STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
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SOIL BORING LOG

PAGE 1 of 2
DATE 9-22-26-2008
LOGGED BY MR
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-3
Station: 256+13
Offset: 71.0' Right
Ground Surface Elev. 634.5

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 (%)
13.0" ASPHALT	633.4				
CLAY-brown & gray-stiff to hard (A-6) Fill			2, 5, 5	4.5+P	16
			3		107
		–5	3, 5	1.38@ 12.7%	17
			2		
			3, 5	4.5P	15
			3		
		–10	4, 5	3.0P	16
			2, 2, 5	1.75P	21
			3		111
		–15	5, 9	2.8B	17
			2		105
			4, 7	1.6B	21
			3		111
		–20	6, 11	2.6B	16
CLAY-brown & gray-stiff to hard (A-6) Fill			4		113
			6, 9	2.6B	18
			5		112
		–25	7, 10	3.25B	18
			6		114
			10, 15	3.25B	16
			5		115
		–30	7, 10	2.9B	16
	602.5				
SILTY LOAM-gray-loose (A-4)			3		
		–35	3, 5	NP	18
	597.5				
SAND & GRAVEL-gray-dense (A-1)			6		
		–40	12, 28	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

SOIL BORING LOG

PAGE 2 of 2
DATE 9-22-26-2008
LOGGED BY MR
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-3
Station: 256+13
Offset: 71.0' Right
Ground Surface Elev. 634.5

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 (%)
SAND & GRAVEL-gray-dense (A-1)	592.5				
SANDY LOAM-gray-very dense (A-2)			38, 50/2"		
		–45		NP	19
	587.5				
SILTY LOAM-gray-dense to very dense (A-4)			18, 50/5"		
		–50		NP	18
	577.5				
FRACTURED ROCK-gray-very dense (A-1)	575.5		50/5"		
Drillers Observation: Fractured Rock.		–60		NP	7
Drillers Observation: Fractured Rock.	571.5				
Drillers Observation: Apparent Bedrock.	569.5	–65			
Run 1 (–65.0' to –72.0') Silurian System Niagaran Series Dolomite. Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –65.3', –67.2' & –67.4'. Vertical fracture with intersecting horizontal fractures from –67.7' to –68.9'. Highly fractured from 68.9' to –70.7'. Recovery=81.3% R.Q.D.=22.9% 100.0% Water Loss.	562.5	–70			
End Of Boring @ –72.0' Straight Flight Augers To –10.0' Rotary Drilling To Completion CME Automatic Hammer 10.0' 4.0"* Casing Used 63.0' 3.0"* Casing Used		–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

PAGE 1 of 1
DATE 9-22-26-2008
LOGGED BY MR
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
CORING METHOD Rotary Wash

STRUCT. NO. 016-1096 & 016-1097
Station –
BORING NO. I57-I294 B-3
Station: 256+13
Offset: 71.0' Right
Ground Surface Elev. 634.5

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 571.5
Begin Core Elev. 569.5

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Run 1 (–65.0' to –72.0') Silurian System Niagaran Series Dolomite. Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –65.3', –67.2' & –67.4'. Vertical fracture with intersecting horizontal fractures from –67.7' to –68.9'. Highly fractured from 68.9' to –70.7'. 100.0% Water Loss.	569.5		1	100.0	22.9	n/a	1082@ -65.3'
		–5					
		–10					

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

P:\602540(57-294)\STRUCTURAL\I-57 OVER I294\0161251-60J27-059-BORING3.pgn

BORING LOGS 3
STRUCTURE NO. 016-1251

TYLIN INTERNATIONAL

DESIGNED	JMA
CHECKED	SP,
DRAWN	JMA
CHECKED	SP.PDF
DATE	03/18/10

REVISIONS	
NAME	DATE

SHEET NO. 59
68 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1414.2B	COOK	516	304
		CONTRACT NO. 60J27		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

3/17/2010