CH2MHILL

PROJECT NUMBER	BORING NUMBER
160492.SA.03	MW-86

SOIL BORING LOG

PROJECT : Long Term Operational Areas - Memphis Depot LOCATION : Memphis, Tennessee

ELEVATION : 304.35 feet MSL (TOC); 304.89 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 : 98.27 feet BTOC (11/2001) START : 09/18/2001 END: 09/24/2001 LOGGER : Adam Kaiser (Jacobs)

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (%)	#/TYPE	STANDARD PENETRATION TEST RESULTS 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):
					ASPHALT	***(Soil headspace)***
		80		Used hollow-stem auger drilling method no penetration test results	Silty clay, moist, brown, low plasticity	**2.3**
5		100			Silty clay, moist, brown, low plasticity	**12.8**
10		80			Silty clay, moist, brown, low plasticity	**3.9**
15		90			Silty clay, moist, brown, low plasticity	**5.4**
					SAND, very fine, Silty, moist, light brown	
20		60			SAND, very fine, Silty, moist, light brown	**9.2**
25		80			Clay, Sandy, Silty, clay modules, moist, brown	**2.8**
					Sand, medium red/Brown well sorted - moist	
30		70			Clayey Sand, red moist, turning more silty sand	**8.8**
35		60			Clayey Sand, red moist, turning more silty sand	**5.4**

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40		65		Used hollow-stem auger drilling method no penetration test results	Yellowish tan, moist medium-well sorted sand	2.1
					Medium sand - yellowish tan-moist	
45		50			Medium Sand, same as above with small angular gravel - not skip	1.0
50		60			Tannish, white/gray medium sand - moist with small gravel	10.0
55		60			same, more reddish	4.5
					Reddish, yellowish, almost no gravel	
60		65				2.2
					Reddish sand	
65		65				7.0
					Brown Clay (6"), stiff at 65'	
					29" of Red, white med. sand moist - no grave	
					Same	
70		80				2.8
					Stiff, gray/tan silty clay at 71'-72'	
					medium fine sand, tan moist	
					medium fine sand, tan moist	

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75		65			Grayish white sand some small gravel	**1.9**
					Same with large gravel Wet Clay	Sample collected for VOCs **2.7**
					Clay, 1"	
					Sandy Clay - Brown/Grey	
80		100			79.5 - 82 Silty Sand Very Fine, light grey	
						12.2
					Clay-grey with red mottles	
					Clay, stiff, brown	
85		90				**7.1**
					Sand, red to grey, fine, no gravel, moist	Sample collected for VOCs
					Sand, light grey to tan (reddish brown)	
90		65				**9.6**
					Sand, white/grey with small rocks-pebbles	
						Very Slow down, hard surface. Difficulty removing split sporn
95		50				**7.1**
					Reddish sand with large rocks (1 to 1.25 ") at 96.5	
						Done for 9/18/01 at 6:30 p.m.
					Sand, white, grey - no rock top 24" - wet	Water table
100		45				9/19/01 at 8:45 a.m. **5.5**
					Sand with rocks (1/4 to 2 1/2"), bottom 4" of sampler	
					Sand, same rocks (1/2") wet	Sample collected for TOC
					8" Clay, grey	
105		100			Sand Fine, grey - 21" moist	**6.5**
					Silty Clay with very fine sand, moist reddish brown to grey, firm	
					Silty Clay with very fine sand, same - transitions, stiff, silty clamp, damp at 110'	Broken auger only bored 2.5 Lost approximately 45" of augers in boring. Later recovered
110		100				

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115		50			Silty Clay with very fine sand, damp, red, brown, grey, stiff	
					1' of solid clay, grey, hard, dry	Well at 117' Broken head on split spoon, rig problems
					BORING TERMINATED @ 118 FEET BGS.	
120						
125						
130						
135						
140						