

ARKANSAS DEPARTMENT OF TRANSPORTATION



SUBSURFACE INVESTIGATION

STATE JOB NO. BR3714

FEDERAL AID PROJECT NO. STPB-0037(33)

LITTLE BODCAU CREEK STR. & APPRS. (S)

COUNTY ROAD NO. 25

IN LAFAYETTE COUNTY

The information contained herein was obtained by the Department for design and estimating purposes only. It is being furnished with the express understanding that said information does not constitute a part of the Proposal or Contract and represents only the best knowledge of the Department as to the location, character and depth of the materials encountered. The information is only included and made available so that bidders may have access to subsurface information obtained by the Department and is not intended to be a substitute for personal investigation, interpretation and judgment of the bidder. The bidder should be cognizant of the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated herein.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

October 6, 2016

TO: Mr. Rick Ellis, Bridge Engineer

SUBJECT: Job No. BR3714
Little Bodcaw Creek Str. & Apprs. (S)
County Road 25
Lafayette County

Transmitted herewith are a brief summary of the geology and site conditions, D50 analysis test results, and the logs of the borings conducted for the structure and approaches of the above referenced project. The samples obtained by the Standard Penetration Tests were brought to the laboratory and visually classified by experienced lab personnel to confirm the field identifications.

It is anticipated that concrete piling will be utilized at all bents. If you have any questions concerning these recommendations, please contact the Geotechnical Section.


Michael C. Benson
Materials Engineer

MCB:rpt:mlg

cc: State Construction Engineer - Master File Copy
District 3 Engineer
G.C. File

GEOLOGY AND SITE CONDITIONS
Job No. BR3714
Little Bodcaw Creek Str. & Apprs. (S)
Lafayette County
County Road 25

Site Conditions

The existing bridge is a single span bridge that crosses over Little Bodcaw Creek. The main structure of the bridge consists of two rail cars covered by dirt and gravel. At the time of inspection the bridge contained both patched and unpatched holes in the decking. The bridge embankments are supported by concrete and rusted sheet metal held in place by timber pilings. There are timber pilings from a previous bridge under the existing bridge in the channel. There are no guardrails leading up to the bridge and the guardrails over the bridge consist of steel piping. Little Bodcaw is a black water creek that flows west to east under the bridge and is part of the Bodcaw Bottoms Watershed. This particular section of the creek runs through a recently harvested pine plantation and multiple oil well pads exist to the north. Overhead powerlines and an underground telecommunication line parallel the east side of the bridge.

Site Geology

The project is located over Quaternary alluvial deposits (map symbol Qal). These are typically river deposits composed of gravels, sands, silts, clays, and mixtures of any and all of these. These alluvial deposits are located over the Cane River member of the Claiborne Group (map symbol Tc). Cane River Claiborne deposits are Tertiary in age and consist of locally lignitic sand, silt, and clay with occasional glauconitic sand, ironstone layers, and interbedded sand in updip areas. The contact between the Quaternary alluvial deposits and the underlying Claiborne Group is an erosional surface and was encountered in borings at approximately 40' below ground level (bgl) during the subsurface investigation. The thickness of the Claiborne ranges from a thin edge to as much as 1,500 feet. At the project location, a cemented sandstone layer was encountered in two of the borings at approximately 50 feet bgl.

Subsurface Conditions

Based on the results of the borings, the subsurface stratigraphy may be generalized as follows:

- | | |
|-------------------|---|
| 0 to 40 Feet:* | Varies from moist to wet, very loose to medium dense, brown to gray sand to clayey sand with occasional gravel. |
| 40 to 75 Feet:** | Varies from moist, dense to very dense, dark brown silty and clayey sand to moist, very hard sandy clay with lignite and some gravel. |
| 75 to 94 Feet: | Consists of moist, very dense, dark brown to gray silty to clayey sand with some cemented seams to moist, hard to very hard, sandy clay with lignite. |
| 94 to 101.2 Feet: | Varies from moist, very dense, dark brown to gray sand to moist, very hard, dark brown sandy lignitic clay. |

* Cemented sandstone was encountered in borings 1 and 4 at approximately 50 feet (bgl).

** Sampler advanced by the static weight of the hammer 1.5 feet.

**D₅₀ AGGREGATE ANALYSIS
FOR SCOUR CALCULATIONS**

Job No. BR3714					
Creek Name	Station	Sample Type	Location	Depth (FT)	Aggregate Size (D50) (IN)
Little Bodcaw Creek	101+58	Creek Bank	9' Lt. C.L. Construction	N/A	0.0041

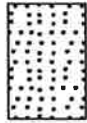
LEGEND

SOIL TYPES

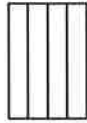
(SHOWN IN SYMBOL COLUMN)
(PREDOMINANT TYPE SHOWN HEAVY)



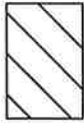
GRAVEL



SAND



SILT



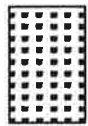
CLAY



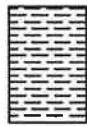
ORGANIC
MATTER

ROCK TYPES

(SHOWN IN SYMBOL COLUMN)



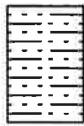
SANDSTONE



SHALE
or
SILTSTONE



LIMESTONE
or
DOLOMITE



ALTERNATING
LAYERS of
SHALE and
SANDSTONE



OTHER

SAMPLER TYPES

(SHOWN IN SAMPLE COLUMN)

SHELBY TUBE



UNDISTURBED
SAMPLE
RECOVERY



DISTURBED
SAMPLE
RECOVERY

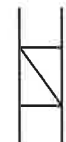


NO
RECOVERY

SPLIT SPOON



SAMPLE
RECOVERY



NO
RECOVERY

ROCK CORING



% RECOVERY
INDICATED ON LOGS

TERMS DESCRIBING CONSISTENCY OR CONDITION

GRANULAR SOIL		CLAY		CLAY-SHALE		SHALE	
'N' Value	Density	'N' Value	Consistency	'N' Value	Consistency	'N' Value	Consistency
0-4	Very Loose	0-1	Very Soft	0-1	Very Soft		
5-10	Loose	2-4	Soft	2-4	Soft	31-60	Soft
11-30	Medium Dense	5-8	Medium Stiff	5-8	Medium Stiff	Over 60	
31-50	Dense	9-15	Stiff	9-15	Stiff	More than 2'	
Over 50	Very Dense	16-30	Very Stiff	16-30	Very Stiff	Penetration	
		31-60	Hard	31-60	Hard	in 60 Blows	Medium Hard
		Over 60	Very Hard	Over 60	Very Hard	Less than 2'	
						Penetration	
						in 60 Blows	Hard

1. Ground water elevations indicated on boring logs represent ground water elevations at date or time shown on boring log. Absence of water surface implies that no ground water data is available but does not necessarily mean that ground water will not be encountered at locations or within the vertical reaches of these borings.
2. Borings represent subsurface conditions at their respective locations for their respective depths. Variations in conditions between or adjacent to boring locations may be encountered.
3. Terms used for describing soils according to their texture or grain size distribution are in accordance with the Unified Soil Classification System.

Standard Penetration Test – Driving a 2.0” O.D., 1-3/8” I.D. sampler a distance of 1.0 foot into undisturbed soil with a 140 pound hammer free falling a distance of 30 inches. It is customary to drive the spoon 6.0 inches to seat into undisturbed soil, then perform the test. The number of hammer blows for seating the spoon and performing the test are recorded for each 6 inches of penetration on the drill log. The field “N” Value (N_f) can be obtained by

adding the bottom two numbers for example: $\frac{6}{8-9} \Rightarrow 8+9 = 17 \text{blows} / \text{ft}$. The “N” Value corrected to 60% efficiency (N_{60}) can be obtained by multiplying N_f by the hammer correction factor published on the boring log.

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 1
PAGE 1 OF 3

JOB NO. BR3714 Lafayette County
JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
Co. Rd. No. 25
STATION: 102+97
LOCATION: 9' Left of Construction Centerline
LOGGED BY: Coty Campbell

DATE: August 30, 2016
TYPE OF DRILLING:
Hollow Stem Auger - Rotary Wash
EQUIPMENT: CME 750
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.3

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 260.4									
5		X	Moist, Loose, Light Gray Sand							3 3-2		
10		X								3 3-3		
15		X	Wet, Medium Dense, Light Gray Sand							5 5-6		
20		X	Wet, Loose, Light Gray Sand							3 3-4		
25		X	Wet, Very Loose, Light Gray Silty Sand							1 2-2		
30		X	Wet, Medium Dense, Light Gray Sand with Some Gravel							5 8-17		
35												

REMARKS: *Encountered cemented sand at approximately 75.5 feet

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 1
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JOB NO. BR3714 Lafayette County
JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
Co. Rd. No. 25
STATION: 102+97
LOCATION: 9' Left of Construction Centerline
LOGGED BY: Coty Campbell

DATE: August 30, 2016
TYPE OF DRILLING:
Hollow Stem Auger - Rotary Wash
EQUIPMENT: CME 750
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.3

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 260.4									
40			Moist, Dense, Dark Brown Sand with Lignitic Clay							10 16-22		
45			Moist, Very Dense, Dark Brown Silty Sand with Some Lignite							20 21-37		
50			Cemented Sand							9 25-48		
55			Moist, Very Dense, Dark Brown Lignitic Sand with Clay							25 50 (0")		
60			Moist, Very Dense, Dark Brown Silty Sand							25 31-41		
65			Moist, Very Dense, Dark Brown Silty Clay with Lignite							30 29-36		
70										21 36-38		

REMARKS: *Encountered cemented sand at approximately 75.5 feet

JOB NO. BR3714 Lafayette County JOB NAME: Little Bodcaw Creek Str. & Apprs. (S) Co. Rd. No. 25 STATION: 102+97 LOCATION: 9' Left of Construction Centerline LOGGED BY: Coty Campbell	DATE: August 30, 2016 TYPE OF DRILLING: Hollow Stem Auger - Rotary Wash EQUIPMENT: CME 750 HAMMER CORRECTION FACTOR: 1.23
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COMPLETION DEPTH: 101.3

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 260.4									
75		X	Moist, Very Dense, Dark Brown Lignitic Sand with Clay							30 34-43		
80		X	Moist, Very Dense, Dark Brown Sand*							15 50 (0")		
85		X	Moist, Very Dense, Dark Brown Sand							29 48-50 (11")		
90		X	Moist, Very Dense, Dark Brown Sand with Some Clay							15 21-39		
95		X	Moist, Very Dense, Dark Brown Sand							30 48-50 (6")		
100		X	Moist, Very Hard, Dark Brown Lignitic Clay							16 31-40		
105			Boring Terminated							25 39-50 (10")		

REMARKS: *Encountered cemented sand at approximately 75.5 feet

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 2
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JOB NO. BR3714 Lafayette County
JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
Co. Rd. No. 25
STATION: 104+53
LOCATION: 9' Left of Construction Centerline
LOGGED BY: Coty Campbell and Troy Frazier

DATE: August 31 and September 7, 2016
TYPE OF DRILLING:
Hollow Stem Auger - Rotary Wash
EQUIPMENT: CME 750
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 263.4									
5			Moist, Loose, Light Brown Sand							5 3-2		
10			Wet, Very Loose, Light Gray Clayey Sand							1 1-1		
15			Wet, Loose, Light Gray Sand							3 4-6		
20			Wet, Medium Dense, Dark Brown Sand with Some Organic Matter							2 4-7		
25			Wet, Very Soft, Gray Silty Clay							0 0-0		
30			Wet, Medium Dense, Gray Sand							7 11-9		
35												

REMARKS:

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 2
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JOB NO. BR3714 Lafayette County
JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
Co. Rd. No. 25
STATION: 104+53
LOCATION: 9' Left of Construction Centerline
LOGGED BY: Coty Campbell and Troy Frazier

DATE: August 31 and September 7, 2016
TYPE OF DRILLING:
Hollow Stem Auger - Rotary Wash
EQUIPMENT: CME 750
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
40		X	Wet, Very Loose, Gray Sand							1 2-2		
45		X	Moist, Dense, Dark Brown Silty Sand with Lignite							9 15-24		
50		X	Moist, Very Dense, Dark Brown Sand with Some Lignite							18 23-36		
55		X	Moist, Very Dense, Brown Sand							33 33-60 (11")		
60		X	Moist, Very Dense, Brown Sand							11 20-33		
65		X	Moist, Very Hard, Brown Silty Clay with Lignite							17 27-50		
70		X	Moist, Very Hard, Brown Silty Clay with Lignite							15 30-50		

REMARKS:

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 2
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JOB NO. BR3714 Lafayette County
JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
Co. Rd. No. 25
STATION: 104+53
LOCATION: 9' Left of Construction Centerline
LOGGED BY: Coty Campbell and Troy Frazier

DATE: August 31 and September 7, 2016
TYPE OF DRILLING:
Hollow Stem Auger - Rotary Wash
EQUIPMENT: CME 750
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
75		X	Moist, Very Dense, Brown Sand with Some Clay							20 33-50		
80		X	Moist, Very Dense, Brown Sand							15 25-50		
85		X	Moist, Very Dense, Brown Sand with Some Clay							20 40-60 (10")		
90		X	Moist, Very Dense, Brown Sand with Some Clay							15 30-50		
95		X	Moist, Very Dense, Brown Clayey Sand							15 30-60 (11")		
100		X	Moist, Very Hard, Dark Brown Sandy Clay							18 38-58		
105			Boring Terminated							20 30-59		

REMARKS:

JOB NO. BR3714 Lafayette County JOB NAME: Little Bodcaw Creek Str. & Apprs. (S) Co. Rd. No. 25 STATION: 106+08 LOCATION: 10' Left of Construction Centerline LOGGED BY: Troy Frazier	DATE: September 27, 2016 TYPE OF DRILLING: Hollow Stem Auger - Rotary Wash EQUIPMENT: CME HAMMER CORRECTION FACTOR: 1.23
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COMPLETION DEPTH: 100.4

D E P T H FT.	S Y M B O L	S A M P L E S	DESCRIPTION OF MATERIAL	SOIL GROUP	P L A S T I C L I M I T	% M O I S T.	L I Q U I D L I M I T	D R Y W E I G H T	L B S P E R C U. F T.	N O. O F B L O W S P E R 6- I N.	% T C R	% R Q D
			SURFACE ELEVATION: 262.8									
5		X	Moist, Medium Dense, Brown Sand with Clay							5 6-6		
10		X	Moist, Soft, Brown and Gray Clay with Sand							2 2-2		
15		X								5 8-7		
20		X	Wet, Medium Dense, Gray Sand							7 8-9		
25		X								4 2-7		
30		X	Wet, Loose, Gray Sand with Clay							0 1-5		
35		X										

REMARKS:

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 3

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JOB NO. BR3714 Lafayette County
 JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
 Co. Rd. No. 25
 STATION: 106+08
 LOCATION: 10' Left of Construction Centerline
 LOGGED BY: Troy Frazier

DATE: September 27, 2016
 TYPE OF DRILLING:
 Hollow Stem Auger - Rotary Wash
 EQUIPMENT: CME

HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 100.4

DEPTH FT.	S Y M B O L	S A M P L E S	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 262.8									
		X	Wet, Medium Dense, Gray Sand							4 7-12		
40		X	Moist, Hard, Dark Brown Sandy Clay with Some Gravel							6 16-29		
45		X	Moist, Dense, Dark Brown Silty Sand							6 18-32		
50		X	Moist, Very Dense, Dark Brown Silty Sand							8 21-37		
55		X	Moist, Very Dense, Dark Brown Silty Sand with Some Gravel							13 23-46		
60		X	Moist, Very Hard, Dark Gray Sandy Clay							13 30-40		
65		X	Moist, Very Hard, Dark Gray Sandy Clay							16 25-40		
70		X										

REMARKS:

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

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JOB NO. BR3714 Lafayette County
 JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
 Co. Rd. No. 25
 STATION: 106+08
 LOCATION: 10' Left of Construction Centerline
 LOGGED BY: Troy Frazier

DATE: September 27, 2016
 TYPE OF DRILLING:
 Hollow Stem Auger - Rotary Wash
 EQUIPMENT: CME

HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 100.4

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% TCR	% RQD
			SURFACE ELEVATION: 262.8									
75			Moist, Very Hard, Dark Gray Sandy Clay with Trace Gravel							10 24-48		
80			Moist, Very Dense, Gray Silty Sand with Cemented Seams							40 60 (5")		
85			Moist, Very Dense, Dark Brown Silty Sand							15 37-60 (10")		
90			Moist, Very Dense, Dark Brown Clayey Sand							19 27-60 (11")		
95			Moist, Very Hard, Dark Brown Sandy Clay							18 26-45		
100			Moist, Very Dense, Dark Brown Sand Boring Terminated							17 30-56		
105										60 (5")		

REMARKS:

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

BORING NO. 4

PAGE 1 OF 3

JOB NO. BR3714 Lafayette County
 JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
 Co. Rd. No. 25
 STATION: 107+63
 LOCATION: 8' Left of Construction Centerline
 LOGGED BY: Raymond Taylor

DATE: September 13 and 14, 2016
 TYPE OF DRILLING:
 Hollow Stem Auger - Rotary Wash
 EQUIPMENT: CME 750

HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 260.8									
5		X	Wet, Very Loose, Brown Clayey Sand with Some Gravel							3 2-2		
10		X								3 4-6		
15		X	Wet, Loose, Brown Sand							2 3-3		
20		X	Wet, Medium Dense, Gray Sand							6 6-6		
25		X	Wet, Very Loose, Gray Sand							1 1-2		
30		X								16 24-22		
35		X	Wet, Dense, Brown Sand									

REMARKS:

**ARKANSAS HWY. & TRANS. DEPARTMENT
MATERIALS DIVISION - GEOTECHNICAL SEC.**

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JOB NO. BR3714 Lafayette County
JOB NAME: Little Bodcaw Creek Str. & Apprs. (S)
Co. Rd. No. 25
STATION: 107+63
LOCATION: 8' Left of Construction Centerline
LOGGED BY: Raymond Taylor

DATE: September 13 and 14, 2016
TYPE OF DRILLING:
Hollow Stem Auger - Rotary Wash
EQUIPMENT: CME 750

HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 101.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
			SURFACE ELEVATION: 260.8									
40			Moist, Dense, Dark Brown Silty Sand with Gravel							6 13-18		
45			Moist, Dense, Silty Sand with Some Gravel							12 23-23		
50			Moist, Very Dense, Silty Sand with Some Lignite							29 48-60		
			Cemented Sand									
55			Moist, Very Dense, Dark Brown Sand with Lignite							22 38-54		
60			Moist, Very Dense, Dark Brown Sand with Lignite and Some Clay							23 28-33		
65			Moist, Very Dense, Dark Brown Sand with Clay and Lignite							20 33-52		
70										21 28-41		

REMARKS:

JOB NO. BR3714 Lafayette County JOB NAME: Little Bodcaw Creek Str. & Apprs. (S) Co. Rd. No. 25 STATION: 107+63 LOCATION: 8' Left of Construction Centerline LOGGED BY: Raymond Taylor	DATE: September 13 and 14, 2016 TYPE OF DRILLING: Hollow Stem Auger - Rotary Wash EQUIPMENT: CME 750 HAMMER CORRECTION FACTOR: 1.23
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COMPLETION DEPTH: 101.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBS PER CU.FT.	NO. OF BLOWS PER 6-IN.	% T C R	% R O D
			SURFACE ELEVATION: 260.8									
75		X	Moist, Very Dense, Dark Brown Silty Sand							20 60 (5')		
80		X	Moist, Very Dense, Dark Brown Sand with Clay and Lignite							17 41-60 (8')		
85		X	Moist, Hard, Dark Brown Sandy Clay							21 27-30		
90		X	Moist, Very Hard, Dark Brown Sandy Clay with Lignite							20 49-58		
95		X								22 26-38		
100		X	Moist, Very Dense, Dark Brown Sand							60 (2")		
		X								17 17-50		
			Boring Terminated									
105												

REMARKS: