

ARKANSAS DEPARTMENT OF TRANSPORTATION



**SUBSURFACE INVESTIGATION**

STATE JOB NO. 012307

FEDERAL AID PROJECT NO. NHPP-1030(3)

DE ROCHE CREEK STRS. & APPRS. (S)

STATE HIGHWAY I-30 SECTION 14 & 21

IN CLARK & HOT SPRING COUNTIES

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 DEPARTMENT OF TRANSPORTATION

AR DOT.gov | IDriveArkansas.com | Scott E. Bennett, P.E., Director

MATERIALS DIVISION

11301 West Baseline Road | P.O. Box 2261 | Little Rock, AR 72203-2261 | Phone: 501.569.2185 | Fax: 501.569.2368

August 28, 2017

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 070460  
Bayou De Roche (Strs. & Apprs.) (S)  
Route 30 Section 14  
Clark County

Transmitted herewith is the requested Soil Survey, strength data and Resilient Modulus test results for the above referenced job. The project consists of replacing the bridges crossing Bayou De Roche on Interstate 30. Samples were obtained in the existing travel lanes, shoulder and ditch line.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of low to moderately plastic sandy clay. Cross sections are not currently available, but it is assumed the construction grade line will closely match that of the existing roadway. The subgrade soils are expected to provide a stable working platform with conventional processing, if the weather is favorable during construction.

Additional earthwork recommendations will be made upon request when plans are further developed and cross sections are available.

Listed below is the additional information requested for use in developing the plans:

1. The Qualified Products List (QPL) indicates that Aggregate Base Course (Class CL-7) is available from commercial producers located in the vicinity Bismarck.
2. Asphalt Concrete Hot Mix

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.5	94.5
Binder Course	4.5	95.5
Base Course	4.1	95.9



Michael C. Benson  
Materials Engineer

MCB:pt:bjj  
Attachment

cc: State Constr. Eng. – Master File Copy  
District 7 Engineer  
System Information and Research Div.  
G. C. File

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
MATERIALS DIVISION  
MICHAEL BENSON, MATERIALS ENGINEER  
\*\*\* SOIL SURVEY STRENGTH TEST REPORT \*\*\*

DATE - 08/10/2017  
JOB NUMBER - 070460

SEQUENCE NO. - 1  
MATERIAL CODE - SSRV  
SPEC. YEAR - 2014  
SUPPLIER ID. - 1  
COUNTY/STATE - 10  
DISTRICT NO. - 07

JOB NAME - BAYOU DE ROCHE (STRS. & APPRS.) (S)

\*\*\*\*\*  
\* STATION LIMITS R-VALUE AT 240 psi \*  
\*\*\*\*\*

BEGIN JOB - END JOB 14

RESILIENT MODULUS  
STA. 4397+10 7982

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REMARKS -

AASHTO TESTS : T190

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

**AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS  
RECOMPACTED SAMPLES**

<b>Job No.</b>	070460	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	7/7/17	<b>Station No.:</b>	4397+10
<b>Date Tested:</b>	July 27, 2017	<b>Location:</b>	30RT
<b>Name of Project:</b>	BAYOU DE ROACHE (STRS. & APPRS.) (S)		
<b>County:</b>	<b>Code:</b> 10	<b>Name:</b> CLARK	
<b>Sampled By:</b>	THORNTON/BATES		
<b>Lab No.:</b>	20172321	<b>Depth:</b>	0-5
<b>Sample ID:</b>	RV457	<b>AASHTO Class:</b>	A-6(3)
<b>LATITUDE:</b>		<b>Material Type (1 or 2):</b>	2
		<b>LONGITUDE:</b>	

**1. Testing Information:**

Preconditioning - Permanent Strain > 5% (Y=Yes or N= No)	N
Testing - Permanent Strain > 5% (Y=Yes or N=No)	N
Number of Load Sequences Completed (0-15)	15

**2. Specimen Information:**

Specimen Diameter (in):	
Top	3.97
Middle	3.97
Bottom	3.95
Average	3.96
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8.02
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.02
Initial Area, Ao (sq. in):	12.26
Initial Volume, AoLo (cu. in):	98.34

**3. Soil Specimen Weight:**

Weight of Wet Soil Used (g):	3315.80
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**4. Soil Properties:**

Optimum Moisture Content (%):	13.7
Maximum Dry Density (pcf):	116.2
95% of MDD (pcf):	110.4
In-Situ Moisture Content (%):	N/A

**5. Specimen Properties:**

Wet Weight (g):	3315.80
Compaction Moisture content (%):	13.5
Compaction Wet Density (pcf):	128.47
Compaction Dry Density (pcf):	113.19
Moisture Content After Mr Test (%):	13.5

**6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable):** #VALUE!

**7. Resilient Modulus, Mr:** 10668(S<sub>c</sub>)<sup>-0.24596</sup>(S<sub>3</sub>)<sup>0.35017</sup>

**8. Comments**

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**9. Tested By:** GW **Date:** July 27, 2017

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

**AAASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS  
RECOMPACTED SAMPLES**

**Job No.** 070460 **Material Code** SSRVPS  
**Date Sampled:** 7/7/17 **Station No.:** 4397+10  
**Date Tested:** July 27, 2017 **Location:** 30RT

**Name of Project:** BAYOU DE ROACHE (STRS. & APPRS.) (S)

**County:** Code: 10 **Name:** CLARK

**Sampled By:** THORNTON/BATES

**Lab No.:** 20172321

**Sample ID:** RV457

**LATITUDE:**

**Depth:** 0-5

**AASHTO Class:** A-6(3)

**Material Type (1 or 2):** 2  
**LONGITUDE:**

PARAMETER	Chamber Confining Pressure	Nominal Maximum Axial Stress	Actual Applied Max. Axial Load	Actual Applied Cyclic Load	Actual Applied Contact Load	Actual Applied Max. Axial Stress	Actual Applied Cyclic Stress	Actual Applied Contact Stress	Average Recov Def. LVDT 1 and 2	Resilient Strain	Resilient Modulus
	S <sub>3</sub> psi	S <sub>cyclic</sub> psi	P <sub>max</sub> lbs	P <sub>cyclic</sub> lbs	P <sub>contact</sub> lbs	S <sub>max</sub> psi	S <sub>cyclic</sub> psi	S <sub>contact</sub> psi	H <sub>avg</sub> in	ε <sub>r</sub> in/in	M <sub>r</sub> psi
Sequence 1	6.0	2.0	25.4	22.7	2.7	2.1	1.9	0.2	0.00088	0.00011	16,862
Sequence 2	6.0	4.0	47.6	44.9	2.7	3.9	3.7	0.2	0.00188	0.00023	15,607
Sequence 3	6.0	6.0	70.2	66.7	3.5	5.7	5.4	0.3	0.00314	0.00039	13,911
Sequence 4	6.0	8.0	93.5	87.5	5.9	7.6	7.1	0.5	0.00469	0.00059	12,202
Sequence 5	6.0	10.0	116.0	107.6	8.4	9.5	8.8	0.7	0.00637	0.00079	11,041
Sequence 6	4.0	2.0	25.3	22.7	2.6	2.1	1.9	0.2	0.00105	0.00013	14,151
Sequence 7	4.0	4.0	47.2	44.4	2.8	3.9	3.6	0.2	0.00225	0.00028	12,910
Sequence 8	4.0	6.0	68.5	65.7	2.8	5.6	5.4	0.2	0.00369	0.00046	11,639
Sequence 9	4.0	8.0	91.7	86.4	5.3	7.5	7.0	0.4	0.00531	0.00066	10,636
Sequence 10	4.0	10.0	114.1	106.3	7.7	9.3	8.7	0.6	0.00712	0.00089	9,773
Sequence 11	2.0	2.0	25.1	22.3	2.8	2.0	1.8	0.2	0.00126	0.00016	11,522
Sequence 12	2.0	4.0	46.4	43.5	2.9	3.8	3.5	0.2	0.00283	0.00035	10,064
Sequence 13	2.0	6.0	67.2	64.3	2.8	5.5	5.2	0.2	0.00454	0.00057	9,274
Sequence 14	2.0	8.0	89.0	84.6	4.4	7.3	6.9	0.4	0.00645	0.00080	8,580
Sequence 15	2.0	10.0	110.8	103.9	6.9	9.0	8.5	0.6	0.00852	0.00106	7,982

TESTED BY \_\_\_\_\_  
 REVIEWED BY \_\_\_\_\_

GW

DATE \_\_\_\_\_  
 DATE \_\_\_\_\_

July 27, 2017

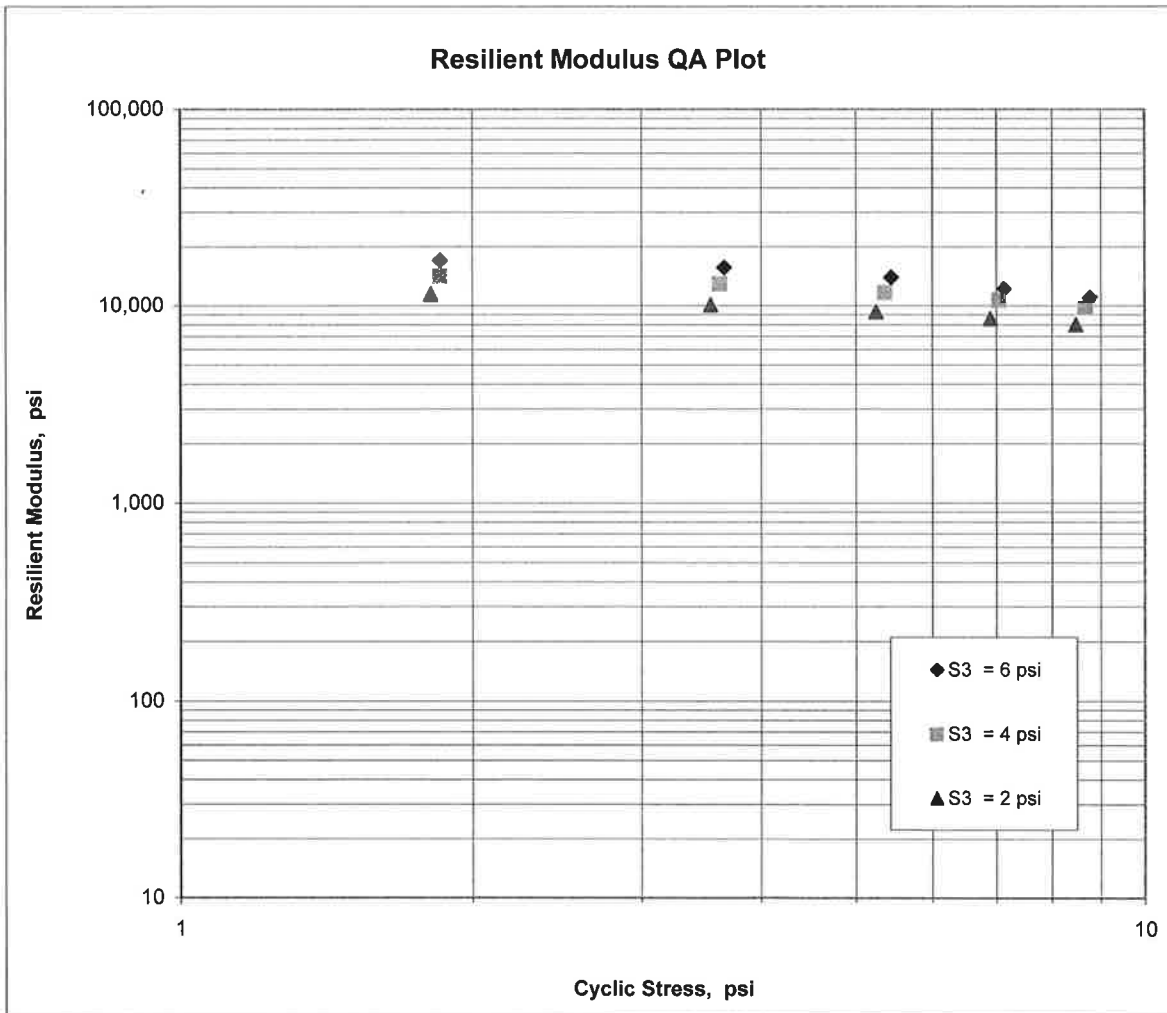
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

**AASHTO T 307-99 - RESILIENT MODULUS OF SUBGRADE SOILS  
RECOMPACTED / THINWALL TUBE SAMPLES**

<b>Job No.</b>	070460	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	7/7/17	<b>Station No.:</b>	4397+10
<b>Date Tested:</b>	July 27, 2017	<b>Location:</b>	30'RT
<b>Name of Project:</b>	BAYOU DE ROACHE (STRS. & APPRS.) (S)		
<b>County:</b>	<b>Code:</b> 10	<b>Name:</b>	CLARK
<b>Sampled By:</b>	THORNTON/BATES		
<b>Lab No.:</b>	20172321	<b>Depth:</b>	0-5
<b>Sample ID:</b>	RV457	<b>AASHTO Class:</b>	A-6(3)
<b>LATITUDE:</b>		<b>Material Type (1 or 2):</b>	2
		<b>LONGITUDE:</b>	

$$M_R = K_1 (S_c)^{K_2} (S_3)^{K_5}$$

$K_1 =$	<u>10,668</u>
$K_2 =$	<u>-0.24596</u>
$K_5 =$	<u>0.35017</u>
$R^2 =$	<u>0.97</u>



**JOB: 070460**

**Arkansas State Highway Transportation Department**

**JOB NAME: BAYOU DE ROCHE (STRS. & APPRS.)(S)**

**Materials Division**

**COUNTY NO. 7 DATE TESTED 7/27/2017**

**Michael Benson, Materials Engineer**

STA.#	LOC.	DEPTH	COLOR	S I E V E S					L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				#4	#10	#40	#80	#200					
4397+1	30RT	0-5	BROWN	88	81	75	65	52	28	11	A-6(3)	RV457	
4389+0	51LT	0-5	GRAY	92	84	74	57	42	ND	NP	A-4(0)	S450	10.1
4389+0	63RT	0-5	BROWN	94	84	66	50	42	ND	NP	A-4(0)	S451	9
4389+0	92RT	0-5	BR/GR	95	90	81	73	65	37	19	A-6(10)	S452	14.5
4397+0	30RT	0-5	BROWN	89	84	77	65	45	25	12	A-6(2)	S453	13.8
4397+0	51RT	0-5	BR/RD	92	83	68	50	35	23	08	A-2-4(0)	S454	9.6
4397+0	63LT	0-5	BROWN	85	79	70	58	39	25	12	A-6(1)	S455	21.5
4397+0	78LT	0-5	BROWN	94	87	78	61	40	ND	NP	A-4(0)	S456	12.9

Michael Benson, Materials Engineer

COUNTY NO. 7

**STA.# LOC.**  **PAVEMENT SOUNDINGS**

4389+00	51LT	ACHMSC 5.0W	ACHMBC 6.0W	ACHMBC 1.0X	ACHMBC 3.0	CTCSB 12.0
4389+00	63RT	ACHMSC 5.0W	ACHMBC 12.0W	ACHMBC	ACHMBC	CTCSB
4389+00	92RT	ACHMSC	ACHMBC	ACHMBC	ACHMBC	CTCSB
4397+00	30RT	ACHMSC	ACHMBC	CTCSB	ACHMBC	CTCSB
4397+00	51RT	ACHMSC	ACHMBC	CTCSB	ACHMBC	CTCSB
4397+00	63LT	ACHMSC 5.25W	ACHMBC 9.0W	CTCSB 12.0	ACHMBC	CTCSB
4397+00	78LT	ACHMSC 5.0W	ACHMBC 9.0W	AGG.BASE CRS CL-7 7.0	ACHMBC	CTCSB

**comments:** W=MULTIPLE LAYERS, X=STRIPPED



ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

\*\*\* SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT \*\*\*

DATE	- 07/27/17	SEQUENCE NO.	- 1
JOB NUMBER	- 070460	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 10
SUPPLIER NAME	- STATE	DISTRICT NO.	- 07
NAME OF PROJECT	- BAYOU DE ROCHE (STRS. & APPRS.) (S)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- CLARK, COUNTY	DATE SAMPLED	- 07/07/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 07/11/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 07/27/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20172314	- 20172315	- 20172316
SAMPLE ID	- S450	- S451	- S452
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 4389+00	- 4389+00	- 4389+00
LOCATION	- 51LT	- 63RT	- 92RT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- GRAY	- BROWN	- BR/GR
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 34 12 46.40	- 34 12 45.80	- 34 12 45.70
LONGITUDE DEG-MIN-SEC	- 93 01 55.20	- 93 01 54.60	- 93 01 54.40
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. - 100	- 100	- 100
	3/8 IN. - 98	- 99	- 98
	NO. 4 - 92	- 94	- 95
	NO. 10 - 84	- 84	- 90
	NO. 40 - 74	- 66	- 81
	NO. 80 - 57	- 50	- 73
	NO. 200 - 42	- 42	- 65
LIQUID LIMIT	- ND	- ND	- 37
PLASTICITY INDEX	- NP	- NP	- 19
AASHTO SOIL	- A-4 (0)	- A-4 (0)	- A-6 (10)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 10.1	- 9.0	- 14.5
ACHMSC	(IN) - 5.0W	- 5.0W	- --
ACHMBC	(IN) - 6.0W	- 12.0W	- --
ACHMBC	(IN) - 1.0X	- --	- --
ACHMBC	(IN) - 3.0	- --	- --
CTCSB	(IN) - 12.0	- --	- --
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

AASHTO TESTS : T24 T88 T89 T90 T265

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

\*\*\* SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT \*\*\*

DATE - 07/27/17	SEQUENCE NO. - 2
JOB NUMBER - 070460	MATERIAL CODE - SSRVPS
FEDERAL AID NO. - TO BE ASSIGNED	SPEC. YEAR - 2014
PURPOSE - SOIL SURVEY SAMPLE	SUPPLIER ID. - 1
SPEC. REMARKS - NO SPECIFICATION CHECK	COUNTY/STATE - 10
SUPPLIER NAME - STATE	DISTRICT NO. - 07
NAME OF PROJECT - BAYOU DE ROCHE (STRS. & APPRS.) (S)	
PROJECT ENGINEER - NOT APPLICABLE	
PIT/QUARRY - ARKANSAS	
LOCATION - CLARK, COUNTY	DATE SAMPLED - 07/07/17
SAMPLED BY - THORNTON/BATES	DATE RECEIVED - 07/11/17
SAMPLE FROM - TEST HOLE	DATE TESTED - 07/27/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS	

LAB NUMBER	- 20172317	- 20172318	- 20172319
SAMPLE ID	- S453	- S454	- S455
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 4397+00	- 4397+00	- 4397+00
LOCATION	- 30RT	- 51RT	- 63LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BR/RD	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 34 12 51.40	- 34 12 51.50	- 34 12 52.00
LONGITUDE DEG-MIN-SEC	- 93 01 47.60	- 93 01 47.70	- 93 01 48.30
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	- 100	- 100	- 100
3/8 IN.	- 95	- 98	- 90
NO. 4	- 89	- 92	- 85
NO. 10	- 84	- 83	- 79
NO. 40	- 77	- 68	- 70
NO. 80	- 65	- 50	- 58
NO. 200	- 45	- 35	- 39
LIQUID LIMIT	- 25	- 23	- 25
PLASTICITY INDEX	- 12	- 08	- 12
AASHTO SOIL	- A-6 (2)	- A-2-4 (0)	- A-6 (1)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 13.8	- 9.6	- 21.5
ACHMSC (IN)	- ---	- 5.5W	- 5.25W
ACHMBC (IN)	- ---	- 9.0W	- 9.0W
CTCSB (IN)	- ---	- 12.0	- 12.0
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
 MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

\*\*\* SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT \*\*\*

DATE	- 07/27/17	SEQUENCE NO.	- 3
JOB NUMBER	- 070460	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 10
SUPPLIER NAME	- STATE	DISTRICT NO.	- 07
NAME OF PROJECT	- BAYOU DE ROCHE (STRS. & APPRS.) (S)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- CLARK, COUNTY	DATE SAMPLED	- 07/07/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 07/11/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 07/27/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20172320	-	-
SAMPLE ID	- S456	-	-
TEST STATUS	- INFORMATION ONLY	-	-
STATION	- 4397+00	-	-
LOCATION	- 78LT	-	-
DEPTH IN FEET	- 0-5	-	-
MAT'L COLOR	- BROWN	-	-
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 34 12 52.10	-	-
LONGITUDE DEG-MIN-SEC	- 93 01 48.40	-	-
% PASSING	2 IN.	-	-
	1 1/2 IN.	-	-
	3/4 IN.	-	-
	3/8 IN.	- 100	-
	NO. 4	- 94	-
	NO. 10	- 87	-
	NO. 40	- 78	-
	NO. 80	- 61	-
	NO. 200	- 40	-
LIQUID LIMIT	- ND	-	-
PLASTICITY INDEX	- NP	-	-
AASHTO SOIL	- A-4 (0)	-	-
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 12.9	-	-
ACHMSC	(IN) - 5.0W	-	-
ACHMBC	(IN) - 9.0W	-	-
AGG.BASE CRS CL-7	(IN) - 7.0	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS  
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

\*\*\* SOIL SURVEY / PAVEMENT SOUNDING TEST REPORT \*\*\*

DATE	- 07/27/17	SEQUENCE NO.	- 1
JOB NUMBER	- 070460	MATERIAL CODE	- RV
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTY/STATE	- 10
SUPPLIER NAME	- STATE	DISTRICT NO.	- 07
NAME OF PROJECT	- BAYOU DE ROCHE (STRS. & APPRS.) (S)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- CLARK, COUNTY	DATE SAMPLED	- 07/07/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 07/11/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 07/27/17

MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS

LAB NUMBER	-	20172321	-	-	-
SAMPLE ID	-	RV457	-	-	-
TEST STATUS	-	INFORMATION ONLY	-	-	-
STATION	-	4397+10	-	-	-
LOCATION	-	30RT	-	-	-
DEPTH IN FEET	-	0-5	-	-	-
MAT'L COLOR	-	BROWN	-	-	-
MAT'L TYPE	-		-	-	-
LATITUDE DEG-MIN-SEC	-	34 12 51.50	-	-	-
LONGITUDE DEG-MIN-SEC	-	93 01 47.60	-	-	-
% PASSING	2	IN.	-	-	-
	1 1/2	IN.	-	-	-
	3/4	IN.	-	100	-
	3/8	IN.	-	93	-
	NO. 4	-	-	88	-
	NO. 10	-	-	81	-
	NO. 40	-	-	75	-
	NO. 80	-	-	65	-
	NO. 200	-	-	52	-
LIQUID LIMIT	-	28	-	-	-
PLASTICITY INDEX	-	11	-	-	-
AASHTO SOIL	-	A-6(3)	-	-	-
UNIFIED SOIL	-		-	-	-
% MOISTURE CONTENT	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-
	-		-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED

AASHTO TESTS : T24 T88 T89 T90 T265