STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amapec Court, Suite 100
Naperville, Illinois 60563
(630) 305-9585

SOIL BORING LOG

PAGE 1 of 2
DATE 9-22-2008
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-2
Station: 256+40
Offset: 14.0' Left
Ground Surface Elev. 634.7

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 (%)
17.0" ASPHALT	633.3		3		
CLAY with Crushed Stone- medium dense (Fill)	631.7		4 / 10	2.5P	10
CRUSHED STONE SCREENINGS- loose (Fill)	629.2	–5	3 / 5	NP	8
CLAY-brown & gray- stiff to hard (A-6) Fill			3 / 4 / 7	4.0B	108 / 19
		–10	3 / 5 / 7	4.5P	16
			4 / 5 / 7	3.5B	108 / 20
		–15	3 / 4 / 6	2.4B	104 / 23
			4 / 4 / 7	3.1B	106 / 20
		–20	3 / 5 / 8	3.2B	107 / 20
CLAY-brown & gray- stiff to hard (A-6) Fill			4 / 4 / 5	1.8B	103 / 22
		–25	6 / 6 / 9	3.5B	110 / 16
			5 / 6 / 8	2.7B	103 / 24
TOPSOIL-black	606.7		3 / 5 / 7	2.0P	26
CLAY-brown & gray- medium stiff (A-6) Wet	604.7	–30	2 / 2 / 2	0.5P	30
SAND & GRAVEL-gray- medium dense (A-1)	597.7	–40	3 / 5 / 7	NP	17

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 2 of 2
DATE 9-22-2008
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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-2
Station: 256+40
Offset: 14.0' Left
Ground Surface Elev. 634.7

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- medium dense (A-1)	592.7				
SILTY LOAM-gray-very dense (A-4)			505"		
		–45		NP	11
			505"		
		–50		NP	10
			26		
		–55	34 / 37	NP	12
SILTY LOAM with Fractured Rock- gray-dense to very dense (A-2/A-4)	577.7		23		
		–60	22 / 501"	NP	10
SILTY LOAM with Fractured Rock- gray-dense to very dense (A-2/A-4)			12 / 24		
		–65	22	NP	10
Drillers Observation: Apparent Bedrock.	568.7				
Run 1 (–68.5' to –78.5') Silurian System Niagaran Series Dolomite	566.2				
Light gray mottled gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –69.5', –70.2', –70.3', –70.5', –70.8', –70.9', –70.7', –72.5', –73.6', –74.4', –74.7', –77.0', –77.1', –77.5' & –78.2'. Recovery=97.0% R.Q.D.=88.5%		–70			
End Of Boring @ –78.5' Straight Flight Augers To –10.0' Rotary Drilling To Completion	556.2	–75			
CME Automatic Hammer 10.0' 4.0"* Casing Used 70.0' 3.0"* Casing Used		–80			

RUN 1

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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ROCK CORE LOG

PAGE 1 of 1
DATE 9-22-2008
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
CORING METHOD Rotary Wash

STRUCT. NO. 016-1096 & 016-1097
Station –
BORING NO. I57-I294 B-2
Station: 256+40
Offset: 14.0' Left
Ground Surface Elev. 634.7

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 568.7
Begin Core Elev. 566.2

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Run 1 (–68.5' to –78.5') Silurian System Niagaran Series Dolomite Light gray mottled gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –69.5', –70.2', –70.3', –70.5', –70.8', –70.9', –70.7', –72.5', –73.6', –74.4', –74.7', –77.0', –77.1', –77.5' & –78.2'.	566.2	–73.5	1	97.0	88.5	n/a	924@ -68.5'
		–78.5					

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)

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BORING LOGS 2
STRUCTURE NO. 016-1251

TYLIN INTERNATIONAL

DESIGNED - JMA	REVISIONS		
CHECKED - SP,	NAME	DATE	
DRAWN - JMA			
CHECKED - SP,PDF			
DATE - 03/18/10			

SHEET NO. 58
68 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1414.2B	COOK	516	303
		CONTRACT NO. 60J27		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

3/17/2010