



OGMCOAL DNR <ogmcoal@utah.gov>

Re: State Lab Results

Steve Christensen <stevechristensen@utah.gov>
To: "Madsen, Karin" <kmadsen@coalsource.com>
Cc: OGMCOAL DNR <ogmcoal@utah.gov>

Mon, Jun 4, 2018 at 9:14 AM

Hi Karin,

Here are the February, March and April DOGM samples for Crandall. Let me know if you have any trouble receiving/opening these.

Til next time,
Steve

On Tue, May 29, 2018 at 5:02 PM, Madsen, Karin <kmadsen@coalsource.com> wrote:

Afternoon Steve-

I need state lab results from February, March, and April, if you can send them please. Thanks!

Karin Odendahl-Madsen

Environmental Engineering Technician

UtahAmerican Energy Inc.

435-888-4026

--

Steve Christensen
Utah Division of Oil, Gas and Mining
1594 W North Temple, Suite 1210
Salt Lake City, Utah 84116
(801) 538-5350
stevechristensen@utah.gov

6 attachments

002 2-28-2018.PDF
89K

Pre-002 2-28-2018.PDF
87K

002-March2018.PDF
89K

Pre002-March2018.PDF

6/5/2018

State of Utah Mail - Re: State Lab Results

87K



002-April2018.PDF

89K



Pre002-April2018.PDF

89K



Final Results

Report To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Project ID: C2018-00642

Steve Christensen,

Your sample(s) submitted to Utah Public Health Laboratory (UPHL) on Thursday, March 1, 2018 were assigned the UPHL Project ID **C2018-00642**. Enclosed are the analytical results pertaining to that Project ID.

Herein are the results relating only to the sample(s) received and tested for the project C2018-00642. All associated analyses were performed following the UPHL Quality Assurance Plan. This report and its contents have been reviewed and approved by the appropriate Laboratory Staff and Supervisor(s). This report shall not be reproduced, except in full, without the written permission of UPHL.

If you have any questions regarding your results, please contact UPHL at (801) 965-2400 and reference the Project ID C2018-00642.

A handwritten signature in black ink, appearing to read 'Kyle Ashby', written over a horizontal line.

Reviewed by: Kyle Ashby
Reviewed on: 3/26/2018



Project Summary

Report To:

Steve Christensen (WT1177)
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Phone: 801-538-5262

Fax: 801-359-3940

E-mail: stevechristensen@utah.gov

Phone: 801-538-5262

Fax: 801-539-3940

E-mail: stevechristensen@utah.gov

Project ID: C2018-00642

<u>Sample #</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Facility</u>	<u>Sampling Point</u>	<u>Site Description</u>
2114615	02/28/18	03/01/18	N/A	N/A	002
2114617	02/28/18	03/01/18	N/A	N/A	002

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2114615 Text ID: TCH18-0232 Matrix: Water Bottle Type: Total Chemistry - 1 L unpreserved plastic SDWIS Type: Private Investigative	Date Collected 2/28/2018 10:40:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 375.2

Analyzed By: Keith Henderson Analysis Date: 03/19/2018 Analysis Batch: EPA375.2-20180321-1 Instrument ID: CHM_LACHAT_02	Reviewed By: Boyd Neilson Reviewed Date: 03/22/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Sulfate</td> <td>135 mg/L</td> <td>1</td> <td></td> <td>12.4 mg/L</td> <td>20.00 mg/L</td> <td>20.0 mg/L</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Sulfate	135 mg/L	1		12.4 mg/L	20.00 mg/L	20.0 mg/L	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Sulfate	135 mg/L	1		12.4 mg/L	20.00 mg/L	20.0 mg/L									

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2114617 Text ID: FIL18-0145 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 2/28/2018 10:40:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - Turbidity for Metals

Analyzed By: David Schoettmer Analysis Date: 03/01/2018 Analysis Batch: EPA180.1_M-20180301-2 Instrument ID:	Reviewed By: Kyle Ashby Reviewed Date: 03/16/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Turbidity</td> <td><1 NTU</td> <td>1</td> <td></td> <td>0.0382 NTU</td> <td>1.0 NTU</td> <td>1.0 NTU</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU									

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 03/02/2018 Analysis Batch: EPA200.8-20180305-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Kyle Ashby Reviewed Date: 03/26/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Aluminum</td> <td>848 µg/L</td> <td>10.0</td> <td></td> <td>5 µg/L</td> <td>10 µg/L</td> <td>100.0 µg/L</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Aluminum	848 µg/L	10.0		5 µg/L	10 µg/L	100.0 µg/L	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Aluminum	848 µg/L	10.0		5 µg/L	10 µg/L	100.0 µg/L									

Analytical Report

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2114617 (Continued) Text ID: FIL18-0145 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 2/28/2018 10:40:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 03/06/2018 Analysis Batch: EPA200.8_M-20180307-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Kyle Ashby Reviewed Date: 03/26/2018 Prep Method: Prep Batch: Prep Date:
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Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Iron	129 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L

Report Comments

This report contains only the results for analyses requested and tested.

Unless otherwise noted:

- Samples were received in acceptable condition.
- Samples have not been blank corrected.
- All Quality Control Samples processed yielded acceptable results.

Report Symbol Definitions

MDL - Method Detection Limit, a statistically estimated concentration for instrument/method/matrix sensitivity.

MRL - Method Reporting Limit, the minimum concentration that can be reported as a quantitated value.

SRL - Sample Reporting Limit, the minimum concentration that can be reported as a quantitated value taking into account limitations inherent in the sample matrix.

ND - Not Detected, tested result was not detected above MDL or MRL.

< - Less than, tested result is less than the numerical value.



Final Results

Report To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Project ID: C2018-00643

Steve Christensen,

Your sample(s) submitted to Utah Public Health Laboratory (UPHL) on Thursday, March 1, 2018 were assigned the UPHL Project ID **C2018-00643**. Enclosed are the analytical results pertaining to that Project ID.

Herein are the results relating only to the sample(s) received and tested for the project C2018-00643. All associated analyses were performed following the UPHL Quality Assurance Plan. This report and its contents have been reviewed and approved by the appropriate Laboratory Staff and Supervisor(s). This report shall not be reproduced, except in full, without the written permission of UPHL.

If you have any questions regarding your results, please contact UPHL at (801) 965-2400 and reference the Project ID C2018-00643.

A handwritten signature in black ink, appearing to read 'Kyle Ashby', written over a horizontal line.

Reviewed by: Kyle Ashby
Reviewed on: 3/26/2018



Project Summary

Report To:

Steve Christensen (WT1177)
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Phone: 801-538-5262

Fax: 801-359-3940

E-mail: stevechristensen@utah.gov

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Phone: 801-538-5262

Fax: 801-539-3940

E-mail: stevechristensen@utah.gov

Project ID: C2018-00643

<u>Sample #</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Facility</u>	<u>Sampling Point</u>	<u>Site Description</u>
2114616	02/28/18	03/01/18	N/A	N/A	PRE-002
2114618	02/28/18	03/01/18	N/A	N/A	PRE-002

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2114616 Text ID: TCH18-0233 Matrix: Water Bottle Type: Total Chemistry - 1 L unpreserved plastic SDWIS Type: Private Investigative	Date Collected 2/28/2018 10:40:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 375.2

Analyzed By: Keith Henderson Analysis Date: 03/19/2018 Analysis Batch: EPA375.2-20180321-1 Instrument ID: CHM_LACHAT_02	Reviewed By: Boyd Neilson Reviewed Date: 03/22/2018 Prep Method: Prep Batch: Prep Date:														
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Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Sulfate	136 mg/L	1		12.4 mg/L	20.00 mg/L	20.0 mg/L									

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2114618 Text ID: UFL18-0045 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 2/28/2018 10:40:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - Turbidity for Metals

Analyzed By: David Schoettmer Analysis Date: 03/01/2018 Analysis Batch: EPA180.1_M-20180301-2 Instrument ID:	Reviewed By: Kyle Ashby Reviewed Date: 03/16/2018 Prep Method: Prep Batch: Prep Date:														
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Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU									

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 03/06/2018 Analysis Batch: EPA200.8_M-20180307-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Kyle Ashby Reviewed Date: 03/26/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Iron</td> <td>978 µg/L</td> <td>1.00</td> <td></td> <td>15 µg/L</td> <td>30 µg/L</td> <td>30.0 µg/L</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Iron	978 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Iron	978 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L									

Report Comments

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Report Symbol Definitions

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SRL - Sample Reporting Limit, the minimum concentration that can be reported as a quantitated value taking into account limitations inherent in the sample matrix.

ND - Not Detected, tested result was not detected above MDL or MRL.

< - Less than, tested result is less than the numerical value.

U - Not detected/reported



Final Results

Report To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Project ID: C2018-00965

Steve Christensen,

Your sample(s) submitted to Utah Public Health Laboratory (UPHL) on Thursday, March 29, 2018 were assigned the UPHL Project ID **C2018-00965**. Enclosed are the analytical results pertaining to that Project ID.

Herein are the results relating only to the sample(s) received and tested for the project C2018-00965. All associated analyses were performed following the UPHL Quality Assurance Plan. This report and its contents have been reviewed and approved by the appropriate Laboratory Staff and Supervisor(s). This report shall not be reproduced, except in full, without the written permission of UPHL.

If you have any questions regarding your results, please contact UPHL at (801) 965-2400 and reference the Project ID C2018-00965.

A handwritten signature in black ink, appearing to read 'Kyle Ashby', written over a horizontal line.

Reviewed by: Kyle Ashby
Reviewed on: 4/9/2018



Project Summary

Report To:

Steve Christensen (WT1177)
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Phone: 801-538-5262

Fax: 801-359-3940

E-mail: stevechristensen@utah.gov

Phone: 801-538-5262

Fax: 801-539-3940

E-mail: stevechristensen@utah.gov

Project ID: C2018-00965

<u>Sample #</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Facility</u>	<u>Sampling Point</u>	<u>Site Description</u>
2118255	03/28/18	03/29/18	N/A	N/A	002
2118259	03/28/18	03/29/18	N/A	N/A	002

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2118255 Text ID: TCH18-0381 Matrix: Water Bottle Type: Total Chemistry - 1 L unpreserved plastic SDWIS Type: Private Investigative	Date Collected 3/28/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 375.2

Analyzed By: Keith Henderson Analysis Date: 04/03/2018 Analysis Batch: EPA375.2-20180403-1 Instrument ID: CHM_LACHAT_02	Reviewed By: Boyd Neilson Reviewed Date: 04/05/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Sulfate</td> <td>129 mg/L</td> <td>1</td> <td></td> <td>10.2 mg/L</td> <td>20.00 mg/L</td> <td>20.0 mg/L</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Sulfate	129 mg/L	1		10.2 mg/L	20.00 mg/L	20.0 mg/L	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Sulfate	129 mg/L	1		10.2 mg/L	20.00 mg/L	20.0 mg/L									

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2118259 Text ID: UFL18-0102 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 3/28/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - Turbidity for Metals

Analyzed By: Stefan Liao Analysis Date: 03/29/2018 Analysis Batch: EPA180.1_M-20180329-1 Instrument ID:	Reviewed By: Kyle Ashby Reviewed Date: 04/03/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Turbidity</td> <td><1 NTU</td> <td>1</td> <td></td> <td>0.0382 NTU</td> <td>1.0 NTU</td> <td>1.0 NTU</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU									

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 04/05/2018 Analysis Batch: EPA200.8-20180405-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Stefan Liao Reviewed Date: 04/06/2018 Prep Method: Prep Batch: Prep Date:														
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Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Aluminum	601 µg/L	5.00		5 µg/L	10 µg/L	50.0 µg/L									



Analytical Report

Project ID: C2018-00965

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2118259 (Continued) Text ID: UFL18-0102 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 3/28/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 04/05/2018 Analysis Batch: EPA200.8_M-20180405-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Stefan Liao Reviewed Date: 04/06/2018 Prep Method: Prep Batch: Prep Date:
---	--

Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Iron	172 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L

Report Comments

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Final Results

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Project ID: C2018-00966

Steve Christensen,

Your sample(s) submitted to Utah Public Health Laboratory (UPHL) on Thursday, March 29, 2018 were assigned the UPHL Project ID **C2018-00966**. Enclosed are the analytical results pertaining to that Project ID.

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If you have any questions regarding your results, please contact UPHL at (801) 965-2400 and reference the Project ID C2018-00966.

A handwritten signature in black ink, appearing to read 'Kyle Ashby', written over a horizontal line.

Reviewed by: Kyle Ashby
Reviewed on: 4/9/2018



Project Summary

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Project ID: C2018-00966

<u>Sample #</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Facility</u>	<u>Sampling Point</u>	<u>Site Description</u>
2118256	03/28/18	03/29/18	N/A	N/A	PRE-002
2118261	03/28/18	03/29/18	N/A	N/A	PRE-002

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2118256 Text ID: TCH18-0382 Matrix: Water Bottle Type: Total Chemistry - 1 L unpreserved plastic SDWIS Type: Private Investigative	Date Collected 3/28/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 375.2

Analyzed By: Keith Henderson Analysis Date: 04/03/2018 Analysis Batch: EPA375.2-20180403-1 Instrument ID: CHM_LACHAT_02		Reviewed By: Boyd Neilson Reviewed Date: 04/05/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Sulfate	130 mg/L	1		10.2 mg/L	20.00 mg/L	20.0 mg/L

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2118261 Text ID: UFL18-0103 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 3/28/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - Turbidity for Metals

Analyzed By: Stefan Liao Analysis Date: 03/29/2018 Analysis Batch: EPA180.1_M-20180329-1 Instrument ID:		Reviewed By: Kyle Ashby Reviewed Date: 04/03/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 04/05/2018 Analysis Batch: EPA200.8_M-20180405-1 Instrument ID: CHM_AGILENT_7700		Reviewed By: Stefan Liao Reviewed Date: 04/06/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Iron	1050 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L

Report Comments

This report contains only the results for analyses requested and tested.

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- Samples were received in acceptable condition.
- Samples have not been blank corrected.
- All Quality Control Samples processed yielded acceptable results.

Report Symbol Definitions

MDL - Method Detection Limit, a statistically estimated concentration for instrument/method/matrix sensitivity.

MRL - Method Reporting Limit, the minimum concentration that can be reported as a quantitated value.

SRL - Sample Reporting Limit, the minimum concentration that can be reported as a quantitated value taking into account limitations inherent in the sample matrix.

ND - Not Detected, tested result was not detected above MDL or MRL.

< - Less than, tested result is less than the numerical value.



Final Results

Report To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Project ID: C2018-01485

Steve Christensen,

Your sample(s) submitted to Utah Public Health Laboratory (UPHL) on Monday, April 30, 2018 were assigned the UPHL Project ID **C2018-01485**. Enclosed are the analytical results pertaining to that Project ID.

Herein are the results relating only to the sample(s) received and tested for the project C2018-01485. All associated analyses were performed following the UPHL Quality Assurance Plan. This report and its contents have been reviewed and approved by the appropriate Laboratory Staff and Supervisor(s). This report shall not be reproduced, except in full, without the written permission of UPHL.

If you have any questions regarding your results, please contact UPHL at (801) 965-2400 and reference the Project ID C2018-01485.

A handwritten signature in black ink, appearing to read 'Kyle Ashby', written over a horizontal line.

Reviewed by: Kyle Ashby
Reviewed on: 5/10/2018



Project Summary

Report To:

Steve Christensen (WT1177)
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Phone: 801-538-5262

Fax: 801-359-3940

E-mail: stevechristensen@utah.gov

Phone: 801-538-5262

Fax: 801-539-3940

E-mail: stevechristensen@utah.gov

Project ID: C2018-01485

<u>Sample #</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Facility</u>	<u>Sampling Point</u>	<u>Site Description</u>
2122511	04/25/18	04/30/18	N/A	N/A	002
2122513	04/25/18	04/30/18	N/A	N/A	002

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2122511 Text ID: TCH18-0680 Matrix: Water Bottle Type: Total Chemistry - 1 L unpreserved plastic SDWIS Type: Private Investigative	Date Collected 4/25/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 375.2

Analyzed By: Keith Henderson Analysis Date: 05/07/2018 Analysis Batch: EPA375.2-20180507-1 Instrument ID: CHM_LACHAT_02		Reviewed By: Boyd Neilson Reviewed Date: 05/10/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Sulfate	132 mg/L	1		10.2 mg/L	20.00 mg/L	20.0 mg/L

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2122513 Text ID: UFL18-0172 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 4/25/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - Turbidity for Metals

Analyzed By: Stefan Liao Analysis Date: 04/30/2018 Analysis Batch: EPA180.1_M-20180430-1 Instrument ID:		Reviewed By: Kyle Ashby Reviewed Date: 05/02/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 04/30/2018 Analysis Batch: EPA200.8-20180501-1 Instrument ID: CHM_AGILENT_7700		Reviewed By: Kyle Ashby Reviewed Date: 05/07/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Selenium	<1.00 µg/L	1.00	U	0.5 µg/L	1 µg/L	1.0 µg/L



Analytical Report

Project ID: C2018-01485

Facility: N/A Sampling Point: N/A Site Description: 002	
Sample ID: 2122513 (Continued) Text ID: UFL18-0172 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 4/25/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 04/30/2018 Analysis Batch: EPA200.8-20180501-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Kyle Ashby Reviewed Date: 05/07/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Aluminum</td> <td>636 µg/L</td> <td>5.00</td> <td></td> <td>5 µg/L</td> <td>10 µg/L</td> <td>50.0 µg/L</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Aluminum	636 µg/L	5.00		5 µg/L	10 µg/L	50.0 µg/L	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Aluminum	636 µg/L	5.00		5 µg/L	10 µg/L	50.0 µg/L									

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 05/01/2018 Analysis Batch: EPA200.8_M-20180501-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Kyle Ashby Reviewed Date: 05/07/2018 Prep Method: Prep Batch: Prep Date:														
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result</th> <th>Dil Fac</th> <th>Qualifier</th> <th>MDL</th> <th>MRL</th> <th>SRL</th> </tr> </thead> <tbody> <tr> <td>Iron</td> <td>96.7 µg/L</td> <td>1.00</td> <td></td> <td>15 µg/L</td> <td>30 µg/L</td> <td>30.0 µg/L</td> </tr> </tbody> </table>	Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL	Iron	96.7 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L	
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL									
Iron	96.7 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L									

Report Comments

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- Samples have not been blank corrected.
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Final Results

Report To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

Steve Christensen
DEPT OF NATURAL RESOURCES-OGM
1594 W NORTH TEMPLE-SUIT 1210
Salt Lake City, UT 84114

Project ID: C2018-01486

Steve Christensen,

Your sample(s) submitted to Utah Public Health Laboratory (UPHL) on Monday, April 30, 2018 were assigned the UPHL Project ID **C2018-01486**. Enclosed are the analytical results pertaining to that Project ID.

Herein are the results relating only to the sample(s) received and tested for the project C2018-01486. All associated analyses were performed following the UPHL Quality Assurance Plan. This report and its contents have been reviewed and approved by the appropriate Laboratory Staff and Supervisor(s). This report shall not be reproduced, except in full, without the written permission of UPHL.

If you have any questions regarding your results, please contact UPHL at (801) 965-2400 and reference the Project ID C2018-01486.

A handwritten signature in black ink, appearing to read 'Kyle Ashby', written over a horizontal line.

Reviewed by: Kyle Ashby
Reviewed on: 5/10/2018



Project Summary

Report To:

Steve Christensen (WT1177)
DEPT OF NATURAL RESOURCES-OGM (WT1177)
1594 W NORTH TEMPLE-SUITE 1210
Salt Lake City, UT 84114

Bill To:

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Phone: 801-538-5262

Fax: 801-539-3940

E-mail: stevechristensen@utah.gov

Project ID: C2018-01486

<u>Sample #</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Facility</u>	<u>Sampling Point</u>	<u>Site Description</u>
2122512	04/25/18	04/30/18	N/A	N/A	PRE-002
2122514	04/25/18	04/30/18	N/A	N/A	PRE-002

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2122512 Text ID: TCH18-0681 Matrix: Water Bottle Type: Total Chemistry - 1 L unpreserved plastic SDWIS Type: Private Investigative	Date Collected 4/25/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 375.2

Analyzed By: Keith Henderson Analysis Date: 05/07/2018 Analysis Batch: EPA375.2-20180507-1 Instrument ID: CHM_LACHAT_02		Reviewed By: Boyd Neilson Reviewed Date: 05/10/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Sulfate	136 mg/L	1		10.2 mg/L	20.00 mg/L	20.0 mg/L

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2122514 Text ID: UFL18-0173 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 4/25/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - Turbidity for Metals

Analyzed By: Stefan Liao Analysis Date: 04/30/2018 Analysis Batch: EPA180.1_M-20180430-1 Instrument ID:		Reviewed By: Kyle Ashby Reviewed Date: 05/02/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Turbidity	<1 NTU	1		0.0382 NTU	1.0 NTU	1.0 NTU

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 04/30/2018 Analysis Batch: EPA200.8-20180501-1 Instrument ID: CHM_AGILENT_7700		Reviewed By: Kyle Ashby Reviewed Date: 05/07/2018 Prep Method: Prep Batch: Prep Date:				
Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Aluminum	<10.0 µg/L	1.00	U	5 µg/L	10 µg/L	10.0 µg/L
Selenium	<1.00 µg/L	1.00	U	0.5 µg/L	1 µg/L	1.0 µg/L



Analytical Report

Project ID: C2018-01486

Facility: N/A Sampling Point: N/A Site Description: PRE-002	
Sample ID: 2122514 (Continued) Text ID: UFL18-0173 Matrix: Water, Non-filtered Bottle Type: UnFiltered water for Drinking Water SDWIS Type: Private Investigative	Date Collected 4/25/2018 10:15:00AM Collected By: JE COC Initiated: Yes Condition of Seal: Not Present

Analysis Method - EPA 200.8

Analyzed By: Robert Lo Analysis Date: 05/01/2018 Analysis Batch: EPA200.8_M-20180501-1 Instrument ID: CHM_AGILENT_7700	Reviewed By: Kyle Ashby Reviewed Date: 05/07/2018 Prep Method: Prep Batch: Prep Date:
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Analyte	Result	Dil Fac	Qualifier	MDL	MRL	SRL
Iron	901 µg/L	1.00		15 µg/L	30 µg/L	30.0 µg/L

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