CH2MHILL

PROJECT NUMBER	BORING NUMBER
170039	MW-106

SOIL BORING LOG

PROJECT : EBT Treatability Study LOCATION : Memphis Depot

ELEVATION : DRILLING CONTRACTOR : Boart Longyear

DRILLING METHOD AND EQUIPMENT USED : Rotasonic rig (4 inch sample casing / 6 inch outer casing)

WATER LEVELS : START : 04/17/2002 END: 04/18/2002 LOGGER : Mike Karafa

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 and Gravel	***(Soil headspace)***
						0.0
		100			Brownish red, silty, clay	
5					Same as above	**0.0**
10		100			Same as above	**0.0**
15					Same as above	**0.0**
20		100			Sand, reddish orange, fine grain, well sorted	**0.0**
					Sandy silt, some clay, white/grey mottled, stiff	
25					Silty sand, orange, fine grain, well sortec	**0.0**
					Sand, red, fine to medium grain, poorly sorted, small pebbles	
30		100			Same as above	**0.0**
					Sand, orange, fine to medium grain, poorly sortec	
35					Sand, brown red, fine grain, well sorted	**0.0**
					Sand, yellow, well sorted, fine grain	

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					Same as above except reddish orange	
40		100			Sand, tan, fine grain, well sorted	**0.0**
					Sand, orange yellow, fine to medium grain, poorly sorted, loose	
					Same as above except brown	
					Sand, orange, fine grain, well sorted, loose, dry	
					Sand, white, fine to medium grain, poorly sorted, loose	
					Same as above except orange	
45					Same as above except orange with gravel up to 0.5 inch diameter	**0.0**
					Same as above except white	
50		100			Sand, white, fine to medium grain, poorly sorted, loose, pebbles	**12.1**
					Sand, tan, fine to medium grain, poorly sorted, loose gravel up tp 0.25 inch diameter	
					Sand, orange, fine to medium grain, poorly sorted, loose	
					Sand, white, fine to medium grain, poorly sorted, loose, gravel up to 0.25 inch diameter	
55					Sand, orange, fine to medium grain, poorly sorted, loose, pebble to cobbles	
					Same as above except tan	**0.0**
					Same as above except orange	
60		100			Sand, interbedded tan and orange, fine to coarse grain, poorly sorted, gravel up to 0.5 inch diameter	**0.0**
65					Sand, tan, fine grain, well sorted	**0.0**
70		100			Same as above	**0.0**
					Sand, tan, fine to medium grain, poorly sorted, gravel up to 0.25 inch diameter	

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75					Sand, tan, fine grain, well sorted, loose	0.0
					Sand, orange, fine to medium grain, poorly sorted, gravel pebble to cobble 2 inch reddish brown layer, sand, fine to medium grain, up to 0.25 inch gravel	
					Sand, tan, fine to medium grain, poorly sorted, loose, pebble to cobble gravel, damp	
80		100			Same as above except orange	0.0
					Sand, tan to light grey, fine grain wet	
					Silty clay, orange, thin grey mottling, wet	
85					Sand, tan, fine grain, gravel up to 1 inch, wet	0.0
					Same as above except wet	
90		100			Sand, grey, fine to medium grain, gravel up to 1 inch, dam	
95					Sand, some clay, fine to coarse grain, gravel, wet	0.0
						Water table @ 96 ft bgs
					Sand, orange, fine grain, damp	
100					Sand, orange, fine to coarse grain, gravel pebble to cobble size, wet	
					Silty clay, orange and grey mottling, wet	
		100			Silty sand, some clay, stiff, wet	
105					Sand, orange, some clay, fine grain, wet	
					Clay, dark grey, massive	
110					Boring terminated at 110 ft bgs	