



PROJECT NUMBER 160492.SA.03	BORING NUMBER MW-100
SOIL BORING LOG	

PROJECT : Long Term Operational Areas - Memphis Depot LOCATION : Memphis, Tennessee
 ELEVATION : 291.16 feet MSL (TOC); 291.54 feet MSL (ground) DRILLING CONTRACTOR : Tri-State Testing Services, Inc.
 DRILLING METHOD AND EQUIPMENT USED : Hollow Stem Auger 4.25 inch ID with CME Sampler
 WATER LEVELS : 92.95 feet BTOC (11/2001) START : 10/05/2001 END: 10/08/2001 LOGGER : Jay Parker (Jacobs)

DEPTH BELOW SURFACE (FT)				STANDARD PENETRATION TEST RESULTS	SOIL DESCRIPTION	COMMENTS
INTERVAL (FT)		RECOVERY (%)	#/TYPE	6"-6"-6" (N)	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
				Used hollow-stem auger drilling method no penetration test results	6" asphalt and gravel	Corrected FID (ppm): (Soil headspace)
100			Clayey silt, dark reddish brown, 5YR 3/4, med stiff, nonplastic, damp		3.6	
5			Clayey SILT, dark reddish brown, 5YR 3/4, med stiff, damp, nonplastic			
100					2.4	
10			Clayey SILT, reddish brown, med stiff, dry, nonplastic, more silt content than above			
100					3.6	
15			Clayey SILT, 7.5YR 4/3, brown with yellow 10YR 7/6 mottles, silty, med stiff, dry			
100					0.0	
20			As above to 18.5			
100			Silty SAND, yellowish brown 10YR 5/6, fine, moist,soft, slightly plastic		0.0	
25			Silty SAND, strong brown 7.5 YR 5/6, fine, stiff, pebbles			
60			At 25 feet, silty SAND, red 10R 4/8 stiff, fine, some gravel and pebbles, Gravel subangular	1.9		
30			SAND, red, 10R 4/6, fine, loose, dry			
60				2.4		
35			Gravelly SAND, 2.5YR 4/6 red, same sand as above, becoming more gravelly with depth, gravel up to 2", subangular approximately 20% gravel	0.0		
50						



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40					Used hollow-stem auger drilling method no penetration test results	
					SAND, reddish yellow 7.5YR 6/6, fine, loose, some pebbles, subrounded dry	0.0
					SAND with gravel, as above, approx. 5% gravel	
45						0.0
					Gravelly SAND, reddish yellow 7.5YR 6/6, fine to med, loose, dry, approx. 20% subrounded and subangular gravel, few pebbles	
50						0.5
					Grades to trace pebbles at 53 feet Gravelly SAND, as above, sand grades coarser at 55.5 feet	
55						0.0
					Back to fine by 58 feet SAND with pebbles, 7.5YR 5/6, strong brown, medium, loose, dry, few pebbles or fine gravel.	
60						0.0
					60.5 to 63 feet, getting coarsers, med to coarse, and moist.	
					SAND, strong brown, 7.5YR 5/8, med, well sorted, loose, damp, grading coarser to med to coarse, trace rounded pebbles	
65						0.0
					Most to wet by 68 feet SAND with gravel, light brown, 7.5YR 6/4, coarse, loose, moist to wet, subangular gravel ~15% fine gravel	
70						0.0
					Becoming more gravelly at 72 feet ~ 25%	
					SAND with gravel, light brown as above with gray mottles, fine to coarse in interbeds, 25% gravel, loose, damp	



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	RECOVERY (%)			TEST		
				RESULTS		
				6"-6"-6"-6" (N)		Corrected FID (ppm):
75		50		Used hollow-stem auger drilling method no penetration test results	SAND with gravel, light brown as above with gray mottles, fine to coarse in interbeds, 25% gravel, loose, damp	0.0
80		60			Same as above, gravel becomes larger and more at 80.5 feet, gravel up to 2 inches	0.0
85		75			As above, gravel grades out to few trace pebbles at 84 feet	0.0
90		90			SAND, pale yellow 2.5Y 8/3, fine, well sorted, loose, dry, trace rounded pebbles, grades back to Gravelly SAND at 90.5 feet	0.0
95		20			Wet at 93 feet Same as above, saturated	Sample collected for VOCs Water Table
					20% recovery sample so wet, most falls out	
100		30			SAND, yellow, 10YR 7/6, fine base, saturated, some gravel ~ 10%	Sample collected for TOC
105		50			Same as above with more gravel and rounded pebbles, grading to SAND, light grey 10YR 7/2, very fine, loose, saturated, at 104.5 feet	
					Same as above, with some gravel saturated	
110		50				



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			#/TYPE	TEST RESULTS			
				6"-6"-6"-6" (N)			
115	50			Used hollow-stem auger drilling method no penetration test results	Same as above	Corrected FID (ppm):	
120	100			Used hollow-stem auger drilling method no penetration test results	Same as above to 119 feet		
					SANDY CLAY, grey		
					Slowly grades to SILTY SAND with clay, light grey		
125	50				10YR 7/1 with tan mottles, dense, damp, fine		
					CLAYEY SAND interbedded, light grey as above, some black bands, moist to wet but doesn't appear to be permeable, dense to very dense, non-plastic, high fines content		
					CLAY layer - 6", grey		
					CLAYEY SAND, light grey		
130	50				SANDY CLAY, grey, dense to very dense, non-plastic		
					Same as above		
135					BORING TERMINATED @ 133 FEET BGS.		
140							