

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT



SUBSURFACE INVESTIGATION

STATE JOB NO. 030415

FEDERAL AID PROJECT NO. STPF-0041(31)

LITTLE RIVER STR. & APPRS. (S)

STATE HIGHWAY 41 SECTION 2 & 1

IN LITTLE RIVER & SEVIER COUNTY

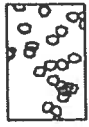
LETTING OF MARCH 23, 2016

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.

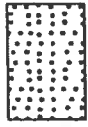
LEGEND

SOIL TYPES

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



GRAVEL



SAND



SILT



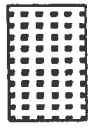
CLAY



ORGANIC
MATTER

ROCK TYPES

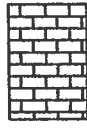
(SHOWN IN SYMBOL COLUMN)



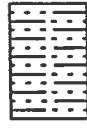
SANDSTONE



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: $\frac{6}{8-9} \Rightarrow 8+9 = 17 \text{ blows / ft}$. 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 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 309+92
LOCATION: 2' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: January 27-28, 2015
TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring
EQUIPMENT: CME 850 w/ CME Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 67.9

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.	% S C R	% R O D
			SURFACE ELEVATION: 302.0									
5		X	Wet, Loose, Brown Clayey Sand							2 3-3		
10		X	Wet, Loose to Very Loose, Brown Sand							2 2-3		
15		X	Wet, Loose to Very Loose, Brown Sand							0 0-1		
20		X	Wet, Very Loose, Gray and Brown Clayey Sand							0 0-1		
25		X	Wet, Loose, Gray Sand with Gravel							4 5-5		
30		X	Wet, Dense, Gray Sand with Gravel							7 16-15		
35		X								11		

REMARKS:

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

BORING NO. 1
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 309+92
LOCATION: 2' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: January 27-28, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 67.9

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.	% S C R	% R Q D
			SURFACE ELEVATION: 302.0									
			Hard, Greenish Gray Cemented Sand							17-28		
			SANDSTONE - Gray and Brown, Cemented, Fractured								10	0
40			SANDSTONE WITH CLAY LAYERS - Brown, Thin Bedded, Cemented								100	0
45			LIMESTONE WITH CLAY LAYERS - Gray, Thin Bedded, Moderately Hard, Vuggy, with Fractured Layers								62	0
50			LIMESTONE INTERBEDDED WITH MEDIUM HARD, BROWN AND GRAY CLAYSTONE - Gray, Thin Bedded, Moderately Hard								48	0
55			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								78	0
60			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								86	0
65			Light Brown, Poorly Cemented Siltstone								100	0
			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard									
			Boring Terminated									
70												

REMARKS:

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

BORING NO. 2
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 310+54
LOCATION: 4' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: January 26-27, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.8

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.	% C R	% R Q D
			SURFACE ELEVATION: 300.0									
5		X	Moist, Soft, Brown Clay							0 2-2		
10		X	Wet, Very Loose, Brown Clayey Sand							2 2-2		
15		X	Wet, Very Loose, Brown and Gray Sand							1 1-1		
20		X	Wet, Very Loose, Gray Sand with Trace of Gravel							1 1-2		
25		X	Wet, Medium Dense, Gray Sand with Gravel							7 8-7		
30		X	Gravel with some Gray Sand							3 1-3		
35												

REMARKS:

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

BORING NO. 2
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 310+54
LOCATION: 4' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: January 26-27, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.8

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.	% S C R	% R Q D
			SURFACE ELEVATION: 300.0									
			Hard, Greenish Gray, Calcareous Cemented Sand							60 (5") 60 (.01")	86	57
40			LIMESTONE INTERBEDDED WITH MEDIUM HARD, BROWN AND GRAY CLAYSTONE - Gray, Thin Bedded, Moderately Hard								100	0
45			CLAYSTONE - Gray to Dark Gray, Medium Hard CLAYSTONE - Gray to Dark Gray, Medium Hard								88	0
50			Gray to Dark Gray Claystone with Frequent siltstone Layers								100	0
55			CLAYSTONE - Gray to Dark Gray, Medium Hard Light Brown, Poorly Cemented Siltstone								100	0
60			CLAYSTONE - Gray to Dark Gray, Medium Hard Light Brown, Poorly Cemented Siltstone								86	0
65			CLAYSTONE - Gray and Reddish Brown, Medium Hard								100	0
70			Boring Terminated									

REMARKS:

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

BORING NO. 3
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 311+38
LOCATION: 4' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: January 28, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68

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.	% S C R	% R O D
			SURFACE ELEVATION: 298.3									
5		X	Wet, Very Loose, Brown Silty Sand							1 1-1		
10		X								0 0-0*		
15		X	Wet, Very Loose, Gray Clayey Sand							0 0-1		
20		X								0 1-1		
25		X	Gravel with Medium Dense, Gray Sand							6 7-6		
30		X	Gravel with some Cemented Sand							11 12-16		
			Hard, Greenish Gray, Calcareous Cemented Sand							60 (.01")		
35												

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 3
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 311+38
LOCATION: 4' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: January 28, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68

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.	% S C R	% R Q D
40	[Pattern: Stippled]		LIMESTONE INTERBEDDED WITH MEDIUM HARD, REDDISH BROWN AND GRAY CLAYSTONE - Gray, Thin Bedded, Moderately Hard								78	0
45			CLAYSTONE - Gray to Dark Gray, Medium Hard Light Brown, Poorly Cemented Siltstone									70
50	[Pattern: Diagonal lines]		CLAYSTONE - Gray to Dark Gray, Medium Hard								94	0
55			Light Brown, Poorly Cemented Siltstone									94
60	[Pattern: Diagonal lines]		CLAYSTONE - Gray to Dark Gray, Medium Hard								100	0
65			Light Brown, Poorly Cemented Siltstone with Occassional Layers of Claystone									100
70			CLAYSTONE - Gray and Brown, Medium Hard								98	0
			CLAYSTONE - Reddish Brown, Medium Hard								100	0
			Boring Terminated									

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 4
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 312+22
LOCATION: 7' Left of Center Line of Construction
LOGGED BY: Tracy Henderson

DATE: February 2-3, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.3

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.	% S C R	% R O D
			SURFACE ELEVATION: 297.6									
5			Moist, Soft, Brown Clay							0 1-2		
10										0 1-1		
15			Wet, Very Loose, Brown to Gray and Brown Clayey Sand *							0 0-1		
20			Wet, Very Loose, Brown and Gray Sand							0 2-2		
25			Wet, Medium Dense, Brown and Gray Sand							8 12-34		
			Wet, Dense, Brown and Gray Sand with Gravel									
30			Wet, Loose, Brown and Gray Sand with Gravel							2 3-4		
35			Hard, Greenish Gray, Calcareous Cemented Sand							32		

REMARKS: * A water stratum was encountered at 17.6'.

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

BORING NO. 4
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 312+22
LOCATION: 7' Left of Center Line of Construction
LOGGED BY: Tracy Henderson

DATE: February 2-3, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.3

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.	% S C R	% R Q D
			SURFACE ELEVATION: 297.6									
			LIMESTONE INTERBEDDED WITH MEDIUM HARD, BROWN AND GRAY CLAYSTONE - Gray, Thin Bedded, Moderately Hard							62 (6")	100	30
40			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								78	0
			Brown to Dark Gray, Medium Hard Claystone with Occasional Layers of Siltstone									
45			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								100	0
50			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								100	0
55			Light Brown, Poorly Cemented Siltstone								70	00
60			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								100	0
65			CLAYSTONE - Gray and Reddish Brown, Medium Hard								100	0
70			Boring Terminated									

REMARKS: * A water stratum was encountered at 17.6'.

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

BORING NO. 5
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 313+06
LOCATION: 5' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: February 3, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.5

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.	% S C R	% R O D
			SURFACE ELEVATION: 297.1									
5		X	Wet, Very Loose, Brown Silty Sand							2 2-2		
10		X	Wet, Very Loose, Brown Clayey Sand *							0 1-1		
15		X	Wet, Very Loose, Brown Silty Sand							0 0-1		
20		X								2 6-10		
25		X	Wet, Medium Dense, Gray Sand with Gravel							6 12-13		
30		X	Wet, Very Dense, Gray Sand with Gravel							10 60 (2")		
			Hard, Greenish Gray Cemented Sand LIMESTONE WITH CLAY LAYERS - Gray, Thin Bedded, Moderately Hard, Vuggy, with Fractured Layers							60 (.01")	83	0
35												

REMARKS: * A water stratum was encountered at 10.4'.

ARKANSAS HWY. & TRANS. DEPARTMENT		BORING NO. 5	
MATERIALS DIVISION - GEOTECHNICAL SEC.		PAGE 2 OF 2	
JOB NO. 030415	Little River County	DATE:	February 3, 2015
JOB NAME: Little River Str. & Apprs.	S.H. 41	TYPE OF DRILLING:	Hollow Stem Auger & Diamond Coring
STATION: 313+06		EQUIPMENT:	CME 850 w/ CME Automatic Hammer
LOCATION: 5' Left of Center Line of Construction		HAMMER CORRECTION FACTOR:	1.23
LOGGED BY: David Allen			

COMPLETION DEPTH: 68.5

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.	% S C R	% R Q D
			SURFACE ELEVATION: 297.1									
			LIMESTONE INTERBEDDED WITH MEDIUM HARD, GRAY CLAYSTONE - Gray, Moderately Hard								58	0
40			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								94	0
45			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								100	0
			Light Brown, Poorly Cemented Siltstone									
50			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								100	0
			Light Brown, Poorly Cemented Siltstone with Occasional Layers of Brown to Dark Gray Claystone									
55			CLAYSTONE - Gray and Brown to Dark Gray, Medium Hard								96	0
60			CLAYSTONE - Gray and Reddish Brown, Medium Hard								98	0
65			CLAYSTONE - Gray and Reddish Brown, Medium Hard								100	0
70			Boring Terminated									

REMARKS: * A water stratum was encountered at 10.4'.

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

BORING NO. 6
PAGE 1 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 313+90
LOCATION: 5' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: February 4, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 73.7

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.	% S C R	% R O D
			SURFACE ELEVATION: 295.4									
5		X	Moist, Soft, Brown Clay							0 1-1		
10		X	Wet, Very Loose, Brown Silty Sand **							0 0-0*		
15		X	Wet, Medium Dense, Brown Clayey Sand with Gravel							1 5-6		
20		X	Wet, Loose, Gray Sand with Gravel							1 4-5		
25		X	Wet, Medium Dense, Gray Sand with Large Gravel							6 13-13		
30		X	Hard, Greenish Gray, Calcareous Cemented Sand							13 26-25		
										60 (.01")	83	0
35			LIMESTONE INTERBEDDED WITH MEDIUM HARD, GRAY CLAYSTONE - Gray, Thin									

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 13.2'.

ARKANSAS HWY. & TRANS. DEPARTMENT MATERIALS DIVISION - GEOTECHNICAL SEC.		BORING NO. 6 PAGE 2 OF 3
JOB NO. 030415 Little River County	DATE: February 4, 2015	
JOB NAME: Little River Str. & Apprs. S.H. 41	TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring	
STATION: 313+90	EQUIPMENT: CME 850 w/ CME Automatic Hammer	
LOCATION: 5' Left of Center Line of Construction	HAMMER CORRECTION FACTOR: 1.23	
LOGGED BY: David Allen		

COMPLETION DEPTH: 73.7

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.	% S C R	% R O D
			SURFACE ELEVATION: 295.4									
			Bedded, Moderately Hard								62	0
			CLAYSTONE - Gray to Dark Gray, Medium Hard									
40			CLAYSTONE - Gray to Dark Gray, Medium Hard								100	0
45			CLAYSTONE - Gray to Dark Gray, Medium Hard								92	0
50			Light Brown, Poorly Cemented Siltstone								100	0
55			CLAYSTONE - Gray to Dark Gray, Medium Hard								98	0
60											100	0
65			CLAYSTONE - Reddish Brown, Medium Hard								100	0
70												

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 13.2'.

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

BORING NO. 6
PAGE 3 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 313+90
LOCATION: 5' Left of Center Line of Construction
LOGGED BY: David Allen

DATE: February 4, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 73.7

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.	% S C R	% R O D
			SURFACE ELEVATION: 295.4								100	0
75			Boring Terminated									
80												
85												
90												
95												
100												
105												

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 13.2'.

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

BORING NO. 7
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 314+74
LOCATION: 10' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: February 9-10, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 64

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	PLASTIC LIMIT	% MOIST.	LIQUID LIMIT	DRY WEIGHT	LBSPER CU.FT.	NO. OF BLOWS PER 6-IN.	% S C R	% R O D
			SURFACE ELEVATION: 296.7									
5		X	Wet, Very Loose, Brown Silty Sand							0 0-1		
10		X	Wet, Very Loose, Brown Sand *							0 1-1		
15		X	Wet, Loose, Brown Sand with Gravel							2 4-4		
20		X	Wet, Medium Dense, Reddish Brown Sand with Gravel							2 6-7		
25		X	Wet, Dense, Brown and Gray Sand with Gravel							5 13-18		
30		X	Hard, Greenish Gray Cemented Sand							10 20-38		
35										28 (.01")	20	0

REMARKS: * A water stratum was encountered at 12.8'.







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

BORING NO. 7
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 314+74
LOCATION: 10' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: February 9-10, 2015
TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring
EQUIPMENT: CME 850 w/ CME Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 64

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.	% S C R	% R Q D
			SURFACE ELEVATION: 296.7									
40			CLAYSTONE WITH HARD, GREENISH GRAY CEMENTED SAND - Gray, Medium Hard								38	0
45			CLAYSTONE - Gray to Dark Gray, Medium Hard									
50			CLAYSTONE - Gray to Dark Gray, Medium Hard								100	0
55			Light Brown, Poorly Cemented Siltstone								82	0
60			CLAYSTONE - Gray and Brown, Medium Hard									
65			CLAYSTONE - Gray and Brown, Medium Hard								100	0
70			CLAYSTONE - Reddish Brown, Medium Hard								100	0
			Boring Terminated									

REMARKS: * A water stratum was encountered at 12.8'.

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

BORING NO. 8
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 315+58
LOCATION: Center Line of Construction
LOGGED BY: Stanley Bates

DATE: February 10, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 63.9

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.	% S C R	% R O D
			SURFACE ELEVATION: 298.2									
5		X	Wet, Very Loose, Brown Silty Sand *							1 1-2		
10		X								1 2-1		
15		X	Wet, Loose, Brown Sand							0 1-4		
20		X								3 6-8		
25		X	Wet, Medium Dense to Loose, Brown Sand with Gravel							2 2-3		
30		X	Wet, Very Dense, Brown Sand with Gravel							16 20-34		
35											0	0

REMARKS: * A water stratum was encountered at 6.1'.

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

BORING NO. 8
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 315+58
LOCATION: Center Line of Construction
LOGGED BY: Stanley Bates

DATE: February 10, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 63.9

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.	% S C R	% R Q D
			SURFACE ELEVATION: 298.2									
			Hard, Greenish Gray Cemented Sand								5	0
40											24	0
			CLAYSTONE - Gray, Medium Hard									
45			CLAYSTONE - Gray, Medium Hard								52	0
			Light Brown, Poorly Cemented Siltstone								64	0
50												
			CLAYSTONE - Brown and Gray, Medium Hard									
55			CLAYSTONE - Gray and Reddish Brown, Medium Hard								100	0
			CLAYSTONE - Reddish Brown, Medium Hard								100	0
60												
65			Boring Terminated									
70												

REMARKS: * A water stratum was encountered at 6.1'.

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

BORING NO. 9
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 316+42
LOCATION: 19' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: February 11, 2015
TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring
EQUIPMENT: CME 850 w/ CME Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.7

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.	% S C R	% R Q D
			SURFACE ELEVATION: 296.3									
5			Moist, Medium Stiff, Brown Clay							1 2-3		
10			Wet, Very Loose, Gray and Brown Clayey Silt *							0 0-0*		
15			Wet, Very Loose, Gray Silty Sand							0 0-1		
20			Wet, Medium Dense to Dense, Brown Sand with Gravel							13 15-14		
25			Wet, Medium Dense to Dense, Brown Sand with Gravel							5 13-19		
30										20 60 (3")		
35			Hard, Greenish Gray and Brown, Calcareous Cemented Sand							60		

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 12.2'.

ARKANSAS HWY. & TRANS. DEPARTMENT MATERIALS DIVISION - GEOTECHNICAL SEC.		BORING NO. 9 PAGE 2 OF 2
JOB NO. 030415 Little River County	DATE: February 11, 2015	
JOB NAME: Little River Str. & Apprs. S.H. 41	TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring	
STATION: 316+42	EQUIPMENT: CME 850 w/ CME Automatic Hammer	
LOCATION: 19' Left of Center Line of Construction	HAMMER CORRECTION FACTOR: 1.23	
LOGGED BY: Stanley Bates		

COMPLETION DEPTH: 68.7

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.	% S C R	% R Q D
			SURFACE ELEVATION: 296.3							(5")		
40			LIMESTONE INTERBEDDED WITH MEDIUM HARD, BROWN AND GRAY CLAYSTONE - Gray, Thin Bedded, Moderately Hard								0	0
			CLAYSTONE - Gray and Brown, Medium Hard								32	0
45			CLAYSTONE - Gray and Brown, Medium Hard									
			Light Brown, Poorly Cemented Siltstone								68	0
50			CLAYSTONE - Gray and Brown, Medium Hard								100	0
55			CLAYSTONE - Gray and Reddish Brown, Medium Hard								100	0
60			CLAYSTONE - Reddish Brown, Medium Hard								100	0
65			CLAYSTONE - Reddish Brown, Medium Hard								100	0
70			Boring Terminated									

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 12.2'.

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

BORING NO. 10
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 317+26
LOCATION: 5' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: Feb. 24 & March 2, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.3

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.	% S C R	% R O O D
			SURFACE ELEVATION: 298.1									
5		X	Wet, Very Loose, Brown Clayey Sand with some Organic Matter							2 2-2		
10		X								0 0-1		
15		X	Wet, Very Loose, Brown Sand **							0 0-0*		
20		X	Wet, Loose, Brown and Gray Sand with Gravel							1 2-4		
25		X	Wet, Dense, Brown Sand with Gravel							5 16-26		
30		X	Wet, Medium Dense, Brown and Gray Sand with Gravel							7 10-14		
35		X								60		

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 14.2'.

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

BORING NO. 10
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 317+26
LOCATION: 5' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: Feb. 24 & March 2, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.3

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.	% S C R	% R O D
			SURFACE ELEVATION: 298.1									
			Hard, Greenish Gray and Brown, Cemented Sand							60 (5")	81	0
40			CLAYSTONE - Dark Gray, Medium Hard								99	0
			CLAYSTONE - Gray and Brown, Medium Hard									
45			Light Brown, Poorly Cemented Siltstone to Unconsolidated Silt								50	0
50			CLAYSTONE - Gray and Brown, Medium Hard								80	0
55			CLAYSTONE - Reddish Brown and Gray, Medium Hard								99	0
60			CLAYSTONE - Reddish Brown, Medium Hard								76	0
65											100	0
70			Boring Terminated									

REMARKS: * Split-spoon sampler advanced 1.5' by static weight of hammer. ** A water stratum was encountered at 14.2'.

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

BORING NO. 11
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 318+10
LOCATION: 6' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 3, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 65.1

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.	% S C R	% R O D
			SURFACE ELEVATION: 299.8									
5		X	Moist, Soft, Brown and Gray Sandy Clay with some Organic Matter							0 1-1		
10		X								1 1-1		
15		X	Wet, Very Loose, Brown Silty Sand *							0 1-1		
20		X								0 6-8		
25		X	Wet, Medium Dense to Dense, Brown Sand with Gravel							14 16-21		
30		X								12 16-18		
35		X	Wet, Dense, Brown Sand							6		

REMARKS: * A water stratum was encountered at 12.4'.

ARKANSAS HWY. & TRANS. DEPARTMENT MATERIALS DIVISION - GEOTECHNICAL SEC.						BORING NO. 11 PAGE 2 OF 2						
JOB NO. 030415 Little River County				DATE: March 3, 2015								
JOB NAME: Little River Str. & Apprs. S.H. 41				TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring								
STATION: 318+10				EQUIPMENT: CME 850 w/ CME Automatic Hammer								
LOCATION: 6' Left of Center Line of Construction				HAMMER CORRECTION FACTOR: 1.23								
LOGGED BY: Stanley Bates												
COMPLETION DEPTH: 65.1												
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.	% S C R	% R Q D
			SURFACE ELEVATION: 299.8									
			Hard, Greenish Gray and Brown, Claystone							24-26		
40			CLAYSTONE - Gray, Medium Hard								89	0
45			CLAYSTONE - Gray to Dark Gray, Medium Hard								92	0
50			Light Brown, Poorly Cemented Siltstone								52	0
55											100	0
60			CLAYSTONE- Gray and Reddish Brown, Medium Hard								42	0
65											100	0
			Boring Terminated									
70												

REMARKS: * A water stratum was encountered at 12.4'.

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

BORING NO. 12
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 318+94
LOCATION: 10' Left of Center Line of Construction
LOGGED BY: Tracy Henderson

DATE: March 10, 2015
TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring
EQUIPMENT: CME 850 w/ CME Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 69

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.	% S C R	% R Q D
5		X	Moist, Soft, Brown Clay with Sand							0 1-1		
10		X	Wet, Very Loose, Brown Silty, Clayey Sand *							0 1-1		
15		X								0 0-1		
20		X	Wet, Very Loose, Brown Silty Sand							0 1-2		
25		X	Wet, Dense, Brown Sand with Gravel							10 15-18		
30		X	Gravel with Gray and Brown Sand							14 18-19		
35		X	Wet, Dense, Brown and Gray Sand							8		

REMARKS: * A water stratum was encountered at 12.7'.

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

BORING NO. 12
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 318+94
LOCATION: 10' Left of Center Line of Construction
LOGGED BY: Tracy Henderson

DATE: March 10, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 69

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.	% S C R	% R Q D
			SURFACE ELEVATION: 300.6									
		X	Very Hard, Gray and Brown, Clay							32-64		
			CLAYSTONE - Greenish Gray and Brown, Medium Hard								90	0
40			CLAYSTONE - Gray to Dark Gray, Medium Hard with Occasional Layer of Poorly Cemented Siltstone								100	0
			Light Brown, Poorly Cemented Siltstone									
45											70	0
			Light Brown, Poorly Cemented Siltstone								100	0
50												
			CLAYSTONE - Reddish Brown, Medium Hard								100	0
55												
			CLAYSTONE - Brown, Medium Hard								100	0
60												
			CLAYSTONE - Reddish Brown, Medium Hard								100	0
65												
			Boring Terminated									

REMARKS: * A water stratum was encountered at 12.7'.

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

BORING NO. 13
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 319+78
LOCATION: 8' Left of Center Line of Construction
LOGGED BY: Tracy Henderson

DATE: March 11, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.7

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.	% S C R	% R Q D
			SURFACE ELEVATION: 300.8									
5		X	Moist, Very Loose to Loose, Brown Silty Sand							1 1-2		
10		X								1 2-3		
15		X	Wet, Very Loose, Brown Silty Sand *							0 1-1		
20		X								0 0-0**		
25		X	Wet, Medium Dense, Brown Sand with Gravel							3 8-8		
30		X								13 15-18		
			Gravel									
35		X	Wet, Very Dense, Gray and Brown, Sand							11		

REMARKS: * A water stratum was encountered at 16.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 13
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 319+78
LOCATION: 8' Left of Center Line of Construction
LOGGED BY: Tracy Henderson

DATE: March 11, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.7

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.	% S C R	% R Q D
			SURFACE ELEVATION: 300.8									
			Moist, Hard, Gray, Clay							22-34		
40			CLAYSTONE - Greenish Gray, Medium Hard								23	0
			CLAYSTONE - Dark Gray to Gray, Medium Hard								100	0
45			Light Brown, Poorly Cemented Siltstone								50	0
50			CLAYSTONE - Brown and Gray, Medium Hard								90	0
55			CLAYSTONE - Reddish Brown, Medium Hard								100	0
60			CLAYSTONE - Brown, Medium Hard								100	0
65			CLAYSTONE - Reddish Brown, Medium Hard								100	0
70			Boring Terminated									

REMARKS: * A water stratum was encountered at 16.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 14
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 320+62
LOCATION: 9' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 16, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 58.9

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.	% S C R	% R O D
			SURFACE ELEVATION: 300.1									
5		X	Moist, Loose, Brown Sand with some Organic Matter (Grassroots) *							2 2-3		
10		X								2 3-2		
15		X	Wet, Very Loose, Brown Sand							1 1-2		
20		X								0 1-1		
25		X	Wet, Very Loose, Gray Silty Sand							1 1-1		
30		X								6 15-18		
35		X	Wet, Dense, Gray Sand with Gravel							7		

REMARKS: * A water stratum was encountered at 13.8'.

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

BORING NO. 14
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 320+62
LOCATION: 9' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 16, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 58.9

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.	% S C R	% R Q D
			SURFACE ELEVATION: 300.1									
			Moist, Very Hard, Greenish Gray Clay with Brown Sand							34-60 (5")		
			CLAYSTONE - Greenish Gray, Medium Hard								92	0
40			CLAYSTONE - Dark Gray to Gray, Medium Hard								92	0
			Light Brown, Poorly Cemented Siltstone									
45			CLAYSTONE - Reddish Brown and Gray, Medium Hard								72	0
			CLAYSTONE - Brown and Gray, Medium Hard								100	0
50			CLAYSTONE - Brown, Medium Hard								100	0
55												
60			Boring Terminated									
65												
70												

REMARKS: * A water stratum was encountered at 13.8'.

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

BORING NO. 15
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 321+46
LOCATION: 35' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 18, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 59.5

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.	% S R C	% R Q D
			SURFACE ELEVATION: 298.3									
5		X	Moist, Very Loose, Brown Sand with some Organic Matter (Grassroots)							1 2-2		
10		X	Moist, Very Loose, Brown Sand							1 1-2		
15		X	Moist, Very Loose, Brown Silty Sand *							1 1-2		
20		X	Wet, Very Loose, Brown Silty Sand							1 1-1		
25		X	Wet, Very Loose, Brown and Gray Sand with Gravel							1 1-0		
30		X	Wet, Dense, Brown and Gray Sand with Gravel							10 13-22		
35		X										

REMARKS: * A water stratum was encountered at 18.0'. ** Partial water loss was encountered from 44.5' to 49.5'.

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

BORING NO. 15
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 321+46
LOCATION: 35' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 18, 2015
TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring
EQUIPMENT: CME 850 w/ CME Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 59.5

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.	% S C R	% R Q D
			SURFACE ELEVATION: 298.3									
			Moist, Hard, Gray Clay a trace of Gravel							4 19-40		
			Moist, Gray, Sandy Clay								13	0
40			Light Brown, Poorly Cemented Siltstone								66	0
45			CLAYSTONE - Reddish Brown and Gray, Medium Hard **									
			CLAYSTONE - Gray, Medium Hard								100	0
50											100	0
55			CLAYSTONE - Brown and Gray, Medium Hard								100	0
60			Boring Terminated									
65												
70												

REMARKS: * A water stratum was encountered at 18.0'. ** Partial water loss was encountered from 44.5' to 49.5'.

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

BORING NO. 16
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 322+30
LOCATION: 33' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 17, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.3

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.	% S C R	% R Q D
			SURFACE ELEVATION: 292.5									
5			Moist, Very Loose, Brown Sand with Gravel *							1 1-1		
10			Wet, Very Loose, Brown Silty Sand							0 1-1		
15			Wet, Very Loose, Gray Sand							0 1-2		
20			Wet, Loose, Gray and Brown Sand with Gravel							1 1-6		
25			Wet, Dense to Medium Dense, Brown and Gray Sand with Gravel							7 15-32		
30			Wet, Very Dense, Brown and Gray Sand with Clay							13 10-17		
35										50		

REMARKS: * A water stratum was encountered at 4.2'.

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

BORING NO. 16
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 322+30
LOCATION: 33' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 17, 2015
TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring
EQUIPMENT: CME 850 w/ CME Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 68.3

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.	% S C R	% R Q D
			Moist, Hard, Brown and Gray Clay with Sand Layers							52 (4 [#])	72	0
40			CLAYSTONE - Reddish Brown and Gray to Brown and Gray, Medium Hard								100	0
45			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
50			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
55			CLAYSTONE - Brown and Gray, Medium Hard								100	0
60			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
65			CLAYSTONE WITH SOME SAND AND CEMENTED SAND SEAMS - Brown and Gray, Medium Hard								92	0
			Light Brown, Poorly Cemented Sandstone with Occasional Claystone Layers									
70			Boring Terminated									

REMARKS: * A water stratum was encountered at 4.2'.

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

BORING NO. 17
PAGE 1 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 325+90
LOCATION: 36' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 30-31, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 73.4

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.	% C R	% R O
			SURFACE ELEVATION: 303.3									
5		X	Moist, Stiff, Brown and Gray Clay with Sand							5 6-9		
10		X	Moist, Stiff, Brown and Gray Sandy Clay							2 4-7		
15		X	Moist, Loose, brown and Gray Sand with Clay *							4 4-6		
20		X	Wet, Very Loose, Brown Sand							1 1-3		
25		X	Wet, Very Loose, Gray Sand with Gravel							0 1-3		
30		X								8 6-8		
35		X	Wet, Medium Dense, Gray to Brown and Gray							13		

REMARKS: * A water stratum was encountered at 18.4'.

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

BORING NO. 17
PAGE 2 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 325+90
LOCATION: 36' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 30-31, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 73.4

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.	% S C R	% R Q D
			SURFACE ELEVATION: 303.3									
		X	Sand with Gravel							12-13		
40		X	CLAYSTONE - Dark Gray to Gray, Medium Hard							10 19-21	15	0
45			CLAYSTONE - Reddish Brown and Gray, Medium Hard								75	0
50			CLAYSTONE - Gray and Brown to Brown, Medium Hard								100	0
55			CLAYSTONE - Reddish Brown, Medium Hard								100	0
60											100	0
65			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
70												

REMARKS: * A water stratum was encountered at 18.4'.

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

BORING NO. 17
PAGE 3 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 325+90
LOCATION: 36' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 30-31, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 73.4

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.	% S C R	% R Q D
			SURFACE ELEVATION: 303.3									
											100	0
75			Boring Terminated									
80												
85												
90												
95												
100												
105												

REMARKS: * A water stratum was encountered at 18.4'.

ARKANSAS HWY. & TRANS. DEPARTMENT MATERIALS DIVISION - GEOTECHNICAL SEC.	BORING NO. 18 PAGE 1 OF 2
JOB NO. 030415 Little River County JOB NAME: Little River Str. & Apprs. S.H. 41 STATION: 326+80 LOCATION: 27' Left of Center Line of Construction LOGGED BY: Stanley Bates	DATE: March 23-24, 2015 TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring EQUIPMENT: CME 850 w/ CME Automatic Hammer HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 58.5

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.	% S C R	% R O D
			SURFACE ELEVATION: 302.7									
5		X	Moist, Stiff, Brown and Gray Clay							5 6-7		
10		X	Moist, Medium Dense to Loose, Brown Silty Sand							5 6-9		
15		X	Moist, Medium Dense to Loose, Brown Silty Sand							3 4-3		
20		X	Wet, Very Loose, Gray Silty Sand *							1 2-1		
25		X								8 15-14		
30		X	Wet, Medium Dense, Brown Sand with Gravel							6 11-10		
35		X								3		

REMARKS: * A water stratum was encountered at 19.5'.

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

BORING NO. 18
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 326+80
LOCATION: 27' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 23-24, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 58.5

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.	% S C R	% R Q D
			SURFACE ELEVATION: 302.7							6-7		
40			Moist, Hard, Brown and Gray Clay							10 22-33		
			CLAYSTONE - Gray, Medium Hard								30	0
45											100	0
50			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
55											100	0
60			Boring Terminated									
65												
70												

REMARKS: * A water stratum was encountered at 19.5'.

ARKANSAS HWY. & TRANS. DEPARTMENT MATERIALS DIVISION - GEOTECHNICAL SEC.		BORING NO. 19 PAGE 1 OF 2
JOB NO. 030415 Little River County	DATE: March 24, 2015	TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring EQUIPMENT: CME 850 w/ CME Automatic Hammer HAMMER CORRECTION FACTOR: 1.23
JOB NAME: Little River Str. & Apprs. S.H. 41		
STATION: 327+70		
LOCATION: 24' Left of Center Line of Construction		
LOGGED BY: Stanley Bates		

COMPLETION DEPTH: 60

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.	% S C R	% R Q D
			SURFACE ELEVATION: 302.9									
5		X	Moist, Stiff, Brown Sandy Clay							3 5-7		
10		X	Moist, Loose, Brown Silty Sand							3 4-5		
15		X	Moist to Wet, Very Loose, Gray to Brown and Gray Silty Sand *							2 2-2		
20		X									0 0-0**	
25		X	Wet, Loose, Gray Sand							0 3-7		
30		X	Wet, Medium Dense, Brown Sand with Gravel							4 9-13		
35		X									4	

REMARKS: * A water stratum was encountered at 18.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 19
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 327+70
LOCATION: 24' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 24, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 60

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.	% S C R	% R O C K
			SURFACE ELEVATION: 302.9									
										8-11		
40			Wet, Medium Dense, Brown Sand Moist, Very Stiff, Gray Clay with Brown Sand and Gravel							3 10-16		
45			CLAYSTONE - Gray, Medium Hard								62	0
50			CLAYSTONE - Brown and Gray, Medium Hard								100	0
55			CLAYSTONE - Reddish Brown, Medium Hard								100	0
60			Boring Terminated									
65												
70												

REMARKS: * A water stratum was encountered at 18.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 20
PAGE 1 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 328+60
LOCATION: 6' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 25, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 70.3

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.	% S C R	% R Q D
			SURFACE ELEVATION: 303.3									
5		X	Wet, Loose, Brown Clayey Sand							2 2-4		
10		X	Moist, Stiff, Brown and Gray Sandy Clay *							3 6-5		
15		X								2 2-1		
20		X	Wet, Very Loose, Brown to Gray and Brown Silty Sand							0 0-0**		
25		X								3 5-7		
30		X								13 15-18		
35		X	Wet, Medium Dense to Dense, Gray Sand with Gravel							4		

REMARKS: * A water stratum was encountered at 12.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer. + Partial water loss was encountered from 46.6' to 65.3'.

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

BORING NO. 20
PAGE 2 OF 3

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 328+60
LOCATION: 6' Left of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 25, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 70.3

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.	% C R	% R O D
			SURFACE ELEVATION: 303.3									
40										11-19		
45			Wet, Medium Dense, Brown and Gray to Brown Sand with Gravel							3 6-11		
			Moist, Hard, Brown and Gray Clay with Sand and Gravel							6 20-30		
50			CLAYSTONE - Brown and Gray, Medium Hard +								32	0
55			CLAYSTONE - Reddish Brown, Medium Hard +								100	0
60			CLAYSTONE - Reddish Brown and Gray, Medium Hard +								100	0
65			CLAYSTONE - Reddish Brown, Medium Hard									
			CLAYSTONE - Gray, Medium Hard								94	0

REMARKS: * A water stratum was encountered at 12.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer. + Partial water loss was encountered from 46.6' to 65.3'.

ARKANSAS HWY. & TRANS. DEPARTMENT MATERIALS DIVISION - GEOTECHNICAL SEC.	BORING NO. 20 PAGE 3 OF 3
JOB NO. 030415 Little River County JOB NAME: Little River Str. & Apprs. S.H. 41 STATION: 328+60 LOCATION: 6' Left of Center Line of Construction LOGGED BY: Stanley Bates	DATE: March 25, 2015 TYPE OF DRILLING: Hollow Stem Auger & Diamond Coring EQUIPMENT: CME 850 w/ CME Automatic Hammer HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 70.3

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.	% S C R	% R Q D
			SURFACE ELEVATION: 303.3									
			Boring Terminated									
75												
80												
85												
90												
95												
100												
105												

REMARKS: * A water stratum was encountered at 12.1'. ** Split-spoon sampler advanced 1.5' by static weight of hammer. + Partial water loss was encountered from 46.6' to 65.3'.

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

BORING NO. 21
PAGE 1 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 329+51
LOCATION: 26' Right of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 31 - Apr. 1, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 69.1

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.	% C R	% R Q D
			SURFACE ELEVATION: 303.4									
5		X	Wet, Soft, Brown Sandy Clay with some Organic Matter *							1 1-1		
10		X	Wet, Very Loose, Brown Sand							0 1-2		
15		X	Wet, Very Loose, Brown and Gray to Gray Clayey Sand							0 2-1		
20		X	Wet, Very Loose, Brown and Gray to Gray Clayey Sand							0 0-0*		
25		X	Wet, Loose, Gray Sand							0 2-3		
30		X	Wet, Dense to Medium Dense, Brown Sand with Gravel							8 13-20		
35		X	Wet, Dense to Medium Dense, Brown Sand with Gravel							8		

REMARKS: * A water stratum was encountered at 7.3'. ** Split-spoon sampler advanced 1.5' by static weight of hammer.

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

BORING NO. 21
PAGE 2 OF 2

JOB NO. 030415 Little River County
JOB NAME: Little River Str. & Apprs.
S.H. 41
STATION: 329+51
LOCATION: 26' Right of Center Line of Construction
LOGGED BY: Stanley Bates

DATE: March 31 - Apr. 1, 2015
TYPE OF DRILLING: Hollow Stem Auger &
Diamond Coring
EQUIPMENT: CME 850 w/ CME
Automatic Hammer
HAMMER CORRECTION FACTOR: 1.23

COMPLETION DEPTH: 69.1

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.	% S C R	% R Q D
										8-9		
40			Gravel with Medium Dense, Brown Sand							7 8-13		
45			CLAYSTONE WITH SAND SEAMS - Brown and Gray, Medium Hard							13 20-30	28	0
50			CLAYSTONE - Brown, Medium Hard								100	0
55			CLAYSTONE - Brown, Medium Hard								100	0
60			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
65			CLAYSTONE - Reddish Brown and Gray, Medium Hard								100	0
70			Boring Terminated									

REMARKS: * A water stratum was encountered at 7.3'. ** Split-spoon sampler advanced 1.5' by static weight of hammer.