

Water Utility Services Inc

Sample Delivery Group: L895256
Samples Received: 03/10/2017
Project Number:
Description: Bridgestone MUD

Report To: Mr. Steve Grychka
PO Box 2628
Spring, TX 77383

Entire Report Reviewed By:



Rodney Shinbaum
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY



EST L895256-01 DW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 218.6M	WG959405	1	03/14/17 00:17	03/14/17 00:17	MCG
Metals (ICPMS) by Method 200.8	WG960363	1	03/14/17 10:21	03/15/17 14:53	JPD

Collected by AC Collected date/time 03/09/17 12:20 Received date/time 03/10/17 09:00

¹ Cp

² Tc

³ Ss

WP3 GST L895256-02 DW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 218.6M	WG960044	1	03/15/17 09:47	03/15/17 09:47	AMC
Metals (ICPMS) by Method 200.8	WG960363	1	03/14/17 10:21	03/15/17 15:04	JPD

Collected by AC Collected date/time 03/09/17 12:00 Received date/time 03/10/17 09:00

⁴ Cn

⁵ Sr

⁶ Qc

WP1 GST L895256-03 DW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 218.6M	WG960044	1	03/15/17 10:30	03/15/17 10:30	AMC
Metals (ICPMS) by Method 200.8	WG960363	1	03/14/17 10:21	03/15/17 15:07	JPD

Collected by AC Collected date/time 03/09/17 11:41 Received date/time 03/10/17 09:00

⁷ Gl

⁸ Al

⁹ Sc



All MDL (LOD) and RDL (LOG) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Rodney Shinbaum
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

<u>ESC Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L895256-01	EST	218.6M
L895256-02	WP3 GST	218.6M
L895256-03	WP1 GST	218.6M

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Wet Chemistry by Method 218.6M

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis date / time	Batch	Analyst
Hexavalent Chromium-Low Level	ND		0.0000600		1	03/14/2017 00:17	WG959405	MCG

1 Cp

2 Tc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis date / time	Batch	Analyst
Chromium	ND		0.00100	0.10	1	03/15/2017 14:53	WG960363	JPD

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Wet Chemistry by Method 218.6M

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis date / time	Batch	Analyst
Hexavalent Chromium-Low Level	0.0000938		0.0000600		1	03/15/2017 09:47	WG960044	AMC

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis date / time	Batch	Analyst
Chromium	ND		0.00100	0.10	1	03/15/2017 15:04	WG960363	JPD

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 218.6M

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis date / time	Batch	Analyst
Hexavalent Chromium-Low Level	0.000188		0.0000600		1	03/15/2017 10:30	WG960044	AMC

¹ Cp

² Tc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis date / time	Batch	Analyst
Chromium	0.00301		0.00100	0.10	1	03/15/2017 15:07	WG960363	JPD

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3203901-9 03/13/17 21:17

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium-Low Level	U		0.00002	0.0000600

¹ Cp

² Tc

³ Ss

L894740-01 Original Sample (OS) • Duplicate (DUP)

(OS) L894740-01 03/13/17 21:58 • (DUP) R3203901-12 03/13/17 22:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium-Low Level	0.00107	0.00107	1	0		20

⁴ Cn

⁵ Sr

⁶ Qc

L895262-02 Original Sample (OS) • Duplicate (DUP)

(OS) L895262-02 03/14/17 00:50 • (DUP) R3203901-15 03/14/17 00:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium-Low Level	0.000144	0.000151	1	5		20

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3203901-10 03/13/17 21:25 • (LCSD) R3203901-11 03/13/17 21:33

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Hexavalent Chromium-Low Level	0.000500	0.000462	0.000464	92	93	90-110			1	20

L894750-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894750-01 03/13/17 23:11 • (MS) R3203901-13 03/13/17 23:20 • (MSD) R3203901-14 03/13/17 23:28

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium-Low Level	0.00100	ND	0.00107	0.00108	101	102	1	90-110			1	20



L895269-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L895269-01 03/14/17 01:39 • (MS) R3203901-16 03/14/17 01:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium-Low Level	0.00100	ND	0.00103	98	1	90-110	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3203587-2 03/15/17 09:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium-Low Level	U		0.00002	0.0000600

¹ Cp

² Tc

³ Ss

L895256-02 Original Sample (OS) • Duplicate (DUP)

(OS) L895256-02 03/15/17 09:47 • (DUP) R3203587-5 03/15/17 09:58

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium-Low Level	0.0000938	0.0000808	1	15		20

⁴ Cn

⁵ Sr

⁶ Qc

L895743-01 Original Sample (OS) • Duplicate (DUP)

(OS) L895743-01 03/15/17 13:45 • (DUP) R3203587-8 03/15/17 13:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium-Low Level	ND	0.0000266	1	0		20

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3203587-3 03/15/17 09:12 • (LCSD) R3203587-4 03/15/17 09:20

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Hexavalent Chromium-Low Level	0.000500	0.000451	0.000454	90	91	90-110			1	20

L895256-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L895256-03 03/15/17 10:30 • (MS) R3203587-6 03/15/17 10:40 • (MSD) R3203587-7 03/15/17 10:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium-Low Level	0.00100	0.000188	0.00120	0.00120	101	101	1	90-110			0	20



L895743-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L895743-02 03/15/17 14:01 • (MS) R3203587-9 03/15/17 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium-Low Level	0.00100	ND	0.00102	102	1	90-110	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3203597-1 03/15/17 14:37

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chromium	U		0.00032	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3203597-3 03/15/17 14:44 • (LCSD) R3203597-4 03/15/17 14:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chromium	0.0500	0.0531	0.0510	106	102	85-115			4	20

L895256-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L895256-01 03/15/17 14:53 • (MS) R3203597-5 03/15/17 14:57 • (MSD) R3203597-6 03/15/17 15:00

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chromium	0.0500	ND	0.0538	0.0548	106	108	1	70-130			2	20

⁷ Gl

⁸ Al

⁹ Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

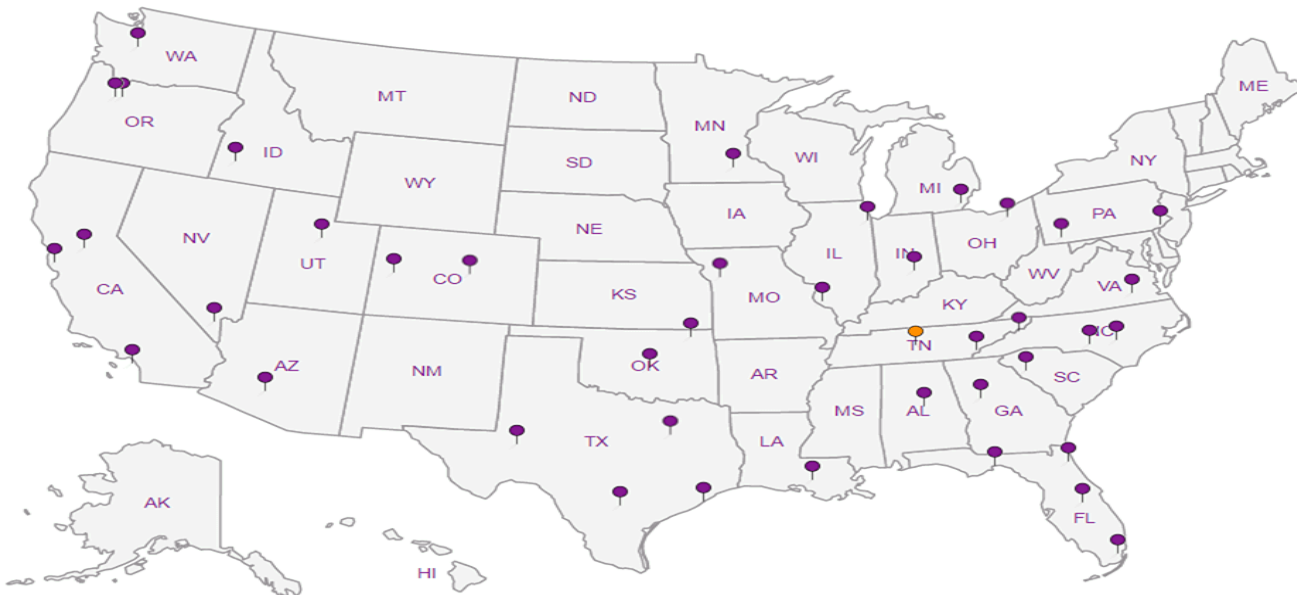
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Water Utility Services, Inc.
21615 Rhodes Rd.
Spring, TX 77388

Billing Information:
Water Utility Services
P.O. Box 2628
Spring, TX 77383

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# **LB 95256**
C016

Acctnum: **WATERSTX01**

Template:

Prelogin:

TSR: **C. McCord**

PB:

Shipped Via:

Report to:
Steve Grychka

Email To:
steve@waterutilityservice.com

Project Description: **Bridgestone MUD**

City/State
Collected:

Phone: **281-290-0704**

Client Project #

Lab Project #

Fax:

Collected by (print):
AC

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

___ Same Day ___ Five Day

___ Next Day ___ 5 Day (Rad Only)

___ Two Day ___ 10 Day (Rad Only)

___ Three Day

Date Results Needed

Immediately
Packed on Ice N ___ Y ___

No.
of
Cnts

Hexavalent Cr 218.6
Total Cr 300.8

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts
EST	G	DW		3-9-17	1220	2
WP3 GST	G	DW		1	1200	
WPI GST	G	DW		1	1141	

Remarks Sample # (lab only)

-01

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Blossay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	<input checked="" type="checkbox"/> NP	<input type="checkbox"/> Y	<input type="checkbox"/> N
COC Signed/Accurate:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> N
Bottles arrive intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> N
Correct bottles used:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> N
Sufficient volume sent:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> N
IF Applicable			
VOA Zero Headspace:	<input type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> N
Preservation Correct/Checked:	<input checked="" type="checkbox"/>	<input type="checkbox"/> Y	<input type="checkbox"/> N

Relinquished by: (Signature)

Date: **3-9-17**
Time: **15:35**

Received by: (Signature)

Trip Blank Received: Yes No
HCL/MeOH
TBR

Relinquished by: (Signature)

Date: **3/9/17**
Time: **17:45**

Received by: (Signature)

Temp: **JW °C**
2.1
Bottles Received: **6**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: _____
Time: _____

Received for lab by: (Signature)

Date: **3-10-17**
Time: **9:00**

Hold:

Condition:
 NCF OK

Jeremy W. Watkins

**ESC Lab Sciences
Non-Conformance Form**

Login #: L895256	Client: WATERSTX01	Date: 3/10/17	Evaluated by: Jeremy
------------------	--------------------	---------------	----------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
x Parameter(s) past holding time	Login Clarification Needed	Insufficient packing material around container
Improper temperature	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	
Improper preservation	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courrier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments: CR6 out of hold

Client informed by:	Call	Email	Voice Mail	Date: 3/10/17	Time: 1545
TSR Initials: Rod	Client Contact:				

Login Instructions:

Please log and run

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

Jeremy W. Watkins

**ESC Lab Sciences
Non-Conformance Form**

Login #: L895256	Client: WATERSTX01	Date: 3/10/17	Evaluated by: Jeremy
-------------------------	---------------------------	----------------------	-----------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	Insufficient packing material around container
Improper temperature	Chain of custody is incomplete	Insufficient packing material inside cooler
Improper container type	Please specify Metals requested.	Improper handling by carrier (FedEx / UPS / Courier)
Improper preservation	Please specify TCLP requested.	Sample was frozen
Insufficient sample volume.	Received additional samples not listed on coc.	Container lid not intact
Sample is biphasic.	Sample ids on containers do not match ids on coc	If no Chain of Custody:
Vials received with headspace.	Trip Blank not received.	Received by:
Broken container	Client did not "X" analysis.	Date/Time:
Broken container:	Chain of Custody is missing	Temp./Cont. Rec./pH:
Sufficient sample remains		Carrier:
		Tracking#

Login Comments:

- 1. CR6LL out of hold**
- 2. No analysis marked for WP3 GST or WP1 GST**

Client informed by:	Call	Email	Voice Mail	Date: 3/10/17	Time: 1547
TSR Initials: Rod	Client Contact:				

Login Instructions:

Please log all for CRG and CR6LL

This E-mail and any attached files are confidential, and may be copyright protected. If you are not the addressee, any dissemination of this communication is strictly prohibited. If you have received this message in error, please contact the sender immediately and delete/destroy all information received.

Water Utility Services Inc

Sample Delivery Group: L901956
Samples Received: 04/12/2017
Project Number:
Description: Bridgestone MUD

Report To: Mr. Steve Grychka
PO Box 2628
Spring, TX 77383

Entire Report Reviewed By:



Rodney Shinbaum
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹ Cp: Cover Page	1	
² Tc: Table of Contents	2	
³ Ss: Sample Summary	3	
⁴ Cn: Case Narrative	4	
⁵ Sr: Sample Results	5	
WP2 GST L901956-01	5	
⁶ Qc: Quality Control Summary	6	
Wet Chemistry by Method 218.6M	6	
Metals (ICPMS) by Method 200.8	8	
⁷ Gl: Glossary of Terms	9	
⁸ Al: Accreditations & Locations	10	
⁹ Sc: Chain of Custody	11	

SAMPLE SUMMARY



WP2 GST L901956-01 DW

Collected by: AC
 Collected date/time: 04/11/17 08:45
 Received date/time: 04/12/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Wet Chemistry by Method 218.6M	WG971336	1	04/18/17 10:11	04/18/17 10:11	AMC
Metals (ICPMS) by Method 200.8	WG971356	1	04/18/17 08:11	04/19/17 12:41	JPD

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Rodney Shinbaum
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Wet Chemistry by Method 218.6M

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis	Batch	Analyst
	mg/l		mg/l	mg/l		date / time		
Hexavalent Chromium-Low Level	0.000730	Q	0.0000600		1	04/18/2017 10:11	WG971336	AMC

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	Det. Limit	Reference Limit	Dilution	Analysis	Batch	Analyst
	mg/l		mg/l	mg/l		date / time		
Chromium	ND		0.00100	0.10	1	04/19/2017 12:41	WG971356	JPD

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3211560-1 04/18/17 08:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Hexavalent Chromium-Low Level	U		0.00002	0.0000600

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L901956-01 Original Sample (OS) • Duplicate (DUP)

(OS) L901956-01 04/18/17 10:11 • (DUP) R3211560-6 04/18/17 10:22

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium-Low Level	0.000730	0.000727	1	0		20

L902830-03 Original Sample (OS) • Duplicate (DUP)

(OS) L902830-03 04/18/17 13:00 • (DUP) R3211560-10 04/18/17 13:09

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Hexavalent Chromium-Low Level	ND	0.000	1	0		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211560-3 04/18/17 09:07 • (LCSD) R3211560-5 04/18/17 09:15

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Hexavalent Chromium-Low Level	0.000500	0.000470	0.000495	94	99	90-110			5	20

L902830-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L902830-02 04/18/17 11:07 • (MS) R3211560-7 04/18/17 11:18 • (MSD) R3211560-8 04/18/17 11:26

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Hexavalent Chromium-Low Level	0.00100	ND	0.00108	0.000975	108	97	1	90-110			10	20



[L901956-01](#)

L901747-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L901747-01 04/18/17 12:41 • (MS) R3211560-9 04/18/17 12:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>
Hexavalent Chromium-Low Level	0.00100	0.000550	0.00156	101	1	90-110	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3211880-1 04/19/17 12:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chromium	U		0.00032	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3211880-2 04/19/17 12:24 • (LCSD) R3211880-3 04/19/17 12:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chromium	0.0500	0.0476	0.0478	95	96	85-115			0	20

L903087-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L903087-01 04/19/17 12:31 • (MS) R3211880-4 04/19/17 12:34 • (MSD) R3211880-5 04/19/17 12:38

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Chromium	0.0500	ND	0.0466	0.0468	93	94	1	70-130			0	20

⁷ Gl

⁸ Al

⁹ Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier Description

Q	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
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¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

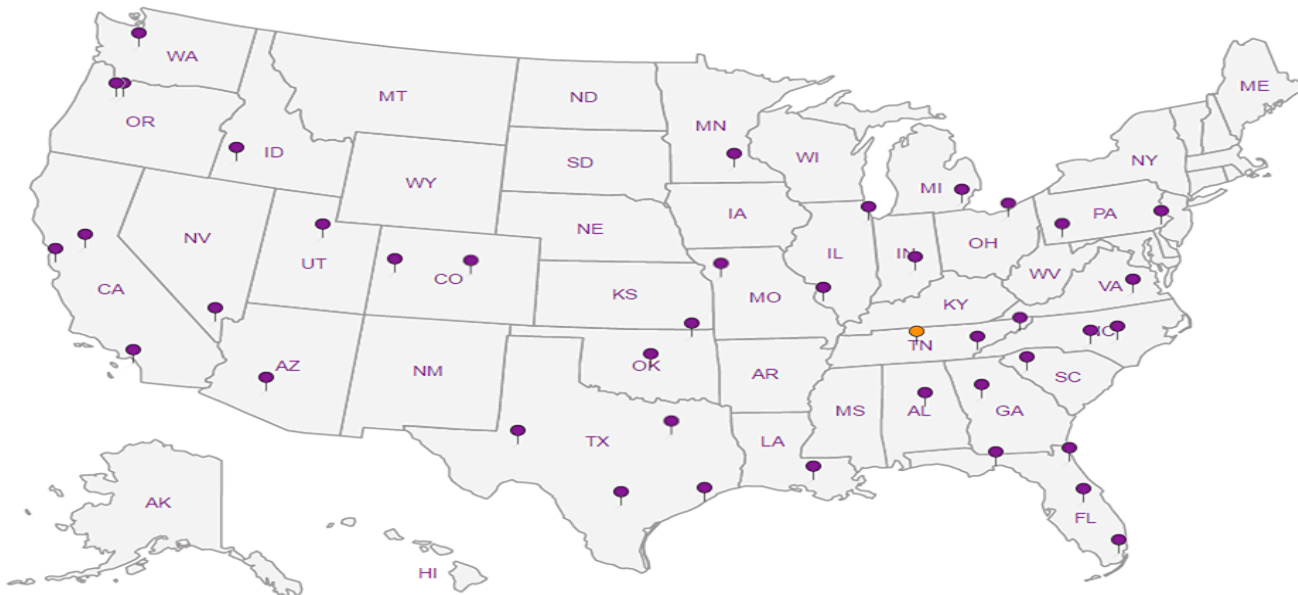
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Water Utility Services, Inc.
 21615 Rhodes Rd.
 Spring, TX 77388

Billing Information:
Water Utility Services
 P.O. Box 2628
 Spring, TX 77383

Pres
 Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___



YOUR LAB OF CHOICE
 12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

L# **L901956**

Table **1132**

Acctnum: **WATERSTX01**

Template:

Prelogin:

TSR: **C. McCord**

PB:

Shipped Via:

Report to:
Steve Grychka

Email To:
steve@waterutilityservice.com

Project Description: **Bridgestone MUD**

Phone: **281-290-0704**
 Fax:

Client Project #

City/State Collected:

Lab Project #

Collected by (print):
AC

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Date Results Needed

Immediately Packed on Ice N ___ Y ___

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
WP2 GST	G	DW		4-11-17	845 AM	2

Hexavalent Cr 218.6

Total Cr 200.8

- * Matrix:
- SS - Soil AIR - Air F - Filter
- GW - Groundwater B - Bioassay
- WW - WasteWater
- DW - Drinking Water
- OT - Other

Remarks:

Samples returned via:
 UPS FedEx Courier

Tracking #

pH _____ Temp _____
 Flow _____ Other _____

Sample Receipt Checklist
 COC Seal Present/Intact: Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N

Relinquished by: (Signature)

Date: **4-11-17**

Time: **15:30**

Received by: (Signature)

Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date: **4/11/17**

Time: **18:00**

Received by: (Signature)

Temp: **21°C** Bottles Received: **10/11**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **4/12/17** Time: **0845**

Hold:

Condition:
 NCF OK