

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22 22 SHEETS
FAP 773 IL 121	(108BR- 31B-1	CUMBERLAND	96	57	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT			

Contract # 74237

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG Page 1 of 1
Date 6/5/07

ROUTE FAP 773 (IL 121) DESCRIPTION Mule Creek LOGGED BY E. Sandschafer

SECTION (108BR3.109B)-1 LOCATION Sec 30 - SE 1/4, Sec 31 - NE 1/4, SEC. , TWP. 10 N, RNG. 8 E, 3 PM

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

STRUCT. NO. 018-0029
Station 399+36.30

BORING NO. 1
Station 398+74
Offset 9.00ft RI
Ground Surface Elev. 569.45 ft

DEPTH (ft)	DESCRIPTION	UNCONSOLIDATED QUANTITY (B, S, P)	UNCONSOLIDATED QUANTITY (%)	DETERMINED SPT (blows)	UNCONSOLIDATED SPT (blows)
0	7 1/2" asphalt on 13 1/2" concrete pavement.				
567.65	Brown, CLAY.				
567.45	Very stiff to medium, damp, red to brown, CLAY LOAM TILL.	3 4 4	2.3 PP	10	
559.75	Very soft, very damp, gray, SILTY LOAM.	1 1 1	0.3 B	20	
556.25	Gray, fine grained, SAND.	2 2	0.2 B	25	
556.05	Very soft, very damp, gray, SANDY LOAM.	0 1 1	0.1 S	20	
552.45	Very loose, wet, gray, fine grained, SAND w/ wood splinters. 7% passing #200 sieve.	0 1		24	
549.95		0			

Surface Water Elev. 554.71 ft
Stream Bed Elev. 553.66 ft

Groundwater Elev.:
First Encounter 552.5 ft
Upon Completion 560.5 ft
After Hrs.

Very soft, wet, gray, SILTY LOAM w/ wood splinters. (continued)

Brown, CLAY.

Brown, fine grained, SAND. 9% passing #200 sieve.

Soft, very damp, gray, SILTY LOAM.

Stiff, damp, red mottled gray, CLAY LOAM TILL.

Soft, damp, gray, SILTY LOAM.

Medium, damp, red mottled gray, SILTY CLAY.

Medium to soft, damp, gray, SILTY LOAM.

Very dense, moist, gray, SILTY CLAY SHALE. Sample pokerchipped and powdered.

Extent of exploration.

Benchmark: Brass disk cast in SW corner of existing bridge "State of Illinois, Survey Marker, Division of Highways, Elev. 570.42". UPDATED 03/25/08 used elevation 570.56' as per Program Development.

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, form 137 (Rev. 8-99)

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SOIL BORING LOG Page 1 of 2
Date 6/5/07

ROUTE FAP 773 (IL 121) DESCRIPTION Mule Creek LOGGED BY E. Sandschafer

SECTION (108BR3.109B)-1 LOCATION Sec 30 - SE 1/4, Sec 31 - NE 1/4, SEC. , TWP. 10 N, RNG. 8 E, 3 PM

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

STRUCT. NO. 018-0029
Station 399+36.30

BORING NO. 2
Station 400+07
Offset 9.00ft LI
Ground Surface Elev. 571.63 ft

DEPTH (ft)	DESCRIPTION	UNCONSOLIDATED QUANTITY (B, S, P)	UNCONSOLIDATED QUANTITY (%)	DETERMINED SPT (blows)	UNCONSOLIDATED SPT (blows)
0	11 1/2" asphalt on 9 1/2" concrete pavement.				
569.83	Brown, CLAY.				
568.63	Stiff, very damp, brown, SANDY CLAY LOAM.	1 3 3	1.3 PP	12	
566.63	Stiff, damp, red mottled gray, CLAY LOAM TILL.	2 3 3	+4.5 PP	11	
562.13	Medium, damp, red mottled gray, SILTY CLAY.	1 3 3	0.7 B	16	
560.83	Medium to soft, damp, gray, SILTY LOAM.	2 2 3	0.4 B	28	
552.13		1 2 2	0.3 B	19	

Surface Water Elev. 554.71 ft
Stream Bed Elev. 553.66 ft

Groundwater Elev.:
First Encounter
Upon Completion 553.3 ft
After Hrs.

Very soft, damp, dark red, SANDY LOAM. (continued)

Medium, damp, red/black/gray, CLAY LOAM.

Medium, damp, gray, SILTY CLAY w/ some wood splinters.

Soft, damp, gray, SILTY LOAM.

Very dense, moist, gray, SILTY CLAY SHALE. Sample pokerchipped and powdered.

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, form 137 (Rev. 8-99)

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ROCK CORE LOG Page 2 of 2
Date 6/5/07

ROUTE FAP 773 (IL 121) DESCRIPTION Mule Creek LOGGED BY E. Sandschafer

SECTION (108BR3.109B)-1 LOCATION Sec 30 - SE 1/4, Sec 31 - NE 1/4, SEC. , TWP. 10 N, RNG. 8 E, 3 PM

COUNTY Cumberland CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. 018-0029
Station 399+36.30

BORING NO. 2
Station 400+07
Offset 9.00ft LI
Ground Surface Elev. 571.63 ft

DEPTH (ft)	DESCRIPTION	UNCONSOLIDATED QUANTITY (%)	UNCONSOLIDATED SPT (blows)	UNCONSOLIDATED UCS (min/ft)	UNCONSOLIDATED UCS (tsf)
536.33	Gray, slightly weathered, SILTY CLAY SHALE.	88	80	0.6	
540	Rock core sample B2A @ 39.1' to 39.6' Qu = 26 tsf				
545	Rock core sample B2B @ 43.7' to 44.1' Qu = 17 tsf. Sample had small fracture prior to testing.				
521.53	Rock core sample B2C @ 49.5' to 49.8' Qu = 27 tsf				
521.53	Extent of exploration.				

Core Diameter 2.06 in
Top of Rock Elev. 540.93 ft
Begin Core Elev. 536.33 ft

NW, conv dbl bbl, split inner

Benchmark: Brass disk cast in SW corner of existing bridge "State of Illinois, Survey Marker, Division of Highways, Elev. 570.42". UPDATED 03/25/08 used elevation 570.56' as per Program Development.

Color pictures of the cores Available on request
Cores will be stored for examination until 6/5/2008
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)



DESIGNED	- BAS
CHECKED	- KEF
DRAWN	- SEM
CHECKED	- RJA

SOIL BORINGS
IL ROUTE 121 OVER MULE CREEK
F.A.P. RTE. 773 - SECTION (108BR-3)B-1
CUMBERLAND COUNTY
STATION 399+34.00
STRUCTURE NO. 018-0062