

PROJECT NUMBER **BORING NUMBER** 160492.SA.03 **MW-88**

SOIL BORING LOG

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

305.15 feet MSL (TOC); 305.47 feet MSL (ground) DRILLING CONTRACTOR: Tri-State Testing Services, Inc. **ELEVATION:**

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger 4.25 inch ID with CME Sampler START: END:

LOGGER: Jay Parker (Jacobs) WATER LEVELS: 80.98 feet BTOC (11/2001) 09/20/2001 09/21/2001 DEPTH BELOW SURFACE (FT) STANDARD SOIL DESCRIPTION COMMENTS INTERVAL (FT) PENETRATION RECOVERY (%) TEST SOIL NAME, USCS GROUP SYMBOL, COLOR, DEPTH OF CASING, DRILLING RATE, #/TYPE MOISTURE CONTENT, RELATIVE DENSITY, DRILLING FLUID LOSS, RESULTS 6"-6"-6"-6" OR CONSISTENCY, SOIL STRUCTURE, TESTS, AND INSTRUMENTATION. (N) MINERALOGY. Corrected FID (ppm): One foot blacktop and gravel CLAYEY SILT, (10YR4/4) dark yellowish brown, moist, damp (Soil headspace) Used hollow-stem auger drilling method no penetration tes 100 1.2 results CLAYEY SILT, same as above 5 100 2.4 CLAYEY SILT, same as above, increase in SILT 10 100 2.4 SILT, (10YR5/6) yellowish brown, damp, nonplastic 15 100 1.8 Becoming mottled with grays @ 18 feet bgs SILTY CLAY, (10YR6/1), gray with some mottled browns, damp, slightly plastic to plastic 20 100 1.4 SILTY CLAY, (7.5YR4/6) same as above, strong brown mottling 25 100 2.5 SAND, light gray 7.5/7/1, some Fe mottles; fine to med., loose, damp 30 75 4.0 SAND, same as above until 37 feet. 35 75 0.0



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 ELEVATION:
 305.15 feet MSL (TOC); 305.47 feet MSL (ground)
 DRILLING CONTE

 DRILLING METHOD AND EQUIPMENT USED:
 Hollow Stem Auger 4.25 inch ID with CME Sampler

 WATER LEVELS:
 80.98 feet BTOC (11/2001)
 START:
 09/20/2001
 END:
 09/21
 09/21/2001

SOIL DESCRIPTION NTERVAL (FT)	0.0 1.7
RECOVERY (%) #/TYPE RESULTS 6*-6*-6* (N) Used hollow-stem auger drilling method no penetration test results SAND, pale yellow, fine, well sorted, loose 2.5Y 8/4 SAND as above @ 41 feet. SAND pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, firm, med. sand.	DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. Corrected FID (ppm 0.0
OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY. Used hollow-stem auger drilling method no penetration test results SAND, brownish yellow 10YR 6/8. Fine, well sorted, loose, di SAND, pale yellow, fine, well sorted, loose 2.5Y 8/4 SAND as above @ 41 feet. SAND with gravel, strong brown. 7.6YR 4/6, 30% pebbles an subrounded, dry to damp, loose to firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, fine , dry. Grades to hard red SAND Brown at 53 feet. Black organic P mixed throughout SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	TESTS, AND INSTRUMENTATION. Corrected FID (ppm mp. 0.0
Used hollow-stem auger drilling method no penetration test results 50 SAND, pale yellow, fine, well sorted, loose 2.5Y 8/4 SAND as above @ 41 feet. 50 SAND with gravel, strong brown. 7.6YR 4/6, 30% pebbles an subrounded, dry to damp, loose to firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, fine , dry. Grades to hard red SAND Brown at 53 feet. Black organic P mixed throughout SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	ned well sorted. mp. 0.0
SAND, strong brown 7.5YR 5/8, very loose, dry, medium grai auger drilling method no penetration test results SAND, brownish yellow 10YR 6/8. Fine, well sorted, loose, dry, medium grai salver drilling method no penetration test results SAND, pale yellow, fine, well sorted, loose 2.5Y 8/4 SAND as above @ 41 feet. SAND with gravel, strong brown. 7.6YR 4/6, 30% pebbles an subrounded, dry to damp, loose to firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, fine , dry. Grades to hard red SAND Brown at 53 feet. Black organic P mixed throughout SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	ned well sorted. mp. 0.0
SAND as above @ 41 feet. 5	
SAND with gravel, strong brown. 7.6YR 4/6, 30% pebbles an subrounded, dry to damp, loose to firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, fine, dry. 100 Grades to hard red SAND Brown at 53 feet. Black organic P mixed throughout SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	
subrounded, dry to damp, loose to firm, med. sand. SAND, pale yellow 2.5Y 8/2 loose, fine , dry. 100 Grades to hard red SAND Brown at 53 feet. Black organic P mixed throughout SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	d gravel
Grades to hard red SAND Grades to hard red SAND Brown at 53 feet. Black organic P mixed throughout SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	
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SAND, yellowish red 5YR 4/6 fine to med., loose 10% gravel	0.0
	and pebbles, dry
	0.0
SAND, yellow 10YR 7/6, fine to med. fine, loose, dry, well sor	
-1 1 80 -1 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	0.0
SAND, white 2.5Y 8/1, very fine to fine, well sorted, loose dry subrounded to rounded gravel	
-i i ⁸⁰	0.0
First 2.5 feet lost in recovery, but appeared to be same as ab pebbles and gravel, light yellowish brown, 2.5Y 6/4, fine to colloose, dry, pebble/gravel matrix at 20%	ove. SAND with
	0.0



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ELEVATION: 305.15 feet MSL (TOC); 305.47 feet MSL (ground)

DRILLING CONTE

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger 4.25 inch ID with CME Sampler

WATER LEVELS: 80.98 feet BTOC (11/2001)

START: 09/20/2001

END: 09/21

				em Auger 4.25 inch ID with CME Sampler	LOCOED	In Deduce (Incohe)
WATER LEVELS: 80.98 feet BTOC (DEPTH BELOW SURFACE (FT)		STANDARD	09/20/2001 END: 09/21/2001	LUGGER :	Jay Parker (Jacobs) COMMENTS	
		1)	-1	SOIL DESCRIPTION		COIVIIVIEN 15
INTER	RVAL (FT)	RY (%) #/TYPE	PENETRATION TEST RESULTS 6"-6"-6"-6"	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE,		DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
			(N)	MINERALOGY.		Corrected FID (ppm):
75 - -	75			SAND w/pebbles, yellowish red 5YR 4/6, fine to med., loose, pebbli pebbles <5%, dry	es rounded,	0.0 _
80I	- 75			Becoming wet with gravel at 78 feet Same as above to 79 feet. SAND, very fine, moist, light grey 2.5Y 7/2, loose to firm		Sample collected for VOCs
j	i					Water table
- - 				Same as above.		Sample collected for TOC
l <u>.</u> !	90					_
 	- -			SAND with gravel, light grey 2.5Y 7/2, saturated, some fines to silt		-
-	ļ			Same as above		_
⁹⁰ —	75					-
- i	i					-
	-			Same as above		-
95	į					_
<u> </u>	100					_
	!					
- 				Clay @ 97 feet		1
-	_!					-
	"T 			Silty clay, grey, banded with dark grey		-
100	!					
i	100					
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	_i					_
-				BORING TERMINATED @ 102.5 FEET BGS.		-
-						_
105						_
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-						-
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_						-
110						
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						1