PROJECT NUMBER 170039 BORING NUMBER MW-112

SOIL BORING LOG

PROJECT : E	BT Trea	atability Study	,		LOCATION : Mem	phis Depot	
ELEVATION :					DRILLING CONTRACTOR : Boart	Longyear	
DRILLING METHO WATER LEVELS :		EQUIPMENT	USED : Rotasonic START :	rig (4 inch sample casi 04/21/2002	ing / 6 inch outer casing) END: 04/21/2002	LOGGER :	Mike Karafa
DEPTH BELOW SUR		T)	STANDARD	04/21/2002	SOIL DESCRIPTION	LOGOLIN	COMMENTS
INTERVAL	(FT) RECOVER		PENETRATION TEST RESULTS	SOIL NAME, USCS GRO MOISTURE CONTENT,	DUP SYMBOL, COLOR,		DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS,
		<i>m</i> /11/ E	6"-6"-6"-6"	OR CONSISTENCY, SO			TESTS, AND INSTRUMENTATION.
			(N)	MINERALOGY.	2		Corrected FID (ppm):
	100			Asphalt and gravel Silt, brown, stiff, damp, (lo	ess)		(Soil headspace) – 0.0
	100						6.9
				Same as above, Silt			0.0
	100						2.8
				Same as above, Silt Sand, orange, fine grained Silty Sand, bright red, fine	l, well sorted, dry to medium grained, poorly sorted, stiff,	damp	0.0
	100						5.0
	100						0.0

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PROJE ELEVA		EBT Tre	atability Study	,		LOCATION : Memph DRILLING CONTRACTOR : Boart L		
		OD AND	EQUIPMENT	USED : Rotasonio	c rig (4 inch sample ca	asing / 6 inch outer casing)		
WATER	RLEVELS	S :		START :	04/21/2002	END: 04/21/2002	LOGGER :	Mike Karafa
DEPTH I	BELOW S	URFACE (FT)	STANDARD		SOIL DESCRIPTION		COMMENTS
	INTERVA	AL (FT) RECOVE	RY (%) #/TYPE	PENETRATION TEST RESULTS	MOISTURE CONTEN	ROUP SYMBOL, COLOR, T, RELATIVE DENSITY,		DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS,
				6"-6"-6"-6"	OR CONSISTENCY, S	SOIL STRUCTURE,		TESTS, AND INSTRUMENTATION.
				(N)	MINERALOGY.			Corrected FID (ppm):
_ 40		100			Same as above, Silty S Silty Sand, brown, fine f	and to medium grained, stiff, damp, poorly sorted	1	0.0
-	i	i			Silty Sand rod find ara	ined, stiff, slightly damp		
	i	i						
-	- 				Sand, orange, fine grair Sand, orange vellow, fir	ned, loose, dry ne to coarse grained, poorly sorted, loose, g	ravel	0.0
45	.	j			.,			
-	1 				Sand, tan, fine grained,			
	 	100			Sand, reddish orangi angular	e, fine to coarse grained, poorly sorted,	gravel and peoples	0.0
_ _ _ 55	 	100			Sand, tan, fine grained,	loose, dry, well sorted		18.0
- - - 60	, , , , , , , , , , , , , , , , , , ,	100						11.4
···	1	1			Sand, white to light tan.	, very fine grain, powdery, dry		
	1	1			.,			
-		100			Pebbles and cobbles fro	om 61 to 62 feet bgs		1.6
65 <u> </u>	 	100			Sand, tan, fine grained,	well sorted, dry, loose		
-	 					ept color changes from tan to orange rained, poorly sorted, loose, dry		17.1
70 		100			Same as above, orange	e in color		0.0

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SOIL BORING LOG

PROJEC	CT :	EBT Tre	atability Study	,	LOCATION : Memphis Depot			
ELEVATION : D					DRILLING CONTRACTOR : Boart Longyear	DRILLING CONTRACTOR : Boart Longyear		
DRILLING METHOD AND EQUIPMENT USED : Rotasonic rig (4 inch sample casing / 6 inch outer casing)								
	ELOW SU		FT)	START : STANDARD	04/21/2002 END: 04/21/2002 LOGGER SOIL DESCRIPTION	COMMENTS		
	INTERVA		1)	PENETRATION		COMMENTO		
		RECOVE	RY (%) #/TYPE	TEST RESULTS	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY,	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS,		
				6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.		
			1	(N)	MINERALOGY.	Corrected FID (ppm):		
75					Sand, light gray, very fine grained, dry, loose			
					Sand, tan fine grained, well sorted, loose, dry	8.4		
⁸⁰		100			Sand, reddish tan, fine grained, loose, damp, pebbles to cobble, subangular			
-					Sand, white to orange, fine to coarse grained, poorly sorted, pebble to cobble			
_!	İ				Sitly Sand, reddish tan, fine grained, trace gravel, soft damp			
_					ony oanu, redular tan, nne graned, nade gravel, son damp	0.0		
- 85					Sandy Silt, reddish tan, mottled, stiff, fine grained, damp	-		
⁶⁵ —					Sand, gray, fine grained, well sorted, loose, dry	_		
					Sand, tan, fine grained, well sorted, loose, dry	0.0		
90		100						
_					Sand, light tan, very fine grained, loose, dry, well sorted			
					Sand, orange, fine to medium grained, poorly sorted, gravel, pebble to cobbl-	17.8		
95	4				Sand, gray to tan, fine to medium grained, poorly sorted, loose, wet			
- -						Watertable @ approximately 96 feet bg		
		100			Clay with some silt, stiff, gray with red mottling, massive	_		
_ 105 _					Boring Terminated @ 105 feet bgs			
- - 110								