

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

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ROUTE FAS 2703 DESCRIPTION Illinois Central Railroad LOGGED BY E. Sandschafer
SECTION (9-VBR)BR LOCATION Sec 19 - SE 1/4, Sec 30 - NE 1/4, SEC. TWP. 4 N. RNG. 5 E. 3 PM
COUNTY Clay DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S	M O I S T	Description	D E P T H	B L O W S	U C S	M O I S T
013-0034 475+50.4					N/A									
2 476+00					Dry									
10.00R Lt					Washed									
568.43					557.6									
										12" asphalt pavement.				
										18" crushed stone.				
										567.43				
										565.93				
										No recovery this trip. Estimated SILTY LOAM.				
										543.93				
										Medium, damp, red marbled gray, SILTY LOAM.				
										580.73				
										Medium, damp, gray/red/brown, SILTY CLAY.				
										540.93				
										538.93				
										Very stiff, damp, red marbled gray, SILTY CLAY.				
										518.93				
										Very stiff, damp, red marbled gray, CLAY LOAM TILL.				
										511.43				
										Very dense, moist, dark gray, CLAY SHALE.				
										508.83				
										Sampler shoe damaged due to hard material at 59.5' depth.				
										Borehole continued with rock coring.				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



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COUNTY Clay DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S	M O I S T	Description	D E P T H	B L O W S	U C S	M O I S T
013-0034 475+50.4					N/A									
2 476+00					Dry									
10.00R Lt					Washed									
568.43					557.6									
										Very stiff, damp, red marbled gray, CLAY LOAM TILL.				
										(continued)				
										523.93				
										Very stiff, damp, red mottled gray, CLAY TILL.				
										518.93				
										Medium, damp, red mottled gray, SILTY CLAY TILL.				
										511.43				
										Very dense, moist, dark gray, CLAY SHALE.				
										508.83				
										Sampler shoe damaged due to hard material at 59.5' depth.				
										Borehole continued with rock coring.				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



ROCK CORE LOG

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ROUTE FAS 2703 DESCRIPTION Illinois Central Railroad LOGGED BY E. Sandschafer
SECTION (9-VBR)BR LOCATION Sec 19 - SE 1/4, Sec 30 - NE 1/4, SEC. TWP. 4 N. RNG. 5 E. 3 PM
COUNTY Clay CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. Station	CORING BARREL TYPE & SIZE	D E P T H	C O V E R E D	R E C O V E R E D	C O R E T I M E	S T R E N G T H	Description	D E P T H	C O V E R E D	R E C O V E R E D	C O R E T I M E	S T R E N G T H
013-0034 475+50.4	NW, conv dbl bbl, split inner											
2 476+00	2.06 in											
10.00R Lt	508.93											
568.43	508.83											
							Very hard, gray, SILTY CLAY SHALE, diagonal layering.	508.83	B2-1	89	60	1.1
							Rock Core sample B2A at depth 60.8' to 61.3' Qu = 279 tsf.					
							Gray, SANDY CLAY SHALE.	507.03				
							Gray, CLAY SHALE w/ some harder Shale veins.	506.93				
							Very hard, dark gray, SILTY CLAY SHALE.	508.03				
								504.33				
							Gray, slightly weathered, CLAY SHALE.	503.03	B2-2	95	63	1.3
							Gray, CLAY SHALE, sample swelled. Rock Core sample B2B at depth 65.4' to 65.9' Qu = 10 tsf.					
								500.43				
							Very hard, brown, SILTY CLAY SHALE.	499.83				
							Hard, gray, slightly weathered, SANDSTONE.	498.83				
							Extent of exploration.					
								-70				
							Benchmark: BM 114 chiseled square on SE corner of W abutment of existing structure 013-0034, Sta 474+56, 18.4' Lt = 568.20' elevation. Provided by Program Development.					
							** Note: Hole caved/water level at 21.5' when checked on 07/10/07.					

Color pictures of the cores Available on request
Cores will be stored for examination until 08/21/08
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

DESIGNED	B.B.
CHECKED	C.J.F.
DRAWN	J.G.
CHECKED	C.J.F. & B.B.

SOIL BORINGS-2
KINMUNDY/LOUISVILLE ROAD
OVER ILLINOIS CENTRAL RR
STA. 475+50.44



BERNARDIN
LOCHMUELLER &
ASSOCIATES, INC.

3 Oak Drive
Marsville, IL 62962-5635
Local (618) 288-4665
Fax 618-288-4666

SHEET NO. 21	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2703	(9-VBR)B	CLAY	65	43
22 SHEETS	SN 013-0044		CONTRACT NO. 74136		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					