SB-06

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Warrenville Ctr., Suite 204
Naperville, Illinois 60563
630-961-7900

SOIL BORING LOG

PAGE 3 of 4
DATE 4-22-2009
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-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

Description	Elev. (ft)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense to dense (A-3)	328.1		9, 10, 17	NP	18
SAND & GRAVEL-brown & gray-medium dense (A-1)	325.6	-85	33, 13, 15	NP	10
SAND with Gravel-brown & gray-medium dense to dense (A-1-b)	320.6	-90	12, 12, 11, 18, 25, 18	NP	10
SAND-brown & gray-dense (A-3)	315.6	-95	17, 19, 22, 14, 24, 23	NP	14
SAND with Gravel-brown & gray-medium dense to very dense (A-1-b)	307.6	-100	12, 11, 10, 14, 22, 23	NP	14
SAND with Gravel-brown & gray-medium dense to very dense (A-1-b)	303.1	-105	25, 50/3"	NP	13
SAND & GRAVEL-brown & gray-very dense (A-1)	299.1	-110	50/3", 46, 50/3"	NP	9
GRAVEL-brown & gray-very dense (A-1-a)	298.6	-115	50/3", 50/1"	NP	10
Drillers Observation: Apparent Bedrock.		-120	RUN 1		NR

RUN 1 (-112.5' to -122.5')
Mississippian System,
Valmeyeran Series Limestone

Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings.

Recovery = 99.5%
R.Q.D. = 32.5%

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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SOIL BORING LOG

PAGE 4 of 4
DATE 4-1-2009
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-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
Cave In 393.1

Description	Elev. (ft)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
RUN 1 continued.	288.6		RUN 1		
RUN 2 (-122.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings becoming darker gray & weathered with some chert replacement. Numerous horizontal fractures throughout. Recovery = 100.0% R.Q.D. = 14.5%	283.6	-125	RUN 2		-145
End Of Boring @ -127.5' Hollow Stem Augers To -15.0' Rotary Drilling To Completion CME Automatic Hammer 15' Of 4"* Casing Used 114' Of 3"* Casing Used		-130			-150
		-135			-155
		-140			-160

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-06 Run-1

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ROCK CORE LOG

PAGE 1 of 2
DATE 4-1-2009
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-06
Station: 135+64
Offset: 43.0' Right
Ground Surface Elev. 411.1

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. 299.1
Begin Core Elev. 298.6

Description	Elev. (ft)	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-112.5' to -122.5') Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with numerous horizontal fractures throughout & some thin clay partings.	298.6	-5, -10	1	99.5	32.5	n/a	973 @ -124.5'

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)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION OVER NS, TRRA, MCT AND INDUSTRIAL DR.	SOIL BORING LOGS 11 OF 20	F.A.P. RTE. 998	SECTION 82-2-1HVB	COUNTY ST. CLAIR	TOTAL SHEETS 285 / SHEET NO. 212
		DRAWN - SNB	REVISED -			SN 082-0318 (EB) & 0319 (WB)		CONTRACT NO. 76C44	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
	PLOT DATE = $DATE$	DATE - 06/04/10	REVISED -		SCALE: SHEET NO. S-102 OF S-111 STA. 134+22.00 TO STA.				

\082-2318-CONN-05-018-HS.DGN \082-2318-CONN-05-018-HS.DGN \082-2318-CONN-05-018-HS.DGN \082-2318-CONN-99-001-BD.DGN
6/02/2010, 18:05:25 BENCHLIO \V5-2014\ANNVHAL\LD-TRANS_07\222-2868B-001\STRUCT\CAD\01 DESIGN\082-2318\SHEET\082-2318-CONN-05-011-SHT-HS.DGN