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-032-0-08 | *Location:* Sta. 196+22.20, 79.7' RT., BL I-70 EB | *Date Drilled:* 7/8/2008 to 7/15/2008

WATER OBSERVATIONS:
Water seepage at: 47.0'
Water level at completion: 25.7' (includes drilling water)

FIELD NOTES:
3.25" diameter hollowstem augers to 120.5';
4.0" diameter flush joint casing from 120.5' to 128.5'.

Depth (ft)	Elev. (ft)	Blows per 6"	Recovery	Sample No. Drive	Sample No. Press / Core	Hand Penetrometer (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)
	651.4						Very dense gray GRAVEL WITH SAND (A-1-b), trace silt; wet.								
		5 37 50/3	15	29											50+
105															
		27 50/4	10	30					38	43	---	13	--6--		NP 50+
110															
		50/5	5	31			@ 113.5'-113.9', possible cobbles.								50+
115															
117.0	634.4														
		22 50/4	10	32			Very dense gray GRAVEL (A-1-a), "and" fine to coarse sand, trace silt; wet.		55	24	---	14	--7--		NP 50+
120.0 120	631.4														
120.5	630.9	50/3	3	33			Severely weathered gray SHALE.								50+
		Core 60"	Rec 22"	RQD 8%	R1		Shale, dark gray, highly to severely weathered, very weak to weak, laminated, calcareous, friable, fissile, pyritic, jointed, fractured to highly fractured, tight, slightly rough; RQD 5% Loss 53%.								
125	626.4														