PROJECT NUMBER 170039



MW-106

SOIL BORING LOG

BORING NUMBER

PROJEC	T: EE	EBT Treatability Study LOCATION : Memphis Depot						
ELEVATI	LEVATION :				DRILLING CONTRACTOR : Boart Longyear			
		D AND	EQUIPMENT	FUSED: Rotasonic rig (4 inch sample casing / 6 inch outer casing)				
WATER L				START :		R : Mike Karafa		
	ELOW SUR		1)	STANDARD	SOIL DESCRIPTION	COMMENTS		
"	NTERVAL (PENETRATION				
	RE	ECOVER	RY (%) #/TYPE	TEST RESULTS	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY,	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS,		
			#/1185	6"-6"-6"				
				0-0-0-0 (N)	OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	TESTS, AND INSTRUMENTATION. Corrected FID (ppm):		
				(11)	Asphalt and Gravel	(Soil headspace)		
-i	i					0.0 -		
!						0.0		
1		100			Brownish red, silty, clay			
-i	i							
5	ł							
1	1				Same as above	0.0		
	. !							
i	i							
-!	ļ							
-								
10	i	100						
1° —	ļ	100			Same as above			
-						0.0		
l j	i							
I !	ļ							
i –i	i							
15	ļ							
					Same as above			
i -i	i					0.0		
<u> </u>	ļ							
-i	i							
	<u> </u>							
20		100						
	i				Sand, reddish orange, fine grain, well sorted	0.0		
-	i i							
	ļ							
1	i							
-i	į							
_	ļ				Conducilit come alow white/area motified at #	_		
25	i				Sandy silt, some clay, white/grey mottled, stiff			
j i −i•	i				Silty sand, orange, fine grain, well sortec	0.0		
-!	ļ							
	l							
i	i				Sand, red, fine to medium grain, poorly sorted, small pebbles			
-!	ļ							
-								
30	i	100						
-!	!				Same as above	0.0		
-								
l j	i							
1 !	ļ							
-	-				Sand, orange, fine to medium grain, poorly sorted			
	i							
35	Ĩ							
^{~~} -	!				Sand, brown red, fine grain, well sorted	0.0		
	l				-			
i	i				Sand, yellow, well sorted, fine grain			

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SOIL BORING LOG

PROJECT : EBT Treatability Study			y LOCATION : Memphis Depot				
ELEVATION :			DRILLING CONTRACTOR : Boart Longyear				
DRILLING MET		EQUIPMENT	F USED : Rotasonic rig (4 inch sample casing / 6 inch outer casing) START : 04/17/2002 END: 04/18/2002 LOGGER : Mike Karafa				
DEPTH BELOW S		ET)	START . STANDARD	04/17/2002 END: 04/18/2002 LOGGER : SOIL DESCRIPTION	COMMENTS		
INTERV		1)	PENETRATION		COMMENTS		
intr Error	RECOVE	RY (%)	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,		
		#/TYPE	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,		
			6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.		
			(N)	MINERALOGY.	Corrected FID (ppm):		
	100			Same as above except reddish orange Sand, tan, fine grain, well sorted Sand, orange yellow, fine to medium grain, poorly sorted, loose Same as above except brown Sand, white, fine grain, well sorted, loose, dry Sand, white, fine to medium grain, poorly sorted, loose	0.0		
				Same as above except orange Same as above except orange with gravel up to 0.5 inch diameter Same as above except white	0.0		
50 	100			Sand, white, fine to medium grain, poorly sorted, loose, pebbles Sand, tan, fine to medium grain, poorly sorted, loose gravel up tp 0.25 inch diameter	12.1		
- - 55				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 Sand, orange, fine to medium grain, poorly sorted, loose, pebble to cobbles Same as above except tan	0.0		
				Same as above except orange			
	100			Sand, interbedded tan and orange, fine to coarse grain, poorly sorted, gravel up to 0.5 inch diameter	0.0		
	 			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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SOIL BORING LOG

PROJECT :	EBT Trea	tability Study		LOCATION : Memphis Depot			
ELEVATION :	ELEVATION :			DRILLING CONTRACTOR : Boart Longyear			
	DRILLING METHOD AND EQUIPMENT WATER LEVELS :			F USED : Rotasonic rig (4 inch sample casing / 6 inch outer casing) START : 04/17/2002 END: 04/18/2002 LOGGER : Mike Karafa			
DEPTH BELOW		T)	START . STANDARD	04/17/2002 END: 04/18/2002 LOGGER : SOIL DESCRIPTION	COMMENTS		
	AL (FT)	1)	PENETRATION		COMMENTS		
INTERV	RECOVER	RY (%) #/TYPE	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY,	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS,		
	ľ	m 1 1 1 E	6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.		
			(N)	MINERALOGY.	Corrected FID (ppm):		
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			
	100			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			
-i	i			Silty clay, orange, thin grey mottling, wet	1		
85							
				Sand, tan, fine grain, gravel up to 1 inch, wet	0.0		
				Same as above except wet			
90 1 1 1	100			Sand, grey, fine to medium grain, gravel up to 1 inch, damı			
95_ 1				Sand, some clay, fine to coarse grain, gravel, wet Sand, orange, fine grain, damp	0.0 Water table @ 96 ft bgs		
- 100 -	100			Sand, orange, fine to coarse grain, gravel pebble to cobble size, wet Silty clay, orange and grey mottling, wet			
				Silty sand, some clay, stiff, wel Sand, orange, some clay, fine grain, wet	•		
 110				Clay, dark grey, massive			
	-			Boring terminated at 110 ft bgs	1		