

ARKANSAS DEPARTMENT OF TRANSPORTATION



SUBSURFACE INVESTIGATION

STATE JOB NO. 050279

FEDERAL AID PROJECT NO. HSIP-0073(61)

PANGBURN - FOURMILE HILL (SAFETY IMPVTS.) (SEL. SECS.) (S)

STATE HIGHWAY 16 SECTION 13

IN WHITE COUNTY

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

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

March 1, 2017

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 050279
 Pangburn – Fourmile Hill (Safety Impvts.)(Sel. Secs.)(S)
 Route 16 Section 13
 White County

Transmitted herewith is the requested Soil Survey, Strength Data and Resilient Modulus test results for the above referenced job. The project consists of adding two foot shoulders and turning lanes at selected locations on Highway 16. Samples were obtained in the existing travel lanes and ditch line.

Based on laboratory results of samples obtained, the subgrade soils consist primarily of moderately to highly plastic clays containing varying amounts of sandstone fragments. Cross sections are not currently available, but it is anticipated that 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. Prior to embankment being placed in the existing ditch line, all soft unstable organic material should be undercut. It is anticipated that undercut will be no more than two feet, and may be backfilled with locally available unspecified material. Rock was encountered at several locations within the project limits, Table 1 below lists location and depth.

Table 1 Location and Depth of Rock

Station	Location from C.L.	Depth (ft.)	Station	Location from CL	Depth (ft.)
108+00	18' RT	2.5	602+00	6', 18' RT	4.0, 2.5
164+00	18' LT	4.5	610+00	6', 18' LT	3.0, 1.8
180+00	6', 18' LT	4.0, 2.0	618+00	6' RT	2.0
212+00	6' LT	3.0	626+00	18' LT	4.0
586+00	6', 18' RT	2.0, 1.5	634+00	6', 18' RT	2.2, 2.5
594+00	6', 18' LT	4.0, 1.5	642+00	6' LT	4.5

Additional earthwork requirements will be made upon requests when plans are further developed.

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 Judsonia.
2. Asphalt Concrete Hot Mix

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.5	94.5
Binder Course	4.5	95.5
Base Course	4.0	96.0


 Michael C. Benson
 Materials Engineer

MCB:pt:bjj
 Attachment

cc: State Constr. Eng. – Master File Copy
 District 5 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 - 02/28/2017
JOB NUMBER - 050279

SEQUENCE NO. - 1
MATERIAL CODE - SSRV
SPEC. YEAR - 2014
SUPPLIER ID. - 1
COUNTY/STATE - 73
DISTRICT NO. - 05

JOB NAME - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)

* STATION LIMITS R-VALUE AT 240 psi *

BEGIN JOB - END JOB	10
RESILIENT MODULUS	
STA. 124+00	10478
STA. 172+00	11661
STA. 312+00	9981
STA. 375+00	11765
STA. 464+00	4900
STA. 642+00	8097

REMARKS -

AASHTO TESTS : T190

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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	02/14/17	Station No.:	124+00
Date Tested:	February 14, 2017	Location:	22'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name: WHITE	
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170344	AASHTO Class:	A-6(10)
Sample ID:	RV94	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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	3.94
Bottom	3.95
Average	3.95
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):	12.16
Initial Volume, AoLo (cu. in):	97.52

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3165.10
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4. Soil Properties:

Optimum Moisture Content (%):	15.2
Maximum Dry Density (pcf):	110.8
95% of MDD (pcf):	105.3
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3165.10
Compaction Moisture content (%):	15.2
Compaction Wet Density (pcf):	123.67
Compaction Dry Density (pcf):	107.35
Moisture Content After Mr Test (%):	15.2

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

7. Resilient Modulus, Mr: 14477(Sc)^{-0.19669}(S3)^{0.17496}

8. Comments _____

9. Tested By: deb **Date:** February 14, 2017

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

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

Job No. 050279 **Material Code** SSRVPS
Date Sampled: 02/14/17 **Station No.:** 124+00
Date Tested: February 14, 2017 **Location:** 22'RT
Name of Project: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
County: Code: 73 **Name:** WHITE
Sampled By: THORNTON **Depth:** 0-5
Lab No.: 20170344 **AAASHTO Class:** A-6(10)
Sample ID: RV94 **Material Type (1 or 2):** 2
LATITUDE: 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 ₃ psi	S _{cyclic} psi	P _{max} lbs	P _{cyclic} lbs	P _{contact} lbs	S _{max} psi	S _{cyclic} psi	S _{contact} psi	H _{avg} in	ε _r in/in	M _r psi
Sequence 1	6.0	2.0	25.2	22.4	2.8	2.1	1.8	0.2	0.00086	0.00011	17,093
Sequence 2	6.0	4.0	47.3	44.5	2.8	3.9	3.7	0.2	0.00180	0.00022	16,313
Sequence 3	6.0	6.0	69.9	66.3	3.6	5.7	5.5	0.3	0.00291	0.00036	15,034
Sequence 4	6.0	8.0	93.2	87.1	6.0	7.7	7.2	0.5	0.00432	0.00054	13,290
Sequence 5	6.0	10.0	115.5	107.0	8.4	9.5	8.8	0.7	0.00585	0.00073	12,056
Sequence 6	4.0	2.0	25.0	22.2	2.8	2.1	1.8	0.2	0.00093	0.00012	15,745
Sequence 7	4.0	4.0	47.2	44.4	2.8	3.9	3.6	0.2	0.00199	0.00025	14,728
Sequence 8	4.0	6.0	68.6	65.9	2.8	5.6	5.4	0.2	0.00318	0.00040	13,658
Sequence 9	4.0	8.0	91.8	86.7	5.1	7.5	7.1	0.4	0.00455	0.00057	12,555
Sequence 10	4.0	10.0	114.7	107.2	7.5	9.4	8.8	0.6	0.00612	0.00076	11,547
Sequence 11	2.0	2.0	25.0	22.2	2.8	2.1	1.8	0.2	0.00104	0.00013	14,066
Sequence 12	2.0	4.0	46.9	44.2	2.7	3.9	3.6	0.2	0.00225	0.00028	12,977
Sequence 13	2.0	6.0	68.1	65.3	2.8	5.6	5.4	0.2	0.00359	0.00045	12,009
Sequence 14	2.0	8.0	90.1	85.9	4.2	7.4	7.1	0.3	0.00504	0.00063	11,250
Sequence 15	2.0	10.0	112.4	105.9	6.5	9.2	8.7	0.5	0.00666	0.00083	10,478

TESTED BY _____ DATE February 14, 2017
 REVIEWED BY _____ DATE _____

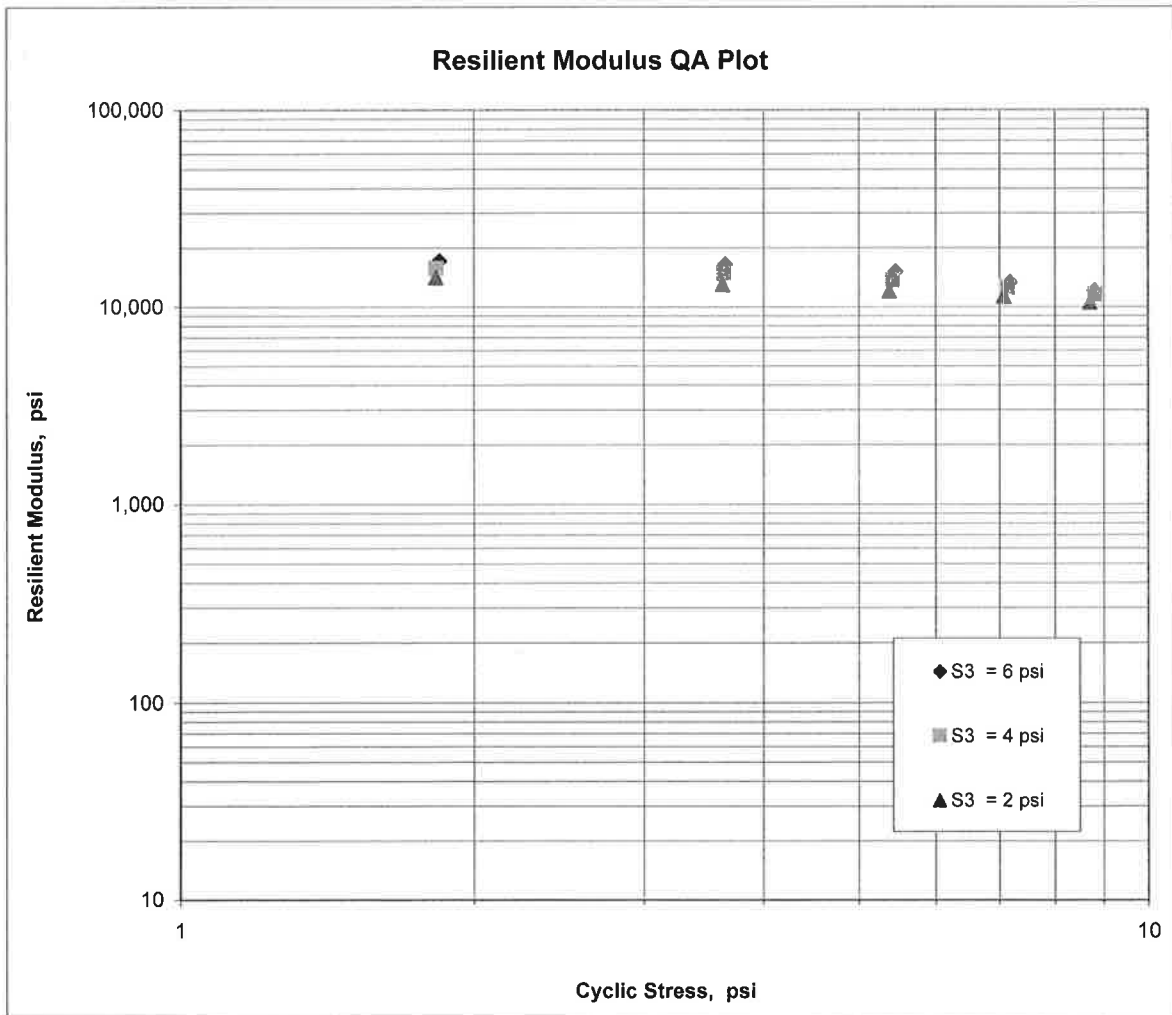
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION**

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	02/14/17	Station No.:	124+00
Date Tested:	February 14, 2017	Location:	22'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name:	WHITE
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170344	AASHTO Class:	A-6(10)
Sample ID:	RV94	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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

K1 =	<u>14,477</u>
K2 =	<u>-0.19669</u>
K5 =	<u>0.17496</u>
R ² =	<u>0.93</u>



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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	02/14/17	Station No.:	172+00
Date Tested:	February 14, 2017	Location:	21'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name: WHITE	
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170345	AASHTO Class:	A-6(2)
Sample ID:	RV95	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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	3.96
Middle	3.95
Bottom	3.96
Average	3.96
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8.05
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.05
Initial Area, Ao (sq. in):	12.22
Initial Volume, AoLo (cu. in):	98.38

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3141.50
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4. Soil Properties:

Optimum Moisture Content (%):	12.9
Maximum Dry Density (pcf):	114.3
95% of MDD (pcf):	108.6
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3141.50
Compaction Moisture content (%):	12.9
Compaction Wet Density (pcf):	121.67
Compaction Dry Density (pcf):	107.77
Moisture Content After Mr Test (%):	12.8

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

#VALUE!

7. Resilient Modulus, Mr:

14102(S_c)^{-0.17549}(S₃)^{0.25723}

8. Comments

9. Tested By:

deb

Date: February 14, 2017

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

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

Job No. 050279 **Material Code** SSRVPS
Date Sampled: 02/14/17 **Station No.:** 172+00
Date Tested: February 14, 2017 **Location:** 21RT
Name of Project: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
County: Code: 73 **Name:** WHITE
Sampled By: THORNTON **Depth:** 0-5
Lab No.: 20170345 **AASHTO Class:** A-6(2)
Sample ID: RV95 **Material Type (1 or 2):** 2
LATTITUDE: **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 ₃ psi	S _{cyclic} psi	P _{max} lbs	P _{cyclic} lbs	P _{contact} lbs	S _{max} psi	S _{cyclic} psi	S _{contact} psi	H _{avg} in	ε _r in/in	M _r psi
Sequence 1	6.0	2.0	25.4	22.7	2.7	2.1	1.9	0.2	0.00074	0.00009	20,096
Sequence 2	6.0	4.0	47.5	44.8	2.8	3.9	3.7	0.2	0.00157	0.00020	18,752
Sequence 3	6.0	6.0	70.4	66.8	3.6	5.8	5.5	0.3	0.00256	0.00032	17,210
Sequence 4	6.0	8.0	94.2	88.2	6.0	7.7	7.2	0.5	0.00376	0.00047	15,447
Sequence 5	6.0	10.0	117.6	109.1	8.5	9.6	8.9	0.7	0.00503	0.00062	14,288
Sequence 6	4.0	2.0	25.2	22.6	2.7	2.1	1.8	0.2	0.00084	0.00010	17,659
Sequence 7	4.0	4.0	47.4	44.7	2.6	3.9	3.7	0.2	0.00179	0.00022	16,455
Sequence 8	4.0	6.0	69.2	66.5	2.7	5.7	5.4	0.2	0.00286	0.00036	15,312
Sequence 9	4.0	8.0	92.9	87.9	5.1	7.6	7.2	0.4	0.00406	0.00050	14,239
Sequence 10	4.0	10.0	116.5	109.0	7.5	9.5	8.9	0.6	0.00539	0.00067	13,329
Sequence 11	2.0	2.0	25.2	22.6	2.6	2.1	1.9	0.2	0.00103	0.00013	14,452
Sequence 12	2.0	4.0	47.1	44.5	2.7	3.9	3.6	0.2	0.00217	0.00027	13,473
Sequence 13	2.0	6.0	68.7	66.1	2.6	5.6	5.4	0.2	0.00342	0.00043	12,721
Sequence 14	2.0	8.0	91.3	87.1	4.2	7.5	7.1	0.3	0.00473	0.00059	12,136
Sequence 15	2.0	10.0	114.7	108.1	6.6	9.4	8.8	0.5	0.00611	0.00076	11,661

TESTED BY _____ DATE February 14, 2017
 REVIEWED BY _____ DATE _____

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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	02/14/17	Station No.:	172+00
Date Tested:	February 14, 2017	Location:	21'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name:	WHITE
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170345	AASHTO Class:	A-6(2)
Sample ID:	RV95	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

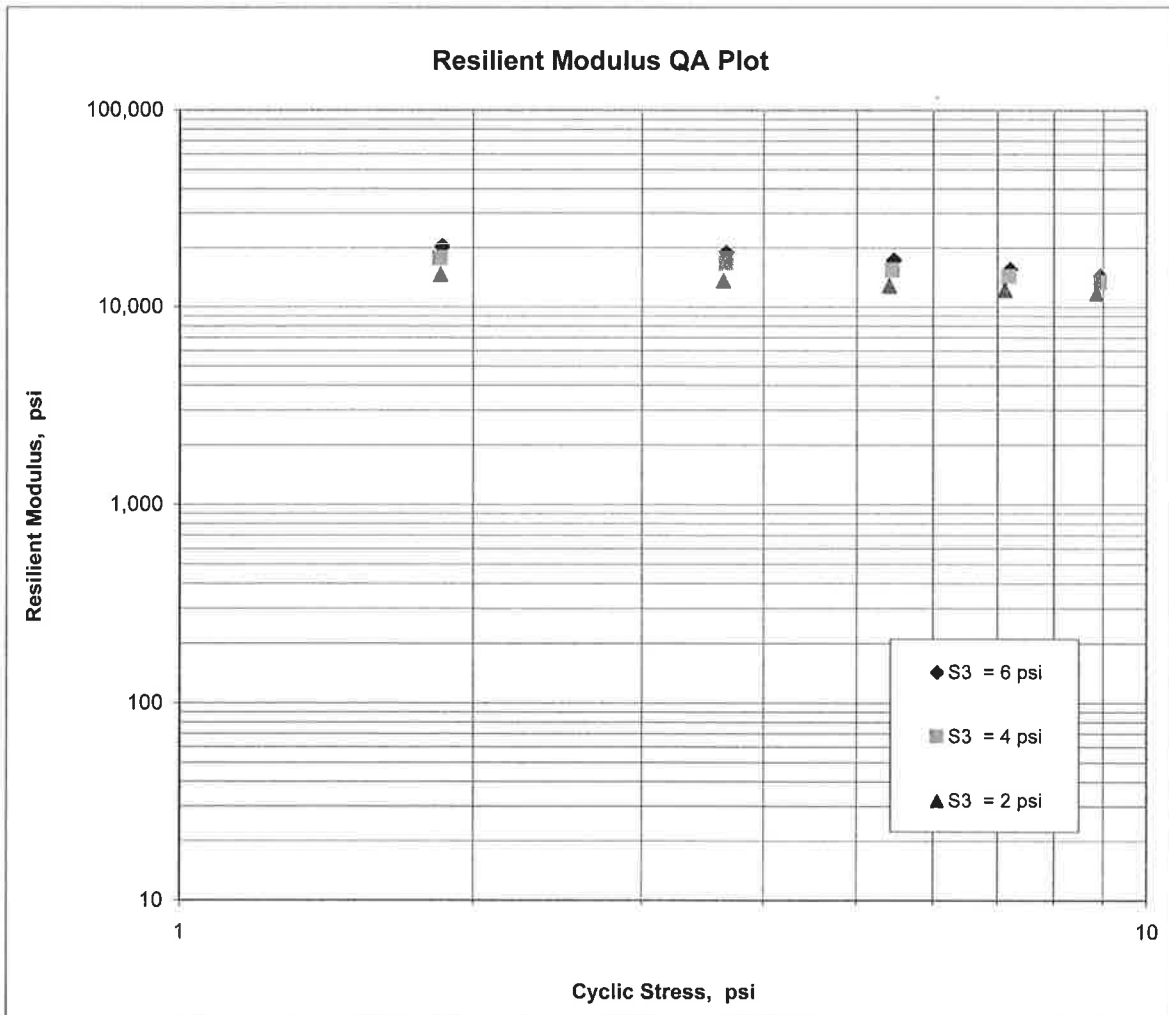
$$M_R = K_1 (S_c)^{K_2} (S_3)^{K_5}$$

$$K_1 = 14,102$$

$$K_2 = -0.17549$$

$$K_5 = 0.25723$$

$$R^2 = 0.96$$



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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	02/14/17	Station No.:	312+00
Date Tested:	February 14, 2017	Location:	22RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name: WHITE	
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170346	AASHTO Class:	A-7-6(18)
Sample ID:	RV96	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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	3.96
Middle	3.95
Bottom	3.95
Average	3.95
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8.05
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.05
Initial Area, Ao (sq. in):	12.20
Initial Volume, AoLo (cu. in):	98.21

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	2967.90
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4. Soil Properties:

Optimum Moisture Content (%):	19.9
Maximum Dry Density (pcf):	102.1
95% of MDD (pcf):	97.0
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	2967.90
Compaction Moisture content (%):	19.6
Compaction Wet Density (pcf):	115.14
Compaction Dry Density (pcf):	96.27
Moisture Content After Mr Test (%):	19.6

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

#VALUE!

7. Resilient Modulus, Mr:

13577(S_c)^{-0.18317}(S₃)^{0.15593}

8. Comments

9. Tested By:

deb _____

Date: February 14, 2017 _____

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

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

Job No. 050279 **Material Code** SSRVPS
Date Sampled: 02/14/17 **Station No.:** 312+00
Date Tested: February 14, 2017 **Location:** 22'RT

Name of Project: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)

County: Code: 73 **Name:** WHITE

Sampled By: THORNTON **Depth:** 0-5
Lab No.: 20170346 **AAASHTO Class:** A-7-6(18)
Sample ID: RV96 **Material Type (1 or 2):** 2
LATITUDE: **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. LVD1 and 2	Resilient Strain	Resilient Modulus
	S ₃ psi	S _{cyclic} psi	P _{max} lbs	P _{cyclic} lbs	P _{contact} lbs	S _{max} psi	S _{cyclic} psi	S _{contact} psi	H _{avg} in	ε _r in/in	M _r psi
Sequence 1	6.0	2.0	25.3	22.6	2.6	2.1	1.9	0.2	0.00096	0.00012	15,621
Sequence 2	6.0	4.0	47.5	44.7	2.8	3.9	3.7	0.2	0.00199	0.00025	14,811
Sequence 3	6.0	6.0	70.3	66.7	3.6	5.8	5.5	0.3	0.00318	0.00039	13,857
Sequence 4	6.0	8.0	93.6	87.5	6.1	7.7	7.2	0.5	0.00470	0.00058	12,294
Sequence 5	6.0	10.0	116.3	107.8	8.5	9.5	8.8	0.7	0.00629	0.00078	11,307
Sequence 6	4.0	2.0	25.2	22.4	2.8	2.1	1.8	0.2	0.00100	0.00012	14,762
Sequence 7	4.0	4.0	47.3	44.5	2.8	3.9	3.6	0.2	0.00215	0.00027	13,663
Sequence 8	4.0	6.0	69.2	66.4	2.8	5.7	5.4	0.2	0.00342	0.00042	12,815
Sequence 9	4.0	8.0	92.7	87.5	5.2	7.6	7.2	0.4	0.00487	0.00061	11,850
Sequence 10	4.0	10.0	115.7	108.1	7.6	9.5	8.9	0.6	0.00655	0.00081	10,893
Sequence 11	2.0	2.0	25.2	22.5	2.7	2.1	1.8	0.2	0.00114	0.00014	12,967
Sequence 12	2.0	4.0	47.1	44.4	2.8	3.9	3.6	0.2	0.00240	0.00030	12,215
Sequence 13	2.0	6.0	68.8	66.1	2.7	5.6	5.4	0.2	0.00382	0.00047	11,413
Sequence 14	2.0	8.0	91.0	86.8	4.2	7.5	7.1	0.3	0.00541	0.00067	10,595
Sequence 15	2.0	10.0	113.9	107.4	6.6	9.3	8.8	0.5	0.00710	0.00088	9,981

TESTED BY deb DATE February 14, 2017
 REVIEWED BY _____ DATE _____

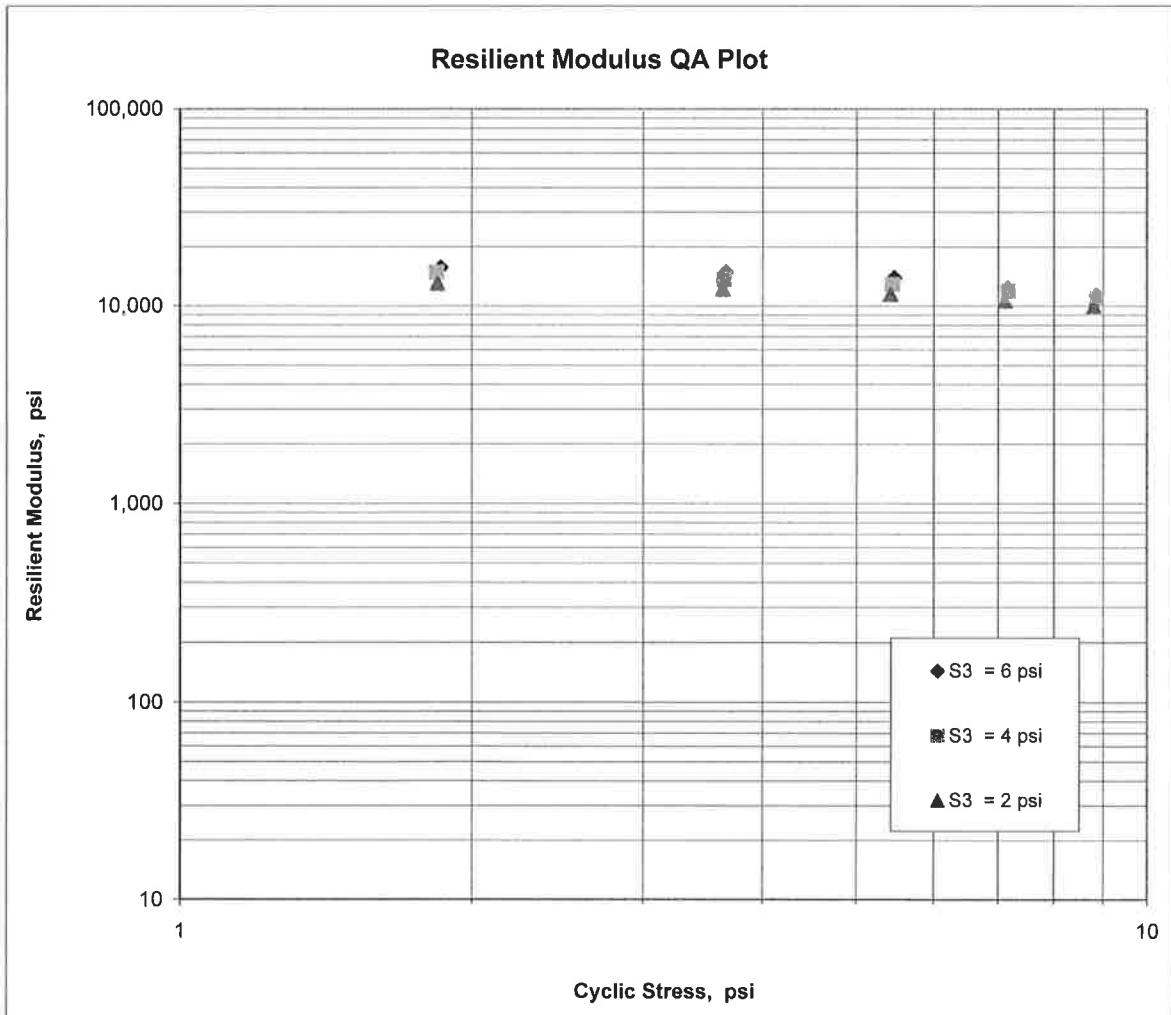
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION**

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

Job No.:	050279	Material Code:	SSRVPS
Date Sampled:	02/14/17	Station No.:	312+00
Date Tested:	February 14, 2017	Location:	22'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name:	WHITE
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170346	AASHTO Class:	A-7-6(18)
Sample ID:	RV96	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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

$K_1 = 13,577$
 $K_2 = -0.18317$
 $K_5 = 0.15593$
 $R^2 = 0.93$



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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	2/14/17	Station No.:	375+00
Date Tested:	February 16, 2017	Location:	20'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name: WHITE	
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170347	AASHTO Class:	A-6(4)
Sample ID:	RV97	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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	3.94
Middle	3.93
Bottom	3.94
Average	3.94
Membrane Thickness (in):	0.01
Height of Specimen, Cap and Base (in):	8.07
Height of Cap and Base (in):	0.00
Initial Length, Lo (in):	8.07
Initial Area, Ao (sq. in):	12.10
Initial Volume, AoLo (cu. in):	97.63

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3047.70
------------------------------	---------

4. Soil Properties:

Optimum Moisture Content (%):	15.1
Maximum Dry Density (pcf):	108.8
95% of MDD (pcf):	103.4
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3047.70
Compaction Moisture content (%):	14.9
Compaction Wet Density (pcf):	118.95
Compaction Dry Density (pcf):	103.52
Moisture Content After Mr Test (%):	14.9

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

#VALUE!

7. Resilient Modulus, Mr:

12502(Sc)^{-0.11809}(S3)^{0.26036}

8. Comments

9. Tested By:

G.WENDLAND

Date: February 16, 2017

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

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

Job No. 050279 **Material Code** SSRVPS
Date Sampled: 2/14/17 **Station No.:** 375+00
Date Tested: February 16, 2017 **Location:** 20'RT
Name of Project: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
County: Code: 73 **Name:** WHITE
Sampled By: THORNTON **Depth:** 0-5
Lab No.: 20170347 **AASHTO Class:** A-6(4)
Sample ID: RV97 **Material Type (1 or 2):** 2
LATITUDE: 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
DESIGNATION	S ₃	S _{cyclic}	P _{max}	P _{cyclic}	P _{contact}	S _{max}	S _{cyclic}	S _{contact}	H _{avg}	ε _r	M _r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.2	22.5	2.7	2.1	1.9	0.2	0.0082	0.00010	18,325
Sequence 2	6.0	4.0	47.3	44.6	2.8	3.9	3.7	0.2	0.00167	0.00021	17,785
Sequence 3	6.0	6.0	70.3	66.7	3.6	5.8	5.5	0.3	0.00266	0.00033	16,702
Sequence 4	6.0	8.0	94.3	88.3	6.0	7.8	7.3	0.5	0.00384	0.00048	15,358
Sequence 5	6.0	10.0	118.0	109.6	8.4	9.8	9.1	0.7	0.00505	0.00063	14,477
Sequence 6	4.0	2.0	25.2	22.4	2.8	2.1	1.8	0.2	0.00088	0.00011	16,993
Sequence 7	4.0	4.0	47.2	44.4	2.8	3.9	3.7	0.2	0.00185	0.00023	15,981
Sequence 8	4.0	6.0	69.0	66.2	2.8	5.7	5.5	0.2	0.00294	0.00036	15,046
Sequence 9	4.0	8.0	92.8	87.7	5.1	7.7	7.3	0.4	0.00414	0.00051	14,149
Sequence 10	4.0	10.0	116.7	109.2	7.5	9.6	9.0	0.6	0.00541	0.00067	13,456
Sequence 11	2.0	2.0	25.1	22.3	2.8	2.1	1.8	0.2	0.00115	0.00014	12,968
Sequence 12	2.0	4.0	47.1	44.3	2.8	3.9	3.7	0.2	0.00230	0.00028	12,875
Sequence 13	2.0	6.0	68.6	65.8	2.8	5.7	5.4	0.2	0.00354	0.00044	12,403
Sequence 14	2.0	8.0	91.3	87.1	4.2	7.5	7.2	0.3	0.00479	0.00059	12,121
Sequence 15	2.0	10.0	114.6	108.0	6.6	9.5	8.9	0.5	0.00612	0.00076	11,765

TESTED BY _____ DATE February 16, 2017
 REVIEWED BY _____ DATE _____

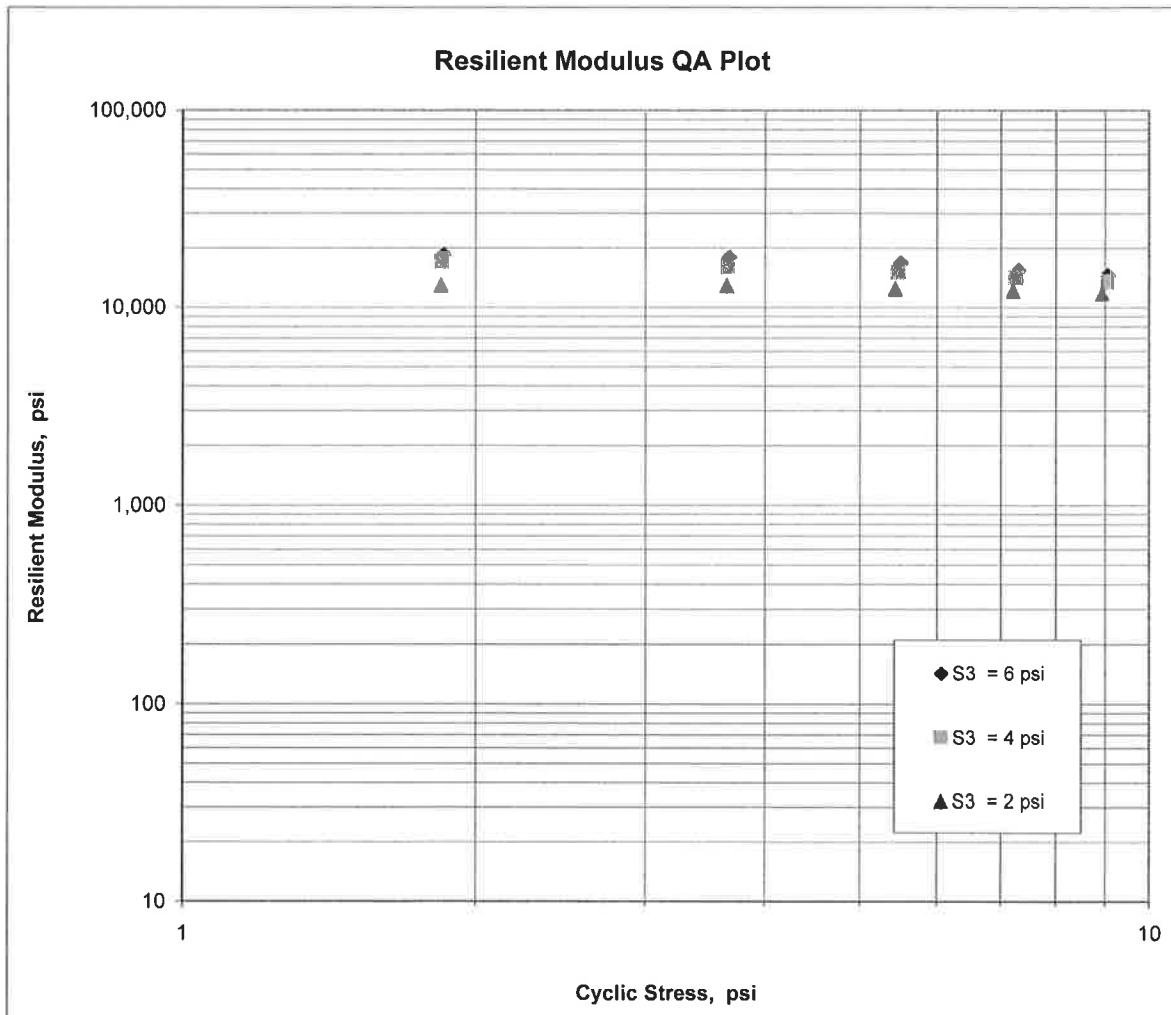
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION**

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	2/14/17	Station No.:	375+00
Date Tested:	February 16, 2017	Location:	20'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name:	WHITE
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170347	AASHTO Class:	A-6(4)
Sample ID:	RV97	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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

$K_1 = \underline{12,502}$
 $K_2 = \underline{-0.11809}$
 $K_5 = \underline{0.26036}$
 $R^2 = \underline{0.95}$



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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	2/14/17	Station No.:	464+00
Date Tested:	February 16, 2017	Location:	22'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name: WHITE	
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170348	AASHTO Class:	A-6(18)
Sample ID:	RV98	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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	3.96
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):	12.20
Initial Volume, AoLo (cu. in):	97.73

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3098.20
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4. Soil Properties:

Optimum Moisture Content (%):	19.6
Maximum Dry Density (pcf):	103.4
95% of MDD (pcf):	98.2
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3098.20
Compaction Moisture content (%):	19.1
Compaction Wet Density (pcf):	120.80
Compaction Dry Density (pcf):	101.42
Moisture Content After Mr Test (%):	19.4

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

#VALUE!

7. Resilient Modulus, Mr:

9129(S_c)^{-0.36650}(S₃)^{0.25470}

8. Comments

9. Tested By:

G.WENDLAND

Date: February 16, 2017

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

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

Job No. 050279 **Material Code** SSRVPS
Date Sampled: 2/14/17 **Station No.:** 464+00
Date Tested: February 16, 2017 **Location:** 22'RT

Name of Project: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)

County: Code: 73 **Name:** WHITE

Sampled By: THORNTON **Depth:** 0-5
Lab No.: 20170348 **AAASHTO Class:** A-6(18)
Sample ID: RV98 **Material Type (1 or 2):** 2
LATITUDE: **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. LVD1 and 2	Resilient Strain	Resilient Modulus
	S ₃ psi	S _{cyclic} psi	P _{max} lbs	P _{cyclic} lbs	P _{contact} lbs	S _{max} psi	S _{cyclic} psi	S _{contact} psi	H _{avg} in	ε _r in/in	M _r psi
Sequence 1	6.0	2.0	25.3	22.6	2.7	2.1	1.8	0.2	0.00134	0.00017	11,079
Sequence 2	6.0	4.0	47.5	44.8	2.7	3.9	3.7	0.2	0.00290	0.00036	10,142
Sequence 3	6.0	6.0	69.4	65.8	3.6	5.7	5.4	0.3	0.00503	0.00063	8,594
Sequence 4	6.0	8.0	91.2	85.2	6.0	7.5	7.0	0.5	0.00807	0.00101	6,928
Sequence 5	6.0	10.0	111.5	103.1	8.5	9.1	8.4	0.7	0.01169	0.00146	5,787
Sequence 6	4.0	2.0	25.1	22.4	2.7	2.1	1.8	0.2	0.00150	0.00019	9,816
Sequence 7	4.0	4.0	46.9	44.2	2.7	3.8	3.6	0.2	0.00341	0.00043	8,516
Sequence 8	4.0	6.0	67.5	64.7	2.8	5.5	5.3	0.2	0.00577	0.00072	7,354
Sequence 9	4.0	8.0	89.3	84.1	5.2	7.3	6.9	0.4	0.00878	0.00110	6,288
Sequence 10	4.0	10.0	110.8	103.1	7.7	9.1	8.5	0.6	0.01227	0.00153	5,516
Sequence 11	2.0	2.0	25.1	22.3	2.8	2.1	1.8	0.2	0.00183	0.00023	8,013
Sequence 12	2.0	4.0	46.6	43.7	2.8	3.8	3.6	0.2	0.00400	0.00050	7,172
Sequence 13	2.0	6.0	66.7	63.9	2.8	5.5	5.2	0.2	0.00669	0.00083	6,275
Sequence 14	2.0	8.0	87.5	83.1	4.3	7.2	6.8	0.4	0.00987	0.00123	5,527
Sequence 15	2.0	10.0	108.3	101.5	6.8	8.9	8.3	0.6	0.01360	0.00170	4,900

TESTED BY _____ DATE February 16, 2017
 REVIEWED BY _____ DATE _____

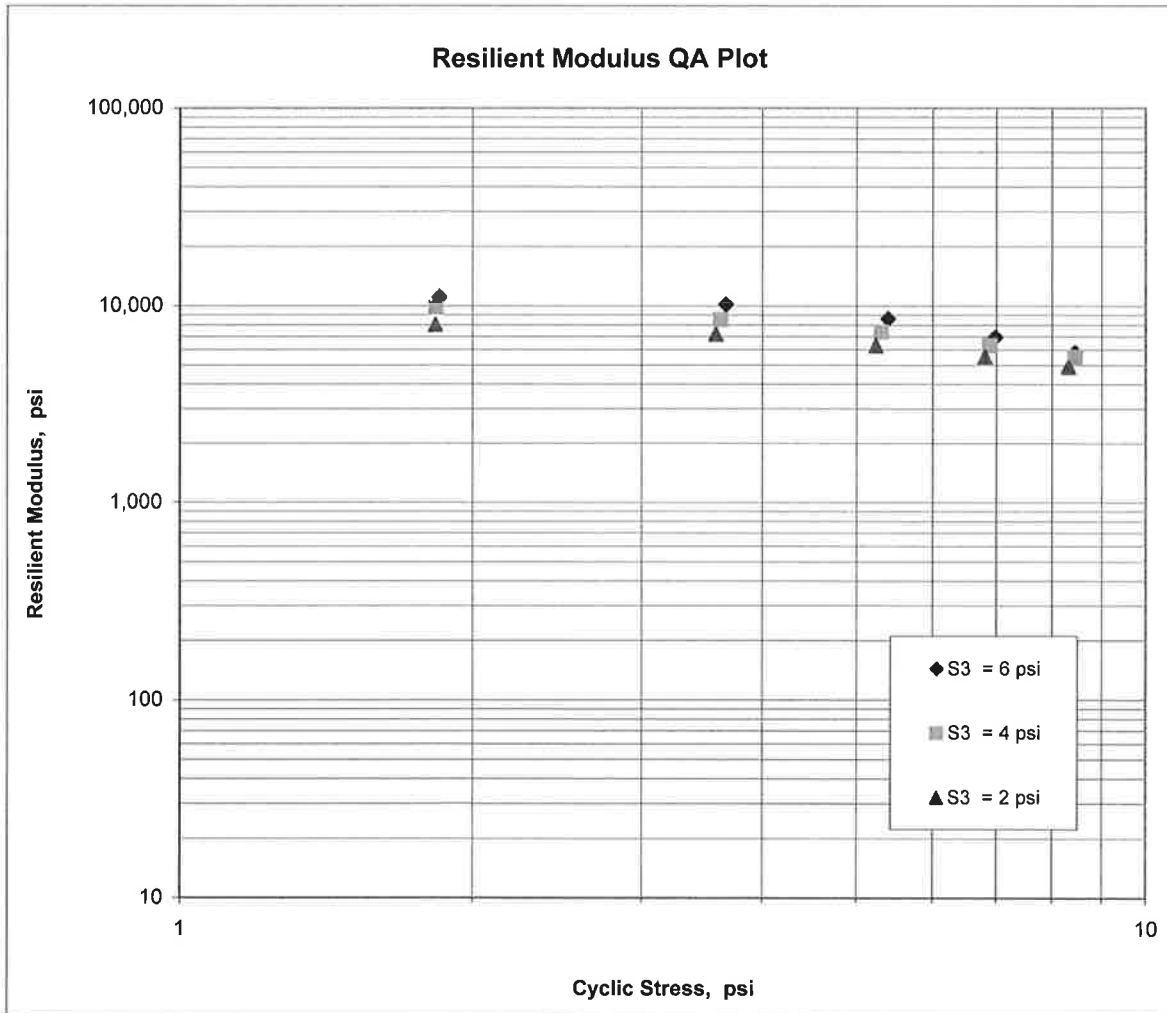
**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
MATERIALS DIVISION**

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	2/14/17	Station No.:	464+00
Date Tested:	February 16, 2017	Location:	22'RT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name:	WHITE
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170348	AASHTO Class:	A-6(18)
Sample ID:	RV98	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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

$K_1 =$	<u>9,129</u>
$K_2 =$	<u>-0.36650</u>
$K_5 =$	<u>0.25470</u>
$R^2 =$	<u>0.91</u>



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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	2/14/17	Station No.:	642+00
Date Tested:	February 16, 2017	Location:	22'LT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name: WHITE	
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170349	AASHTO Class:	A-2-4(0)
Sample ID:	RV99	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

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	3.94
Middle	3.95
Bottom	3.94
Average	3.94
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):	12.14
Initial Volume, AoLo (cu. in):	97.11

3. Soil Specimen Weight:

Weight of Wet Soil Used (g):	3324.40
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4. Soil Properties:

Optimum Moisture Content (%):	11.3
Maximum Dry Density (pcf):	120.4
95% of MDD (pcf):	114.4
In-Situ Moisture Content (%):	N/A

5. Specimen Properties:

Wet Weight (g):	3324.40
Compaction Moisture content (%):	11.3
Compaction Wet Density (pcf):	130.44
Compaction Dry Density (pcf):	117.20
Moisture Content After Mr Test (%):	11.1

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

7. Resilient Modulus, Mr: 7718(Sc)^{-0.13618}(S3)^{0.42120}

8. Comments

9. Tested By: G.WENDLAND **Date:** February 16, 2017

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

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

Job No. 050279 **Material Code** SSRVPS
Date Sampled: 2/14/17 **Station No.:** 642+00
Date Tested: February 16, 2017 **Location:** 22'LT
Name of Project: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
County: Code: 73 **Name:** WHITE
Sampled By: THORNTON **Depth:** 0-5
Lab No.: 20170349 **AASHTO Class:** A-2-4(0)
Sample ID: RV99 **Material Type (1 or 2):** 2
LATITUDE: 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
DESIGNATION	S ₃	S _{cyclic}	P _{max}	P _{cyclic}	P _{contact}	S _{max}	S _{cyclic}	S _{contact}	H _{avg}	ε _r	M _r
UNIT	psi	psi	lbs	lbs	lbs	psi	psi	psi	in	in/in	psi
Sequence 1	6.0	2.0	25.1	22.4	2.7	2.1	1.8	0.2	0.00097	0.00012	15,214
Sequence 2	6.0	4.0	47.4	44.7	2.7	3.9	3.7	0.2	0.00207	0.00026	14,195
Sequence 3	6.0	6.0	70.1	66.6	3.4	5.8	5.5	0.3	0.00326	0.00041	13,451
Sequence 4	6.0	8.0	94.1	88.1	6.0	7.8	7.3	0.5	0.00468	0.00058	12,410
Sequence 5	6.0	10.0	118.3	109.8	8.5	9.7	9.0	0.7	0.00604	0.00076	11,981
Sequence 6	4.0	2.0	24.9	22.2	2.8	2.1	1.8	0.2	0.00114	0.00014	12,831
Sequence 7	4.0	4.0	46.8	43.9	2.8	3.9	3.6	0.2	0.00254	0.00032	11,395
Sequence 8	4.0	6.0	68.4	65.5	2.8	5.6	5.4	0.2	0.00404	0.00051	10,681
Sequence 9	4.0	8.0	92.3	87.2	5.1	7.6	7.2	0.4	0.00557	0.00070	10,318
Sequence 10	4.0	10.0	116.6	109.1	7.6	9.6	9.0	0.6	0.00705	0.00088	10,188
Sequence 11	2.0	2.0	24.7	22.0	2.8	2.0	1.8	0.2	0.00152	0.00019	9,516
Sequence 12	2.0	4.0	45.8	43.0	2.8	3.8	3.5	0.2	0.00331	0.00041	8,555
Sequence 13	2.0	6.0	66.5	63.7	2.8	5.5	5.2	0.2	0.00523	0.00065	8,022
Sequence 14	2.0	8.0	89.2	84.9	4.2	7.3	7.0	0.3	0.00690	0.00086	8,108
Sequence 15	2.0	10.0	113.1	106.5	6.7	9.3	8.8	0.5	0.00867	0.00108	8,097

TESTED BY: i.WENDLAND DATE: February 16, 2017
 REVIEWED BY: _____ DATE: _____

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

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

Job No.	050279	Material Code	SSRVPS
Date Sampled:	2/14/17	Station No.:	642+00
Date Tested:	February 16, 2017	Location:	22'LT
Name of Project:	PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
County:	Code: 73	Name:	WHITE
Sampled By:	THORNTON	Depth:	0-5
Lab No.:	20170349	AASHTO Class:	A-2-4(0)
Sample ID:	RV99	Material Type (1 or 2):	2
LATITUDE:		LONGITUDE:	

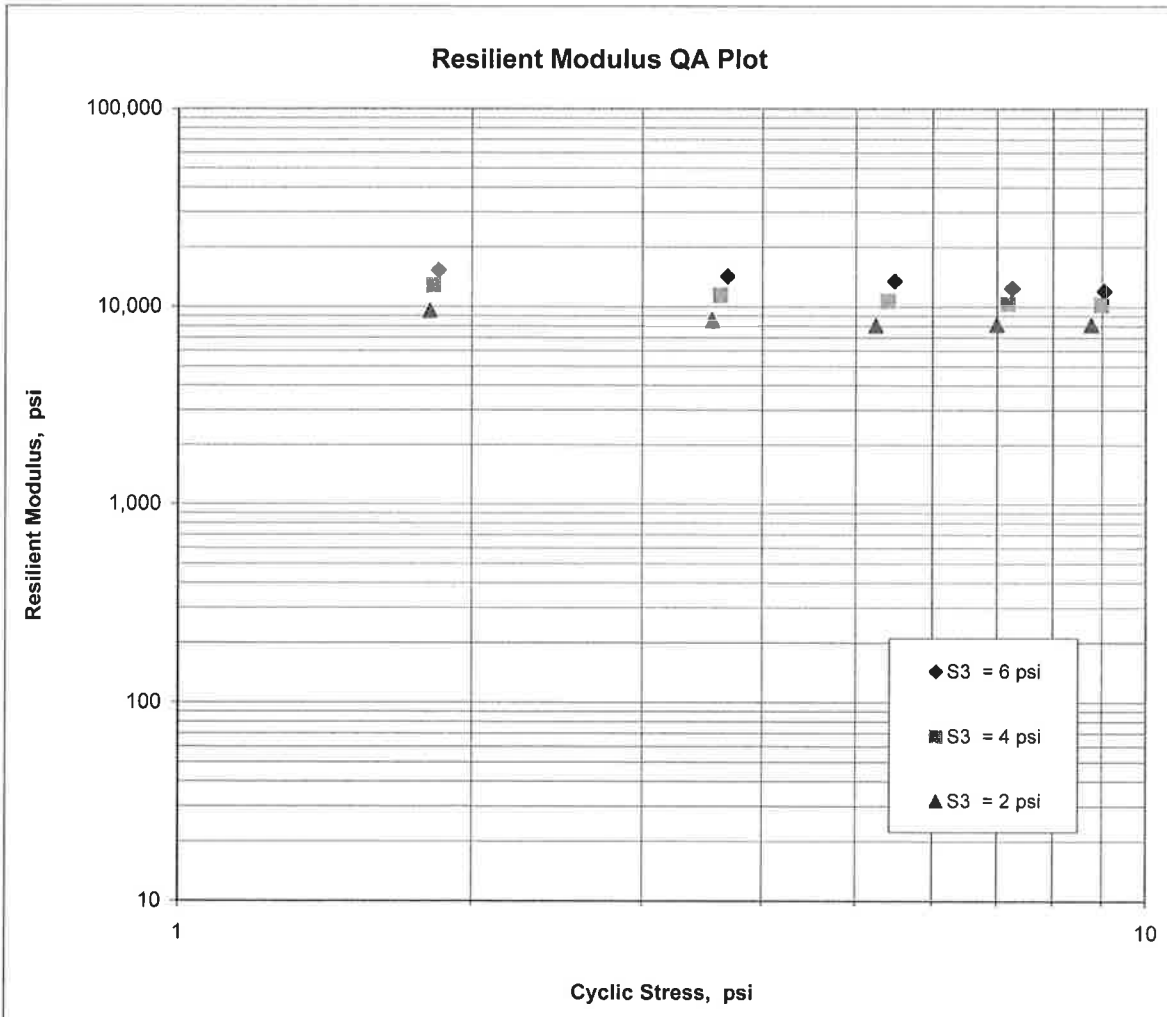
$$M_R = K_1 (S_C)^{K_2} (S_3)^{K_5}$$

$$K_1 = \underline{7,718}$$

$$K_2 = \underline{-0.13618}$$

$$K_5 = \underline{0.42120}$$

$$R^2 = \underline{0.99}$$



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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/22/17	SEQUENCE NO.	- 1
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT	- PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20170254	- 20170255	- 20170256
SAMPLE ID	- S4	- S5	- S6
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 108+00	- 108+00	- 116+00
LOCATION	- 06 RT	- 18 RT	- 06 LT
DEPTH IN FEET	- 0-4Z	- 0-2.5Z	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 25 28.40	- 35 25 28.40	- 35 25 20.70
LONGITUDE DEG-MIN-SEC	- 91 50 7.50	- 91 50 7.70	- 91 50 8.10
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	- 100	-	- 100
3/8 IN.	- 96	- 100	- 97
NO. 4	- 88	- 98	- 95
NO. 10	- 81	- 95	- 91
NO. 40	- 76	- 90	- 88
NO. 80	- 72	- 83	- 88
NO. 200	- 61	- 67	- 87
LIQUID LIMIT	- 25	- 29	- 62
PLASTICITY INDEX	- 10	- 14	- 39
AASHTO SOIL	- A-4 (3)	- A-6 (7)	- A-7-6 (37)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 16.0	- 20.7	- 26.7
ACHMSC (IN)	- 14.75W	- --	- 9.0WX
ACHMBC (IN)	- --	- --	- 3.0
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 2
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170257	20170258	20170259
SAMPLE ID	S7	S8	S9
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	116+00	124+00	124+00
LOCATION	18 LT	06 RT	18 RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	35 25 20.50	35 25 13.40	35 25 13.30
LONGITUDE DEG-MIN-SEC	91 50 7.70	91 50 5.30	91 50 5.40
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	-	100	100
3/8 IN.	-	96	99
NO. 4	100	84	93
NO. 10	-	74	87
NO. 40	-	70	81
NO. 80	-	68	76
NO. 200	91	59	63
LIQUID LIMIT	54	32	38
PLASTICITY INDEX	33	15	21
AASHTO SOIL	A-7-6(37)	A-6(6)	A-6(11)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	29.0	26.7	27.2
ACHMSC (IN)	--	10.0WX	--
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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 - 02/22/17 SEQUENCE NO. - 3
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	-	20170260	-	20170261	-	20170262
SAMPLE ID	-	S10	-	S11	-	S12
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	132+00	-	132+00	-	140+00
LOCATION	-	06 LT	-	18 LT	-	06 RT
DEPTH IN FEET	-	0-5	-	0-5	-	0-5
MAT'L COLOR	-	BROWN	-	BROWN	-	BROWN
MAT'L TYPE	-	-	-	-	-	-
LATITUDE DEG-MIN-SEC	-	35 25 6.00	-	35 25 6.00	-	35 24 58.50
LONGITUDE DEG-MIN-SEC	-	91 50 2.10	-	91 50 1.80	-	91 49 59.70
% PASSING	2 IN.	-	-	-	-	-
	1 1/2 IN.	-	-	-	-	-
	3/4 IN.	-	-	-	-	-
	3/8 IN.	-	100	-	100	-
	NO. 4	-	99	-	98	-
	NO. 10	-	96	-	93	-
	NO. 40	-	92	-	88	-
	NO. 80	-	90	-	85	-
	NO. 200	-	87	-	80	-
LIQUID LIMIT	-	31	-	39	-	39
PLASTICITY INDEX	-	13	-	20	-	21
AASHTO SOIL	-	A-6(10)	-	A-6(15)	-	A-6(17)
UNIFIED SOIL	-	-	-	-	-	-
% MOISTURE CONTENT	-	24.3	-	25.0	-	22.1
ACHMSC	(IN)	-	7.5W	-	---	-
ACHMBC	(IN)	-	3.0	-	---	-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-
		-		-		-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 4
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170263	20170264	20170265
SAMPLE ID	S13	S14	S15
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	140+00	148+00	148+00
LOCATION	18 RT	06 LT	27'LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	35 24 58.30	35 24 50.60	35 24 50.30
LONGITUDE DEG-MIN-SEC	91 49 59.70	91 49 59.70	91 49 59.40
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	-	100	-
3/8 IN.	100	98	100
NO. 4	99	96	96
NO. 10	96	94	89
NO. 40	89	92	79
NO. 80	85	91	68
NO. 200	78	85	56
LIQUID LIMIT	37	33	31
PLASTICITY INDEX	19	16	16
AASHTO SOIL	A-6(14)	A-6(12)	A-6(6)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	23.4	20.1	17.0
ACHMSC (IN)	--	7.0WX	--
ACHMBC (IN)	--	3.5	--
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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 - 02/22/17 SEQUENCE NO. - 6
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170269	20170270	20170271
SAMPLE ID	S19	S20	S21
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	164+00	172+00	172+00
LOCATION	18 LT	06 RT	18 RT
DEPTH IN FEET	0-4.5Z	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	35 24 36.10	35 24 28.90	35 24 28.60
LONGITUDE DEG-MIN-SEC	91 49 51.70	91 49 48.50	91 49 48.40
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	100	-	100
3/8 IN.	98	100	96
NO. 4	89	95	91
NO. 10	83	91	87
NO. 40	76	88	82
NO. 80	70	86	78
NO. 200	55	77	65
LIQUID LIMIT	28	32	28
PLASTICITY INDEX	13	14	11
AASHTO SOIL	A-6(4)	A-6(9)	A-6(5)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	21.4	24.6	25.4
ACHMSC (IN)	---	8.0WX	---
ACHMBC (IN)	---	5.0	---
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/27/17	SEQUENCE NO.	- 7
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)			
PROJECT ENGINEER - NOT APPLICABLE			
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

LAB NUMBER	- 20170272	- 20170273	- 20170274
SAMPLE ID	- S22	- S23	- S24
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 180+00	- 180+00	- 188+00
LOCATION	- 06 LT	- 18 LT	- 06 RT
DEPTH IN FEET	- 0-4Z	- 0-2Z	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 24 21.50	- 35 24 21.50	- 35 24 14.10
LONGITUDE DEG-MIN-SEC	- 91 49 44.90	- 91 49 44.70	- 91 49 41.20
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. -	100	100
	3/8 IN. - 100	99	98
	NO. 4 - 98	99	97
	NO. 10 - 95	94	95
	NO. 40 - 91	88	93
	NO. 80 - 87	78	90
	NO. 200 - 72	58	73
LIQUID LIMIT	- 33	- ND	- 32
PLASTICITY INDEX	- 15	- NP	- 14
AASHTO SOIL	- A-6 (9)	- A-4 (0)	- A-6 (8)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 22.3	- 19.7	- 22.8
ACHMSC	(IN) - 6.0WX	- --	- 9.0WX
ACHMBC	(IN) - 3.0	- --	- --

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/27/17 SEQUENCE NO. - 8
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	-	20170275	-	20170276	-	20170277
SAMPLE ID	-	S25	-	S26	-	S27
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	188+00	-	196+00	-	204+00
LOCATION	-	18 RT	-	06 LT	-	06 RT
DEPTH IN FEET	-	0-5	-	0-5	-	0-5
MAT'L COLOR	-	BROWN	-	BROWN	-	BROWN
MAT'L TYPE	-	-	-	-	-	-
LATITUDE DEG-MIN-SEC	-	35 24 14.80	-	35 24 8.10	-	35 24 2.10
LONGITUDE DEG-MIN-SEC	-	91 49 41.70	-	91 49 35.10	-	91 49 28.40
% PASSING	2 IN.	-	-	-	-	-
	1 1/2 IN.	-	-	-	-	-
	3/4 IN.	-	-	-	-	-
	3/8 IN.	-	100	-	100	-
	NO. 4	-	99	-	99	-
	NO. 10	-	97	-	97	-
	NO. 40	-	93	-	96	-
	NO. 80	-	89	-	93	-
	NO. 200	-	73	-	64	-
LIQUID LIMIT	-	33	-	38	-	37
PLASTICITY INDEX	-	17	-	19	-	22
AASHTO SOIL	-	A-6(10)	-	A-6(10)	-	A-6(14)
UNIFIED SOIL	-	-	-	-	-	-
% MOISTURE CONTENT	-	21.6	-	20.6	-	24.9
ACHMSC	(IN)	-	--	-	8.0WX	-
ACHMBC	(IN)	-	--	-	2.5	-
		-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/22/17	SEQUENCE NO.	- 9
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)			
PROJECT ENGINEER - NOT APPLICABLE			
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

LAB NUMBER	- 20170278	- 20170279	- 20170280
SAMPLE ID	- S28	- S29	- S30
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 204+00	- 212+00	- 212+00
LOCATION	- 18 RT	- 06 LT	- 18 LT
DEPTH IN FEET	- 0-5	- 0-3Z	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 24 2.40	- 35 23 57.00	- 35 23 56.90
LONGITUDE DEG-MIN-SEC	- 91 49 28.90	- 91 49 21.10	- 91 49 21.20
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. -	-	- 100
	3/8 IN. -	- 100	- 99
	NO. 4 - 100	- 98	- 98
	NO. 10 -	- 96	- 96
	NO. 40 -	- 95	- 95
	NO. 80 -	- 91	- 89
	NO. 200 - 93	- 63	- 45
LIQUID LIMIT	- 56	- 31	- ND
PLASTICITY INDEX	- 35	- 12	- NP
AASHTO SOIL	- A-7-6(39)	- A-6(5)	- A-4(0)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 20.1	- 20.0	- 14.9
ACHMSC	(IN) - 10.0WX	- 10.0WX	- --
ACHMBC	(IN) - 3.0	- 2.0	- --
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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	- 02/22/17	SEQUENCE NO.	- 10
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT	- PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20170281	- 20170282	- 20170283
SAMPLE ID	- S31	- S32	- S33
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 220+00	- 220+00	- 288+00
LOCATION	- 06 RT	- 18 RT	- 06 RT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 23 52.30	- 35 23 52.50	- 35 22 59.90
LONGITUDE DEG-MIN-SEC	- 91 49 13.30	- 91 49 13.70	- 91 48 28.30
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	-	-	-
3/8 IN.	- 100	- 100	- 100
NO. 4	- 99	- 99	- 99
NO. 10	- 97	- 98	- 97
NO. 40	- 94	- 96	- 95
NO. 80	- 92	- 94	- 91
NO. 200	- 70	- 73	- 78
LIQUID LIMIT	- ND	- 24	- 33
PLASTICITY INDEX	- NP	- 09	- 15
AASHTO SOIL	- A-4 (0)	- A-4 (4)	- A-6 (10)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 25.3	- 27.5	- 24.0
ACHMSC (IN)	- 9.5W	- --	- 6.0W
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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 - 02/27/17 SEQUENCE NO. - 11
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17

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

LAB NUMBER	20170284	20170285	20170286
SAMPLE ID	S34	S35	S36
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	288+00	296+00	296+00
LOCATION	18 RT	06 LT	18 LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	RD/BR	RD/BR
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 22 59.80	35 22 51.30	35 22 52.70
LONGITUDE DEG-MIN-SEC	91 48 28.40	91 48 24.90	91 48 25.70
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	100	-	-
3/8 IN.	99	-	-
NO. 4	97	100	100
NO. 10	94	-	-
NO. 40	91	-	-
NO. 80	85	-	-
NO. 200	68	92	91
LIQUID LIMIT	29	49	53
PLASTICITY INDEX	14	29	36
AASHTO SOIL	A-6(7)	A-7-6(32)	A-7-6(35)
UNIFIED SOIL			
% MOISTURE CONTENT	18.0	21.3	20.5
ACHMSC (IN)	--	8.5WX	--
ACHMBC (IN)	--	2.0	--

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/27/17 SEQUENCE NO. - 12
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170287	20170288	20170289
SAMPLE ID	S37	S38	S39
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	304+00	304+00	312+00
LOCATION	06 RT	18 RT	06 RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 22 43.40	35 22 44.70	35 22 35.50
LONGITUDE DEG-MIN-SEC	91 48 25.10	91 48 25.10	91 48 24.30
% PASSING			
2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.		100	100
NO. 4	100	98	98
NO. 10		96	93
NO. 40		92	88
NO. 80		89	85
NO. 200	94	80	65
LIQUID LIMIT	34	26	24
PLASTICITY INDEX	16	12	08
AASHTO SOIL	A-6(15)	A-6(8)	A-4(3)
UNIFIED SOIL			
% MOISTURE CONTENT	22.5	21.6	18.4
ACHMSC (IN)	--	8.0	--

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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 - 02/22/17 SEQUENCE NO. - 13
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	-	20170290	-	20170291	-	20170292
SAMPLE ID	-	S40	-	S41	-	S42
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	312+00	-	320+00	-	320+00
LOCATION	-	18 RT	-	06 LT	-	18 LT
DEPTH IN FEET	-	0-5	-	0-5	-	0-5
MAT'L COLOR	-	BROWN	-	RD/BR	-	RD/BR
MAT'L TYPE	-		-		-	
LATITUDE DEG-MIN-SEC	-	35 22 36.90	-	35 22 27.70	-	35 22 27.90
LONGITUDE DEG-MIN-SEC	-	91 48 24.70	-	91 48 22.70	-	91 48 22.90
% PASSING	2 IN.	-	-	-	-	-
	1 1/2 IN.	-	-	-	-	-
	3/4 IN.	100	-	-	-	-
	3/8 IN.	96	-	100	-	-
	NO. 4	91	-	96	-	100
	NO. 10	86	-	90	-	-
	NO. 40	82	-	84	-	-
	NO. 80	81	-	79	-	-
	NO. 200	79	-	61	-	91
LIQUID LIMIT	-	45	-	30	-	75
PLASTICITY INDEX	-	22	-	15	-	46
AASHTO SOIL	-	A-7-6(18)	-	A-6(6)	-	A-7-6(48)
UNIFIED SOIL	-		-		-	
% MOISTURE CONTENT	-	20.8	-	34.6	-	31.5
ACHMSC	(IN)	--	-	7.0WX	-	--
ACHMBC	(IN)	--	-	6.0XW	-	--
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL
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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/22/17	SEQUENCE NO.	- 14
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT	- PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20170293	- 20170294	- 20170295
SAMPLE ID	- S43	- S44	- S45
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 328+00	- 328+00	- 336+00
LOCATION	- 06 RT	- 18 RT	- 06 LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- RD/BR
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 22 19.80	- 35 22 19.60	- 35 22 12.00
LONGITUDE DEG-MIN-SEC	- 91 48 21.50	- 91 48 21.60	- 91 48 19.90
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	-	-	-
3/8 IN.	- 100	- 100	-
NO. 4	- 99	- 99	- 100
NO. 10	- 96	- 97	-
NO. 40	- 94	- 95	-
NO. 80	- 91	- 92	-
NO. 200	- 80	- 76	- 94
LIQUID LIMIT	- 37	- 28	- 82
PLASTICITY INDEX	- 21	- 13	- 56
AASHTO SOIL	- A-6(15)	- A-6(8)	- A-7-6(61)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 24.3	- 26.2	- 36.3
ACHMSC (IN)	- 7.0WX	- --	- 7.0WX
ACHMBC (IN)	- --	- --	- 2.5
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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AASHTO TESTS : T24 T88 T89 T90 T265

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 15
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170296	20170297	20170298
SAMPLE ID	S46	S47	S48
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	336+00	344+00	344+00
LOCATION	18 LT	06 RT	18 RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	RD/BR	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 22 12.10	35 22 4.50	35 22 5.60
LONGITUDE DEG-MIN-SEC	91 48 19.90	91 48 17.40	91 48 18.10
% PASSING			
2 IN.			
1 1/2 IN.			
3/4 IN.			
3/8 IN.	100	100	100
NO. 4	96	99	99
NO. 10	93	98	97
NO. 40	90	96	94
NO. 80	89	89	86
NO. 200	87	71	69
LIQUID LIMIT	72	30	36
PLASTICITY INDEX	43	16	21
AASHTO SOIL	A-7-6(42)	A-6(9)	A-6(12)
UNIFIED SOIL			
% MOISTURE CONTENT	35.0	21.6	22.9
ACHMSC (IN)	--	7.5WX	--

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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 - 02/22/17 SEQUENCE NO. - 16
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	-	20170299	-	20170300	-	20170301	
SAMPLE ID	-	S49	-	S50	-	S51	
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY	
STATION	-	352+00	-	352+00	-	375+00	
LOCATION	-	06 LT	-	18 LT	-	06 RT	
DEPTH IN FEET	-	0-5	-	0-5	-	0-5	
MAT'L COLOR	-	GRAY	-	GRAY	-	BROWN	
MAT'L TYPE	-		-		-		
LATITUDE DEG-MIN-SEC	-	35 21 57.50	-	35 21 58.30	-	35 21 38.00	
LONGITUDE DEG-MIN-SEC	-	91 48 12.90	-	91 48 13.50	-	91 48 1.30	
% PASSING	2 IN.	-	-	-	-	-	
	1 1/2 IN.	-	-	-	-	-	
	3/4 IN.	-	-	-	-	-	
	3/8 IN.	-	-	100	-	100	
	NO. 4	-	100	-	97	-	97
	NO. 10	-	99	-	95	-	92
	NO. 40	-	99	-	94	-	86
	NO. 80	-	97	-	92	-	82
	NO. 200	-	90	-	84	-	77
LIQUID LIMIT	-	32	-	29	-	28	
PLASTICITY INDEX	-	18	-	14	-	10	
AASHTO SOIL	-	A-6(15)	-	A-6(10)	-	A-4(6)	
UNIFIED SOIL	-		-		-		
% MOISTURE CONTENT	-	29.0	-	25.1	-	25.5	
ACHMSC	(IN)	-	8.0WX	-	--	-	11.0W
ACHMBC	(IN)	-	2.0	-	--	-	2.0
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	
		-		-		-	

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, 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	- 02/27/17	SEQUENCE NO.	- 17
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT	- PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20170302	- 20170303	- 20170304
SAMPLE ID	- S52	- S53	- S54
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 375+00	- 383+00	- 383+00
LOCATION	- 18 RT	- 06 LT	- 18 LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 21 41.40	- 35 21 30.90	- 35 21 31.00
LONGITUDE DEG-MIN-SEC	- 91 48 3.50	- 91 47 56.90	- 91 47 57.10
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	-	-	-
3/8 IN.	-	-	-
NO. 4	- 100	- 100	- 100
NO. 10	-	-	- 97
NO. 40	-	-	- 94
NO. 80	-	-	- 92
NO. 200	- 90	- 91	- 88
LIQUID LIMIT	- 28	- ND	- 29
PLASTICITY INDEX	- 10	- NP	- 09
AASHTO SOIL	- A-4 (8)	- A-4 (0)	- A-4 (7)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 24.7	- 26.6	- 22.2
ACHMSC (IN)	- --	- 11.0W	- --
ACHMBC (IN)	- --	- 5.5W	- --
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL
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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 18
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	- 20170305	- 20170306	- 20170307
SAMPLE ID	- S55	- S56	- S57
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 391+00	- 391+00	- 400+00
LOCATION	- 06 RT	- 18 RT	- 06 LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 21 23.00	- 35 21 23.30	- 35 21 16.50
LONGITUDE DEG-MIN-SEC	- 91 47 52.80	- 91 47 53.00	- 91 47 48.90
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. -	- 100	-
	3/8 IN. -	- 99	-
	NO. 4 - 100	- 99	- 100
	NO. 10 - 99	- 97	-
	NO. 40 - 99	- 95	-
	NO. 80 - 98	- 93	-
	NO. 200 - 81	- 76	- 90
LIQUID LIMIT	- 25	- 24	- 28
PLASTICITY INDEX	- 08	- 07	- 11
AASHTO SOIL	- A-4 (4)	- A-4 (3)	- A-6 (8)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 19.0	- 19.9	- 24.0
ACHMSC (IN)	- 6.0W	- --	- 8.0
ACHMBC (IN)	- 3.0	- --	- 3.0
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 19
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	- 20170308	- 20170309	- 20170310
SAMPLE ID	- S58	- S59	- S60
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 400+00	- 408+00	- 408+00
LOCATION	- 18 LT	- 06 LT	- 18 LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 21 18.10	- 35 21 9.30	- 35 21 9.30
LONGITUDE DEG-MIN-SEC	- 91 47 50.10	- 91 47 45.00	- 91 47 45.20
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. - 100	-	- 100
	3/8 IN. - 99	- 100	- 97
	NO. 4 - 97	- 99	- 96
	NO. 10 - 96	- 98	- 94
	NO. 40 - 93	- 96	- 92
	NO. 80 - 92	- 94	- 89
	NO. 200 - 88	- 81	- 77
LIQUID LIMIT	- 29	- 31	- 31
PLASTICITY INDEX	- 11	- 14	- 13
AASHTO SOIL	- A-6(8)	- A-6(10)	- A-6(8)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 28.3	- 21.2	- 21.6
ACHMSC	(IN) - --	- 8.0WX	- --
ACHMBC	(IN) - --	- 4.0W	- --
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

AASHTO TESTS : T24 T88 T89 T90 T265
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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
 MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 21
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170314	20170315	20170316
SAMPLE ID	S64	S65	S66
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	424+00	432+00	432+00
LOCATION	18 LT	06RT	18 RT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	35 20 54.90	35 20 45.80	35 20 45.70
LONGITUDE DEG-MIN-SEC	91 47 37.00	91 47 32.20	91 47 32.40
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	100	-	-
3/8 IN.	97	-	100
NO. 4	92	100	99
NO. 10	89	99	99
NO. 40	86	98	97
NO. 80	79	85	84
NO. 200	65	69	68
LIQUID LIMIT	28	27	30
PLASTICITY INDEX	12	11	14
AASHTO SOIL	A-6(5)	A-6(5)	A-6(7)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	17.0	21.5	22.1
ACHMSC (IN)	--	8.0WX	--
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/22/17	SEQUENCE NO.	- 22
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT	- PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	- 20170317	- 20170318	- 20170319
SAMPLE ID	- S67	- S68	- S69
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 440+00	- 440+00	- 448+00
LOCATION	- 06 LT	- 18 LT	- 06 RT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 20 39.10	- 35 20 39.10	- 35 20 32.10
LONGITUDE DEG-MIN-SEC	- 91 47 27.30	- 91 47 27.60	- 91 47 22.20
% PASSING	2 IN. -	-	-
	1 1/2 IN. -	-	-
	3/4 IN. -	-	-
	3/8 IN. - 100	- 100	- 100
	NO. 4 - 99	- 99	- 99
	NO. 10 - 99	- 98	- 97
	NO. 40 - 98	- 96	- 95
	NO. 80 - 95	- 94	- 92
	NO. 200 - 90	- 88	- 87
LIQUID LIMIT	- 32	- 32	- 36
PLASTICITY INDEX	- 14	- 16	- 19
AASHTO SOIL	- A-6(12)	- A-6(13)	- A-6(16)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 23.2	- 24.0	- 24.1
ACHMSC	(IN) - 5.5WX	- --	- 10.0WX
ACHMBC	(IN) - 2.0	- --	- 3.0
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL
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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT - LITTLE ROCK, ARKANSAS
MATERIALS DIVISION

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 23
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170320	20170321	20170322
SAMPLE ID	S70	S71	S72
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	448+00	456+00	456+00
LOCATION	28 RT	06 LT	18 LT
DEPTH IN FEET	0-5	0-5	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 20 32.30	35 20 25.00	35 20 25.00
LONGITUDE DEG-MIN-SEC	91 47 22.30	91 47 19.10	91 47 19.00
% PASSING			
2 IN.			
1 1/2 IN.			
3/4 IN.			100
3/8 IN.			99
NO. 4	100	100	99
NO. 10			98
NO. 40			97
NO. 80			94
NO. 200	91	91	88
LIQUID LIMIT	32	32	36
PLASTICITY INDEX	17	16	22
AASHTO SOIL	A-6(14)	A-6(14)	A-6(18)
UNIFIED SOIL			
% MOISTURE CONTENT	21.7	25.2	26.1
ACHMSC (IN)	--	8.0WX	--
ACHMBC (IN)	--	2.0	--

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/27/17	SEQUENCE NO.	- 24
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT	- PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)		
PROJECT ENGINEER	- NOT APPLICABLE		
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC.	- SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS		

LAB NUMBER	-	20170323	-	20170324	-	20170325	
SAMPLE ID	-	S73	-	S74	-	S75	
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY	
STATION	-	464+00	-	464+00	-	472+00	
LOCATION	-	06 RT	-	18 RT	-	06 LT	
DEPTH IN FEET	-	0-5	-	0-5	-	0-5	
MAT'L COLOR	-	BR/GR	-	BR/GR	-	BROWN	
MAT'L TYPE	-	-	-	-	-	-	
LATITUDE DEG-MIN-SEC	-	35 20 17.00	-	35 20 16.90	-	35 20 9.30	
LONGITUDE DEG-MIN-SEC	-	91 47 18.10	-	91 47 18.20	-	91 47 17.70	
% PASSING	2	IN.	-	-	-	-	
	1 1/2	IN.	-	-	-	-	
	3/4	IN.	-	-	-	100	
	3/8	IN.	-	-	-	99	
	NO. 4	-	100	-	100	-	98
	NO. 10	-	-	-	-	-	96
	NO. 40	-	-	-	-	-	79
	NO. 80	-	-	-	-	-	70
	NO. 200	-	93	-	90	-	59
LIQUID LIMIT	-	33	-	40	-	41	
PLASTICITY INDEX	-	20	-	25	-	23	
AASHTO SOIL	-	A-6 (17)	-	A-6 (22)	-	A-7-6 (11)	
UNIFIED SOIL	-	-	-	-	-	-	
% MOISTURE CONTENT	-	21.9	-	23.4	-	14.8	
ACHMSC	(IN)	-	9.5WX	-	--	-	10.0WX
ACHMBC	(IN)	-	3.5	-	--	-	--
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/22/17	SEQUENCE NO.	- 25
JOB NUMBER	- 050279	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	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)			
PROJECT ENGINEER - NOT APPLICABLE			
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/25/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

LAB NUMBER	- 20170326	- 20170327	- 20170328
SAMPLE ID	- S76	- S77	- S78
TEST STATUS	- INFORMATION ONLY	- INFORMATION ONLY	- INFORMATION ONLY
STATION	- 472+00	- 488+00	- 488+00
LOCATION	- 18 LT	- 06 LT	- 18 LT
DEPTH IN FEET	- 0-5	- 0-5	- 0-5
MAT'L COLOR	- BROWN	- BROWN	- BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	- 35 20 9.10	- 35 19 53.00	- 35 19 53.20
LONGITUDE DEG-MIN-SEC	- 91 47 17.50	- 91 47 17.70	- 91 47 17.40
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	- 100	-	- 100
3/8 IN.	- 99	- 100	- 99
NO. 4	- 98	- 97	- 98
NO. 10	- 95	- 95	- 95
NO. 40	- 90	- 91	- 92
NO. 80	- 66	- 82	- 78
NO. 200	- 57	- 70	- 65
LIQUID LIMIT	- 37	- 23	- 21
PLASTICITY INDEX	- 22	- 08	- 07
AASHTO SOIL	- A-6 (9)	- A-4 (3)	- A-4 (2)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	- 20.8	- 23.6	- 23.5
ACHMSC (IN)	- --	- 8.5	- --
ACHMBC (IN)	- --	- 3.0	- --
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE	- 02/27/17	SEQUENCE NO.	- 26
JOB NUMBER	- 050279	MATERIAL CODE	- SSRVPS
FEDERAL AID NO.	- TO BE ASSIGNED	SPEC. YEAR	- 2014
PURPOSE	- SOIL SURVEY SAMPLE	SUPPLIER ID.	- 1
SPEC. REMARKS	- NO SPECIFICATION CHECK	COUNTRY/STATE	- 73
SUPPLIER NAME	- STATE	DISTRICT NO.	- 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)			
PROJECT ENGINEER - NOT APPLICABLE			
PIT/QUARRY	- ARKANSAS		
LOCATION	- WHITE, COUNTY	DATE SAMPLED	- 01/10/17
SAMPLED BY	- THORNTON/BATES	DATE RECEIVED	- 01/27/17
SAMPLE FROM	- TEST HOLE	DATE TESTED	- 02/22/17
MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS			

LAB NUMBER	-	20170329	-	20170330	-	20170331
SAMPLE ID	-	S79	-	S80	-	S81
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	586+00	-	586+00	-	594+00
LOCATION	-	06 RT	-	18 RT	-	06 LT
DEPTH IN FEET	-	0-2Z	-	0-1.5Z	-	0-4Z
MAT'L COLOR	-	BROWN	-	BROWN	-	BROWN
MAT'L TYPE	-	-	-	-	-	-
LATITUDE DEG-MIN-SEC	-	35 18 31.70	-	35 18 29.20	-	35 18 21.90
LONGITUDE DEG-MIN-SEC	-	91 46 25.20	-	91 46 23.90	-	91 46 20.90
% PASSING	2	IN.	-	-	-	-
	1 1/2	IN.	-	-	-	-
	3/4	IN.	-	-	-	100
	3/8	IN.	-	-	-	95
	NO. 4	-	-	-	-	85
	NO. 10	-	-	-	-	80
	NO. 40	-	-	-	-	76
	NO. 80	-	-	-	-	67
	NO. 200	-	-	-	-	42
LIQUID LIMIT	-	ND	-	ND	-	26
PLASTICITY INDEX	-	NP	-	NP	-	10
AASHTO SOIL	-	A-4 (0)	-	-	-	A-4 (1)
UNIFIED SOIL	-	-	-	-	-	-
% MOISTURE CONTENT	-	11.1	-	19.9	-	27.5
ACHMSC	(IN)	6.0W	-	--	-	7.5W
ACHMBC	(IN)	2.25W	-	--	-	3.0
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/27/17 SEQUENCE NO. - 27
 JOB NUMBER - 050279 MATERIAL CODE - SSRVPS
 FEDERAL AID NO. - TO BE ASSIGNED SPEC. YEAR - 2014
 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1
 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTRY/STATE - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	-	20170332	-	20170333	-	20170334
SAMPLE ID	-	S82	-	S83	-	S84
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	594+00	-	602+00	-	602+00
LOCATION	-	18 LT	-	06 RT	-	18 RT
DEPTH IN FEET	-	0-1.5Z	-	0-4Z	-	0-2.5Z
MAT'L COLOR	-	BROWN	-	BROWN	-	BROWN
MAT'L TYPE	-		-		-	
LATITUDE DEG-MIN-SEC	-	35 18 21.80	-	35 18 14.30	-	35 18 14.00
LONGITUDE DEG-MIN-SEC	-	91 46 20.60	-	91 46 18.30	-	91 46 18.20
% PASSING	2	IN. -	-		-	
	1 1/2	IN. -	-		-	
	3/4	IN. - 100	-	100	-	100
	3/8	IN. - 97	-	98	-	96
	NO. 4	- 84	-	90	-	87
	NO. 10	- 74	-	85	-	79
	NO. 40	- 69	-	82	-	72
	NO. 80	- 61	-	76	-	66
	NO. 200	- 33	-	52	-	45
LIQUID LIMIT	-		-	23	-	ND
PLASTICITY INDEX	-		-	09	-	NP
AASHTO SOIL	-		-	A-4(2)	-	A-4(0)
UNIFIED SOIL	-		-		-	
% MOISTURE CONTENT	-	11.4	-	14.9	-	19.3
ACHMSC	(IN) -	--	-	9.0WX	-	--
ACHMBC	(IN) -	--	-	1.5	-	--
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	
			-		-	

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 28
 JOB NUMBER - 050279 MATERIAL CODE - SSRVPS
 FEDERAL AID NO. - TO BE ASSIGNED SPEC. YEAR - 2014
 PURPOSE - SOIL SURVEY SAMPLE SUPPLIER ID. - 1
 SPEC. REMARKS - NO SPECIFICATION CHECK COUNTRY/STATE - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170335	20170336	20170337
SAMPLE ID	S85	S86	S87
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	610+00	610+00	618+00
LOCATION	06 LT	18 LT	06 RT
DEPTH IN FEET	0-3Z	0-1.8Z	0-2Z
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE			
LATITUDE DEG-MIN-SEC	35 18 8.60	35 18 6.60	35 17 59.80
LONGITUDE DEG-MIN-SEC	91 46 16.10	91 46 15.10	91 46 13.00
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	100	100	100
3/8 IN.	96	96	99
NO. 4	86	93	94
NO. 10	81	90	88
NO. 40	78	85	82
NO. 80	74	80	68
NO. 200	39	51	39
LIQUID LIMIT	ND	ND	ND
PLASTICITY INDEX	NP	NP	NP
AASHTO SOIL	A-4 (0)	A-4 (0)	A-4 (0)
UNIFIED SOIL			
% MOISTURE CONTENT	13.2	16.4	10.9
ACHMSC (IN)	8.0WX	--	8.0W
ACHMBC (IN)	2.0	--	2.0W

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 30
 JOB NUMBER - 050279 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 - 73
 SUPPLIER NAME - STATE DISTRICT NO. - 05
 NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
 PROJECT ENGINEER - NOT APPLICABLE
 PIT/QUARRY - ARKANSAS
 LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
 SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
 SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
 MATERIAL DESC. - SOIL SURVEY - R VALUE- PAVEMENT SOUNDINGS

LAB NUMBER	20170341	20170342	20170343
SAMPLE ID	S91	S92	S93
TEST STATUS	INFORMATION ONLY	INFORMATION ONLY	INFORMATION ONLY
STATION	634+00	642+00	642+00
LOCATION	18 RT	06 LT	18 LT
DEPTH IN FEET	0.2.5Z	0-4.5Z	0-5
MAT'L COLOR	BROWN	BROWN	BROWN
MAT'L TYPE	-	-	-
LATITUDE DEG-MIN-SEC	35 17 43.30	35 17 37.40	35 17 35.60
LONGITUDE DEG-MIN-SEC	91 46 11.50	91 46 12.20	91 46 11.90
% PASSING			
2 IN.	-	-	-
1 1/2 IN.	-	-	-
3/4 IN.	100	100	100
3/8 IN.	99	97	99
NO. 4	91	90	91
NO. 10	83	84	82
NO. 40	77	79	78
NO. 80	62	64	60
NO. 200	43	47	44
LIQUID LIMIT	ND	ND	ND
PLASTICITY INDEX	NP	NP	NP
AASHTO SOIL	A-4 (0)	A-4 (0)	A-4 (0)
UNIFIED SOIL	-	-	-
% MOISTURE CONTENT	11.6	19.5	18.4
ACHMSC (IN)	--	8.0WX	--
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

REMARKS - W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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

MICHAEL BENSON, MATERIALS ENGINEER

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

DATE - 02/22/17 SEQUENCE NO. - 1
JOB NUMBER - 050279 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 - 73
SUPPLIER NAME - STATE DISTRICT NO. - 05
NAME OF PROJECT - PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)
PROJECT ENGINEER - NOT APPLICABLE
PIT/QUARRY - ARKANSAS
LOCATION - WHITE, COUNTY DATE SAMPLED - 01/10/17
SAMPLED BY - THORNTON/BATES DATE RECEIVED - 01/27/17
SAMPLE FROM - TEST HOLE DATE TESTED - 02/22/17
MATERIAL DESC. - SOIL SURVEY - RESISTANCE R-VALUE ACTUAL RESULTS

LAB NUMBER	-	20170344	-	20170345	-	20170346
SAMPLE ID	-	RV94	-	RV95	-	RV96
TEST STATUS	-	INFORMATION ONLY	-	INFORMATION ONLY	-	INFORMATION ONLY
STATION	-	124+00	-	172+00	-	312+00
LOCATION	-	22RT	-	21RT	-	22RT
DEPTH IN FEET	-	0-5	-	0-5	-	0-5
MAT'L COLOR	-	BROWN	-	BROWN	-	BROWN
MAT'L TYPE	-		-		-	
LATITUDE DEG-MIN-SEC	-	35 25 13.20	-	35 24 28.50	-	35 22 35.70
LONGITUDE DEG-MIN-SEC	-	91 50 5.40	-	91 49 48.40	-	91 48 24.80
% PASSING	2 IN.	-	-	-	-	-
	1 1/2 IN.	-	-	100	-	-
	3/4 IN.	100	-	89	-	100
	3/8 IN.	98	-	73	-	97
	NO. 4	96	-	64	-	93
	NO. 10	92	-	59	-	90
	NO. 40	88	-	55	-	88
	NO. 80	85	-	52	-	86
	NO. 200	76	-	45	-	82
LIQUID LIMIT	-	32	-	28	-	43
PLASTICITY INDEX	-	15	-	12	-	22
AASHTO SOIL	-	A-6(10)	-	A-6(2)	-	A-7-6(18)
UNIFIED SOIL	-		-		-	
% MOISTURE CONTENT	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	
	-		-		-	

REMARKS -

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AASHTO TESTS : T24 T88 T89 T90 T265

:

JOB: 050279

JOB NAME: PANGBURN - FOUR MILE HILL (SAFETY IMPVTS.)

Arkansas State Highway Transportation Department

Materials Division

Michael Benson, Materials Engineer

DATE TESTED

2/22/2017

COUNTY NO. 73

STA.# LOC.

PAVEMENT SOUNDINGS

108+00	18 RT	ACHMSC	ACHMBC
		--	--
108+00	06 RT	ACHMSC	ACHMBC
		14.75W	--
116+00	06 LT	ACHMSC	ACHMBC
		9.0WX	3.0
116+00	18 LT	ACHMSC	
		--	--
124+00	06 RT	ACHMSC	
		10.0WX	
124+00	18 RT	ACHMSC	
		--	--
132+00	06 LT	ACHMSC	ACHMBC
		7.5W	3.0
132+00	18 LT	ACHMSC	ACHMBC
		--	--
140+00	06 RT	ACHMSC	ACHMBC
		7.0W	6.0W
140+00	18 RT	ACHMSC	ACHMBC
		--	--
148+00	06 LT	ACHMSC	ACHMBC
		7.0WX	3.5
148+00	27LT	ACHMSC	ACHMBC
		--	--
156+00	18 RT	ACHMSC	ACHMBC
		--	--
156+00	06 RT	ACHMSC	ACHMBC
		10.3XW	--
164+00	06 LT	ACHMSC	ACHMBC
		7.5WX	4.0
164+00	18 LT	ACHMSC	ACHMBC
		--	--
172+00	06 RT	ACHMSC	ACHMBC
		8.0WX	5.0

COMMENTS: W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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PAVEMENT SOUNDINGS

172+00	18 RT	ACHMSC	ACHMBC
180+00	06 LT	ACHMSC 6.0WX	ACHMBC 3.0
180+00	18 LT	ACHMSC	ACHMBC
188+00	18 RT	ACHMSC	ACHMBC
188+00	06 RT	ACHMSC 9.0WX	ACHMBC
196+00	06 LT	ACHMSC 8.0WX	ACHMBC 2.5
204+00	06 RT	ACHMSC	ACHMBC
204+00	18 RT	ACHMSC 10.0WX	ACHMBC 3.0
212+00	06 LT	ACHMSC 10.0WX	ACHMBC 2.0
212+00	18 LT	ACHMSC	ACHMBC
220+00	06 RT	ACHMSC 9.5W	
220+00	18 RT	ACHMSC	
288+00	06 RT	ACHMSC 6.0W	
288+00	18 RT	ACHMSC	ACHMBC
296+00	18 LT	ACHMSC	ACHMBC
296+00	06 LT	ACHMSC 8.5WX	ACHMBC 2.0
304+00	06 RT	ACHMSC	
304+00	18 RT	ACHMSC 8.0	
312+00	06 RT	ACHMSC	

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PAVEMENT SOUNDINGS

312+00	18 RT	ACHMSC	ACHMBC
320+00	06 LT	ACHMSC 7.0WX	ACHMBC 6.0XW
320+00	18 LT	ACHMSC	ACHMBC
328+00	06 RT	ACHMSC 7.0WX	ACHMBC
328+00	18 RT	ACHMSC	ACHMBC
336+00	06 LT	ACHMSC 7.0WX	ACHMBC 2.5
336+00	18 LT	ACHMSC	
344+00	06 RT	ACHMSC 7.5WX	
344+00	18 RT	ACHMSC	
352+00	18 LT	ACHMSC	ACHMBC
352+00	06 LT	ACHMSC 8.0WX	ACHMBC 2.0
375+00	06 RT	ACHMSC 11.0W	ACHMBC 2.0
375+00	18 RT	ACHMSC	ACHMBC
383+00	06 LT	ACHMSC 11.0W	ACHMBC 5.5W
383+00	18 LT	ACHMSC	ACHMBC
391+00	06 RT	ACHMSC 6.0W	ACHMBC 3.0
391+00	18 RT	ACHMSC	ACHMBC
400+00	06 LT	ACHMSC 8.0	ACHMBC 3.0
400+00	18 LT	ACHMSC	ACHMBC

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PAVEMENT SOUNDINGS

408+00	06 LT	ACHMSC	ACHMBC
		8.0WX	4.0W
408+00	18 LT	ACHMSC	ACHMBC
		--	--
416+00	18 RT	ACHMSC	ACHMBC
		--	--
416+00	06 RT	ACHMSC	ACHMBC
		10.0WX	3.5
424+00	06 LT	ACHMSC	ACHMBC
		9.5	3.5
424+00	18 LT	ACHMSC	
		--	
432+00	06RT	ACHMSC	
		8.0WX	
432+00	18 RT	ACHMSC	
		--	
440+00	06 LT	ACHMSC	ACHMBC
		5.5WX	2.0
440+00	18 LT	ACHMSC	ACHMBC
		--	--
448+00	28 RT	ACHMSC	ACHMBC
		--	--
448+00	06 RT	ACHMSC	ACHMBC
		10.0WX	3.0
456+00	18 LT	ACHMSC	ACHMBC
		--	--
456+00	06 LT	ACHMSC	ACHMBC
		8.0WX	2.0
464+00	06 RT	ACHMSC	ACHMBC
		9.5WX	3.5
464+00	18 RT	ACHMSC	ACHMBC
		--	--
472+00	06 LT	ACHMSC	ACHMBC
		10.0WX	--
472+00	18 LT	ACHMSC	ACHMBC
		--	--
488+00	06 LT	ACHMSC	ACHMBC
		8.5	3.0

Comments: W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL

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488+00	18 LT	ACHMSC	ACHMBC
		--	--
586+00	06 RT	ACHMSC	ACHMBC
		6.0W	2.25W
586+00	18 RT	ACHMSC	ACHMBC
		--	--
594+00	06 LT	ACHMSC	ACHMBC
		7.5W	3.0
594+00	18 LT	ACHMSC	ACHMBC
		--	--
602+00	18 RT	ACHMSC	ACHMBC
		--	--
602+00	06 RT	ACHMSC	ACHMBC
		9.0WX	1.5
610+00	06 LT	ACHMSC	ACHMBC
		8.0WX	2.0
610+00	18 LT	ACHMSC	ACHMBC
		--	--
618+00	06 RT	ACHMSC	ACHMBC
		8.0W	2.0W
626+00	06 LT	ACHMSC	ACHMBC
		7.0W	2.0X
626+00	18 LT	ACHMSC	ACHMBC
		--	--
634+00	06 RT	ACHMSC	ACHMBC
		9.5	2.0
634+00	18 RT	ACHMSC	
		--	
642+00	18 LT	ACHMSC	
		--	
642+00	06 LT	ACHMSC	
		8.0WX	

Comments: W=MULTIPLE LAYERS, X=STRIPPED, Z=AUGER REFUSAL