



PROJECT NUMBER 160492.SA.03	BORING NUMBER MW-108
SOIL BORING LOG	

PROJECT : Long Term Operational Areas - Memphis Depot	LOCATION : Memphis, Tennessee
ELEVATION : 303.07 feet MSL (TOC); 303.25 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 : 113.21 feet BTOC (11/2001) START : 10/22/2001 END: 10/23/2001 LOGGER : Jay Parker (Jacobs)	

DEPTH BELOW SURFACE (FT)				STANDARD	SOIL DESCRIPTION	COMMENTS
	INTERVAL (FT)		#/TYPE	PENETRATION	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.
	RECOVERY (%)			TEST		
				RESULTS		
				6"-6"-6"-6" (N)		Corrected FID (ppm): (Soil headspace)
5		100	Used hollow-stem auger drilling method no penetration test results		Grass, clayey SILT, brown, soft, slightly plastic, damp.	1.8
					Clayey SILT, same as above, moist to wet, slightly plastic to medium plastic, high clay content.	0.0
10		100				0.0
15					Clayey SILT, same as above	0.0
20						JEG @ 23 feet Perched water
25					1.5	
		100			0.0	
30				Clayey SILT, same as above	1.0	
35						



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DEPTH BELOW SURFACE (FT)				STANDARD PENETRATION TEST RESULTS		SOIL DESCRIPTION		COMMENTS	
INTERVAL (FT)		RECOVERY (%)		TEST RESULTS		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.	
		#/TYPE		6"-6"-6"-6" (N)					
				Used hollow-stem auger drilling method no penetration test results				Corrected FID (ppm):	
40						Clayey SILT, same as above		0.0	
45								0.0	
		100							
50						SAND, reddish yellow 5YR 6/8, fine to medium loose, damp to moist, well sorted, some gravel in thin beds further down		0.0	
						SAND, turns yellow 2.5YR 8/6 with trace grand/small rounded pebbles.			
55								2.6	
						SAND, 2.5YR 8/6 yellow, fine loose, damp, some to trace fine gravels/pebbles as above, zones of more grave up to 60 ± 15%			
60								0.0	
		100							
65						CLAY, 6" thick, mottled gray and red, very plastic		0.0	
						SAND, 2.5YR 8/6 yellow, fine loose, damp, some to trace fine gravels/pebbles			
								Sand is so loose some fell out as sampler was about to take sample.	
70								0.6	
		100							



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WATER LEVEL: 115.2 feet BVC (11/2007) START: 10/22/2007 END: 10/23/2007 LOGGER: Jay Parker (jacobs)						
DEPTH BELOW SURFACE (FT)	INTERVAL (FT)			STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	SOIL DESCRIPTION SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. Corrected FID (ppm):
		RECOVERY (%)	#/TYPE			
75				Used hollow-stem auger drilling method no penetration test results	SAND same as above, turns redder	1.4
			Gravelly, SAND, yellowish brown, 10YR 5/6, medium to coarse, loose, damp to moist, fine to coarse gravels rounded to sub angular		0.6	
80		100			Black stained area, oily, slight hydro-carbon order, 6" band	At 83.5 readings were 0.0/0.0
					Fine SAND at 87 to 89.	1.0
85					Silty Clayey SAND, very pale brown 10YR 7/4 mottled with white very fine, wet to moist, slightly plastic medium stiff	0.0
		100			SAND, with gravel, strong brown 7.5YR 5/6, loose, moist to wet, fine to medium gravel ~ 5% up to 2"	1.4
90					Gravelly SAND, pale yellow 2.54 7/4, medium to coarse, loose wet.	Sample collected for VOCs
					SAND, light olive brown 2.5YR 5/6, fine, loose, wet trace gravel up to 2"	Sample fell out while bringing it to the surface. Sample lost at H2O. Contact, guess Δ to be at ~ 100'
95						0.0
		60				
100						
105						
110						



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				TEST RESULTS		
				6"-6"-6"-6" (N)		
115				Used hollow-stem auger drilling method no penetration test results		<div>Water Table</div>
		50			Gravelly SAND, yellowish red, 5YR 4/6, fine to coarse, loose wet.	
120						
125						
					SAND, 5YR 7/1 light gray, very fine, well sort, soft/medium dense, wet.	
					Clayey Silty SAND, Chart 1 CLAY greenish gray 5/1, very fine, slightly plastic to nonplastic, stiff/dense, wet, high clay content	
130					CLAY, 6" of gray	
					SAND, light gray 2.5YR 7/2, fine to medium, loose, wet	
135					CLAY, light yellowish brown 2.5YR 6/3, plastic, damp, soft/medium still	
					SAND, as above, light gray, fine to medium	
140						
		100				



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	RECOVERY (%)			TEST		
	#/TYPE			RESULTS		
				6"-6"-6" (N)		
				Used hollow-stem auger drilling method no penetration test results	SAND, as above, light gray, fine to medium	
145						
					SAND, light gray 2.5YR 7/2 to brownish yellow in grades throughout the 20' sample, fine to medium, loose wet.	
150						
155						
	100					
160						
165						
					SAND, light gray 2.5YR 7/2 to brownish yellow, fine to medium, loose wet.	Sample collected for TOC



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RECOVERY (%)				TEST					
#/TYPE				RESULTS					
				6"-6"-6"-6" (N)				Corrected FID (ppm):	
170				Used hollow-stem auger drilling method no penetration test results		SAND, light gray 2.5YR 7/2 to brownish yellow, fine to medium, loose wet.			
						@ 170' CLAY, tan, sandy, soft, moist, grading to darker gray with depth			
175									
		100							
180									
						CLAY, soft, moist, gray			
						BORING TERMINATED @ 187 FEET BGS.			
190									
195									