



Proj. No.: 113630.01.ZZ

SOIL BORING LOG

Project: DDMT GW Investigation

Drilling Contractor: Boat Longyear/Minnesota

Drilling Method & Equipment: Rotasonic

Logger: S. Bruer/MGM

Depth Below Surface (FT)	Sample			Standard Penetration Test Results	Soil Description	Comments
	Interval	Number and Type	Recovery (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

Elevation:	Location: Memphis, TN	Boring No. MW-49(D)
Start: 1010 1/25/96	Finish: 1803 1/25/96	Water Level: 78.92 ft bgs

Sheet 1 of 3

0			5		1 inch TOPSOIL SILTY CLAY (CL) , light brown, moist, soft to medium stiff, low plasticity, trace organics - with black and orange mottling below 3 ft - with light gray mottling below 4 ft - soft below 6 ft	Start Drilling at 1010
5	5		5			
10	10		5			- gradational contact
15	15		5			- gradational contact
20			10			
25	25				SILTY CLAY (CL) , light brown, moist, soft, low plasticity - medium stiff and low to medium plasticity below 20 ft - with black, orange, and light gray mottling below 24 ft	
30			10			
35	35					- reddish-brown with black mottling, soft, trace fine, quartz sand below 28 ft

NOTES:

(1) - water level measurement made on 1/27/96



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Sheet 2 of 3

35						- gradational contact
40			10		CLAYEY SAND (SC) , reddish-brown, moist, medium dense, fine to medium, quartz, medium plasticity clay	<u>Fluvial Deposits</u>
45	45				SILTY FINE SAND (SM) , reddish- to orangish-brown, moist, loose, quartz	- gradational contact
50					POORLY GRADED SAND (SP) , yellowish-brown, moist, loose, fine to medium, quartz	- gradational contact
55	55				- orangish-brown below 47 ft	
60	60				- orangish-yellow below 48.5 ft	
65	65		5		WELL GRADED GRAVELLY SAND (SW) , orangish-brown, moist to wet, loose, fine to coarse, quartz, with fine to coarse, subrounded to rounded, chert gravel	- gradational contact
70					POORLY GRADED SAND (SP) , yellowish-brown to yellowish-orange, moist, loose, fine to medium, quartz, trace coarse, quartz sand	
					- brownish-orange below 62 ft	<u>62 ft</u> - 2 inch black, light gray, and light brown CLAY seam
					WELL GRADED GRAVELLY SAND (SW) , orangish-brown, moist, loose, fine to coarse, quartz, with fine to coarse, subrounded, chert gravel	<u>68 ft</u> - 2 inch light gray CLAY seam; abrupt contact

NOTES:

- water level measurement made on 1/27/96



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Sheet 3 of 3

75	75		10		(68 ft): POORLY GRADED SAND (SP) , brownish-orange, moist, loose, medium, quartz, trace coarse sand - trace fine, subrounded, chert gravel below 74 ft	
80			10		WELL GRADED SANDY GRAVEL (GW) , orangish-brown, wet, loose, fine to coarse, subrounded to rounded, chert with medium to coarse, quartz sand, trace subrounded, chert cobbles	- gradational contact
85	85				POORLY GRADED SAND (SP) , brownish-orange, moist, loose, fine to medium, quartz - 1 inch CLAY seam at 87 ft	- gradational contact
90	90		5		WELL GRADED GRAVELLY SAND (SW) , orangish-brown, wet, loose, fine to coarse, quartz, with fine to coarse, subrounded, chert gravel	- Geotechnical Sample collected from 88 ft to 90 ft
92.5	S-1	2.5			POORLY GRADED SAND (SP) , tan, wet, loose, medium, quartz, trace fine, subrounded, chert gravel SILTY CLAY (CL) , light gray with black mottling, moist, very stiff, medium plasticity, lignitic	<u>Jackson Fm\Upper Claiborne</u> Stopped Drilling at 1710
95					Boring Terminated at 92.5 Feet	1803 - MW-49 installed; see attached construction diagram
100						
105						

NOTES:

- water level measurement made on 1/27/96
- Pocket Penetrometer Measurements on S-1: 3.75, >4.5, >4.5 tsf