

PRC	JECT NUMBER	BORING NUMBER
	170039	MW-116 (Clustered with MW-115)

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 :		ETHOD AND EQUIPMENT USED: Rotasonic rig (4 inch sample casing / 6 inch outer casing) ELS: START: 04/21/2002 END: 04/21/2002 LOGGER: Bryan Burkingstock						
DEPTH BELOW		FT)	STANDARD	SOIL DESCRIPTION	COMMENTS			
	RVAL (FT)	,	PENETRATION	SOLD EDOTAL HOM	COALITIO			
INTER	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"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.			
			(N)	MINERALOGY.	Corrected FID (ppm):			
ļ	ļ			Gravel (parking lot)	(Soil headspace)			
-	ł			Silt, brown, moist, (loess)	i			
-i	100							
Ī	100				0.0			
	ļ							
	ļ							
5	i							
_i	- j							
- <u>!</u>	Į							
ļ	ļ							
	ł							
-i	i				0.0			
İ	Ī							
7	!							
10	100			Silt, brown, moist, (loess)				
i	i							
-j	Ī							
<u>-!</u>	Į							
ļ	ļ				0.0			
- <u>;</u>	i				1			
⊸i	j							
15	Į							
·								
-	ł							
i	i							
-Ī	Ī							
_!	ļ				0.0			
<u> </u>	ļ.							
-i	i							
20	100							
ļ	ļ							
-1	ļ							
–i	i			Silt, brown, moist, (loess)				
Ī	Ī			Sandy Clay, tan, moist, fine grained, stiff Dark yellow and light gray mottles	0.0			
-[ļ			, , , , , , , , , , , , , , , , , , , ,	1			
-¦	!							
25	i							
_i	<u>-</u> j			Color grading from tan to brownish red to dark red				
	ļ			Increase fine grained sand with depth				
_ !	-							
i	i							
-Ī	Į				0.0			
_[!							
-T				Clayey Sand, dark red, fine grained, well sorted, moist, dense				
30 —	100							
i	Ī							
Ţ	ļ.							
-!	!				10.0			
I I	ł				10.0			
- <u>-</u> -	i			Sand, dark red, fine grained, well sorted, mois				
-i	į							
35	ļ.							
_	-1							
-i	i							
į	i							
	_	•	-		-			



PROJECT NUMBER	BORING NUMBER
170039	MW-116 (Clustered with MW-115)

PROJECT: EBT Treatability Study LOCATION : Memphis Depot ELEVATION:

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

WATER LEVELS:

START: 04/21/2002 END: 04/21/2002

SOIL DESCRIPTION DRILLING CONTRACTOR : Boart Longyear

WATER LEVELS		START:	c rig (4 inch sample casing / 6 inch outer casing) 04/21/2002 END: 04/21/2002 LOGGER:	Bryan Burkingstock
DEPTH BELOW S		STANDARD	SOIL DESCRIPTION	COMMENTS
INTERVA		PENETRATION	SOIL DESCRIPTION	COMMENTS
INTERVA	RECOVERY (%) #/TYPE	TEST RESULTS 6"-6"-6" (N)	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. Corrected FID (ppm):
 - - 	1		Clay, pink with light gray mottles, dense, moist, massive (@37 feet bgs)	0.0
40 - - -	100		Sand, golden to light yellow, loose, fine grained, well sorted	
_ - -			Gravelly Sand, brownish yellow, loose, fine to coarse grained, poorly sorted,	0.0
			pebbles (<20%), <0.25 inches diameter	1371.0
50I -I -I -I	100			
55	i 		Sand, brownish yellow, fine to medium grained, well sorted, loose	126.0
	100			130.0
60 - - -	100			123.0
- - 65_ -	 			
70I	100		Gravelly Sand, brownish yellow, loose, fine to coarse grained, poorly sorted, pebbles (20-30%), <0.75 inches diameter	315.0
			Sand, brownish yellow, fine grained, well sorted, loose, moist	38.0



PROJECT NUMBER	BORING NUMBER	
170039	MW-116 (Clustered with MW-115)	

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)

			START:	04/21/2002 END: 04/21/2002 LOGGER:	
WATER LEVELS : DEPTH BELOW SURFACE (FT)		STANDARD	SOIL DESCRIPTION	Bryan Burkingstock COMMENTS	
INTERVAL (FT) PENETRATION			JOIL DEJORIF HON	CONNINTENTS	
	RECOVER	₹Y (%)			DEPTH OF CASING, DRILLING RATE,
		#/TYPE			DRILLING FLUID LOSS,
					TESTS, AND INSTRUMENTATION.
			(N)		Corrected FID (ppm):
				pebbles (<10%), <1 inch diameter, subangular	380.0
	100			Gravelly Sand, same as above	96.0
 				Gravelly Sand, same as above	
	100			Gravelly Sand, same as above	110.0 150.0
				Gravelly Sand, same as above	Watertable @ approximately 95 feet bg
	100			Gravelly Sand, same as above Clay, yellowish gray to gray, dense, massive	
		100 100	RECOVERY (%) #/TYPE	RECOVERY (%) #/TYPE RESULTS 6"-6"-6" (N) 100	RECOVERY (%) RTYPE SESSURS OF-6'-6'-6' ON SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTEXT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINISTRUCTORS Incomish yellow, loose, fine to medium grained, well sorted, publies (*GR), <1 not adameter, subangular Gravelly Sand, same as above



PROJECT NUMBER	BORING NUMBER
170039	MW-116 (Clustered with MW-115)

PROJECT:	EBT Treatability Study				LOCATION :	: Memphis Depot	
ELEVATION:				DRILLING	CONTRACTOR:	: Boart Longyear	
DRILLING MET	HOD AND EQUIPMENT USED	: Rotasonic	rig (4 inch sample	e casing / 6 inch o	outer casing)		
MATER LEVEL	C ·	CTADT ·	04/21/2002	END:	04/21/2002	LOCCED: Pryon Burkingstock	

	R LEVELS		LQOII WILIYI	START:	04/21/2002	asing / 6 inch outer casing) END: 04/21/2002	LOGGER :	Bryan Burkingstock
		URFACE (I	FT)	STANDARD	5 2002	SOIL DESCRIPTION	LOCOLIN.	COMMENTS
·	INTERVA		•	PENETRATION				
		RECOVE	RY (%)	TEST	SOIL NAME, USCS G	ROUP SYMBOL, COLOR,		DEPTH OF CASING, DRILLING RATE,
			#/TYPE	RESULTS		T, RELATIVE DENSITY,		DRILLING FLUID LOSS,
				6"-6"-6"-6"	OR CONSISTENCY,			TESTS, AND INSTRUMENTATION.
				(N)	MINERALOGY.			Corrected FID (ppm):
	<u> </u>	Į.			Clay, same as above			
-	1	ļ						
_	i	i						
	i	ĺ						
-	1	!						
115 _	-	+			Boring Terminated @ 1	02 foot has		
					Bolling Terminated @ 1	os leet bys		
-	-							
l _	_							
-	-[
120								
-	-							
-	-							
-	-							
-	-							
125								
_	_							
-	-							
-	-							
-	-							
130								
_	_[
-	-[
-	-[
-	1							
135								
_	_[
-	-[
-	-[
-	-[
140 _								
' - '	1							
	_[
_	-1	1	1					