SB-107

SOIL BORING LOG

PAGE 1 of 4
DATE 5/13-14/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-107
Station: 22+69
Offset:: 30.0' Left
Ground Surface Elev. 415.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CRUSHED STONE	413.7		AS / 15	NP	7
CINDERS-black-medium dense (Fill)	412.2		12 / 9	NP	20
LOAM-dark brown-medium stiff (A-4) Fill, Wet	409.7	-5	2 / 1 / 2	0.5P	33
TOPSOIL-black (A-7)	407.2		1 / 1 / 1	0.25P	34
SILTY CLAY-brown & gray-stiff to very stiff (A-7) Wet	402.2	-10	3 / 4 / 5	87 / 2.3B	31
SILTY CLAY LOAM-brown & gray-very loose (A-4) Wet	399.7	-15	2 / 1 / 2	<0.25B	32
SILTY LOAM-very loose to loose (A-4)	394.7	-20	1 / 1 / 1	NP	31
SILTY LOAM-very loose to loose (A-4)	394.7		5 / 5 / 9	NP	23
SAND-brown & gray-medium dense (A-3)		-25	8 / 11 / 10	NP	17
		-30	10 / 13 / 13	NP	15
		-35	9 / 12 / 16	NP	20
		-40	5 / 4 / 6	NP	17
		-40	5 / 8 / 3	NP	20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-medium dense (A-3)	374.7		2 / 2 / 9	-	490
WOOD	372.2		14 / 8 / 5	NP	17
SAND-gray-medium dense (A-3)		-45	12 / 10 / 8	NP	22
		-50	4 / 6 / 9	NP	24
		-60	9 / 7 / 4	NP	24
SANDY LOAM-gray-loose (A-2)	362.2	-55	2 / 3 / 3	-	30
SAND-gray-medium dense to dense (A-3)	359.7	-60	8 / 9 / 10 / 16 / 19	NP	22 / 24	23
SAND-gray-medium dense to dense (A-3)	342.2	-65	16 / 18 / 14	NP	22
		-70	8 / 8 / 9	NP	24
		-75	8 / 5 / 10	NP	23
		-80	36 / 41 / 28	NP	17
SAND with Gravel-gray-loose (A-1-b)	339.7	-75	5 / 4 / 5	NP	14
SAND-gray-medium dense to very dense (A-3)		-80	5 / 7 / 9 / 7 / 9	NP	24 / 26

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Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense to very dense (A-3)	329.7		24 / 26 / 29	NP	24
SAND with Gravel-gray-medium dense to dense (A-1-b)	324.7		33 / 43 / 45	NP	23
SAND-brown & gray-dense to very dense (A-2)		-85	16 / 17 / 18	NP	17
		-90	10 / 9 / 10	NP	17
		-95	13 / 11 / 10	NP	17
		-100	13 / 14 / 16	NP	17
		-100	16 / 22 / 28	NP	15
		-100	16 / 20 / 26	NP	17
SAND-brown & gray-dense to very dense (A-2)	309.7	-105	19 / 31 / 46	NP	13
		-105	21 / 21 / 30	NP	15
SAND & Gravel-brown & gray-very dense (A-1)	307.2	-110	24 / 32 / 43	NP	10
SAND with Gravel-brown & gray-very dense (A-1-b)	302.2	-110	50/1" / 50/5"		NR / NP	15
Drillers Observation: Apparent Bedrock.	301.7				
RUN 1 (-113.5' to -123.5') Mississippian System, Valmeyeran Series Limestone		-115	RUN 1		
Light gray & fine grained with horizontal bedding. Horizontal fractures @ -113.7', -114.0', -114.2', -114.5', -114.7', -115.1', -115.6', -116.2', -116.9', -117.0', -117.4', -117.6', -118.0', -118.1' & -118.6'. ½" clay parting @ -119.1'. Horizontal fractures @ -119.4', -119.9', -120.7', -121.3', -122.0' & -122.6'. Transverse fracture @ -123.3'.		-120			

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