SB-04

Geo Services, Inc.
Geotechnical, Environmental, Civil Engineering
805 Meridian Circle, Suite 204
Naperville, Illinois 60563
(630) 355-7535

SOIL BORING LOG

PAGE 2 of 3
DATE 32-32009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 396.2
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-loose to dense (A-3)			8		
			10		
			13	NP	25
			10		
			10		
		-45	10	NP	26
			5		
			5		
			7	NP	16
			7		
			11		
		-50	17	NP	16
			14		
			18		
			20	NP	18
			18		
			20		
		-55	16	NP	13
	348.2				
SAND with Gravel-brown & gray-medium dense (A-1-b)			8		
			8		
			10	NP	28
			10		
			12		
		-60	11	NP	14
SAND with Gravel-brown & gray-medium dense (A-1-b)			6		
			7		
			13	NP	10
	340.7				
SAND-brown & gray-medium dense to dense (A-3)			10		
			14		
		-65	16	NP	11
			10		
			12		
			12	NP	12
			12		
			12		
		-70	13	NP	13
			14		
	331.7				
SAND & GRAVEL-brown & gray-very dense (A-1)			19		
			50/4"	NP	12
			10		
			42		
		-75	27	NP	8
			41		
			50/3"		
				NP	9
	325.7				
SAND-brown & gray-medium dense to very dense (A-3)			10		
			11		
		-80	12	NP	10

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 I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger
HAMMER TYPE CME Automatic

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 396.2
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-medium dense to very dense (A-3)			10		
			11		
			11	NP	13
			11		
		-85	10	NP	11
			22		
			34		
			30	NP	14
			12		
			18		
		-90	21	NP	22
	313.2				
SAND with Gravel-brown & gray-very dense (A-1-b)			23		
			40		
			50	NP	7
			15		
			34		
		-95	50/6"	NP	14
			31		
			35		
			50	NP	10
			33		
			45		
		-100	50/5"	NP	9
SAND with Gravel-brown & gray-very dense (A-1-b)			50/3"		
	301.2				
Drillers Observation: Apparent Bedrock	299.7				
Mississippian System, Valmeyeran Series Limestone		-105			
RUN 1 (-104.0' to -114.0') Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=57.0%		-110			RUN 1
RUN 2 (-114.0' to -119.0') Light gray & fine grained with horizontal bedding becoming gray & sandy @ -114.5'. Some tight vertical fractures & chert replacement throughout. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=59.0%	389.7	-115			RUN 2
End Of Boring @ -119.0' Hollow Stem Augers To -10.0'	284.7				
Rotary Drilling To Completion CME Automatic Hammer		-120			

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

SB-04 Run-1

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ROCK CORE LOG

PAGE 1 of 2
DATE 32-32009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I-70
DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08
SECTION 82-2-1HVB
LOCATION I-70 Curved Approach Structures
COUNTY St. Clair
CORING METHOD Rotary Wash

STRUCT. NO. S.N. 082-0318
Station: 127+00 to 140+74
BORING NO. SB-04
Station: 132+64
Offset: 43.0' Right
Ground Surface Elev. 403.7

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.2
Begin Core Elev. 299.7

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
MISSISSIPPIAN SYSTEM, VALMEYERAN SERIES LIMESTONE	299.7						
RUN 1 (-104.0' to -114.0') Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout.		-5	1	100.0	57.0	n/a	890@ -108.2'
		-10					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)