Illinois Department of Transportation
Division of Highways
WHITNEY & ASSOCIATES

SOIL BORING LOG

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Date 3/28/12

ROUTE FAS 393 DESCRIPTION Knox County Highway 4 Improvement LOGGED BY T. Fehl

SECTION 09-00001-00-RS LOCATION SEC., TWP., RNG., Latitude, Longitude

COUNTY Knox DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.
Station

BORING NO. SB-05
Station 17+10
Offset 7.0 ft Right
Ground Surface Elev. 725.50 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 703.5 ft
Upon Completion 716.4 ft
After - Hrs. - ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
OIL And CHIPS (3.5")	725.21				
Chips With Some Asphalt Cement (10.5")	724.62				
Stiff, Dark Brown SILTY CLAY LOAM A-6			4		
			4	1.6	21
			3	B	
	721.50				
Stiff, Dark Brown SILT A-6 DD = 100 PCF			2		
		-5	2	1.4	20
			4	B	
	719.00				
Medium, Black SILTY CLAY LOAM With Trace of Organic Matter A-6			1		
			2	0.9	27
			2	B	
	716.50				
Medium, Dark Gray SANDY CLAY LOAM A-4 DD = 98 PCF			2		
		-10	2	0.5	23
			3	B	
	713.50				
Medium, Gray CLAY LOAM A-4			1		
			2	0.8	22
			2	B	
	711.50				
Medium, Gray SILTY CLAY LOAM A-6 DD = 94 PCF			1		
		-15	2	0.7	27
			3	B	
	709.00				
Stiff, Gray-Brown SILTY CLAY A-7-6			3		
			3	1.4	26
			3	B	
	706.50				
Very Stiff, Black CLAY SHALE With Some Coal A-6			4		
		-20	8	3.0	21
	705.00				
Very Stiff, Dark Gray CLAY SHALE A-6				18	P
			25		
			18	2.8	16
			45	B	
	701.50				
Hard, Gary SHALE A-4					
		-25	70	4.5	9
			62/4"	P	
	696.50				
Hard, Gray CLAY SHALE A-6 DD = 112 PCF			15		
			25	4.7	13
		-30	27	B	
	691.50				
DD = 116 PCF			14		
		-35	31	4.5	14
			55	S	
	688.00				
Hard, Gray SHALE A-4 (AUGER REFUSAL AT -38.5 FEET	687.00		53/1"	4.5	10
				P	
End of Boring					
		-40			

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)

Illinois Department of Transportation
Division of Highways
WHITNEY & ASSOCIATES

SOIL BORING LOG

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Date 3/29/12

ROUTE FAS 393 DESCRIPTION Knox County Highway 4 Improvement LOGGED BY T. Fehl

SECTION 09-00001-00-RS LOCATION SEC., TWP., RNG., Latitude, Longitude

COUNTY Knox DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.
Station

BORING NO. SB-06
Station 16+90
Offset 8.0 ft Left
Ground Surface Elev. 725.90 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 713.4 ft
Upon Completion 714.7 ft
After - Hrs. - ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
OIL And CHIPS (2.5")	725.69				
Brown, Fine-Grained GRAVEL And Medium- To Coarse-Grained SAND (5.5")	725.44 / 724.90				
	723.90				
Gray CRUSHED LIMESTONE With Some Silty Clay (11.0")			3		
			4	1.8	22
			5	B	
Gray CRUSHED LIMESTONE (1" - 2")					
	721.90				
Stiff, Dark Brown And Brown SILTY CLAY With Some Coarse-Grained Sand And Crushed Limestone (Fill) A-6 DD=95 PCF			1		
		-5	2	0.8	25
			2	B	
	719.40				
Medium, Gray-Brown And Dark Gray SILTY CLAY LOAM With Trace Of Fine-Grained Gravel (Fill) A-6			3		
			3	1.7	22
			4	B	
Stiff, Gray-Brown And Light Brown SILTY CLAY With Trace Of Fine-Grained Gravel (Fill) A-6					
			3		
DD = 97 PCF					
		-10	4	1.5	23
			5	B	
	714.40				
Loose, Brown, Medium-Grained SAND With Considerable Silty Clay And Some Fine-Grained Gravel A-2-4			3		
			4	-	18
			6		
	711.90				
Very Stiff, Gray-Brown And Light Brown NEAR CLAY SHALE A-6			4		
		-15	5	2.5	20
			9	B	
DD = 106 PCF					
	709.40				
Very Stiff, Dark Gray CLAY SHALE A-6			9		
			10	2.3	16
			13	B	
	706.90				
Hard, Dark Gray CLAY SHALE A-6 DD = 117 PCF			9		
			15	5.1	13
		-20	20	B	
Hard, Dark Gray CLAY SHALE A-6 *(continued)*					
			41		
	703.90		48	-	20
Very Dense, Black COAL			59		
	701.40		21		
Very Stiff, Black CLAY SHALE A-6 DD = 112 PCF			32	2.4	17
		-25	37	B	
	699.40				
Hard, Gray CLAY SHALE A-6					
			19		
		-30	58	4.5	12
			59/2"	P	
		-35	91/5"	4.5	12
				P	
	689.90				
End of Boring					
		-40			

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)

SOIL BORING LOGS
KNOX COUNTY
SECTION 12-00001-01-RS
C.H. 4 OVER WALNUT CREEK TRIBUTARY

SHEET NO. 4	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4 SHEETS	CH 4	12-00001-01-RS	KNOX	174	75
	S.N. 048-5037		CONTRACT NO. 39614		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT RS-0393(105)		

3275CULV04-WEST