J	YES		ND			
Calcium	mg/kg	6.37E+02	NA	3.43E+01	B			2.65E+01	B			4.11E+01	B			2.68E+01	B		
Chromium	mg/kg	3.83E+01	2.32E+01	1.70E+01	J			7.10E+00	J			9.10E+00	J			2.50E+01	J		YES
Cobalt	mg/kg	1.75E+01	4.68E+02	5.50E+00	J			4.22E+01	J	YES		1.13E+02	J	YES		2.06E+01	J	YES	
Copper	mg/kg	1.94E+01	3.13E+02	1.96E+01	J	YES		2.41E+01	J	YES		2.09E+01	J	YES		3.22E+01	J	YES	
Iron	mg/kg	4.48E+04	2.34E+03	2.79E+04			YES	3.02E+04	J		YES	7.98E+04	J	YES	YES	4.56E+04	J	YES	YES
Lead	mg/kg	3.85E+01	4.00E+02	1.68E+01				2.47E+01	J			1.11E+01	J			1.80E+01	J		
Magnesium	mg/kg	7.66E+02	NA	2.10E+02	J			1.28E+02	J			1.04E+02	J			1.97E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	2.65E+02				1.24E+03	J		YES	2.02E+04	J	YES	YES	3.34E+02	J		
Mercury	mg/kg	7.00E-02	2.33E+00	2.40E-02	J			4.80E-02				8.80E-02		YES		5.10E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	1.86E+01		YES		3.00E+01	J	YES		8.35E+01	J	YES		9.50E+00	J		
Potassium	mg/kg	7.11E+02	NA	4.08E+02	J			6.07E+02	J			1.76E+03	J	YES		6.02E+02	J		
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND				5.00E-01	J	YES		ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				3.90E-01	J	YES		ND			
Thallium	mg/kg	1.40E+00	5.08E-01	7.70E-01	J		YES	8.40E-01	B		YES	ND				9.60E-01	B		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	2.76E+01				1.67E+01	J			1.37E+01	J			4.40E+01	J		
Zinc	mg/kg	3.49E+01	2.34E+03	1.37E+02		YES		9.66E+01	J	YES		1.48E+02	J	YES		2.59E+01	J		
SEMIVOLATILE ORGANIC COMPOUNDS																			
Di-n-octyl phthalate	mg/kg	NA	1.56E+02	ND				ND				ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				6.00E-02	B			5.00E-02	B			1.20E-01	B		
VOLATILE ORGANIC COMPOUNDS																			
1,1,1-Trichloroethane	mg/kg	NA	1.55E+03	1.10E-03	J			8.80E-04	J			ND				ND			
Acetone	mg/kg	NA	7.76E+02	1.00E-01	R			1.50E-02	J			ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	3.00E-03	B			5.80E-03	B			5.40E-03	B			4.00E-03	B		
Trichlorofluoromethane	mg/kg	NA	2.33E+03	3.00E-03	J			ND				ND				ND			

Table 11-4

Detected Compounds in Subsurface Soil Samples
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-233				PPMP-233			
			Sample Location	PPMP-233-GP05				PPMP-233-GP06			
			Sample Number	KZ0012				KZ0014			
			Sample Date	8-Feb-00				24-Feb-00			
			Sample Depth (Feet)	10-12				8-10			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	BK	>SSSL	Result	Qual	>BKG	>SSSL
SUBSURFACE SOILS											
METALS											
Aluminum	mg/kg	1.36E+04	7.80E+03	3.33E+03				8.10E+03	J		YES
Arsenic	mg/kg	1.83E+01	4.26E-01	7.40E+00			YES	1.04E+01	J		YES
Barium	mg/kg	2.34E+02	5.47E+02	2.08E+01	J			5.58E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	3.20E+00		YES		8.20E-01	J		
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND			
Calcium	mg/kg	6.37E+02	NA	1.45E+01	B			6.97E+01	J		
Chromium	mg/kg	3.83E+01	2.32E+01	9.70E+00	J			2.32E+01	J		YES
Cobalt	mg/kg	1.75E+01	4.68E+02	1.09E+01				1.53E+01	J		
Copper	mg/kg	1.94E+01	3.13E+02	2.99E+01	J	YES		2.99E+01	J	YES	
Iron	mg/kg	4.48E+04	2.34E+03	3.76E+04			YES	3.63E+04	J		YES
Lead	mg/kg	3.85E+01	4.00E+02	1.15E+01				1.45E+01	J		
Magnesium	mg/kg	7.66E+02	NA	2.22E+02	J			3.12E+02	J		
Manganese	mg/kg	1.36E+03	3.63E+02	3.65E+02			YES	6.94E+02	J		YES
Mercury	mg/kg	7.00E-02	2.33E+00	4.30E-02				4.20E-02			
Nickel	mg/kg	1.29E+01	1.54E+02	3.91E+01		YES		1.66E+01	J	YES	
Potassium	mg/kg	7.11E+02	NA	9.87E+02		YES		1.33E+03	J	YES	
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND			
Thallium	mg/kg	1.40E+00	5.08E-01	8.30E-01	J		YES	8.50E-01	B		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	1.58E+01				3.27E+01	J		
Zinc	mg/kg	3.49E+01	2.34E+03	1.27E+02		YES		3.62E+01	J	YES	
SEMIVOLATILE ORGANIC COMPOUNDS											
Di-n-octyl phthalate	mg/kg	NA	1.56E+02	ND				1.90E-01	J		
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				5.80E-01	B		
VOLATILE ORGANIC COMPOUNDS											
1,1,1-Trichloroethane	mg/kg	NA	1.55E+03	1.40E-03	J			8.40E-04	J		
Acetone	mg/kg	NA	7.76E+02	ND				7.80E-03	B		
Methylene chloride	mg/kg	NA	8.41E+01	3.90E-03	B			5.60E-03	B		
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND			

Table 11-4

Detected Compounds in Subsurface Soil Samples
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
R - Data rejected during data validation process.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 11-5

Detected Compounds in Groundwater Samples
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	PPMP-233			
			Sample Location	PPMP-233-GP04			
			Sample Number	KZ3004			
			Sample Date	14-Jul-00			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL
PESTICIDES							
4,4'-DDD	mg/L	NA	1.80E-04	7.40E-05	J		
Aldrin	mg/L	NA	0.00E+00	3.40E-05	J		YES
Endosulfan II	mg/L	NA	9.35E-03	1.60E-05	J		
delta-BHC	mg/L	NA	4.40E-04	3.30E-05	J		
METALS							
Aluminum	mg/L	2.34E+00	1.56E+00	4.46E-01	B		
Barium	mg/L	1.27E-01	1.10E-01	1.30E-02	J		
Calcium	mg/L	5.65E+01	NA	7.16E-01	J		
Chromium	mg/L	NA	4.69E-03	1.30E-01	J		YES
Cobalt	mg/L	2.34E-02	9.39E-02	1.07E-02	J		
Iron	mg/L	7.04E+00	4.69E-01	2.09E+00	J		YES
Magnesium	mg/L	2.13E+01	NA	2.74E-01	B		
Manganese	mg/L	5.81E-01	7.35E-02	1.91E-01			YES
Mercury	mg/L	NA	4.60E-04	9.90E-05	B		
Nickel	mg/L	NA	3.13E-02	7.04E-02	J		YES
Potassium	mg/L	7.20E+00	NA	1.22E+00	J		
Sodium	mg/L	1.48E+01	NA	1.75E+00	J		
Zinc	mg/L	2.20E-01	4.69E-01	1.52E-02	J		

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

Qual - Data validation qualifier.

Table 11-6

Groundwater Field Parameters
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

Location Code	Date	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
PPMP-233-GP04	14-Jul-00	0.016	NA	165	18.3	9.7	4.43

Specific conductivity units standardized to milliSiemens per centimeter.

°C - Degrees Celsius.
GW - Groundwater.
mS/cm- MilliSiemens per centimeter.
mV- Millivolts.
NTU - Nephelometric turbidity unit.
mg/L - Milligrams per liter.
SU - Standard units.
NA - Not available.

Table 11-7

Summary of Trenching Information
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)

Trench Designation	Length of Trench	Width of Trench	Depth of Fill/ Depth of Trench	Horizontal Extent of Material Encountered in Trench	Description of Fill Material
T233-1A	50 ft	3 ft	No fill material encountered/ 3 to 5 ft bgs	0 to 50 ft Native	No fill material encountered.
T233-1B	30 ft	3 ft	No fill material encountered/ 3 to 6 ft bgs	0 to 30 ft Native	No fill material encountered.

ft - Feet.
bgs - Below ground surface.

Table 11-8

Variances to the Site-Specific Field Sampling Plan
Fill Area West of Iron Mountain Road and Range 19, Parcel 233(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
The Engineering Evaluation Cost Assessment Fill Area Definition Work Plan proposed four exploratory trenches, but based on the results of the surface geophysical survey only two exploratory trenches were dug at the fill area.	Geophysical data analysis indicated that the site contains neither buried metal nor evidence of any fill material, therefore, a decision was made to trench parallel and perpendicular to the elevated conductivity area.	The trench was dug to determine if fill material exists and to characterize the fill material if present. The variance does not alter the scope or intent of the investigations.
Soil boring FA-233-SB01 was eliminated in order to collect additional soil samples during the field investigation conducted during the site investigation (SI) from soil boring PPMP-233-GP05.	The SI Work Plan proposed sample location PPMP-233-GP05 at the same approximate location and with identical laboratory analytical methods.	Soil samples were collected from soil boring PPMP-233-GP05, and therefore the variance will not alter the scope or intent of the investigations.
Groundwater samples were not collected from PPMP-233-GP03, PPMP-233-GP05, or PPMP-233-GP06.	Groundwater was encountered during drilling activities, but not present during groundwater sampling activities.	Several attempts were made to collect a groundwater sample from each well, but all attempts have been unsuccessful because the three wells are dry.

Table 12-1

Groundwater Elevations
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Measurement Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft msl)	Ground Elevation (ft msl)	Groundwater Elevation (ft msl)
FTA-82-MW01	13-Mar-00	42.90	909.76	907.26	866.86
FTA-82-MW02	13-Mar-00	48.70	934.59	932.10	885.89
FTA-82-MW03	13-Mar-00	36.27	976.23	973.66	939.96
FTA-82-MW04	13-Mar-00	91.81	1015.38	1012.81	923.57
FTA-82-MW05	13-Mar-00	71.29	1051.46	1049.14	980.17
FTA-82-MW06	13-Mar-00	88.88	1067.13	1064.19	978.25
FTA-82-MW07	13-Mar-00	68.47	1038.51	1035.73	970.04
FTA-82-MW08	13-Mar-00	29.53	915.86	914.48	886.33

Elevations referenced to the North American Vertical Datum of 1988.

BTOC - Below top of casing.

ft - Feet.

msl - Mean sea level.

Table 12-2

Well Construction Summary
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Well Location	Northing	Easting	Ground Elevation (ft msl)	TOC Elevation (ft msl)	Total Depth (ft bgs)	Screen Length (ft bgs)	Screen Interval (ft bgs)	Sump Interval (ft bgs)	Well Construction Material
FTA-82-MW01	1170705.27	677170.47	907.26	909.76	54.50	10.00	44.5 - 54.5	NA	4" ID PVC SCH 40
FTA-82-MW02	1170193.68	677552.22	932.10	934.59	67.00	10.00	51.0 - 61.0	6.0	4" ID PVC SCH 40
FTA-82-MW03	1170575.25	678209.94	973.66	976.23	52.00	15.00	34.0 - 49.0	3.0	4" ID PVC SCH 40
FTA-82-MW04	1171081.09	678253.20	1012.81	1015.38	126.00	20.00	106.0 - 126.0	NA	4" ID PVC SCH 40
FTA-82-MW05	1171236.50	677806.44	1049.14	1051.46	80.50	10.00	70.5 - 80.5	NA	4" ID PVC SCH 40
FTA-82-MW06	1171087.92	677795.62	1064.19	1067.13	166.00	20.00	141.0 - 161.0	5.0	4" ID PVC SCH 40
FTA-82-MW07	1170850.96	677755.90	1035.73	1038.51	113.00	15.00	95.0 - 110.0	3.0	4" ID PVC SCH 40
FTA-82-MW08	1170891.42	677221.99	914.48	915.86	46.00	10.00	33.0 - 43.0	3.0	4" ID PVC SCH 40

All wells installed with an auger drill using a 6.25-inch hollow-stem auger and/or air rotary drill rig.

Horizontal coordinates were referenced to the U.S. State Plane Coordinate System, Alabama East Zone, North American Datum of 1983.

Elevations were referenced to the North American Vertical Datum of 1988.

4" ID PVC Sch. 40 - 4-inch inside-diameter polyvinyl chloride Schedule 40.

bgs - Below ground surface.

ft - Feet.

msl - Mean sea level.

NA - Not applicable.

TOC - Top of casing.

Table 12-3

Detected Compounds in Surface and Depositional Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	FTA-82					FTA-82					FTA-82					FTA-82					FTA-82				
				Sample Location	FTA-82-MW01					FTA-82-MW02					FTA-82-MW03					FTA-82-MW04					FTA-82-MW05				
				Sample Number	FX0001					FX0003					FX0005					FX0009					FX0011				
				Sample Date	10-Nov-98					12-Nov-98					1-Dec-98					16-Nov-98					16-Nov-98				
				Sample Depth (Feet)	0-1					0-1					0-1					0-2					0-2				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																													
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					2.20E-03	J				ND					ND				
Heptachlor	mg/kg	NA	1.40E-01	1.00E-01	ND					ND					2.30E-03	J				ND					ND				
delta-BHC	mg/kg	NA	2.33E+00	9.94E+00	ND					ND					8.10E-04	J				ND					ND				
METALS																													
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	1.11E+04			YES	YES	1.76E+04		YES	YES	YES	3.47E+03	J			YES	2.27E+03				YES	2.78E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	4.70E+00			YES		6.70E+00			YES		3.90E+00			YES		2.60E+00			YES		5.20E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	6.33E+01					5.21E+01					9.96E+01	J				5.13E+01					1.42E+02		YES		
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	ND					ND					5.60E-01	J				ND					ND				
Calcium	mg/kg	1.72E+03	NA	NA	ND					ND					5.14E+03	J	YES			ND					ND				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	2.32E+01			YES	YES	2.16E+01				YES	1.21E+01				YES	2.76E+01			YES	YES	9.90E+00				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	2.73E+01		YES		YES	1.90E+01		YES			3.90E+00	J				ND					8.20E+00				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	2.66E+01	J	YES			7.90E+00	J				1.07E+01					9.10E+00	J				9.70E+00	J			
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	2.30E+04			YES	YES	2.76E+04			YES	YES	2.00E+04			YES	YES	1.36E+04			YES	YES	2.59E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.27E+01					1.89E+01					1.24E+01	J				9.00E+00					1.11E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	7.68E+02					ND					1.21E+03	J	YES			ND					ND				
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	3.24E+02				YES	5.07E+02			YES	YES	5.91E+02			YES	YES	2.28E+02				YES	8.49E+02			YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	5.10E-02					2.10E-01		YES		YES	1.60E-02	J				ND					ND				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	9.40E+00					7.80E+00					6.60E+00					5.80E+00					6.50E+00				
Potassium	mg/kg	8.00E+02	NA	NA	7.03E+02					ND					6.23E+02					6.02E+02					ND				
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	6.60E-01		YES			ND					ND					ND					6.80E-01		YES		
Silver	mg/kg	3.60E-01	3.91E+01	2.00E+00	ND					ND					1.10E+00		YES			ND					ND				
Sodium	mg/kg	6.34E+02	NA	NA	ND					ND					9.23E+01	B				ND					ND				
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					7.40E-01	J		YES		ND					ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	2.03E+01				YES	3.18E+01				YES	6.60E+00				YES	ND					7.30E+00	B			YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	1.97E+01	J				1.63E+01	J				2.43E+01					1.02E+01	J				1.88E+01	J			
SEMIVOLATILE ORGANIC COMPOUNDS																													
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					4.00E-02	J				ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					6.30E-02	J				ND					ND				
Phenol	mg/kg	NA	4.66E+03	5.00E-02	ND					ND					ND					ND					ND				
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	ND					ND					ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																													
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					8.30E-03	B				ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	2.20E-02	B				3.30E-01	J				7.00E-03	J				8.30E-03	J				1.20E-02	J			
Bromomethane	mg/kg	NA	1.09E+01	NA	1.40E-03	J				ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	7.10E-03	B				3.20E-03	B				3.00E-03	B				3.30E-03	B				3.20E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND					1.80E-03	B				ND				
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	ND					ND					ND					6.60E-03	B			YES	5.10E-03	B			YES
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					ND					ND					ND				

Table 12-3

Detected Compounds in Surface and Depositional Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	FTA-82					FTA-82					FTA-82					FTA-82					FTA-82				
				Sample Location	FTA-82-MW06					FTA-82-MW07					FTA-82-MW08					FTA-82-DEP01					FTA-82-DEP02				
				Sample Number	FX0013					FX0015					FX0019					FX0021					FX0022				
				Sample Date	9-Dec-98					9-Dec-98					1-Dec-98					12-Nov-98					12-Nov-98				
				Sample Depth (Feet)	0-1					0-1					0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																													
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	1.10E-03	J				ND					ND					ND					2.50E-03				YES
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	8.60E-04	J				ND					ND					ND					ND				
Heptachlor	mg/kg	NA	1.40E-01	1.00E-01	ND					ND					ND					ND					ND				
delta-BHC	mg/kg	NA	2.33E+00	9.94E+00	ND					ND					ND					ND					ND				
METALS																													
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	4.66E+03				YES	5.48E+03				YES	1.10E+04			YES	YES	9.61E+03			YES	YES	6.92E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	2.70E+00			YES		4.00E+00			YES		5.20E+00			YES		4.10E+00			YES		3.90E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	5.76E+01					1.83E+01	J				2.63E+02	J	YES		YES	7.19E+01					6.48E+01				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	3.10E-01	J				6.60E-01					1.50E+00		YES		YES	8.80E-01		YES			ND				
Calcium	mg/kg	1.72E+03	NA	NA	4.03E+02	J				5.69E+01	B				6.19E+02	J				ND					ND				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	1.11E+01				YES	2.10E+01				YES	2.65E+01			YES	YES	2.61E+01			YES	YES	3.60E+01			YES	YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	2.70E+00	J				4.10E+00	J				3.19E+01		YES		YES	1.12E+01					1.12E+01				
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	3.70E+00					1.79E+01		YES			1.54E+01		YES			4.41E+01	J	YES		YES	4.40E+00	J			
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	9.24E+03			YES	YES	2.75E+04			YES	YES	2.54E+04			YES	YES	3.38E+04			YES	YES	1.42E+04			YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	7.80E+00					4.00E+00					4.10E+01	J	YES			1.18E+01					2.63E+01				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	1.45E+02	J				1.36E+02	J				5.55E+02	J				1.04E+03		YES			ND				
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	2.55E+02				YES	4.41E+01					3.00E+03		YES	YES	YES	1.46E+02				YES	1.45E+03			YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	2.50E-02	J				ND					6.40E-02					ND					7.70E-02				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	7.90E+00					5.60E+00					1.95E+01		YES			1.21E+01		YES			ND				
Potassium	mg/kg	8.00E+02	NA	NA	1.40E+02	J				1.24E+03		YES			4.54E+02	J				1.35E+03		YES			ND				
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	ND					ND					7.10E-01		YES			ND					ND				
Silver	mg/kg	3.60E-01	3.91E+01	2.00E+00	ND					9.20E-01	J	YES			ND					ND					ND				
Sodium	mg/kg	6.34E+02	NA	NA	2.90E+01	B				4.12E+01	B				8.71E+01	B				ND					ND				
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					1.30E+00			YES	YES	ND					ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	7.50E+00				YES	1.71E+01				YES	2.12E+01				YES	1.50E+01				YES	2.02E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	9.30E+00					1.39E+01					3.53E+01					3.24E+01	J				1.67E+01	J			
SEMIVOLATILE ORGANIC COMPOUNDS																													
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					ND					ND					ND				
Phenol	mg/kg	NA	4.66E+03	5.00E-02	ND					ND					ND					ND					4.20E-02	J			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	9.00E-02	B				5.90E-02	B				7.40E-02	B				8.00E-02	B				7.40E-02	B			
VOLATILE ORGANIC COMPOUNDS																													
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					5.60E-03	J				ND					1.90E-02	B			
Acetone	mg/kg	NA	7.76E+02	2.50E+00	2.50E-02	J				1.40E-02	J				1.60E-01	J				ND					5.40E-01	J			
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					5.50E-03	J				ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	2.20E-02	B				1.10E-02	B				2.90E-03	B				3.50E-03	B				4.40E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	ND					ND					ND					ND					3.90E-03	J			
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	ND					ND					ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	2.60E-03	B				3.20E-03	B				ND					ND					ND				

Table 12-3

Detected Compounds in Surface and Depositional Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	FTA-82					FTA-82					FTA-82					FTA-82				
				Sample Location	FTA-82-DEP03					FTA-82-DEP04					FTA-82-DEP05					FTA-82-DEP06				
				Sample Number	FX0023					FX0024					FX0025					FX0026				
				Sample Date	12-Nov-98					12-Nov-98					12-Nov-98					8-Mar-99				
				Sample Depth (Feet)	0-1					0-1					0-1					0-1				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
PESTICIDES																								
4,4'-DDE	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.79E+00	2.50E-03	ND					ND					ND					ND				
Heptachlor	mg/kg	NA	1.40E-01	1.00E-01	ND					ND					ND					ND				
delta-BHC	mg/kg	NA	2.33E+00	9.94E+00	ND					ND					ND					ND				
METALS																								
Aluminum	mg/kg	1.63E+04	7.80E+03	5.00E+01	1.31E+03				YES	3.42E+03				YES	1.86E+03				YES	2.31E+03				YES
Arsenic	mg/kg	1.37E+01	4.26E-01	1.00E+01	4.10E+00			YES		5.90E+00			YES		5.20E+00			YES		5.70E+00			YES	
Barium	mg/kg	1.24E+02	5.47E+02	1.65E+02	1.13E+02					2.20E+02		YES		YES	9.00E+01					4.08E+01				
Beryllium	mg/kg	8.00E-01	9.60E+00	1.10E+00	1.40E+00		YES		YES	9.30E-01		YES			2.90E+00		YES		YES	7.70E-01				
Calcium	mg/kg	1.72E+03	NA	NA	ND					ND					ND					6.35E+02				
Chromium	mg/kg	3.70E+01	2.32E+01	4.00E-01	7.20E+00				YES	1.71E+01				YES	9.00E+00				YES	7.60E+00				YES
Cobalt	mg/kg	1.52E+01	4.68E+02	2.00E+01	7.50E+00					1.80E+01		YES			1.34E+01					2.50E+00	J			
Copper	mg/kg	1.27E+01	3.13E+02	4.00E+01	1.49E+01	J	YES			1.68E+01	J	YES			2.28E+01	J	YES			1.17E+01				
Iron	mg/kg	3.42E+04	2.34E+03	2.00E+02	2.06E+04			YES	YES	3.43E+04		YES	YES	YES	2.78E+04			YES	YES	3.91E+04		YES	YES	YES
Lead	mg/kg	4.01E+01	4.00E+02	5.00E+01	1.24E+01					1.87E+01					1.05E+01					6.00E+00				
Magnesium	mg/kg	1.03E+03	NA	4.40E+05	ND					ND					ND					3.85E+02	J			
Manganese	mg/kg	1.58E+03	3.63E+02	1.00E+02	3.98E+02			YES	YES	8.03E+02			YES	YES	4.06E+02			YES	YES	4.84E+02			YES	YES
Mercury	mg/kg	8.00E-02	2.33E+00	1.00E-01	ND					ND					ND					ND				
Nickel	mg/kg	1.03E+01	1.54E+02	3.00E+01	1.83E+01		YES			7.20E+00					3.76E+01		YES		YES	7.60E+00				
Potassium	mg/kg	8.00E+02	NA	NA	ND					8.69E+02		YES			ND					4.68E+02	J			
Selenium	mg/kg	4.80E-01	3.91E+01	8.10E-01	ND					ND					6.10E-01		YES			1.40E+00		YES		YES
Silver	mg/kg	3.60E-01	3.91E+01	2.00E+00	ND					ND					ND					ND				
Sodium	mg/kg	6.34E+02	NA	NA	ND					ND					ND					5.20E+00	B			
Thallium	mg/kg	3.43E+00	5.08E-01	1.00E+00	ND					ND					ND					ND				
Vanadium	mg/kg	5.88E+01	5.31E+01	2.00E+00	9.70E+00				YES	ND					1.44E+01				YES	3.43E+01				YES
Zinc	mg/kg	4.06E+01	2.34E+03	5.00E+01	6.09E+01	J	YES		YES	1.99E+01	J				1.28E+02	J	YES		YES	1.55E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																								
Benzo(a)pyrene	mg/kg	1.42E+00	8.51E-02	1.00E-01	ND					ND					ND					ND				
Benzo(ghi)perylene	mg/kg	9.55E-01	2.32E+02	1.19E+02	ND					ND					ND					ND				
Phenol	mg/kg	NA	4.66E+03	5.00E-02	ND					ND					ND					ND				
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	9.30E-01	9.50E-02	B				1.00E-01	B				7.90E-02	B				ND				
VOLATILE ORGANIC COMPOUNDS																								
2-Butanone	mg/kg	NA	4.66E+03	8.96E+01	ND					ND					ND					ND				
Acetone	mg/kg	NA	7.76E+02	2.50E+00	1.10E-02	B				ND					ND					ND				
Bromomethane	mg/kg	NA	1.09E+01	NA	ND					ND					ND					ND				
Cumene	mg/kg	NA	7.77E+02	NA	ND					ND					ND					ND				
Methylene chloride	mg/kg	NA	8.41E+01	2.00E+00	3.80E-03	B				3.10E-03	B				3.40E-03	B				4.10E-03	B			
Toluene	mg/kg	NA	1.55E+03	5.00E-02	2.10E-03	J				ND					ND					2.60E-03	J			
Trichloroethene	mg/kg	NA	5.72E+01	1.00E-03	ND					ND					ND					ND				
Trichlorofluoromethane	mg/kg	NA	2.33E+03	1.00E-01	ND					ND					ND					ND				

Table 12-3

Detected Compounds in Surface and Depositional Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 12-4

Detected Compounds in Subsurface Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-82				FTA-82				FTA-82				FTA-82			
			Sample Location	FTA-82-MW01				FTA-82-MW02				FTA-82-MW03				FTA-82-MW04			
			Sample Number	FX0002				FX0004				FX0008				FX0010			
			Sample Date	10-Nov-98				13-Nov-98				1-Dec-98				16-Nov-98			
			Sample Depth (Feet)	45-47				52-54				7-9				15-17			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
METALS																			
Aluminum	mg/kg	1.36E+04	7.80E+03	7.96E+03			YES	1.25E+04			YES	9.38E+03			YES	1.29E+03			
Arsenic	mg/kg	1.83E+01	4.26E-01	1.40E+00			YES	4.70E+00			YES	4.60E+00			YES	1.10E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	ND				ND				1.04E+02	J			ND			
Beryllium	mg/kg	8.60E-01	9.60E+00	ND				3.70E+00		YES		1.10E+00		YES		ND			
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND				ND				ND			
Calcium	mg/kg	6.37E+02	NA	ND				ND				2.57E+04	J	YES		ND			
Chromium	mg/kg	3.83E+01	2.32E+01	4.70E+00				1.56E+01				2.08E+01				4.60E+00			
Cobalt	mg/kg	1.75E+01	4.68E+02	1.02E+01				2.21E+02		YES		6.60E+00				ND			
Copper	mg/kg	1.94E+01	3.13E+02	3.49E+01	J	YES		2.80E+02	J	YES		2.04E+01		YES		2.90E+00	J		
Iron	mg/kg	4.48E+04	2.34E+03	1.09E+04			YES	4.88E+04		YES	YES	2.44E+04			YES	5.57E+03			YES
Lead	mg/kg	3.85E+01	4.00E+02	3.00E+00				1.80E+01				2.60E+01	J			2.10E+00			
Magnesium	mg/kg	7.66E+02	NA	2.55E+03		YES		1.04E+03		YES		7.84E+03		YES		ND			
Manganese	mg/kg	1.36E+03	3.63E+02	1.29E+02				5.46E+02			YES	4.17E+02			YES	1.66E+01			
Mercury	mg/kg	7.00E-02	2.33E+00	ND				ND				4.30E-02				ND			
Nickel	mg/kg	1.29E+01	1.54E+02	1.19E+01				6.93E+01		YES		1.52E+01		YES		ND			
Potassium	mg/kg	7.11E+02	NA	3.55E+03		YES		1.22E+03		YES		1.02E+03		YES		ND			
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND				ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND				ND				ND			
Sodium	mg/kg	7.02E+02	NA	ND				ND				1.62E+02	B			ND			
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				ND				ND			
Vanadium	mg/kg	6.49E+01	5.31E+01	ND				ND				1.27E+01				ND			
Zinc	mg/kg	3.49E+01	2.34E+03	2.14E+01	J			1.44E+02	J	YES		7.20E+01		YES		3.20E+00	J		
SEMIVOLATILE ORGANIC COMPOUNDS																			
Anthracene	mg/kg	NA	2.33E+03	ND				ND				8.20E-02	J			ND			
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				ND				1.70E-01	J			ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				1.80E-01	J		YES	ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				1.70E-01	J			ND			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	ND				ND				1.20E-01	J			ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				1.90E-01	J			ND			
Carbazole	mg/kg	NA	3.11E+01	ND				ND				4.30E-02	J			ND			
Chrysene	mg/kg	NA	8.61E+01	ND				ND				1.70E-01	J			ND			
Fluoranthene	mg/kg	NA	3.09E+02	ND				ND				4.00E-01				ND			
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	ND				ND				1.00E-01	J			ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				ND				2.60E-01	J			ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND				2.90E-01	J			ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				ND				1.00E-01	B			ND			
VOLATILE ORGANIC COMPOUNDS																			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				3.80E-03	J			ND			
Acetone	mg/kg	NA	7.76E+02	6.50E-03	B			1.30E-02	B			3.20E-02	J			1.20E-02	J		
Bromomethane	mg/kg	NA	1.09E+01	ND				ND				ND				ND			
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				9.30E-03				ND			
Methylene chloride	mg/kg	NA	8.41E+01	6.10E-03	B			3.70E-03	B			3.30E-03	B			3.90E-03	B		
Trichloroethene	mg/kg	NA	5.72E+01	ND				ND				ND				4.60E-03	B		
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				ND				ND			
n-Propylbenzene	mg/kg	NA	7.77E+01	ND				ND				8.60E-03	J			ND			

Table 12-4

Detected Compounds in Subsurface Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-82				FTA-82				FTA-82				FTA-82			
			Sample Location	FTA-82-MW05				FTA-82-MW06				FTA-82-MW07				FTA-82-MW08			
			Sample Number	FX0012				FX0014				FX0018				FX0020			
			Sample Date	18-Nov-98				17-Dec-98				9-Dec-98				1-Dec-98			
			Sample Depth (Feet)	50-52				7-9				9-11				11-13			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
METALS																			
Aluminum	mg/kg	1.36E+04	7.80E+03	2.52E+03				2.67E+03				2.98E+03				1.37E+04		YES	YES
Arsenic	mg/kg	1.83E+01	4.26E-01	4.90E+00			YES	2.70E+00			YES	8.20E+00			YES	1.30E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	6.72E+02	J	YES	YES	1.53E+01	J			3.60E+01				7.61E+01	J		
Beryllium	mg/kg	8.60E-01	9.60E+00	9.00E-01		YES		1.90E-01	B			7.00E-01				6.80E-01			
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				5.60E-01		YES		ND				ND			
Calcium	mg/kg	6.37E+02	NA	ND				5.39E+01	B			5.51E+01	B			7.31E+01	B		
Chromium	mg/kg	3.83E+01	2.32E+01	2.11E+01				4.09E+01	J	YES	YES	1.65E+01				1.11E+01			
Cobalt	mg/kg	1.75E+01	4.68E+02	3.13E+01	J	YES		5.40E+00				5.50E+00	J			1.47E+01			
Copper	mg/kg	1.94E+01	3.13E+02	1.60E+01				4.60E+00				1.99E+01		YES		6.60E+00			
Iron	mg/kg	4.48E+04	2.34E+03	2.42E+04			YES	1.67E+04			YES	2.32E+04			YES	1.92E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	5.70E+01	J	YES		3.20E+00				8.00E+00				5.10E+00	J		
Magnesium	mg/kg	7.66E+02	NA	ND				6.85E+01	J			1.83E+02	J			4.77E+03		YES	
Manganese	mg/kg	1.36E+03	3.63E+02	2.79E+03		YES	YES	9.64E+01	J			9.92E+01				5.41E+02			YES
Mercury	mg/kg	7.00E-02	2.33E+00	ND				ND				ND				ND			
Nickel	mg/kg	1.29E+01	1.54E+02	6.40E+00				1.15E+01				1.42E+01		YES		1.45E+01		YES	
Potassium	mg/kg	7.11E+02	NA	7.60E+02		YES		2.01E+02	J			1.30E+03		YES		6.37E+03		YES	
Selenium	mg/kg	4.70E-01	3.91E+01	ND				9.50E-01		YES		ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND				1.20E+00		YES		ND				5.90E-01	J	YES	
Sodium	mg/kg	7.02E+02	NA	ND				ND				4.01E+01	B			9.30E+01	B		
Thallium	mg/kg	1.40E+00	5.08E-01	ND				ND				ND				7.20E-01	J		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	6.30E+00				ND				1.55E+01				5.30E+00	J		
Zinc	mg/kg	3.49E+01	2.34E+03	1.68E+01				1.06E+01				2.20E+01				3.15E+01			
SEMIVOLATILE ORGANIC COMPOUNDS																			
Anthracene	mg/kg	NA	2.33E+03	ND				ND				ND				ND			
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				ND				ND				ND			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				ND				ND				ND			
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	ND				ND				ND				ND			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	ND				ND				ND				ND			
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				ND				ND				ND			
Carbazole	mg/kg	NA	3.11E+01	ND				ND				ND				ND			
Chrysene	mg/kg	NA	8.61E+01	ND				ND				ND				ND			
Fluoranthene	mg/kg	NA	3.09E+02	ND				ND				ND				ND			
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	ND				ND				ND				ND			
Phenanthrene	mg/kg	NA	2.32E+03	ND				ND				ND				ND			
Pyrene	mg/kg	NA	2.33E+02	ND				ND				ND				ND			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	ND				8.60E-01				1.60E-01	B			7.50E-02	B		
VOLATILE ORGANIC COMPOUNDS																			
2-Butanone	mg/kg	NA	4.66E+03	ND				ND				ND				ND			
Acetone	mg/kg	NA	7.76E+02	ND				9.90E-03	J			ND				1.10E-02	J		
Bromomethane	mg/kg	NA	1.09E+01	ND				1.50E-03	J			ND				ND			
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND				ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	4.50E-03	B			5.90E-03	B			7.50E-03	B			3.30E-03	B		
Trichloroethene	mg/kg	NA	5.72E+01	4.10E-03	B			ND				ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND				4.00E-03	B			ND			
n-Propylbenzene	mg/kg	NA	7.77E+01	ND				ND				ND				ND			

Table 12-4

Detected Compounds in Subsurface Soil Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 12-5

Detected Compounds in Groundwater Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-82				FTA-82				FTA-82				FTA-82			
			Sample Location	FTA-82-MW01				FTA-82-MW02				FTA-82-MW03				FTA-82-MW04			
			Sample Number	FX3001				FX3002				FX3003				FX3006			
			Sample Date	5-Jan-99				6-Jan-99				6-Jan-99				8-Jan-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
METALS																			
Aluminum	mg/L	2.34E+00	1.56E+00	1.19E+00				1.14E+00				1.36E-01	J			3.24E-02	J		
Barium	mg/L	1.27E-01	1.10E-01	1.30E-02	J			7.90E-03	J			1.02E-01	J			2.45E-02	J		
Calcium	mg/L	5.65E+01	NA	1.35E-01	J			7.81E-01	J			5.23E+00	J			2.08E+00	J		
Chromium	mg/L	NA	4.69E-03	4.70E-03	B		YES	5.40E-03	B		YES	4.80E-03	B		YES	4.40E-03	J		
Cobalt	mg/L	2.34E-02	9.39E-02	7.90E-03	J			ND				1.27E-02	J			ND			
Copper	mg/L	2.55E-02	6.26E-02	3.80E-03	J			ND				ND				ND			
Iron	mg/L	7.04E+00	4.69E-01	7.59E-01			YES	1.20E+00			YES	3.50E-01				ND			
Lead	mg/L	7.99E-03	1.50E-02	ND				ND				ND				ND			
Magnesium	mg/L	2.13E+01	NA	8.10E-01	J			7.64E-01	J			2.30E+00	J			4.30E-01	J		
Manganese	mg/L	5.81E-01	7.35E-02	1.23E-01	J		YES	1.71E-02	J			1.83E+00	J	YES	YES	3.40E-02	J		
Nickel	mg/L	NA	3.13E-02	1.04E-02	J			ND				1.22E-02	J			9.90E-03	J		
Potassium	mg/L	7.20E+00	NA	3.69E+00	B			2.57E+00	B			2.38E+00	B			1.87E+00	B		
Sodium	mg/L	1.48E+01	NA	6.01E-01	J			6.44E-01	J			1.14E+00	J			1.23E+00	J		
Thallium	mg/L	1.45E-03	1.00E-04	5.00E-03	B	YES	YES	5.30E-03	B	YES	YES	4.70E-03	B	YES	YES	4.60E-03	B	YES	YES
Vanadium	mg/L	1.70E-02	1.10E-02	8.50E-03	B			8.30E-03	B			8.00E-03	B			ND			
SEMIVOLATILE ORGANIC COMPOUNDS																			
Phenol	mg/L	NA	9.31E-01	1.00E-03	B			1.00E-03	B			1.00E-03	B			1.00E-03	B		
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	ND				ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS																			
1,2-Dimethylbenzene	mg/L	NA	2.80E+00	ND				ND				ND				ND			
Acetone	mg/L	NA	1.56E-01	ND				ND				ND				3.20E-02	J		
Benzene	mg/L	NA	1.40E-03	ND				ND				ND				ND			
Chloroform	mg/L	NA	1.15E-03	ND				ND				3.60E-04	B			1.90E-04	B		
Chloromethane	mg/L	NA	3.92E-03	3.60E-04	J			2.50E-04	B			ND				ND			
Ethylbenzene	mg/L	NA	1.40E-01	ND				ND				ND				ND			
Methylene chloride	mg/L	NA	7.85E-03	ND				ND				5.00E-03	B			ND			
Toluene	mg/L	NA	2.59E-01	ND				ND				ND				ND			
m,p-Xylenes	mg/L	NA	2.80E+00	ND				ND				ND				ND			

Table 12-5

Detected Compounds in Groundwater Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-82				FTA-82				FTA-82				FTA-82			
			Sample Location	FTA-82-MW05				FTA-82-MW06				FTA-82-MW07				FTA-82-MW08			
			Sample Number	FX3007				FX3008				FX3009				FX3010			
			Sample Date	11-Jan-99				11-Jan-99				12-Jan-99				6-Jan-99			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
METALS																			
Aluminum	mg/L	2.34E+00	1.56E+00	1.19E+00				1.66E-01	J			4.12E-01				2.58E+00		YES	YES
Barium	mg/L	1.27E-01	1.10E-01	1.69E-01	J	YES	YES	4.41E-02	J			5.73E-02	J			1.87E-02	J		
Calcium	mg/L	5.65E+01	NA	1.63E+00	J			6.75E-01	J			2.75E-01	J			4.16E-01	J		
Chromium	mg/L	NA	4.69E-03	1.21E-02			YES	4.90E-03	J		YES	5.10E-03	J		YES	5.10E-03	B		YES
Cobalt	mg/L	2.34E-02	9.39E-02	ND				ND				ND				ND			
Copper	mg/L	2.55E-02	6.26E-02	4.20E-03	J			3.80E-03	J			ND				6.40E-03	J		
Iron	mg/L	7.04E+00	4.69E-01	1.03E+01		YES	YES	4.35E-01				5.50E-01			YES	2.05E+00			YES
Lead	mg/L	7.99E-03	1.50E-02	ND				8.40E-03		YES		ND				ND			
Magnesium	mg/L	2.13E+01	NA	9.56E-01	J			3.30E-01	J			2.93E-01	J			1.05E+00	J		
Manganese	mg/L	5.81E-01	7.35E-02	1.63E+00	J	YES	YES	2.03E-01	J		YES	1.21E-01	J		YES	1.25E-01	J		YES
Nickel	mg/L	NA	3.13E-02	2.42E-02	J			ND				ND				ND			
Potassium	mg/L	7.20E+00	NA	3.10E+00	B			1.54E+00	B			1.37E+00	B			5.10E+00	B		
Sodium	mg/L	1.48E+01	NA	1.18E+00	J			9.52E-01	J			8.86E-01	J			6.31E-01	J		
Thallium	mg/L	1.45E-03	1.00E-04	4.30E-03	B	YES	YES	5.30E-03	B	YES	YES	5.10E-03	B	YES	YES	5.30E-03	B	YES	YES
Vanadium	mg/L	1.70E-02	1.10E-02	ND				ND				ND				8.40E-03	B		
SEMIVOLATILE ORGANIC COMPOUNDS																			
Phenol	mg/L	NA	9.31E-01	1.10E-03	B			ND				ND				1.00E-03	B		
bis(2-Ethylhexyl)phthalate	mg/L	NA	4.30E-03	1.10E-03	J			ND				ND				ND			
VOLATILE ORGANIC COMPOUNDS																			
1,2-Dimethylbenzene	mg/L	NA	2.80E+00	2.00E-04	J			ND				ND				ND			
Acetone	mg/L	NA	1.56E-01	9.30E-02	J			ND				ND				2.60E-03	J		
Benzene	mg/L	NA	1.40E-03	2.10E-04	J			ND				ND				ND			
Chloroform	mg/L	NA	1.15E-03	ND				2.40E-04	B			ND				ND			
Chloromethane	mg/L	NA	3.92E-03	ND				ND				ND				2.90E-04	B		
Ethylbenzene	mg/L	NA	1.40E-01	4.40E-04	J			ND				ND				ND			
Methylene chloride	mg/L	NA	7.85E-03	ND				ND				ND				ND			
Toluene	mg/L	NA	2.59E-01	1.10E-02				ND				ND				ND			
m,p-Xylenes	mg/L	NA	2.80E+00	1.60E-03				ND				ND				ND			

Table 12-5

Detected Compounds in Groundwater Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 12-6

Groundwater and Surface Water Field Parameters
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Well/Sample Location	Date	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Temperature (°C)	Turbidity (NTU)	pH (SU)
FTA-82-MW01	5-Jan-99	0.014	4.80	313.00	15.20	16.5	4.39
FTA-82-MW02	6-Jan-99	0.016	6.43	292.00	15.08	21	5.33
FTA-82-MW03	6-Jan-99	0.020	0.42	192.00	14.50	130	5.00
FTA-82-MW04	8-Jan-99	0.022	7.76	309.00	14.40	0	5.34
FTA-82-MW05	11-Jan-99	0.048	5.19	-59.00	16.47	160	6.21
FTA-82-MW06	11-Jan-99	0.016	8.77	142.00	16.94	0	4.87
FTA-82-MW07	12-Jan-99	0.014	8.02	313.00	16.37	14	4.82
FTA-82-MW08	6-Jan-99	0.018	7.81	257.00	14.41	129.5	5.44
FTA-82-SW/SD01	28-Jan-99	0.317	9.14	NR	12.16	298	7.44
FTA-82-SW/SD02	28-Jan-99	0.069	8.26	NR	12.02	235	6.10
FTA-82-SW/SD03	28-Jan-99	0.190	8.92	NR	13.49	82	7.28
FTA-82-SW/SD04	28-Jan-99	0.022	9.65	NR	13.37	196	6.12
FTA-82-SW/SD06	28-Jan-99	0.143	8.04	NR	14.05	24.5	7.36

Standard conductivity units standardized to milliSiemens per centimeter.

°C - Degrees Celsius.
mV - Millivolts.
NTU - Nephelometric turbidity unit.
mg/L - Millgrams per liter.
SU - Standard units.
mS/cm - Millisiemens per centimeter.
NR - Not recorded.
ORP - Oxidation Reduction Potential.

Table 12-7

Detected Compounds in Surface Water Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

				Parcel	FTA-82					FTA-82					FTA-82					FTA-82					FTA-82				
				Sample Location	FTA-82-SW/SD01					FTA-82-SW/SD02					FTA-82-SW/SD03					FTA-82-SW/SD04					FTA-82-SW/SD06				
				Sample Number	FX2001					FX2002					FX2003					FX2004					FX2006				
				Sample Date	28-Jan-99					27-Jan-99					28-Jan-99					28-Jan-99					28-Jan-99				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
METALS																													
Aluminum	mg/L	5.26E+00	1.53E+01	8.70E-02	5.16E+00				YES	5.22E+00				YES	2.72E+00				YES	6.34E+00		YES		YES	3.49E-01				YES
Arsenic	mg/L	2.10E-03	7.30E-04	1.90E-01	ND					3.60E-03	J	YES	YES		ND					ND					ND				
Barium	mg/L	7.53E-02	1.10E+00	3.90E-03	6.48E-02	J			YES	6.34E-02	J			YES	2.71E-02	J			YES	2.37E-02	J			YES	1.90E-02	J			YES
Beryllium	mg/L	3.00E-04	1.75E-02	5.30E-04	6.10E-04	B	YES		YES	5.70E-04	B	YES		YES	ND					ND					ND				
Calcium	mg/L	2.52E+01	NA	1.16E+02	1.02E+01					8.24E+00					2.57E+00	J				1.78E+00	J				1.31E+00	J			
Chromium	mg/L	1.11E-02	4.08E-02	1.10E-02	5.70E-03	J				6.90E-03	J				ND					5.80E-03	J				ND				
Iron	mg/L	1.96E+01	4.70E+00	1.00E+00	5.22E+00			YES	YES	6.14E+00			YES	YES	1.43E+00				YES	3.76E+00				YES	4.45E-01				
Lead	mg/L	8.60E-03	1.50E-02	1.32E-03	ND					1.90E-03	J			YES	ND					ND					ND				
Magnesium	mg/L	1.10E+01	NA	8.20E+01	3.82E+00	J				3.17E+00	J				1.24E+00	J				9.30E-01	J				6.48E-01	J			
Manganese	mg/L	5.65E-01	6.40E-01	8.00E-02	7.82E-02					9.26E-02				YES	1.66E-02					2.12E-02					2.24E-02				
Potassium	mg/L	2.56E+00	NA	5.30E+01	3.48E+00	J	YES			3.55E+00	J	YES			2.79E+00	J	YES			2.24E+00	J				4.39E+00	J	YES		
Sodium	mg/L	3.44E+00	NA	6.80E+02	1.17E+00	B				9.09E-01	B				5.14E-01	B				5.83E-01	B				7.46E-01	B			
Thallium	mg/L	2.40E-03	1.01E-03	4.00E-03	4.10E-03	B	YES	YES	YES	6.80E-03	B	YES	YES	YES	ND					4.60E-03	B	YES	YES	YES	ND				
Vanadium	mg/L	1.52E-02	7.90E-02	1.90E-02	1.06E-02	J				1.30E-02	J				ND					8.00E-03	J				ND				
Zinc	mg/L	4.03E-02	4.65E+00	5.89E-02	1.35E-02	J				1.65E-02	J				ND					ND					ND				
VOLATILE ORGANIC COMPOUNDS																													
Acetone	mg/L	NA	1.57E+00	7.80E+01	1.30E-03	J				1.70E-03	J				1.30E-03	J				1.50E-03	J				2.50E-03	J			

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July. For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/L - Milligrams per liter.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 12-8

Detected Compounds in Sediment Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

(Page 1 of 2)

				Parcel	FTA-82					FTA-82					FTA-82					FTA-82					FTA-82				
				Sample Location	FTA-82-SW/SD01					FTA-82-SW/SD02					FTA-82-SW/SD03					FTA-82-SW/SD04					FTA-82-SW/SD06				
				Sample Number	FX1001					FX1004					FX1005					FX1006					FX1008				
				Sample Date	28-Jan-99					28-Jan-99					28-Jan-99					28-Jan-99					28-Jan-99				
				Sample Depth (Feet)	0-2					0-0.5					0-2					0-0.5					0-0.5				
Parameter	Units	BKG[a]	SSSL[b]	ESV[b]	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV	Result	Qual	>BKG	>SSSL	>ESV
SEDIMENT																													
PESTICIDES																													
4,4'-DDD	mg/kg	NA	2.35E+02	3.30E-03	ND					1.00E-03	J				ND					ND					ND				
4,4'-DDE	mg/kg	NA	1.66E+02	3.30E-03	ND					5.40E-03	J			YES	ND					ND					ND				
4,4'-DDT	mg/kg	NA	1.66E+02	3.30E-03	ND					3.60E-03	J			YES	ND					ND					ND				
METALS																													
Aluminum	mg/kg	8.59E+03	1.15E+06	NA	1.24E+04		YES			6.03E+03					2.21E+03					3.66E+03					6.27E+03				
Arsenic	mg/kg	1.13E+01	5.58E+01	7.24E+00	4.20E+00					4.70E+00					2.80E+00					2.60E+00					5.30E+00				
Barium	mg/kg	9.89E+01	8.36E+04	NA	1.08E+02		YES			1.15E+02		YES			5.33E+01					2.80E+01					7.58E+01				
Beryllium	mg/kg	9.70E-01	1.50E+02	NA	1.00E+00		YES			6.80E-01					3.70E-01	J				4.00E-01	J				6.90E-01				
Calcium	mg/kg	1.11E+03	NA	NA	6.62E+02	J				2.39E+03		YES			1.09E+02	J				1.49E+02	J				4.35E+02	J			
Chromium	mg/kg	3.12E+01	2.79E+03	5.23E+01	2.16E+01					1.18E+01					4.30E+00					1.07E+01					1.02E+01				
Cobalt	mg/kg	1.10E+01	6.72E+04	5.00E+01	5.70E+00	J				5.00E+00	J				3.10E+00	J				1.50E+00	J				3.00E+00	J			
Copper	mg/kg	1.71E+01	4.74E+04	1.87E+01	4.06E+01		YES		YES	1.00E+01					5.20E+00					4.30E+00					9.60E+00				
Iron	mg/kg	3.53E+04	3.59E+05	NA	3.02E+04					1.94E+04					1.01E+04					1.26E+04					2.29E+04				
Lead	mg/kg	3.78E+01	4.00E+02	3.02E+01	1.20E+01					1.31E+01					1.13E+01					4.90E+00					1.23E+01				
Magnesium	mg/kg	9.06E+02	NA	NA	1.71E+03		YES			1.41E+03		YES			9.40E+01	J				1.47E+02	J				3.57E+02	J			
Manganese	mg/kg	7.12E+02	4.38E+04	NA	1.97E+02					4.93E+02					1.49E+02					4.33E+01					3.03E+02				
Mercury	mg/kg	1.10E-01	2.99E+02	1.30E-01	2.70E-02	J				3.10E-02	J				1.40E-02	J				1.40E-02	J				2.90E-02	J			
Nickel	mg/kg	1.30E+01	1.76E+04	1.59E+01	1.32E+01		YES			7.50E+00					3.20E+00	J				3.70E+00	J				8.60E+00				
Potassium	mg/kg	1.01E+03	NA	NA	2.29E+03		YES			5.36E+02	J				5.20E+02	J				4.18E+02	J				6.34E+02	J			
Selenium	mg/kg	7.20E-01	5.96E+03	NA	1.40E+00		YES			9.60E-01		YES			ND					ND					1.10E+00		YES		
Sodium	mg/kg	6.92E+02	NA	NA	6.79E+01	B				5.63E+01	B				4.02E+01	B				4.85E+01	B				7.10E+01	B			
Vanadium	mg/kg	4.09E+01	4.83E+03	NA	3.34E+01					2.22E+01					9.10E+00					1.53E+01					2.34E+01				
Zinc	mg/kg	5.27E+01	3.44E+05	1.24E+02	3.54E+01					2.52E+01					7.70E+00					7.00E+00					2.36E+01				
SEMIVOLATILE ORGANIC COMPOUNDS																													
Anthracene	mg/kg	NA	2.99E+05	3.30E-01	ND					8.10E-02	J				ND					ND					ND				
Benzo(a)anthracene	mg/kg	NA	8.93E+01	3.30E-01	ND					4.90E-01				YES	ND					ND					ND				
Benzo(a)pyrene	mg/kg	NA	8.93E+00	3.30E-01	ND					4.90E-01				YES	ND					ND					ND				
Benzo(b)fluoranthene	mg/kg	NA	8.93E+01	6.55E-01	ND					3.90E-01	J				ND					ND					ND				
Benzo(ghi)perylene	mg/kg	NA	2.79E+04	6.55E-01	ND					3.10E-01	J				ND					ND					ND				
Benzo(k)fluoranthene	mg/kg	NA	8.93E+02	6.55E-01	ND					5.10E-01					ND					ND					ND				
Carbazole	mg/kg	NA	3.26E+03	NA	ND					7.00E-02	J				ND					ND					ND				
Chrysene	mg/kg	NA	9.79E+03	3.30E-01	ND					6.00E-01				YES	ND					ND					ND				
Di-n-butyl phthalate	mg/kg	NA	1.14E+05	1.11E-01	ND					4.60E-02	B				5.10E-02	B				4.70E-02	B				ND				
Dibenz(a,h)anthracene	mg/kg	NA	9.79E+00	3.30E-01	ND					1.10E-01	J				ND					ND					ND				
Fluoranthene	mg/kg	NA	3.73E+04	3.30E-01	ND					1.40E+00				YES	ND					ND					ND				
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.93E+01	6.55E-01	ND					2.60E-01	J				ND					ND					ND				
Phenanthrene	mg/kg	NA	2.79E+05	3.30E-01	ND					6.10E-01				YES	ND					ND					ND				
Pyrene	mg/kg	NA	3.06E+04	3.30E-01	ND					1.20E+00				YES	ND					ND					ND				
TOTAL ORGANIC CARBON																													
Total Organic Carbon	mg/kg	NA	NA	NA	2.38E+03					2.85E+03					3.11E+03					2.71E+03					8.19E+03				
VOLATILE ORGANIC COMPOUNDS																													
Acetone	mg/kg	NA	1.03E+05	4.53E-01	1.40E-02	B				ND					1.30E-02	B				2.10E-02	B				9.10E-03	B			
Methylene chloride	mg/kg	NA	9.84E+03	1.26E+00	7.40E-03	B				5.10E-03	B				5.20E-03	B				5.00E-03	B				6.20E-03	B			
Trichlorofluoromethane	mg/kg	NA	3.06E+05	3.07E-03	6.90E-03	J			YES	ND					4.40E-03	J			YES	3.90E-03	J			YES	4.20E-03	J			YES

Table 12-8

Detected Compounds in Sediment Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.
For SVOCs, value listed is the background screening criterion for soils adjacent to asphalt as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

[b] Recreational user site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).
J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.
mg/kg - Milligrams per kilogram.
NA - Not available.
ND - Not detected.
Qual - Data validation qualifier.

Table 12-9

Summary of Fill Material Borings
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Boring Designation	Interval Fill Material Encountered	Depth Native Material Encountered/ Total Depth of Boring	Description of Fill Material	Interval Collected for Laboratory Analysis
FA-82-SB01	Fill was not encountered from 0 (ground surface) to auger refusal at 4 feet bgs.	0-4.5 ft bgs	NA	NA
FA-82-SB02	2-3 ft bgs	Native material not encountered/3 ft bgs	Yellowish-orange clay with sand, black ash, and plastic.	2-3 ft bgs
FA-82-SB03	0-7.5 ft bgs	Native material not encountered/7.5 ft bgs	Yellowish-orange clay with little fine sand, quartzite gravel, wood, and burnt wood.	6-7.5 ft bgs

ft - Feet.
bgs - Below ground surface.
NA - Not applicable.

Table 12-10

Detected Compounds in Fill Material Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-82				FTA-82			
			Sample Location	FA-82-SB02				FA-82-SB03			
			Sample Number	DD0025				DD0026			
			Sample Date	31-Mar-00				31-Mar-00			
			Sample Depth (Feet)	2-3				6-7.5			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
PESTICIDES											
4,4'-DDD	mg/kg	NA	2.54E+00	1.10E-03	J			2.60E-02			
4,4'-DDE	mg/kg	NA	1.79E+00	ND				5.10E-02			
4,4'-DDT	mg/kg	NA	1.79E+00	2.20E-03				ND			
Chlordane	mg/kg	NA	1.69E+00	ND				4.60E-01			
Endrin	mg/kg	NA	2.32E+00	ND				4.10E-03	J		
METALS											
Aluminum	mg/kg	1.36E+04	7.80E+03	5.11E+03				6.48E+03			
Arsenic	mg/kg	1.83E+01	4.26E-01	4.90E+00			YES	7.50E+00			YES
Barium	mg/kg	2.34E+02	5.47E+02	8.00E+01				2.32E+02			
Beryllium	mg/kg	8.60E-01	9.60E+00	7.70E-01				1.80E+00		YES	
Cadmium	mg/kg	2.20E-01	6.25E+00	ND				ND			
Calcium	mg/kg	6.37E+02	NA	2.37E+04		YES		1.07E+04		YES	
Chromium	mg/kg	3.83E+01	2.32E+01	1.15E+01				5.75E+01		YES	YES
Cobalt	mg/kg	1.75E+01	4.68E+02	3.50E+00	J			7.20E+00			
Copper	mg/kg	1.94E+01	3.13E+02	1.01E+01				1.89E+01			
Iron	mg/kg	4.48E+04	2.34E+03	1.78E+04			YES	2.49E+04			YES
Lead	mg/kg	3.85E+01	4.00E+02	1.07E+01				5.32E+01		YES	
Magnesium	mg/kg	7.66E+02	NA	1.69E+03		YES		2.23E+03		YES	
Manganese	mg/kg	1.36E+03	3.63E+02	2.58E+02				6.40E+02			YES
Mercury	mg/kg	7.00E-02	2.33E+00	2.60E-02	J			7.40E-02		YES	
Nickel	mg/kg	1.29E+01	1.54E+02	1.09E+01				3.90E+01		YES	
Potassium	mg/kg	7.11E+02	NA	5.42E+02	J			6.22E+02			
Selenium	mg/kg	4.70E-01	3.91E+01	ND				ND			
Silver	mg/kg	2.40E-01	3.91E+01	ND				ND			
Sodium	mg/kg	7.02E+02	NA	ND				ND			
Thallium	mg/kg	1.40E+00	5.08E-01	7.90E-01	J		YES	1.00E+00	J		YES
Vanadium	mg/kg	6.49E+01	5.31E+01	1.83E+01				2.91E+01			
Zinc	mg/kg	3.49E+01	2.34E+03	3.58E+01		YES		9.05E+01		YES	
SEMIVOLATILE ORGANIC COMPOUNDS											
Acenaphthene	mg/kg	NA	4.63E+02	ND				4.60E-02	J		
Acenaphthylene	mg/kg	NA	4.63E+02	ND				7.30E-02	J		
Anthracene	mg/kg	NA	2.33E+03	ND				1.60E-01	J		
Benzo(a)anthracene	mg/kg	NA	8.51E-01	ND				5.10E-01			
Benzo(a)pyrene	mg/kg	NA	8.51E-02	ND				5.10E-01			YES
Benzo(b)fluoranthene	mg/kg	NA	8.51E-01	3.40E-02	J			5.60E-01			
Benzo(ghi)perylene	mg/kg	NA	2.32E+02	ND				3.70E-01	J		
Benzo(k)fluoranthene	mg/kg	NA	8.51E+00	ND				4.60E-01			

Table 12-10

Detected Compounds in Fill Material Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

			Parcel	FTA-82				FTA-82			
			Sample Location	FA-82-SB02				FA-82-SB03			
			Sample Number	DD0025				DD0026			
			Sample Date	31-Mar-00				31-Mar-00			
			Sample Depth (Feet)	2-3				6-7.5			
Parameter	Units	BKG[a]	SSSL[b]	Result	Qual	>BKG	>SSSL	Result	Qual	>BKG	>SSSL
Carbazole	mg/kg	NA	3.11E+01	ND				9.70E-02	J		
Chrysene	mg/kg	NA	8.61E+01	ND				5.30E-01			
Dibenz(a,h)anthracene	mg/kg	NA	8.61E-02	ND				1.20E-01	J		YES
Fluoranthene	mg/kg	NA	3.09E+02	6.60E-02	J			1.00E+00			
Fluorene	mg/kg	NA	3.09E+02	ND				5.80E-02	J		
Indeno(1,2,3-cd)pyrene	mg/kg	NA	8.51E-01	ND				3.40E-01	J		
Phenanthrene	mg/kg	NA	2.32E+03	4.00E-02	J			5.90E-01			
Pyrene	mg/kg	NA	2.33E+02	5.80E-02	J			1.10E+00			
bis(2-Ethylhexyl)phthalate	mg/kg	NA	4.52E+01	1.20E-01	B			1.30E-01	B		
VOLATILE ORGANIC COMPOUNDS											
2-Butanone	mg/kg	NA	4.66E+03	ND				ND			
Acetone	mg/kg	NA	7.76E+02	4.20E-02	J			1.60E-02	J		
Bromomethane	mg/kg	NA	1.09E+01	ND				ND			
Carbon disulfide	mg/kg	NA	7.77E+02	1.00E-03	J			1.00E-03	J		
Ethylbenzene	mg/kg	NA	7.77E+02	ND				ND			
Methylene chloride	mg/kg	NA	8.41E+01	2.90E-03	B			2.50E-03	B		
Trichloroethene	mg/kg	NA	5.72E+01	ND				ND			
Trichlorofluoromethane	mg/kg	NA	2.33E+03	ND				ND			
n-Propylbenzene	mg/kg	NA	7.77E+01	ND				ND			
p-Cymene	mg/kg	NA	1.55E+03	ND				2.50E-03	J		

Table 12-10

Detected Compounds in Fill Material Samples
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Analyses performed by Quanterra Environmental Services using U.S. Environmental Protection Agency (EPA) SW-846 analytical methods, including Update III methods where applicable.

[a] Bkg - Background. Concentration listed is two times (2x) the arithmetic mean of background metals concentration given in Science Applications International Corporation (1998), *Final Background Metals Survey Report, Fort McClellan, Alabama,* July.

[b] Residential human health site-specific screening level (SSSL) and ecological screening value (ESV) as given in IT Corporation (2000), *Final Human Health and Ecological Screening Values and PAH Background Summary Report, Fort McClellan, Calhoun County, Alabama,* July.

B - Analyte detected in laboratory or field blank at concentration greater than the reporting limit (and greater than zero).

J - The compound/analyte was positively identified; the reported value is the estimated concentration of the constituent detected in the sample analyzed.

mg/kg - Milligrams per kilogram.

NA - Not available.

ND - Not detected.

Qual - Data validation qualifier.

Table 12-11

Variances to the Site-Specific Field Sampling Plan
Stump Dump, Parcel 82(7)
Fort McClellan, Calhoun County, Alabama

Variance to the SFSP	Justification for Variance	Impact to Site Investigation
Subsurface soil was not collected at FA-82-SB01.	Fill material was not present at the proposed location during hollow-stem auger drilling and split-spoon sampling procedures. The proposed location was moved several times. Both hollow-stem auger and split-spoon soil sample refusal were encountered at depths ranging from 1 foot below land surface (bls) to four and one half feet and fill material was not present.	None.
Surface water and sediment were not collected at FTA-82-SW\SD05.	Surface water and sediment were not present in the surface depression area.	A depositional soil sample FTA-82-DEP06 was collected at this location to determine the presence or absence of contamination.