STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG

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

PAGE 1 of 2
DATE 9/19/2008
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-8
Station: 260+46
Offset: 67.5' Left
Ground Surface Elev. 635.1

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 (%)
18.0" ASPHALT	633.6		5		110
CRUSHED STONE with Clay–very dense (Fill)	632.1		21 / 306"	NP	9
CLAY–brown & gray–very stiff to hard (A–6) Fill			2		111
		–5	4 / 5	4.9B	18
CLAY–brown & gray–very stiff to hard (A–6) Fill			4		107
			5 / 4	3.2B	20
			4		108
		–10	7 / 7	4.4S@ / 12.7%	20
	604.1				
SILTY LOAM to LOAM–dark brown & gray–medium dense (A–4)			4		108
			5 / 8	4.3S@ / 14.1%	19
			3		104
		–15	5 / 5	3.0B	23
			4		107
	598.1				
SANDY LOAM with Fractured Rock–gray–dense to very dense (A–2/A–4)			5	2.3B	19
			2		109
		–20	3 / 6	3.25B	20

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			6		110
CLAY–brown & gray–very stiff to hard (A–6) Fill			7 / 9	5.1B	18
			6		108
		–25	8 / 12	3.6B	19
			6		106
			6 / 8	4.0B	20
			5		107
		–30	6 / 8	3.2B	21
			5		
		–35	7 / 7	NP	19
			5		
		–40	27	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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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-8
Station: 260+46
Offset: 67.5' Left
Ground Surface Elev. 635.1

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 (%)
SANDY LOAM with Fractured Rock–gray–dense to very dense (A–2/A–4)			26 / 306"		
		–45		NP	12
	569.6				
			23		
		–50	30 / 28	NP	12
	561.6				
			5 / 306"		
		–55	7 / 7	NP	11
	580.1				
Drillers Observation: Fractured rock.					
	577.6				
Run 1 (–57.5' to –65.5') Silurian System Niagaran Series Dolomite Light gray to gray with horizontal bedding. Fine grained with some varving. Highly fractured from –57.5' to –58.5' with 4.0" clay parting @ –57.8'.		–60		RUN 1	

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Transverse from –58.5' to –58.9'. Horizontal fractures @ –59.2', –59.3' & –60.3'. 2.0" clay parting @ –66.5'. Horizontal fracture @ –61.9'. Vertical fracture with intersecting horizontal fractures from –61.9' to –63.7'. Horizontal fractures @ –64.0' & –63.7'. Recovery=97.5% R.Q.D.=41.9%					RUN 1
	569.6	–65			
Run 2 (–65.5' to –73.5') Silurian System Niagaran Series Dolomite Light gray to gray with horizontal bedding. Fine grained with some varving. Horizontal fractures @ –66.1 & –66.6'. Tight vertical fracture from –67.8' to –69.5'. Horizontal fractures @ –68.4', –70.4', –70.8' & –71.5'. Recovery=97.5% R.Q.D.=95.6%					RUN 2
	561.6	–70			
End Of Boring @ –73.5' Straight Flight Augers To –10.0' Rotary Drilling To Completion CME Automatic Hammer 10.0' 4.0"* Casing Used 58.0' 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

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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-8
Station: 260+46
Offset: 67.5' Left
Ground Surface Elev. 635.1

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft.
Core Diameter 2.0 in
Top of Rock Elev. 577.6
Begin Core Elev. 577.6

Description	Elev.	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Run 1 (–57.5' to –65.5') Silurian System Niagaran Series Dolomite Light gray to gray with horizontal bedding. Fine grained with some varving. Highly fractured from –57.5' to –58.5' with 4.0" clay parting @ –57.8'. Transverse fracture from –58.5' to –58.9'. Horizontal fractures @ –59.2', –59.3' & –60.3'. 2.0" clay parting @ –66.5'. Horizontal fracture @ –61.9'. Vertical fracture with intersecting horizontal fractures from –61.9' to –63.7'. Horizontal fractures @ –64.0' & –63.7'.	577.6		1	97.5	41.9	n/a	1061@ -59.3'
		–62.5					
		–65.5					

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)

P:\602540\57-294\STRUCTURAL\I-57 OVER I294\016125I-60J27-064-BORING8.dgn

3/17/2010

BORING LOGS 8
STRUCTURE NO. 016-1251

T·Y·LIN INTERNATIONAL

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

REVISIONS	
NAME	DATE

SHEET NO. 64
68 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	1414.2B	COOK	516	309
		CONTRACT NO. 60J27		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		