DLZ Ohio, Inc. * 6121 Huntley Road, Columbus, Ohio 43229 * (614) 888-0040

Client: ms consultants | *Project:* FRA-70-8.93 | *Job No.* 0221-1004.01

LOG OF: Boring B-040-0-08 | *Location:* Sta. 211+71.37, 62.65' RT., BL I-70 EB | *Date Drilled:* 8/15/2008 to 8/19/2008

WATER OBSERVATIONS:
Water seepage at: 10.5', 23.0', 47.0'
Water level at completion: 29.7' (beginning of shift, 8/18/08)
29.3' (includes drilling water)

FIELD NOTES: *Advanced boring using 4.0" diameter flush joint casing.*

Depth (ft)	Elev. (ft)	Blows per 6"	Recovery	Sample No. Drive	Sample No. Press / Core	Hand Penetro-meter (tsf)	DESCRIPTION	Graphic Log	GRADATION % Aggregate	% C. Sand	% M. Sand	% F. Sand	% Silt	% Clay	STANDARD PENETRATION (N60) Natural Moisture Content, % - ● PL — LL Blows per foot - ○ / Non-Plastic - NP (10 20 30 40)
	733.9														
		10 15 29	2	11			Dense to very dense gray GRAVEL (A-1-a), some fine to coarse sand; possible cobbles; wet.								
		14 24 32	2	12			@ 28.5'-30.0', trace fine to coarse sand.								59
30															
31.0	727.9														
		11 17 22	18	13		4.5+	Hard gray SANDY SILT (A-4a), some to "and" fine to coarse sand, trace to little gravel; damp.		9	13	---	32	33	13	
		29 31 34	18	14		4.5+	@ 32.0'-32.5', soft, wet (HP < 0.25). @ 33.5'-35.0', contains occasional silt seams								68
35															
		29 30 50/5	17	15		4.5+									50+
		18 50/3	2	16		4.5+	@ 38.5'-47.0', possible cobbles.								50+
40															
		16 50/5	5	17		4.5+									50+
		19 50/5	5	18		4.5+			6	9	---	29	37	19	50+
45															
47.0	711.9														
		50/4	4	19			Very dense gray COARSE AND FINE SAND (A-3a), some silt, little gravel; contains occasional silty clay seams, possible cobbles; wet.								50+
50	708.9														