
 CH2MHILL				PROJECT NUMBER 334469.SA.HS		BORING NUMBER MW-233		SHEET 1 of 3		
				SOIL BORING LOG						
PROJECT : Memphis Depot - Intermediate Aquifer Inv.				LOCATION : Memphis, Tennessee				ELEVATION:		
DRILLING CONTRACTOR : Boart Longyear				NAME OF DRILLER : C. Herron						
DRILLING METHOD/EQUIPMENT: SR 120 Track-Mounted Rotasonic				SIZE/TYPE OF BIT : 4X6"						
OVERBURDEN THICKNESS : DEPTH DRILLED INTO ROCK N/A				TOTAL DEPTH OF BORING 90 ft-bgs						
WATER LEVELS : 59.08 ft-bgs				START: 9/1/07 / END: 9/1/07				LOGGER : Derek Miller/ORO		
DEPTH BELOW SURFACE (FT)			STANDARD PENETRATION TEST RESULTS		SOIL DESCRIPTION			COMMENTS		
SAMPLE INTERVAL (FT)			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. FID (ppm)		
RECOVERY (FT)										
#/TYPE										
0-8			8 / 8		C-1		N/A		0.0-3.5: CLAYEY SILT (ML), pale brown, dry, loose, ~20% clay	
5									3.5-8.0: AS ABOVE, moist, soft	
8-18			10 / 10		C-2		N/A		8.0-13.3: AS ABOVE	
10									13.3-18.0: CLAYEY SILT (ML), light brown to reddish brown, sl. moist, firm, ~25% clay	
15									18.0-20.0: AS ABOVE	
18-28			10 / 10		C-3		N/A		20.0-23.8: SILTY TO SL. SANDY CLAY (CL), brown, moist, soft, ~10 to 25% fine to medium-grained sand w/ depth, common medium distinct reddish brown mottles	
20									23.8-28.0: SILTY SAND (SM), reddish brown, moist, firm and crumbly, trace gravels up to 1/2", subround, chert, few medium distinct yellowish brown to light gray mottles, ~30% silt	
25									28.0-31.8: AS ABOVE	
28-38			10 / 10		C-4		N/A		31.8-33.1: SANDY SILTY (ML), dark brown, sl. moist, soft and crumbly, ~20% medium to coarse-grained sand	
30									33.1-38.0: SAND (SP), light reddish brown, moist, loose, trace gravel up to 1/4", chert, subround, fine to medium-grained sand	
35										

 CH2MHILL				PROJECT NUMBER 334469.SA.HS		BORING NUMBER MW-233		SHEET 2 of 3	
				<h2 style="text-align: center;">SOIL BORING LOG</h2>					
PROJECT : Memphis Depot - Intermediate Aquifer Inv. LOCATION : Memphis, Tennessee						ELEVATION:			
DRILLING CONTRACTOR : Boart Longyear						NAME OF DRILLER : C. Herron			
DRILLING METHOD/EQUIPMENT: SR 120 Track-Mounted Rotasonic						SIZE/TYPE OF BIT : 4X6"			
OVERBURDEN THICKNESS : DEPTH DRILLED INTO ROCK N/A						TOTAL DEPTH OF BORING 90 ft-bgs			
WATER LEVELS : 59.08 ft-bgs START: 9/1/07 / END: 9/1/07						LOGGER : Derek Miller/ORO			
DEPTH BELOW SURFACE (FT)				STANDARD PENETRATION		SOIL DESCRIPTION		COMMENTS	
SAMPLE INTERVAL (FT)		RECOVERY (FT)		TEST RESULTS		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. FID (ppm)	
		#/TYPE		6"-6"-6" (N)					
<div style="display: flex; align-items: center;"> <div style="width: 20px; text-align: center;">40</div> <div style="width: 100%; border-left: 1px solid black; border-right: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 100%; border-bottom: 1px solid black;"></div> </div> </div>	28-38	10 / 10	C-4	N/A	38.0-42.0: SAND (SP), pale brown, wet, loose, fine-grained 42.0-48.0: GRAVELLY SAND (SW), pale brown to reddish brown, sl. moist, loose, gravel up to 1", chert, subround, ~80% fine-grained sand 48.0-51.3: SL. GRAVELLY SAND (SW), reddish brown, (wet) loose, fine-grained sand, ~10% gravel, chert, up to 1", sub-round 51.3-58.0: GRAVELLY SAND (SW), pale brown to reddish brown, sl. moist, loose, fine-grained sand, gravel up to 1", chert, subround, ~20-25% gravel 58.0-68.0: AS ABOVE 68.0-68.7: AS ABOVE 68.7-74.7: CLAY (CL), reddish brown, moist, soft to firm w/ depth, common medium distinct gray mottles throughout	MAX FID ON CORE: 172.3			
	38-48	10 / 10	C-5	N/A		MAX FID ON CORE: 41.3			
	48-58	10 / 10	C-6	N/A		MAX FID ON CORE: 337.7			
	58-68	10 / 10	C-7	N/A		MAX FID ON CORE: 161.1			
	68-78	10 / 10	C-8	N/A		MAX FID ON CORE: 22.0			

**CH2MHILL**

PROJECT NUMBER

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BORING NUMBER

MW-233

SHEET 3 of 3

SOIL BORING LOG

PROJECT : Memphis Depot - Intermediate Aquifer Inv. LOCATION : Memphis, Tennessee

ELEVATION:

DRILLING CONTRACTOR : Boart Longyear

NAME OF DRILLER : C. Herron

DRILLING METHOD/EQUIPMENT: SR 120 Track-Mounted Rotasonic

SIZE/TYPE OF BIT : 4X6"

OVERBURDEN THICKNESS : DEPTH DRILLED INTO ROCK N/A

TOTAL DEPTH OF BORING 90 ft-bgs

WATER LEVELS : 59.08 ft-bgs START: 9/1/07 / END: 9/1/07

LOGGER : Derek Miller/ORO

DEPTH BELOW SURFACE (FT)				STANDARD	SOIL DESCRIPTION	COMMENTS
SAMPLE INTERVAL (FT)				PENETRATION	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. FID (ppm)
RECOVERY (FT)				TEST RESULTS		
#/TYPE				6"-6"-6" (N)		
75	68-78	10 / 10	C-9	N/A	74.7-78.0: CLAY (CL), dark gray, sl. moist, hard, many coarse prominent reddish brown mottles transitioning to few fine distinct mottles w/ depth	MAX FID ON CORE: 22.0
80	78-88	10 / 10	C-10	N/A	78.0-88.0: SL. SANDY CLAY (CL), dark gray, sl. moist, firm to hard, moderate plasticity, ~15% v. fine-grained sand	MAX FID ON CORE: 8.8 Sample MW233 SS 80: VOC (8260B/5035A) TOC (415.1)
85						
90	88-90	2 / 2	ST-1	N/A	88.0-90.0: AS ABOVE *LOGGED SHAVINGS FROM TUBE*	MAX FID ON CORE: N/A Sample MW233 ST 88-90: (Shelby tube) Vertical permeability and grain size analysis TD @ 90 FT-BGS