STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 355-2838

PAGE 1 of 2
DATE 11/3/2008
LOGGED BY DR
JOB NUMBER P-91-186-08
GSI JOB No. 08015

ROUTE I-294 & I-57
DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)
SECTION -
LOCATION I-57 Over I-294
COUNTY Cook
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE CME Automatic

STRUCT. NO. 016-1096 & 016-1097
Station -
BORING NO. I57-I294 B-4
Station: 257+32
Offset: 128.5' Right
Ground Surface Elev. 614.3

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

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
15.0" ASPHALT	613.1		16		
			16		
			10	NP	7
CRUSHED STONE- loose to medium dense			10		
			8		
		-5	11	NP	6
			3		
			3		
			2	NP	8
			2		
	604.8		1		
CLAY to CLAY LOAM-dark brown & gray-very loose (A-6) Fill		-10	1	NP	4
			2		
			1		
	613.3		2	-	11
SILTY LOAM-brown & gray- very loose (A-4) Apparent Fill			2		
			1		
	598.8	-15	2	NP	21
SANDY LOAM-dark gray- loose (A-2) Apparent Fill			2		
			3		
			4	NP	23
			4		
			4		
		-20	4	NP	14

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-loose (A-2)	593.8		6		98
CLAY-gray-medium stiff (A-6) Wet			17		
	591.3		19	0.7B	27
SILT-gray- dense to very dense (A-4)			32		
			50		
		-25	-	NP	16
			19		
			24		
			29	NP	19
			15		
			17		
		-30	23	NP	19
	582.3				
SILTY LOAM with Fractured Rock- gray-very dense (A-4)			19		
			19		
		-35	20	NP	10
			18		
			20		
		-40	50/3"	NP	12

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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ROUTE I-294 & I-57
DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)
SECTION -
LOCATION I-57 Over I-294
COUNTY Cook
DRILLING METHOD Straight Flight Auger/Rotary
HAMMER TYPE CME Automatic

STRUCT. NO. 016-1096 & 016-1097
Station -
BORING NO. I57-I294 B-4
Station: 257+32
Offset: 128.5' Right
Ground Surface Elev. 614.3

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

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY LOAM with Fractured Rock- gray-very dense (A-4)	572.3				
SANDY LOAM with Fractured Rock- gray-very dense (A-2)			40		
			35		
		-45	25/3"	NP	9
	567.3				
FRACTURED ROCK-gray- very dense (A-1)			50/3"		
		-50		NP	16
	561.3				
Drillers Observation: Apparent Bedrock.	559.3	-55			
Run 1 (-55.0' to -65.0') Silurian System Niagaran Series Dolomite Light gray to gray with horizontal bedding. Fine grained with some varving. Vertical fracture with numerous intersecting horizontal fractures from -56.5' to -57.8'. Horizontal fractures @ -58.1', -58.2', -58.4', -58.8', -59.4', -60.1', -60.5', -60.7', -60.9' & -61.5'. Highly fractured with numerous intersecting horizontal fractures from -61.8' to -63.5'.		-60	RUN 1		

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Recovery=96.0% R.Q.D.=43.0% 100.0% Water Loss	549.3	-65	RUN 1		
End Of Boring @ -65.0' Straight Flight Augers To -15.0' Rotary Drilling To Completion CME Automatic Hammer 15.0' 4.0"* Casing Used 53.0' 3.0"* Casing Used					
		-70			
		-75			
		-80			

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

ROCK CORE LOG

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ROUTE I-294 & I-57
DESCRIPTION I-57 & I-294 Interchange Improvements (PTB 146, Item 1)
SECTION -
LOCATION I-57 Over I-294
COUNTY Cook
CORING METHOD Rotary Wash

STRUCT. NO. 016-1096 & 016-1097
Station -
BORING NO. I57-I294 B-4
Station: 257+32
Offset: 128.5' Right
Ground Surface Elev. 614.3

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 561.3
Begin Core Elev. 559.3

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Run 1 (-55.0' to -65.0') Silurian System Niagaran Series Dolomite Light gray to gray with horizontal bedding. Fine grained with some varving. Vertical fracture with numerous intersecting horizontal fractures from -56.5' to -57.8'. Horizontal fractures @ -58.1', -58.2', -58.4', -58.8', -59.4', -60.1', -60.5', -60.7', -60.9' & -61.5'. Highly fractured with numerous intersecting horizontal fractures from -61.8' to -63.5'. 100.0% Water Loss	559.3		1	96.0	43.0	n/a	613@ -55.1'
		-55					
		-65					

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

BORING LOGS 4
STRUCTURE NO. 016-1251

P:\602540(57-294)\STRUCTURAL\I-57 OVER I294\0161251-60J27-060-BORING4.dgn

TY·LIN INTERNATIONAL	DESIGNED - JMA	REVISIONS	
	CHECKED - SP,	NAME	DATE
	DRAWN - JMA		
	CHECKED - SP,PDF		
	DATE - 03/18/10		

SHEET NO. 60 / 68 SHEETS	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	1414.2B	COOK	516	305
			CONTRACT NO. 60J27		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

3/17/2010