

ARKANSAS DEPARTMENT OF TRANSPORTATION



SUBSURFACE INVESTIGATION

STATE JOB NO. 080499

FEDERAL AID PROJECT NO. NHPP-BFP-0036(18)

GEE CREEK STR. & APPRS. (S)

STATE HIGHWAY 123 SECTION 3

IN JOHNSON 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 DEPARTMENT OF TRANSPORTATION

ArDOT.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

November 27, 2017

**TO:** Mr. Trinity Smith, Engineer of Roadway Design

**SUBJECT:** Job No. 080499  
Big Piney & Gee Creeks Strs. & Apprs. (S)  
Route 123 Section 3  
Johnson 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 Big Piney and Gee Creeks on Highway 123. Samples were obtained in the existing travel lanes, ditch line and new location. There were no paved shoulders within the project limits.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of moderately plastic sandy clay with gravel and sandstone fragments. 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 normal processing if the weather is favorable during construction. Rock was encountered at station 104+00 at 6 and 18 feet right of centerline at a depth of 1.0 and 3.0 feet respectively; and at station 113+00 at centerline of construction at a depth of 1.5 feet.

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 of Russellville.

2. Asphalt Concrete Hot Mix

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.5	94.5
Binder Course	4.4	95.6
Base Course	4.0	96.0

  
Michael C. Benson  
Materials Engineer

MCB:pt:bjj  
Attachment

cc: State Constr. Eng. – Master File Copy  
District 8 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 - 11/08/2017  
JOB NUMBER - 080499

SEQUENCE NO. - 1  
MATERIAL CODE - SSRV  
SPEC. YEAR - 2014  
SUPPLIER ID. - 1  
COUNTY/STATE - 36  
DISTRICT NO. - 08

JOB NAME - BIG PINEY & GEE CREEKS STRS. & APPRS.(S)

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

BEGIN JOB - END JOB 15

RESILIENT MODULUS

STA. 104 + 00 6804  
STA. 202 + 00 7581

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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>	080499	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	10/18/17	<b>Station No.:</b>	104+00
<b>Date Tested:</b>	October 27, 2017	<b>Location:</b>	18'RT
<b>Name of Project:</b>	BIG PINEY & GEE CREEK STRS. & APPRS. (S)		
<b>County:</b>	<b>Code:</b> 36	<b>Name:</b>	JOHNSON
<b>Sampled By:</b>	BUIE/JORDAN	<b>Depth:</b>	0-5
<b>Lab No.:</b>	20173263	<b>AASHTO Class:</b>	A-4 (0)
<b>Sample ID:</b>	RV659	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<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	3.95
Middle	3.95
Bottom	3.95
Average	3.95
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8
Initial Area, Ao (sq. in):	12.18
Initial Volume, AoLo (cu. in):	97.44

**3. Soil Specimen Weight:**

Weight of Wet Soil Used (g):	3376.40
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**4. Soil Properties:**

Optimum Moisture Content (%):	12.7
Maximum Dry Density (pcf):	118
95% of MDD (pcf):	112.1
In-Situ Moisture Content (%):	N/A

**5. Specimen Properties:**

Wet Weight (g):	3376.40
Compaction Moisture content (%):	12.6
Compaction Wet Density (pcf):	132.03
Compaction Dry Density (pcf):	117.26
Moisture Content After Mr Test (%):	12.7

<b>6. Quick Shear Test (Y=Yes, N=No, N/A=Not Applicable):</b>	<b>#VALUE!</b>
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<b>7. Resilient Modulus, Mr:</b>	$8350(S_c)^{-0.23930}(S_3)^{0.41803}$
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**8. Comments**

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<b>9. Tested By:</b> <u>GW</u>	<b>Date:</b> <u>October 27, 2017</u>
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**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
MATERIALS DIVISION**

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

<b>Job No.</b> 080499	<b>Material Code</b> SSRVPS	
<b>Date Sampled:</b> 10/18/17	<b>Station No.:</b> 104+00	
<b>Date Tested:</b> October 27, 2017	<b>Location:</b> 18'RT	
<b>Name of Project:</b> BIG PINEY & GEE CREEK STRS. & APPRS. (S)		
<b>County:</b> Code: 36 Name: JOHNSON		
<b>Sampled By:</b> BUJE/JORDAN	<b>Depth:</b> 0-5	
<b>Lab No.:</b> 20173263	<b>AASHTO Class:</b> A-4 (0)	
<b>Sample ID:</b> RV659	<b>Material Type (1 or 2):</b> 2	
<b>LATITUDE:</b>	<b>LONGITUDE:</b>	

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
DESIGNATION	S <sub>3</sub>	S <sub>cyclic</sub>	P <sub>max</sub>	P <sub>cyclic</sub>	P <sub>contact</sub>	S <sub>max</sub>	S <sub>cyclic</sub>	S <sub>contact</sub>	H <sub>avg</sub>	ε <sub>r</sub>	M <sub>r</sub>
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.2	22.3	2.8	2.1	1.8	0.2	0.00099	0.00012	14,753
Sequence 2	6.0	4.0	47.1	44.3	2.9	3.9	3.6	0.2	0.00211	0.00026	13,813
Sequence 3	6.0	6.0	69.6	65.9	3.7	5.7	5.4	0.3	0.00348	0.00043	12,447
Sequence 4	6.0	8.0	92.4	86.3	6.1	7.6	7.1	0.5	0.00520	0.00065	10,903
Sequence 5	6.0	10.0	115.7	107.2	8.5	9.5	8.8	0.7	0.00682	0.00085	10,334
Sequence 6	4.0	2.0	25.0	22.1	2.8	2.0	1.8	0.2	0.00116	0.00014	12,560
Sequence 7	4.0	4.0	46.4	43.6	2.8	3.8	3.6	0.2	0.00262	0.00033	10,944
Sequence 8	4.0	6.0	67.3	64.5	2.8	5.5	5.3	0.2	0.00428	0.00053	9,909
Sequence 9	4.0	8.0	90.4	85.2	5.2	7.4	7.0	0.4	0.00611	0.00076	9,167
Sequence 10	4.0	10.0	113.1	105.5	7.6	9.3	8.7	0.6	0.00798	0.00100	8,685
Sequence 11	2.0	2.0	24.6	21.8	2.8	2.0	1.8	0.2	0.00145	0.00018	9,878
Sequence 12	2.0	4.0	45.2	42.4	2.8	3.7	3.5	0.2	0.00332	0.00042	8,379
Sequence 13	2.0	6.0	64.7	61.9	2.8	5.3	5.1	0.2	0.00546	0.00068	7,447
Sequence 14	2.0	8.0	86.0	81.7	4.3	7.1	6.7	0.4	0.00755	0.00094	7,107
Sequence 15	2.0	10.0	108.1	101.4	6.7	8.9	8.3	0.6	0.00979	0.00122	6,804

TESTED BY	DATE	DATE
GW	October 27, 2017	
REVIEWED BY		

**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>	080499	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	10/18/17	<b>Station No.:</b>	104+00
<b>Date Tested:</b>	October 27, 2017	<b>Location:</b>	18'RT
<b>Name of Project:</b>	BIG PINEY & GEE CREEK STRS. & APPRS. (S)		
<b>County:</b>	<b>Code:</b> 36	<b>Name:</b>	JOHNSON
<b>Sampled By:</b>	BUIE/JORDAN		<b>Depth:</b> 0-5
<b>Lab No.:</b>	20173263	<b>AASHTO Class:</b>	A-4 (0)
<b>Sample ID:</b>	RV659	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<b>LONGITUDE:</b>	

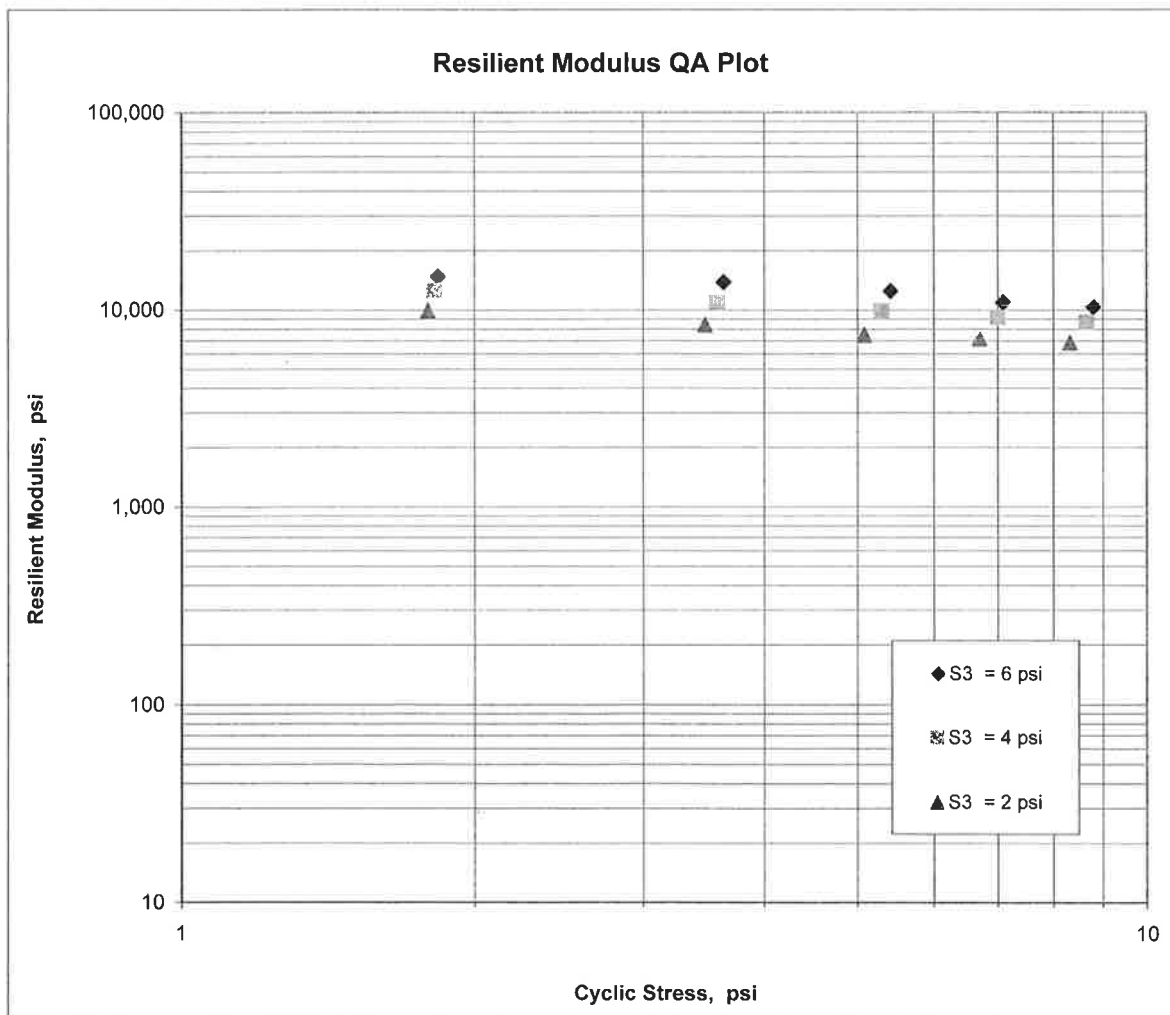
$$M_R = K_1 (S_C)^{K_2} (S_3)^{K_5}$$

$$K_1 = 8,350$$

$$K_2 = -0.23930$$

$$K_5 = 0.41803$$

$$R^2 = 0.99$$



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

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

<b>Job No.</b>	080499	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	10/18/17	<b>Station No.:</b>	202+00
<b>Date Tested:</b>	November 2, 2017	<b>Location:</b>	18'RT
<b>Name of Project:</b>	BIG PINEY & GEE CREEKS STRS. & APPRS. (S)		
<b>County:</b>	<b>Code:</b> 36	<b>Name:</b>	JOHNSON
<b>Sampled By:</b>	BUIE/JORDAN	<b>Depth:</b>	0-5
<b>Lab No.:</b>	20173264	<b>AASHTO Class:</b>	A-2-4 (0)
<b>Sample ID:</b>	RV660	<b>Material Type (1 or 2):</b>	2
<b>LATITUDE:</b>		<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	3.95
Middle	3.95
Bottom	3.95
Average	3.95
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8.01
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.01
Initial Area, Ao (sq. in):	12.18
Initial Volume, AoLo (cu. in):	97.56

**3. Soil Specimen Weight:**

Weight of Wet Soil Used (g):	3316.30
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**4. Soil Properties:**

Optimum Moisture Content (%):	12.5
Maximum Dry Density (pcf):	116.8
95% of MDD (pcf):	111.0
In-Situ Moisture Content (%):	N/A

**5. Specimen Properties:**

Wet Weight (g):	3316.30
Compaction Moisture content (%):	12.6
Compaction Wet Density (pcf):	129.52
Compaction Dry Density (pcf):	115.03
Moisture Content After Mr Test (%):	12.7

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

**7. Resilient Modulus, Mr:**  $8888(S_c)^{-0.19740}(S_3)^{0.36515}$

**8. Comments**

**9. Tested By:**

GW

**Date:** November 2, 2017

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

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

<b>Job No.</b> 080499	<b>Material Code</b> SSRVPS	
<b>Date Sampled:</b> 10/18/17	<b>Station No.:</b> 202+00	
<b>Date Tested:</b> November 2, 2017	<b>Location:</b> 18'RT	
<b>Name of Project:</b> BIG PINEY & GEE CREEKS STRS. & APPRS. (S)		
<b>County:</b> Code: 36 Name: JOHNSON		
<b>Sampled By:</b> BUIE/JORDAN	<b>Depth:</b> 0-5	
<b>Lab No.:</b> 20173264	<b>AASHTO Class:</b> A-2-4 (0)	
<b>Sample ID:</b> RV660	<b>Material Type (1 or 2):</b> 2	
<b>LATITUDE:</b>	<b>LONGITUDE:</b>	

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
DESIGNATION	S <sub>3</sub>	S <sub>cyclic</sub>	P <sub>max</sub>	P <sub>cyclic</sub>	P <sub>contact</sub>	S <sub>max</sub>	S <sub>cyclic</sub>	S <sub>contact</sub>	H <sub>avg</sub>	ε <sub>r</sub>	M <sub>r</sub>
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.1	22.3	2.9	2.1	1.8	0.2	0.00099	0.00012	14,747
Sequence 2	6.0	4.0	47.3	44.5	2.8	3.9	3.6	0.2	0.00207	0.00026	14,137
Sequence 3	6.0	6.0	69.8	66.1	3.7	5.7	5.4	0.3	0.00338	0.00042	12,881
Sequence 4	6.0	8.0	92.8	86.7	6.1	7.6	7.1	0.5	0.00502	0.00063	11,365
Sequence 5	6.0	10.0	115.9	107.5	8.5	9.5	8.8	0.7	0.00659	0.00082	10,731
Sequence 6	4.0	2.0	25.1	22.3	2.8	2.1	1.8	0.2	0.00114	0.00014	12,894
Sequence 7	4.0	4.0	46.6	43.8	2.8	3.8	3.6	0.2	0.00250	0.00031	11,535
Sequence 8	4.0	6.0	67.6	64.8	2.8	5.6	5.3	0.2	0.00405	0.00051	10,527
Sequence 9	4.0	8.0	90.9	85.7	5.2	7.5	7.0	0.4	0.00567	0.00071	9,949
Sequence 10	4.0	10.0	113.9	106.2	7.6	9.3	8.7	0.6	0.00744	0.00093	9,383
Sequence 11	2.0	2.0	24.8	22.0	2.8	2.0	1.8	0.2	0.00144	0.00018	10,038
Sequence 12	2.0	4.0	45.8	42.9	2.9	3.8	3.5	0.2	0.00313	0.00039	9,009
Sequence 13	2.0	6.0	65.9	63.1	2.8	5.4	5.2	0.2	0.00497	0.00062	8,342
Sequence 14	2.0	8.0	87.2	82.9	4.3	7.2	6.8	0.4	0.00691	0.00086	7,891
Sequence 15	2.0	10.0	109.6	102.8	6.7	9.0	8.4	0.6	0.00892	0.00111	7,581

TESTED BY	DATE	DATE
REVIEWED BY	GW	November 2, 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>	080499	<b>Material Code</b>	SSRVPS
<b>Date Sampled:</b>	10/18/17	<b>Station No.:</b>	202+00
<b>Date Tested:</b>	November 2, 2017	<b>Location:</b>	18'RT
<b>Name of Project:</b>	BIG PINEY & GEE CREEKS STRS. & APPRS. (S)		
<b>County:</b>	<b>Code:</b> 36	<b>Name:</b>	JOHNSON
<b>Sampled By:</b>	BUIE/JORDAN		<b>Depth:</b> 0-5
<b>Lab No.:</b>	20173264		<b>AASHTO Class:</b> A-2-4 (0)
<b>Sample ID:</b>	RV660		<b>Material Type (1 or 2):</b> 2
<b>LATITUDE:</b>	<b>LONGITUDE:</b>		

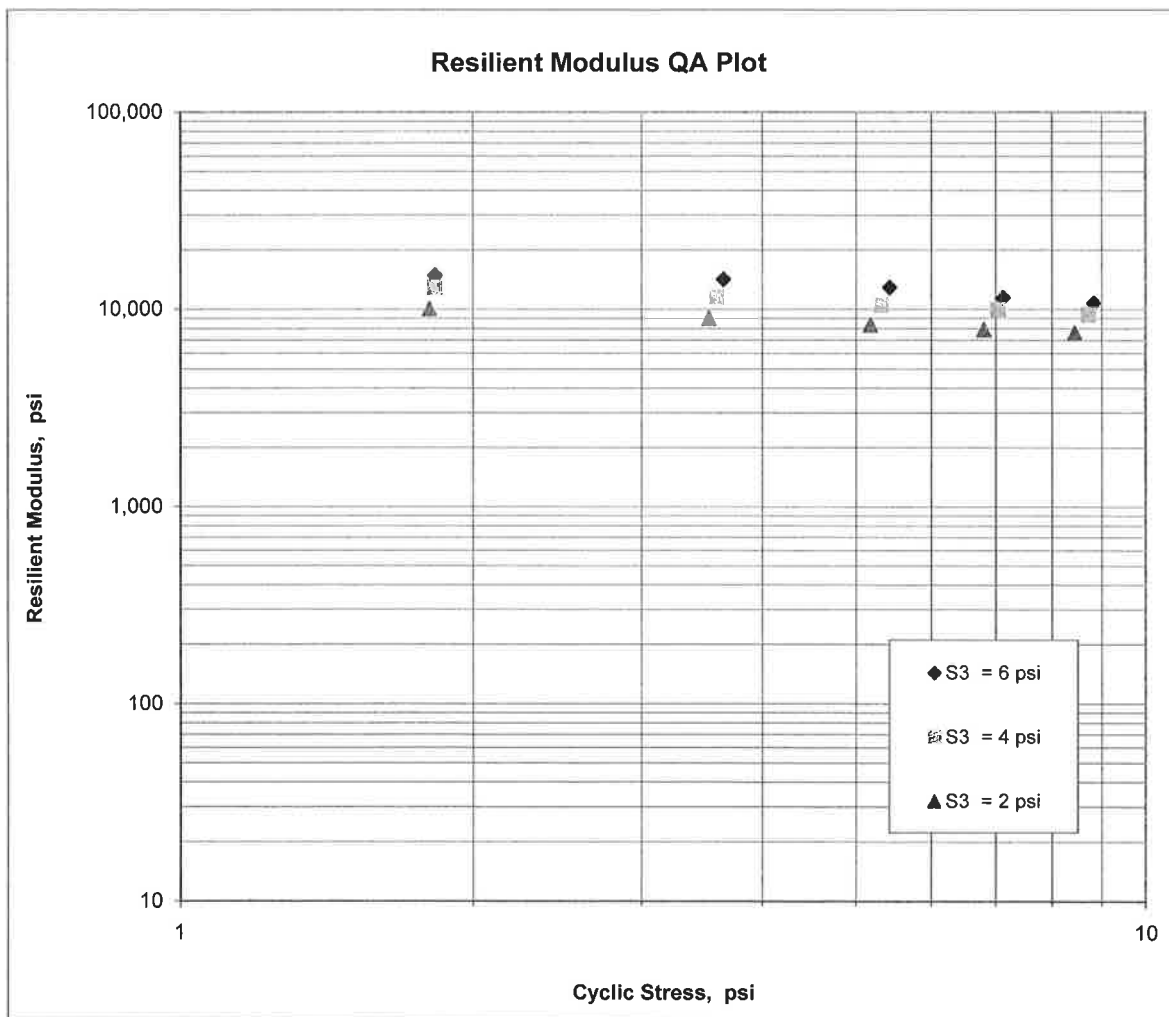
$$M_R = K_1 (S_C)^{K_2} (S_3)^{K_5}$$

$$K_1 = 8,888$$

$$K_2 = -0.19740$$

$$K_5 = 0.36515$$

$$R^2 = 0.98$$



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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	-	11/08/17	SEQUENCE NO.	-	1
JOB NUMBER	-	080499	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	-	36
SUPPLIER NAME	-	STATE	DISTRICT NO.	-	08
NAME OF PROJECT	-	BIG PINEY & GEE CREEKS STRS. & APPRS.(S)			
PROJECT ENGINEER	-	NOT APPLICABLE			
PIT/QUARRY	-	ARKANSAS			
LOCATION	-	JOHNSON COUNTY	DATE SAMPLED	-	10/18/17
SAMPLED BY	-	BOUIE/JORDAN	DATE RECEIVED	-	10/19/17
SAMPLE FROM	-	TEST HOLE	DATE TESTED	-	11/07/17
MATERIAL DESC.	-	SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

LAB NUMBER	-	20173255	-	20173256	-	20173257
SAMPLE ID	-		-	S652	-	S653
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	104+00	-	104+00	-	118+00
LOCATION	-	06RT	-	18RT	-	06LT
DEPTH IN FEET	-	0-1Z	-	0-3Z	-	0-5
MAT'L COLOR	-	RD/BR	-	RD/BR	-	BROWN
MAT'L TYPE	-		-		-	
LATITUDE DEG-MIN-SEC	-	35 40 38.70	-	35 40 38.50	-	35 40 46.00
LONGITUDE DEG-MIN-SEC	-	93 15 44.60	-	93 15 44.30	-	93 15 35.40

% PASSING	2	IN.	-		-	
	1 1/2	IN.	-		-	
	3/4	IN.	-	100	-	100
	3/8	IN.	-	95	-	98
	NO. 4		-	92	-	90
	NO. 10		-	87	-	79
	NO. 40		-	79	-	69
	NO. 80		-	58	-	50
	NO. 200		-	42	-	34

LIQUID LIMIT	-		-	24	-	19
PLASTICITY INDEX	-		-	10	-	5
AASHTO SOIL	-		-	A-4 (1)	-	A-2-4 (0)
UNIFIED SOIL	-		-		-	
% MOISTURE CONTENT	-		-	10.5	-	8.5

ACHMSC	(IN)	-	3.0W	-		-	1.5
AGG. BASE CRS. CL-7	(IN)	-	8.0	-		-	5.0
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	

REMARKS - W=MULTIPLE LAYERS, Z=AUGER REFUSAL

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 - 11/08/17 SEQUENCE NO. - 2  
JOB NUMBER - 080499 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 - 36  
SUPPLIER NAME - STATE DISTRICT NO. - 08  
NAME OF PROJECT - BIG PINEY & GEE CREEKS STRS. & APPRS.(S)  
PROJECT ENGINEER - NOT APPLICABLE  
PIT/QUARRY - ARKANSAS  
LOCATION - JOHNSON COUNTY DATE SAMPLED - 10/18/17  
SAMPLED BY - BOUIE/JORDAN DATE RECEIVED - 10/19/17  
SAMPLE FROM - TEST HOLE DATE TESTED - 11/07/17

MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	-	20173258	-	20173259	-	20173260
SAMPLE ID	-	S654	-	S655	-	S656
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	118+00	-	202+00	-	202+00
LOCATION	-	18LT	-	06RT	-	18RT
DEPTH IN FEET	-	0-5	-	0-5	-	0-5
MAT'L COLOR	-	BROWN	-	BROWN	-	BROWN
MAT'L TYPE	-		-		-	
LATITUDE DEG-MIN-SEC	-	35 40 46.10	-	35 40 39.80	-	35 40 39.70
LONGITUDE DEG-MIN-SEC	-	93 15 35.50	-	93 14 15.30	-	93 14 15.40
% PASSING	2	IN.	-		-	
	1 1/2	IN.	-		-	
	3/4	IN.	-		-	
	3/8	IN.	-	100	-	100
	NO. 4	-		97	-	96
	NO. 10	-		92	-	91
	NO. 40	-		85	-	85
	NO. 80	-		61	-	65
	NO. 200	-		42	-	44
LIQUID LIMIT	-	24	-	27	-	26
PLASTICITY INDEX	-	11	-	14	-	11
AASHTO SOIL	-	A-2-6 (0)	-	A-6 (2)	-	A-6 (1)
UNIFIED SOIL	-		-		-	
% MOISTURE CONTENT	-	10.5	-	10.4	-	11.2
ACHMSC	(IN)	---	-	3.0W	-	---
AGG. BASE CRS. CL-7	(IN)	---	-	6.0	-	---
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	

REMARKS - W=MULTIPLE LAYERS, Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

MICHAEL BENSON, MATERIALS ENGINEER

DATE	-	11/08/17	SEQUENCE NO.	-	3
JOB NUMBER	-	080499	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	-	36
SUPPLIER NAME	-	STATE	DISTRICT NO.	-	08
NAME OF PROJECT	-	BIG PINEY & GEE CREEKS STRS. & APPRS.(S)			
PROJECT ENGINEER	-	NOT APPLICABLE			
PIT/QUARRY	-	ARKANSAS			
LOCATION	-	JOHNSON COUNTY	DATE SAMPLED	-	10/18/17
SAMPLED BY	-	BOUIE/JORDAN	DATE RECEIVED	-	10/19/17
SAMPLE FROM	-	TEST HOLE	DATE TESTED	-	11/07/18
MATERIAL DESC.	-	SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

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	- 11/08/17	SEQUENCE NO.	- 1
JOB NUMBER	- 080499	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	- 36
SUPPLIER NAME	- STATE	DISTRICT NO.	- 08
NAME OF PROJECT	- BIG PINEY & GEE CREEKS STRS. & APPRS.(S)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- JOHNSON COUNTY	DATE SAMPLED	- 10/18/17
SAMPLED BY	- BOUIE/JORDAN	DATE RECEIVED	- 10/19/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 11/07/17
MATERIAL DESC.	- SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS		

LAB NUMBER	- 20173263	- 20173264	-
SAMPLE ID	- RV659	- RV660	-
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	-
STATION	- 104+00	- 202+00	-
LOCATION	- 18RT	- 18RT	-
DEPTH IN FEET	- 0-5	- 0-5	-
MAT'L COLOR	- BROWN	- BROWN	-
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 40 38.50	- 35 40 39.70	-
LONGITUDE DEG-MIN-SEC	- 93 15 44.30	- 93 14 15.40	-
% PASSING	2 IN.	-	-
	1 1/2 IN.	-	-
	3/4 IN.	- 100	-
	3/8 IN.	- 91	-
	NO. 4	- 82	-
	NO. 10	- 78	-
	NO. 40	- 68	-
	NO. 80	- 59	-
	NO. 200	- 36	-
LIQUID LIMIT	- 23	- ND	-
PLASTICITY INDEX	- 9	- NP	-
AASHTO SOIL	- A-4 (0)	- A-2-4 (0)	-
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	-	-	-

REMARKS - W=MULTIPLE LAYERS

AASHTO TESTS : T24 T88 T89 T90 T265

**JOB: 080499****Arkansas State Highway Transportation Department****JOB NAME: BIG PINEY & GEE CREEKS STRS. & APPRS.(S)****Materials Division****COUNTY NO. 36 DATE TESTED 11/7/2017****Michael Benson, Materials Engineer**

STA.#	LOC.	DEPTH	COLOR	#4	#10	#40	#80	#200	L.L.	P.I.	SOIL CLASS	LAB #:	%MOISTURE
				S	I	E	V	E					
104+00	06RT	0-1Z	RD/BR										
104+00	18RT	0-5	BROWN	82	78	68	59	36	23	9	A-4 (0)	RV659	
202+00	18RT	0-5	BROWN	85	82	70	63	32	ND	NP	A-2-4 (0)	RV660	
104+00	18RT	0-3Z	RD/BR	92	87	79	58	42	24	10	A-4 (1)	S652	10.5
118+00	06LT	0-5	BROWN	90	79	69	50	34	19	5	A-2-4 (0)	S653	8.5
118+00	18LT	0-5	BROWN	82	76	69	47	35	24	11	A-2-6 (0)	S654	10.5
202+00	06RT	0-5	BROWN	97	92	85	61	42	27	14	A-6 (2)	S655	10.4
202+00	18RT	0-5	BROWN	96	91	85	65	44	26	11	A-6 (1)	S656	11.2
219+00	06LT	0-5	BROWN	93	86	79	72	64	39	23	A-6 (12)	S657	18.2
219+00	18LT	0-5	BROWN	92	84	76	58	39	ND	NP	A-4 (0)	S658	14.8

**comments:** W=MULTIPLE LAYERS, Z=AUGER REFUSAL**Thursday, November 16, 2017**

JOB: 080499

Arkansas State Highway Transportation Department  
Materials Division

JOB NAME: BIG PINEY & GEE CREEKS STRS. & APPRS.(S)

DATE TESTED

11/7/2017

Michael Benson, Materials Engineer

COUNTY NO. 36

PAVEMENT SOUNDINGS

STA.# LOC.

104+00	06RT	ACHMSC 3.0W	AGG. BASE CRS. CL-7 8.0
104+00	18RT	ACHMSC ---	AGG. BASE CRS. CL-7 ---
118+00	06LT	ACHMSC 1.5	AGG. BASE CRS. CL-7 5.0
118+00	18LT	ACHMSC ---	AGG. BASE CRS. CL-7 ---
202+00	06RT	ACHMSC 3.0W	AGG. BASE CRS. CL-7 6.0
202+00	18RT	ACHMSC ---	AGG. BASE CRS. CL-7 ---
219+00	06LT	ACHMSC 3.5W	AGG. BASE CRS. CL-7 5.0
219+00	18LT	ACHMSC ---	AGG. BASE CRS. CL-7 ---

comments: W=MULTIPLE LAYERS, Z=AUGER REFUSAL