F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-F	COOK	22	22
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	

Sheet 22 of 22 Contract No. 60119

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 1 of 2
Date 12/30/03
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. B-6 Station 77+83.9 Offset 16.90ft LT Ground Surface Elev. 636.99 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.0 ft ▼ Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
7.9" Asphalt over 7.7" Concrete 636.74				FINE SAND, fr. silt, gravel & clay, gray, med. dense to loose (continued)			
SILTY CLAY, fr. gravel, dk. gray to black, stiff	4 4	1.8	22.0		3 7 11		
	2 4	1.8	26.0		3 5 9		
630.09 FINE SAND, dk. gray, wet, med. dense	1 2 2				2 3 5		
	5 5 10				18 15 16		
	7 7 6			602.99 SILT, fr. clay & sand, gray, very wet, med. dense	5 7 9		
621.99 SILTY LOAM, fr. gravel, gray, very wet, med. dense	3 7 12				6 10 12		
615.99 FINE SAND, fr. silt, gravel & clay, gray, med. dense to loose	4 9 11			598.48 BROKEN LIMESTONE, gray, med. dense to extremely dense very wet	2 9 11		

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 1 of 2
Date 1/1/04
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. B-7 Station 77+63.9 Offset 19.00ft RT Ground Surface Elev. 637.01 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.0 ft ▼ Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8.5" Asphalt over 8.5" Concrete				SANDY SILTY LOAM, mixed with stone, gray, loose (continued)			
638.51 FILL, silty clay loam, dk. brown to black, stiff to very stiff	4 5 6	1.4	13.0		1 1 2		
	3 4 5	2.1	14.0		1 1 2		
630.51 FILL, fine sand, dk. brown, loose	2 3 2				1 2 2		
628.01 SILTY CLAY LOAM, fr. gravel, dk. gray, loose to med. dense	1 2 2			607.01 SANDY LOAM, gray, loose to med. dense, very wet	1 2 3		
	7 8 9				3 5 7		
625.01 FINE TO MEDIUM SAND, gray, wet, med. dense to loose	8 9 9				12 10 10		
620.01 SANDY SILTY LOAM, mixed with stone, gray, loose	2 1 1				18 13 16		
	2 2 1						

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 1 of 1
Date 12/20/03
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. RW-1 Station 80+27.1 Offset 19.10ft LT Ground Surface Elev. 638.41 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.1 ft ▼ Upon Completion 621.9 ft ▽ After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
8" Asphalt				FINE SAND, light brown to gray, loose to very loose, very wet (continued)			
637.61 SILTY CLAY, fr. sand & gravel, brown, very stiff to stiff	4 5 6	2.6	19.0		2 1 1		
	3 4 5	1.8	16.0	612.41 SILTY LOAM, gray, very loose to med. dense	2 1 1		
	3 3 4	1.4	19.0		2 3 5		
	4 50/5" R				6 9 11		
627.51 SILTY LOAM, fr. fine gravel, gray, loose	2 3 4				6 10 15		
624.41 FINE SAND, light brown to gray, loose to very loose, very wet	2 3 4			607.41 FINE TO MEDIUM SAND WITH GRAVEL, gray, med. dense to extremely dense	5 18 10		
	2 2 3				9 14 18		
	3 2 3				50/5" R		

End of Boring 589.41

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 1 of 1
Date 12/22/03
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. RW-3 Station 78+43.2 Offset 18.10ft LT Ground Surface Elev. 638.09 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.1 ft ▼ Upon Completion 621.1 ft ▽ After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
9" Asphalt over 9" Concrete				SILTY TO SILTY LOAM, gray, very wet, loose (continued)			
624.83 FILL, silty clay loam, fr. gravel, brown, very stiff 620.09	4 6 8	2.3	19.0	618.09 FINE SAND, gray, very wet, loose	2 2 2		
SANDY CLAY, fr. gravel, brown, stiff	4 5 8	1.3	17.0		2 2 3		
631.09 SANDY CLAY LOAM, gray, gray, very stiff	4 10 8	2.8	19.0	613.09 SILTY LOAM, gray, loose, very wet	2 3 3		
628.59 SILTY TO SILTY LOAM, gray, very wet, loose	5 6 5				3 4 4		
	8 5 3			608.09 LOAM, fr. limestone gravel, gray, very wet, loose	3 3 5		
	3 6 2			604.09 SANDY LOAM, gray, very wet, loose to med. dense	3 6 7		
	2 4 2			601.09 BROKEN LIMESTONE ROCK with some clay loam, gray, med. dense	13 11 15		
	9 5				13 15 9		

End of Boring 594.09

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 2 of 2
Date 12/30/03
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. B-6 Station 77+83.9 Offset 16.90ft LT Ground Surface Elev. 636.99 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.0 ft ▼ Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
BROWN LIMESTONE, gray, med. dense to extremely dense, very wet (continued)							
	10 12 15						
581.99	12 50 R						
End of Boring							

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 2 of 2
Date 1/1/04
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. B-7 Station 77+63.9 Offset 19.00ft RT Ground Surface Elev. 637.01 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.0 ft ▼ Upon Completion ft After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM, gray, loose to med. dense, very wet (continued)							
	10 10 10						
	14 15 18						
601.51 End of Boring							

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 1 of 1
Date 12/20/03
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. RW-2 Station 80+18.1 Offset 27.60ft RT Ground Surface Elev. 637.36 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 621.4 ft ▼ Upon Completion 621.4 ft ▽ After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Topsoil, sandy loam, dk. brown & black 636.11				FINE SAND, gray, very wet, loose to very loose (continued)			
SILTY CLAY, fr. sand & gravel, brown, very stiff 633.61	2 2 3	3.2	17.0		1 1 2		
SILTY CLAY, fr. sand & gravel, brown-gray, very stiff	4 6 7	3.3	19.0	611.86 SANDY LOAM, gray, med. dense	1 1 1		
630.86 SILTY LOAM, fr. fine gravel, gray, loose	5 4 3				3 5 7		
628.36 SANDY LOAM, gray, very wet, loose	2 2 2				10 12 15		
626.86 FINE TO MEDIUM SAND, gray, very wet, loose	3 3 4			608.36 SILT, with sand & gravel, gray, med. dense to extremely dense	4 8 10		
	2 2 4				8 15 27		
	3 2 3				11 13 16		
618.36 FINE SAND, gray, very wet, loose to very loose	3 2 3				17 63/5" R		
End of Boring 587.36							

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)

SOIL BORING LOG

Illinois Department of Transportation
Division of Highways
Applied GeoSciences Incorporated

Page 1 of 1
Date 12/22/03
ROUTE FAU 2843/Dixie Highway over Butterfield Creek DESCRIPTION Str. No. D-91-358-02 PTB # 156/01 LOGGED BY
SECTION 3249 B-R LOCATION SEC., TWP., RNG.
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE
STRUCT. NO. Station
BORING NO. RW-4 Station 78+98.1 Offset 27.50ft RT Ground Surface Elev. 637.00 ft
Surface Water Elev. ft Stream Bed Elev. ft
Groundwater Elev.: First Encounter 623.0 ft ▼ Upon Completion 631.6 ft ▽ After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
10" Topsoil, sandy loam, dk. brown to black 626.50				LOAM, gray, stiff (continued)			
SILTY CLAY, some sand, brown, very stiff 624.00	6 7 7	3.7	16.0		2 2 3	1.9	19.0
SANDY CLAY, with gravel, brown, very stiff	3 5 6	2.1	17.0	614.00 SILTY LOAM TO LOAM, gray, wet, soft to med. stiff	2 2 3	0.4	22.0
631.50 SILTY CLAY, fr. sand & gravel, brown, very stiff	12 13 8	2.3	19.0		3 3 3	0.8	23.0
629.00 FINE SAND, brown, very wet, med. dense	7 6 7				2 3 3		
	3 5 9			606.50 SAND & GRAVEL, gray, med. dense	4 7 8		
624.09 LOAM, gray, stiff	3 5 6	1.8	15.0		3 5 7		
	3 4 4	1.8	17.0		7 11 15		
	3 3 5	1.1	20.0		8 17 16		
End of Boring 597.00							

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)

REVISIONS	
NAME	DATE

RME Rubinos & Mesia Engineers, Inc.

SOIL BORINGS

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-F
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946 - PROPOSED
016-0775 - EXISTING

SCALE: NOT-TO-SCALE
DATE 4-27-09

DRAWN BY TH
DESIGNED BY TH
CHECKED BY MF

FOR INFORMATION ONLY

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