

STATE OF
COLORADO

Czapla - DNR, Dustin <dustin.czapla@state.co.us>

RE: La Plata Project, P-2023-012

1 message

Stephen E. Glass <sglass@gaultgroup.com>

Tue, Sep 19, 2023 at 7:13 AM

To: "Czapla - DNR, Dustin" <dustin.czapla@state.co.us>

Cc: Jeff Cary <jcary@truepointex.com>, Scott Petsel <spetsel@mmgsilver.com>

Good Morning Dustin

Per our telephone conversation, I have attached the results of two years of Metallic's water sampling activities in the La Platas. While the program resumed in 2023, we have yet to receive the lab results from the first round of sampling. We can provide the lab results to you upon our receipt, and then forward the full report(s) when received.

I reviewed Mr. Miller's letter dated September 7, 2023, and discussed his concerns with him via telephone on Thursday, September 14, 2023. As a means of addressing a portion Mr. Miller's concerns, Metallic offered to add Mr. Miller's well to their list of water quality sample locations. Metallic proposed a pre-drilling sample of his well to establish base-line, addition of his well to the twice-yearly sample gathering, and the continuation of well sampling for a year following cessation of drilling at Copper Hill. Mr. Hill found this offer acceptable.

With regard to the various other points in Mr. Miller's letter, we are standing by the points presented in Gault Group's letter of August 30, 2023 regarding the adequacy of the steps Metallic is taking to ensure the maintenance of local water quality and quantity.

Thank you, and please let me know what additional information you might need.

Regards,

Steve

Stephen E. Glass

President

Gault Group, LLC.

Phoenix, Arizona

(970) 565-1222

Cell (970) 739-8392

www.gaultgroup.com



February 12, 2020

Scott Petsel

**Re: Water Sampling Report
Bedrock Creek
La Plata Canyon, Colorado 81301**

Dear Mr. Petsel:

Please find enclosed are the results for the baseline water quality assessment performed in the vicinity of the Allard Mine within La Plata Canyon, Colorado. This assessment was performed on August 29, 2019 and consisted of five samples as shown on Figure 1. Sample 1 was collected directly

We appreciate this opportunity to assist you on this project. Please contact us at (970) 259-9595 if you have any questions or require additional information.

Respectfully,

A handwritten signature in black ink that reads "Clinton Casey".

Clinton Casey, EP
Staff Scientist

Figures

- Figure 1. Topographic Location Map
Figure 2 Sampling Location Map

Appendices

- Appendix A Figures
Appendix B Tables
Appendix C Laboratory Results, Chains of Custody

1.0 INTRODUCTION

At the request of Scott Petsel SME Environmental, Inc. (SME) conducted field screening and water sample collection activities. Enclosed are the results for the baseline water quality assessment performed in the vicinity of the Allard Mine within La Plata Canyon, Colorado. This assessment was performed on August 29, 2019 and consisted of five samples.

The location of the site is depicted on [Figure 1](#) (Topographic Location Map), and the locations of samples within the TP are depicted in [Figure 2](#) (Sample Location Map).

1.1 Purpose

The purpose of this investigation was to gather available information to characterize the baseline water quality within the immediate watershed of the potential project area.

2.0 SAMPLING

Field activities are described in the sections below.

2.1 Water Sampling and Observation Methods

Soil sampling was conducted on August 29, 2019 by SME personnel. Sample locations are presented in [Figure 2](#), [Appendix A](#).

Water Sampling

The surface water samples were collected in five locations to gather a representation of existing water chemistry and potential impacts to the La Plata River. Each sample was collected with new clean containers provided by green analytical and the sampler used new latex gloves at each sampling location.

All lab samples were labeled and placed in an insulated cooler with ice packs in preparation for lab submittal. The coolers containing the samples were transferred to Green Analytical Laboratory (Green) in Durango, Colorado under standard chain-of-custody procedures for laboratory analysis.

Non-disposable tools which came into contact with the samples, such as the shovel, were decontaminated between samples. Disposable sampling items such as nitrile gloves were placed in garbage bags and disposed of as municipal trash.

Field measurements were taken in situ at the time of sample collection for pH and temperature using an Oakton Handheld ECOTestr pH2+. Visual observation were also performed and noted at each sampling location at the time of site visit.

3.0 RESULTS

Sample locations are presented in [Figure 2](#), [Appendix A](#). For a summary of laboratory analytical results, please see [Table 1](#) Laboratory Results: Field Data, [Table 3](#) Laboratory Results: General Chemistry, [Table 3](#) Laboratory Results: Metals, which are also attached in [Appendix B](#).

4.0 DISCUSSION/CONCLUSION

Concentrations of potential contaminants were compared to the appropriate table within Regulation No. 34-Classification and numeric Standards for San Juan River and Dolores River Basins (5CCR 1002-34), which are utilized by the Colorado Department of Health and Environment (CDPHE) Water Quality Control Division (WQCD). These regulations establish classifications and numeric standards for the San Juan and the Dolores River Basins, including all tributaries and standing bodies of water south of the northern Dolores County lines, these numeric standards are assigned to determine the allowable concentrations of various parameters and many of the regulatory standards are calculated based upon the chemistry of the waters sampled. Due to the location of this study the results were compared to Table COSJLP01, which is described as the mainstream of the La Plata River, including all wetlands and tributaries from the source to the Hay Gulch diversion south of Hesperus.

All of the parameters sampled were within regulatory standards for this waterway except for the pH above the waterfall (sample location 2), which had a pH of 4.2 and 6.5 is the minimum pH for this section of the La Plata River. Although this is above the level for the La Plata river this reading was taken fairly high in the watershed from the main drainage in Bedrock Creek and above the majority of known historical mining activities. Therefore, this low pH is not likely the result of mining activities. Other findings of note are a high concentration of dissolved solids and a high level of hardness being released from the Adit (sample location 1). In particular a high amount of sulfates and calcium carbonates were observed, which are likely increasing the pH of these waters below the confluence of waters from the adit. Mineral deposition within the streambed was also observed at the Adit and above the waterfall.

Note that this environmental sampling event represents only a snapshot into the water chemistry at these locations and within this basin. The process used in this investigation is an attempt to control the degree to which uncertainty in data affects the outcomes of decisions that are based on those data. It should also be emphasized that only a representative number of samples were

collected and analyzed, and SME considers it a possibility that there may be instances of water contamination at the site which may exceed regulatory limits.

5.0 LIMITATIONS

Variations in site conditions may occur and those not encountered during this investigation may be observed during future activities at the site. This investigation did not include an assessment of subsurface conditions or contaminants other than the areas that were investigated by the sampling effort. SME's conclusions and recommendations are based upon limited field screening, sampling, and analysis. This investigation does not guarantee the absence of contaminants throughout the target property or within the surface waters.

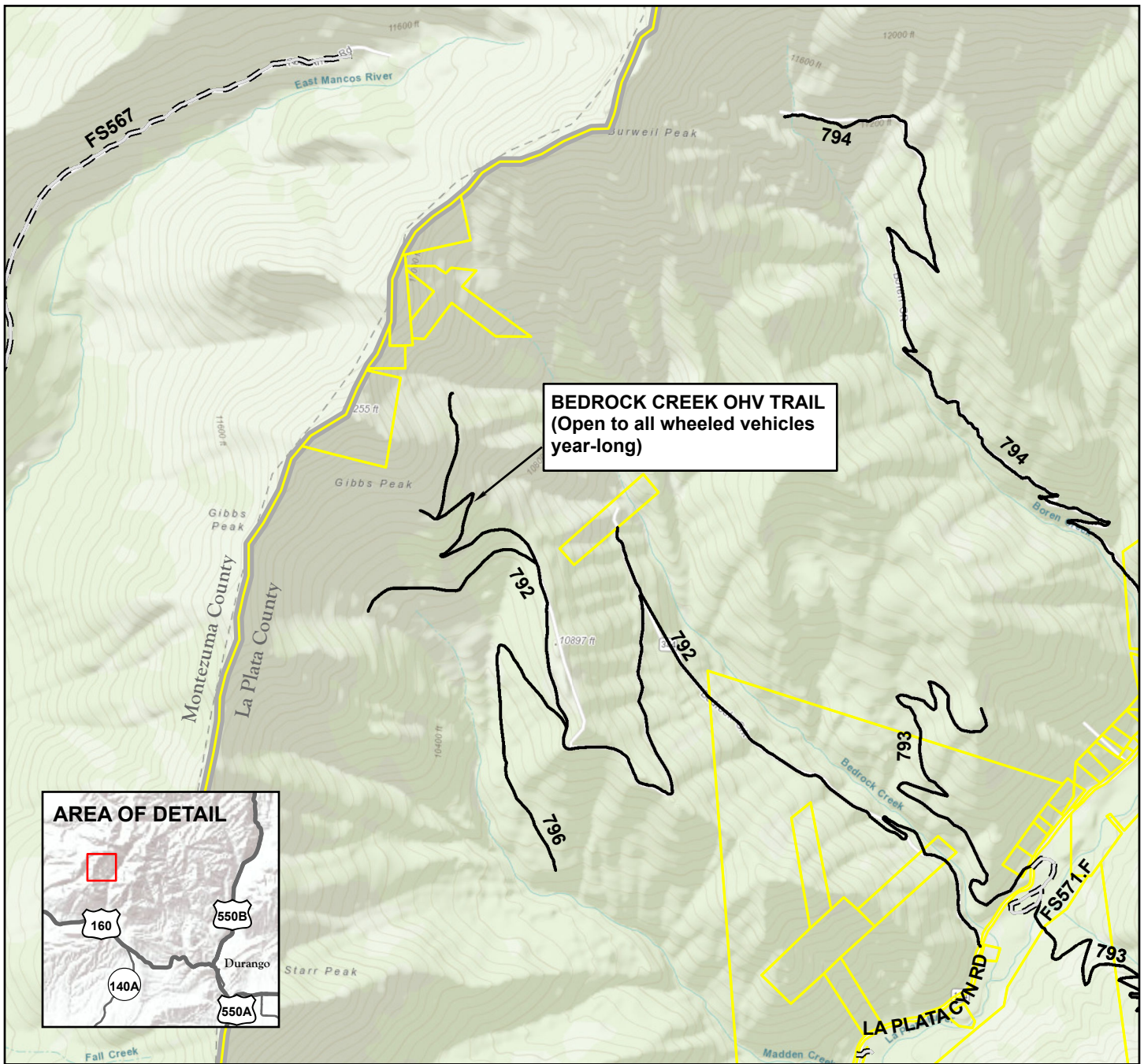
6.0 REFERENCES

Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division. 2015. Regulation No. 34 - Classifications and Numeric Standards for San Juan River and Dolores River Basins (5 CCR 1002-34). CDPHE, Denver, Colorado.

7.0 APPENDICES

APPENDIX A.

Figures



Motor Vehicle Use Map: Roads

— Paved Road

— Dirt Road, Suitable for
Passenger Car

— Gravel Road, Suitable for
Passenger Car

— Road, Not Maintained for
Passenger Car

— Motor Vehicle Use Map:
Trails

— Parcel Boundary

— County Boundary



ENVIRONMENTAL CONSULTANTS

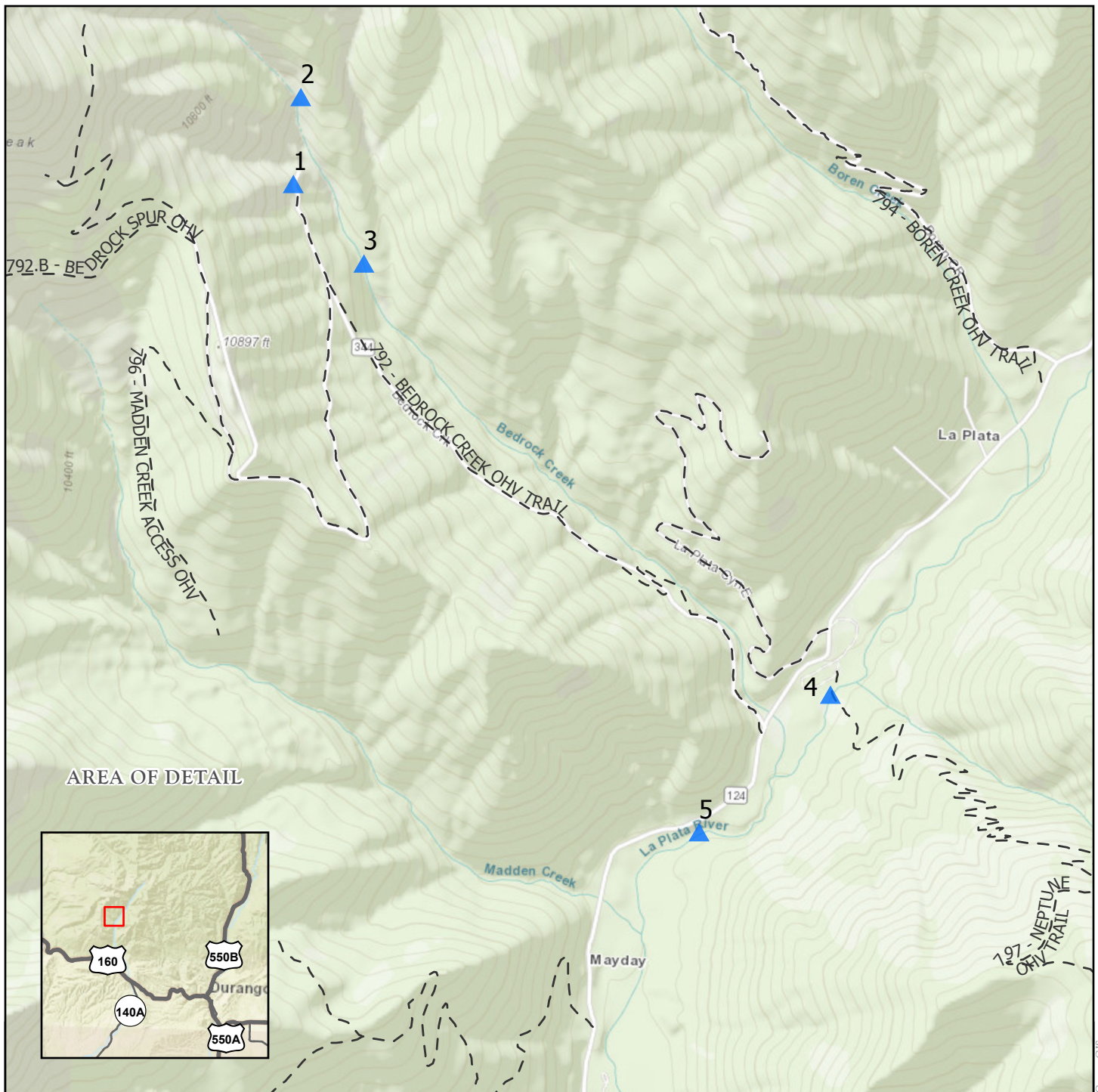
679 East 2nd Ave. Unit E2, Durango, Colorado 81301
www.sme-env.com (970) 259-9595

Drawn by:	Rvwd. by:	Project No.:
A. Riling	SM	xxxxxx
Date:	Rsvd. Date:	Scale:
6/11/2019		1:24,000

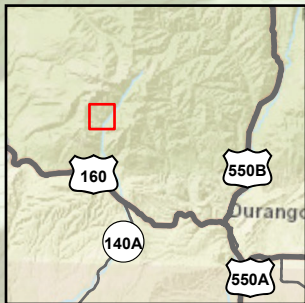
PRELIMINARY ACCESS MAP

ALLARD PROJECT
SAN JUAN NATIONAL FOREST
LA PLATA COUNTY, COLORADO

**FIGURE
1**



AREA OF DETAIL



- Trail
- Parcel Boundary
- ▲ Surface Water Sample

SAMPLE NUMBER	SAMPLE NAME
1	ADIT
2	ABOVE WATERFALL
3	DOWNSTREAM OF MINE
4	LA PLATA UPSTREAM
5	LA PLATA DOWNSTREAM



679 East 2nd Ave. Unit E2, Durango, Colorado 81301
www.sme-env.com (970) 259-9595

Drawn by:	Rvwd. by:	Project No.:
A. Riling	SM	190024
Date:	Rsvd. Date:	Scale:
9/20/2019		1:18,000
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div> <div style="display: flex; align-items: center;"> <div style="width: 100px; border-bottom: 1px solid black; margin-right: 5px;"></div> <div style="text-align: center;"> 0 750 1,500 Feet </div> </div> </div> </div>		

SAMPLE MAP

ALLARD CLAIM
SAN JUAN NATIONAL FOREST
LA PLATA COUNTY, COLORADO

FIGURE
1

APPENDIX B.

Tables

Table 1. Field Data

Sample Number	Date	Sample Type	pH	Temp (Celsius)	Visual Observations
Adit (1)	8/29/2019	Grab	7.6	10	Significant Orange Precipitates
Above Waterfall(2)	8/29/2019	Grab	4.2	13	Minor Orange Precipitates
Downstream of Mine (3)	8/29/2019	Grab	6.4	11.3	No precipitates observed
La Plata River- Upstream (4)	8/29/2019	Grab	8	12.7	No precipitates observed
La Plata River- Downstream (5)	8/29/2019	Grab	7.7	11.1	No precipitates observed
CDPHE: Regulatory Standards	NA	NA	6.5-9.0	17	NA

Table 2. Laboratory Results General Chemistry										
			Analyte	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Carbonate as CaCO3	Alkalinity, Hydroxide as CaCO3	Alkalinity, Total as CaCO3	Total Dissolved Solids	Total Suspended Solids	Sulfate
			Method	2320 B				EPA 160.1	EPA 160.2	EPA 300.0
Sample	Date	Sample Type								
Adit (1)	8/29/2019	Grab		105	ND	ND	105	445	18	232
Above Waterfall(2)	8/29/2019	Grab		ND	ND	ND	ND	99.9	4.4	46.9
Downstream of Mine (3)	8/29/2019	Grab		10	ND	ND	ND	150	ND	59.2
La Plata River- Upstream (4)	8/29/2019	Grab		39	ND	ND	39	75	ND	22
La Plata River- Downstream (5)	8/29/2019	Grab		40	ND	ND	40	85	ND	21.5
CDPHE: Regulatory Standards	NA	NA		NA	NA	NA	NA	NA	NA	250

NA = No regulatory standard.

ND = Analyte was not detected at method detection limit

*EPA Regional Screening Level Summary Table - Residential Soil with Target Hazard Quotient of 01 (November 2018)

Table 3. Laboratory Results Metals														
			Analyte	Hardness as CaCO3	Aluminum	Calcium	Iron	Magnesium	Arsenic	Cadmium	Copper	Lead	Manganese	Zinc
			Method	2340 B	EPA 200.7		EPA 200.7		EPA 200.8					
Sample	Date	Sample Type												
Adit (1)	8/29/2019	Grab		366.0	0.5	118.0	6.1	17.4	0.0162	ND	0.001	ND	0.600	0.104
CDPHE: Regulatory Standards-acute				NA	20220.6	NA	300.0	NA	NA	NA	45.600	NA	50.000	520.000
CDPHE: Regulatory Standards-chronic				NA	2886.7	NA	300.0	NA	0.02 (total)	NA	27.100	NA	50.000	394.400
Above Waterfall(2)	8/29/2019	Grab		37.2	2.8	12.8	1.0	1.3	ND	0.001	0.395	0.007	0.351	0.135
CDPHE: Regulatory Standards-acute				NA	883.0	NA	300.0	NA	NA	5.270	5.300	0.930	50.000	65.100
CDPHE: Regulatory Standards-chronic				NA	87.0	NA	300.0	NA	NA	3.200	3.800	0.980	50.000	14.200
Downstream of Mine (3)	8/29/2019	Grab		64.8	0.6	21.4	ND	2.8	ND	0.001	0.129	ND	0.018	0.083
CDPHE: Regulatory Standards-acute				NA	1888.2	NA	NA	NA	NA	6.400	8.900	NA	50.000	107.800
CDPHE: Regulatory Standards-chronic				NA	87.0	NA	NA	NA	NA	4.200	6.000	NA	50.000	46.600
La Plata River- Upstream (4)	8/29/2019	Grab		62.2	ND	20.8	ND	2.5	ND	ND	0.0012	ND	ND	ND
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	NA	8.6	NA	NA	NA
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	NA	NA	6	NA	NA	NA
La Plata River- Downstream (5)	8/29/2019	Grab		61.3	ND	20.5	ND	2.47	ND	ND	0.0021	ND	ND	ND

APPENDIX C.

Lab Results, Chains of Custody



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

13 September 2019

Clinton Casey
SME
679 E 2nd Ave, Ste E2
Durango, CO 81301
RE: Acid Mine Drainage

Enclosed are the results of analyses for samples received by the laboratory on 08/29/19 14:00.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Adit (1)	1908328-01	Water	08/29/19 10:00	08/29/19 14:00	
Above Waterfall (2)	1908328-02	Water	08/29/19 10:30	08/29/19 14:00	
Downstream of Mine (3)	1908328-03	Water	08/29/19 11:20	08/29/19 14:00	
La Plata Upstream (4)	1908328-04	Water	08/29/19 12:40	08/29/19 14:00	
La Plata Downstream (5)	1908328-05	Water	08/29/19 13:00	08/29/19 14:00	

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

Adit (1)**1908328-01 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	105	10.0		mg/L	1	08/30/19 10:45	2320 B		VJL
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	08/30/19 10:45	2320 B		VJL
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	08/30/19 10:45	2320 B		VJL
Alkalinity, Total as CaCO ₃ *	105	10.0	3.06	mg/L	1	08/30/19 10:45	2320 B		VJL
Total Dissolved Solids*	445	10.0		mg/L	1	09/05/19 16:58	EPA160.1		VJL
Total Suspended Solids*	18.0	4.00		mg/L	1	09/05/19 15:55	EPA160.2		VJL
Sulfate*	232	5.00	1.07	mg/L	5	09/09/19 18:42	EPA300.0		AES

Total Recoverable Metals by ICP (E200.7)

Aluminum*	0.499	0.250	0.064	mg/L	5	09/09/19 15:41	EPA200.7		AES
Calcium*	118	0.500	0.071	mg/L	5	09/09/19 15:41	EPA200.7		AES
Hardness as CaCO ₃	366	3.31	0.644	mg/L	5	09/09/19 15:41	2340 B		AES
Iron*	6.06	0.250	0.087	mg/L	5	09/09/19 15:41	EPA200.7		AES
Magnesium*	17.4	0.500	0.113	mg/L	5	09/09/19 15:41	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Arsenic*	0.0162	0.0010	0.0002	mg/L	1	09/05/19 21:49	EPA200.8		AES
Cadmium*	<0.0005	0.0005	0.00004	mg/L	1	09/05/19 21:49	EPA200.8		AES
Copper*	0.0012	0.0005	0.0001	mg/L	1	09/05/19 21:49	EPA200.8		AES
Lead*	<0.0005	0.0005	0.00009	mg/L	1	09/05/19 21:49	EPA200.8		AES
Manganese*	0.600	0.0020	0.00009	mg/L	1	09/05/19 21:49	EPA200.8		AES
Zinc*	0.104	0.0100	0.0004	mg/L	1	09/05/19 21:49	EPA200.8		AES

Total Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00003	mg/L	1	09/13/19 08:33	EPA245.1		LLG
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Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

Above Waterfall (2)**1908328-02 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	3.06	mg/L	1	09/11/19 15:00	2320 B		VJL
Total Dissolved Solids*	99.9	10.0		mg/L	1	09/05/19 16:58	EPA160.1		VJL
Total Suspended Solids*	4.40	4.00		mg/L	1	09/05/19 15:55	EPA160.2		VJL
Sulfate*	46.9	2.00	0.426	mg/L	2	09/10/19 09:37	EPA300.0		AES

Total Recoverable Metals by ICP (E200.7)

Aluminum*	2.80	0.050	0.013	mg/L	1	09/09/19 15:43	EPA200.7		AES
Calcium*	12.8	0.100	0.014	mg/L	1	09/09/19 15:43	EPA200.7		AES
Hardness as CaCO ₃	37.2	0.662	0.129	mg/L	1	09/09/19 15:43	2340 B		AES
Iron*	0.971	0.050	0.017	mg/L	1	09/09/19 15:43	EPA200.7		AES
Magnesium*	1.30	0.100	0.023	mg/L	1	09/09/19 15:43	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Arsenic*	<0.0010	0.0010	0.0002	mg/L	1	09/05/19 21:54	EPA200.8		AES
Cadmium*	0.0007	0.0005	0.00004	mg/L	1	09/05/19 21:54	EPA200.8		AES
Copper*	0.395	0.0005	0.0001	mg/L	1	09/05/19 21:54	EPA200.8		AES
Lead*	0.0069	0.0005	0.00009	mg/L	1	09/05/19 21:54	EPA200.8		AES
Manganese*	0.351	0.0020	0.00009	mg/L	1	09/05/19 21:54	EPA200.8		AES
Zinc*	0.135	0.0100	0.0004	mg/L	1	09/05/19 21:54	EPA200.8		AES

Total Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00003	mg/L	1	09/13/19 08:33	EPA245.1		LLG
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Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

Downstream of Mine (3)**1908328-03 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	3.06	mg/L	1	09/11/19 15:00	2320 B		VJL
Total Dissolved Solids*	150	10.0		mg/L	1	09/05/19 16:58	EPA160.1		VJL
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/05/19 15:55	EPA160.2		VJL
Sulfate*	59.2	2.00	0.426	mg/L	2	09/10/19 10:31	EPA300.0		AES

Total Recoverable Metals by ICP (E200.7)

Aluminum*	0.555	0.050	0.013	mg/L	1	09/09/19 15:46	EPA200.7		AES
Calcium*	21.4	0.100	0.014	mg/L	1	09/09/19 15:46	EPA200.7		AES
Hardness as CaCO ₃	64.8	0.662	0.129	mg/L	1	09/09/19 15:46	2340 B		AES
Iron*	<0.050	0.050	0.017	mg/L	1	09/09/19 15:46	EPA200.7		AES
Magnesium*	2.80	0.100	0.023	mg/L	1	09/09/19 15:46	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Arsenic*	<0.0010	0.0010	0.0002	mg/L	1	09/05/19 21:58	EPA200.8		AES
Cadmium*	0.0005	0.0005	0.00004	mg/L	1	09/05/19 21:58	EPA200.8		AES
Copper*	0.129	0.0005	0.0001	mg/L	1	09/05/19 21:58	EPA200.8		AES
Lead*	<0.0005	0.0005	0.00009	mg/L	1	09/05/19 21:58	EPA200.8		AES
Manganese*	0.0177	0.0020	0.00009	mg/L	1	09/05/19 21:58	EPA200.8		AES
Zinc*	0.0830	0.0100	0.0004	mg/L	1	09/05/19 21:58	EPA200.8		AES

Total Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00003	mg/L	1	09/13/19 08:33	EPA245.1		LLG
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Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

La Plata Upstream (4)**1908328-04 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	39.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Total as CaCO ₃ *	39.0	10.0	3.06	mg/L	1	09/11/19 15:00	2320 B		VJL
Total Dissolved Solids*	75.0	10.0		mg/L	1	09/05/19 16:58	EPA160.1		VJL
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/05/19 15:55	EPA160.2		VJL
Sulfate*	22.0	1.00	0.213	mg/L	1	09/09/19 20:47	EPA300.0		AES

Total Recoverable Metals by ICP (E200.7)

Aluminum*	<0.050	0.050	0.013	mg/L	1	09/09/19 15:49	EPA200.7		AES
Calcium*	20.8	0.100	0.014	mg/L	1	09/09/19 15:48	EPA200.7		AES
Hardness as CaCO ₃	62.2	0.662	0.129	mg/L	1	09/09/19 15:49	2340 B		AES
Iron*	<0.050	0.050	0.017	mg/L	1	09/09/19 15:49	EPA200.7		AES
Magnesium*	2.50	0.100	0.023	mg/L	1	09/09/19 15:49	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Arsenic*	<0.0010	0.0010	0.0002	mg/L	1	09/05/19 22:02	EPA200.8		AES
Cadmium*	<0.0005	0.0005	0.00004	mg/L	1	09/05/19 22:02	EPA200.8		AES
Copper*	0.0012	0.0005	0.0001	mg/L	1	09/05/19 22:02	EPA200.8		AES
Lead*	<0.0005	0.0005	0.00009	mg/L	1	09/05/19 22:02	EPA200.8		AES
Manganese*	<0.0020	0.0020	0.00009	mg/L	1	09/05/19 22:02	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0004	mg/L	1	09/05/19 22:02	EPA200.8		AES

Total Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00003	mg/L	1	09/13/19 08:33	EPA245.1		LLG
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SME
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Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

La Plata Downstream (5)**1908328-05 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	40.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/11/19 15:00	2320 B		VJL
Alkalinity, Total as CaCO ₃ *	40.0	10.0	3.06	mg/L	1	09/11/19 15:00	2320 B		VJL
Total Dissolved Solids*	85.0	10.0		mg/L	1	09/05/19 16:58	EPA160.1		VJL
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/05/19 15:55	EPA160.2		VJL
Sulfate*	21.5	1.00	0.213	mg/L	1	09/09/19 21:05	EPA300.0		AES

Total Recoverable Metals by ICP (E200.7)

Aluminum*	<0.050	0.050	0.013	mg/L	1	09/09/19 14:18	EPA200.7		AES
Calcium*	20.5	0.100	0.014	mg/L	1	09/09/19 14:18	EPA200.7		AES
Hardness as CaCO ₃	61.3	0.662	0.129	mg/L	1	09/09/19 14:18	2340 B		AES
Iron*	<0.050	0.050	0.017	mg/L	1	09/09/19 14:18	EPA200.7		AES
Magnesium*	2.47	0.100	0.023	mg/L	1	09/09/19 14:18	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Arsenic*	<0.0010	0.0010	0.0002	mg/L	1	09/05/19 19:49	EPA200.8		AES
Cadmium*	<0.0005	0.0005	0.00004	mg/L	1	09/05/19 22:07	EPA200.8		AES
Copper*	0.0021	0.0005	0.0001	mg/L	1	09/05/19 22:07	EPA200.8		AES
Lead*	<0.0005	0.0005	0.00009	mg/L	1	09/05/19 22:07	EPA200.8		AES
Manganese*	<0.0020	0.0020	0.00009	mg/L	1	09/05/19 22:07	EPA200.8		AES
Zinc*	<0.0100	0.0100	0.0004	mg/L	1	09/05/19 22:07	EPA200.8		AES

Total Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00003	mg/L	1	09/13/19 08:33	EPA245.1		LLG
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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B908309 - General Prep - Wet Chem

Blank (B908309-BLK1)

Prepared & Analyzed: 08/30/19

Alkalinity, Total as CaCO₃ ND 10.0 mg/L

LCS (B908309-BS1)

Prepared & Analyzed: 08/30/19

Alkalinity, Total as CaCO₃ 98.0 10.0 mg/L 100 98.0 85-115

LCS Dup (B908309-BSD1)

Prepared & Analyzed: 08/30/19

Alkalinity, Total as CaCO₃ 97.0 10.0 mg/L 100 97.0 85-115 1.03 20

Batch B909020 - General Prep - Wet Chem

Blank (B909020-BLK1)

Prepared & Analyzed: 09/05/19

Total Dissolved Solids ND 10.0 mg/L

Duplicate (B909020-DUP1)

Source: 1908328-01 Prepared & Analyzed: 09/05/19

Total Dissolved Solids 485 10.0 mg/L 445 8.59 20

Reference (B909020-SRM1)

Prepared & Analyzed: 09/05/19

Total Dissolved Solids 595 10.0 mg/L 600 99.2 85-115

Batch B909021 - General Prep - Wet Chem

Blank (B909021-BLK1)

Prepared & Analyzed: 09/05/19

Total Suspended Solids ND 4.00 mg/L

Duplicate (B909021-DUP1)

Source: 1908328-01 Prepared & Analyzed: 09/05/19

Total Suspended Solids 20.4 4.00 mg/L 18.0 12.5 20

Reference (B909021-SRM1)

Prepared & Analyzed: 09/05/19

Total Suspended Solids 95.0 4.00 mg/L 100 95.0 85-115

Batch B909058 - General Prep - Wet Chem

Blank (B909058-BLK1)

Prepared & Analyzed: 09/09/19

Sulfate ND 1.00 mg/L

LCS (B909058-BS1)

Prepared & Analyzed: 09/09/19

Sulfate 24.8 1.00 mg/L 25.0 99.1 90-110

LCS Dup (B909058-BSD1)

Prepared & Analyzed: 09/09/19

Sulfate 24.9 1.00 mg/L 25.0 99.5 90-110 0.375 20

Batch B909079 - General Prep - Wet Chem

Blank (B909079-BLK1)

Prepared & Analyzed: 09/11/19

Alkalinity, Total as CaCO₃ ND 10.0 mg/L

LCS (B909079-BS1)

Prepared & Analyzed: 09/11/19

Alkalinity, Total as CaCO₃ 106 10.0 mg/L 100 106 85-115

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B909079 - General Prep - Wet Chem (Continued)

LCS Dup (B909079-BSD1)

Prepared & Analyzed: 09/11/19

Alkalinity, Total as CaCO ₃	104	10.0	mg/L	100	104	85-115	1.90	20	
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Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B908325 - Total Rec. 200.7/200.8/200.2

Blank (B908325-BLK1)

Prepared: 08/30/19 Analyzed: 09/06/19

Aluminum	ND	0.050	mg/L						
Calcium	ND	0.100	mg/L						
Iron	ND	0.050	mg/L						
Magnesium	ND	0.100	mg/L						

LCS (B908325-BS1)

Prepared: 08/30/19 Analyzed: 09/06/19

Aluminum	3.95	0.050	mg/L	4.00	98.8	85-115			
Calcium	3.85	0.100	mg/L	4.00	96.2	85-115			
Iron	3.89	0.050	mg/L	4.00	97.3	85-115			
Magnesium	19.2	0.100	mg/L	20.0	95.8	85-115			

LCS Dup (B908325-BSD1)

Prepared: 08/30/19 Analyzed: 09/06/19

Aluminum	3.90	0.050	mg/L	4.00	97.5	85-115	1.27	20	
Calcium	3.89	0.100	mg/L	4.00	97.2	85-115	1.01	20	
Iron	3.82	0.050	mg/L	4.00	95.4	85-115	1.92	20	
Magnesium	19.3	0.100	mg/L	20.0	96.7	85-115	0.928	20	

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B908321 - Total Rec. 200.7/200.8/200.2**Blank (B908321-BLK1)**

Prepared: 08/30/19 Analyzed: 09/05/19

Arsenic	ND	0.0010	mg/L
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LCS (B908321-BS1)

Prepared: 08/30/19 Analyzed: 09/05/19

Arsenic	0.0502	0.0010	mg/L	0.0500	100	85-115
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LCS Dup (B908321-BSD1)

Prepared: 08/30/19 Analyzed: 09/05/19

Arsenic	0.0495	0.0010	mg/L	0.0500	99.0	85-115	1.33	20
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Batch B908324 - Total Rec. 200.7/200.8/200.2**Blank (B908324-BLK1)**

Prepared: 08/30/19 Analyzed: 09/05/19

Arsenic	ND	0.0010	mg/L
Cadmium	ND	0.0005	mg/L
Copper	ND	0.0005	mg/L
Lead	ND	0.0005	mg/L
Manganese	ND	0.0020	mg/L
Zinc	ND	0.0100	mg/L

LCS (B908324-BS1)

Prepared: 08/30/19 Analyzed: 09/05/19

Arsenic	0.0501	0.0010	mg/L	0.0500	100	85-115
Cadmium	0.0508	0.0005	mg/L	0.0500	102	85-115
Copper	0.0478	0.0005	mg/L	0.0500	95.6	85-115
Lead	0.0502	0.0005	mg/L	0.0500	100	85-115
Manganese	0.0484	0.0020	mg/L	0.0500	96.8	85-115
Zinc	0.0505	0.0100	mg/L	0.0500	101	85-115

LCS Dup (B908324-BSD1)

Prepared: 08/30/19 Analyzed: 09/05/19

Arsenic	0.0501	0.0010	mg/L	0.0500	100	85-115	0.0729	20
Cadmium	0.0514	0.0005	mg/L	0.0500	103	85-115	1.14	20
Copper	0.0480	0.0005	mg/L	0.0500	96.1	85-115	0.515	20
Lead	0.0510	0.0005	mg/L	0.0500	102	85-115	1.62	20
Manganese	0.0493	0.0020	mg/L	0.0500	98.6	85-115	1.91	20
Zinc	0.0501	0.0100	mg/L	0.0500	100	85-115	0.903	20

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Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

Total Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B909044 - EPA 245.1/7470										
Blank (B909044-BLK1)				Prepared: 09/09/19 Analyzed: 09/13/19						
Mercury	ND	0.0002	mg/L							
LCS (B909044-BS1)				Prepared: 09/09/19 Analyzed: 09/13/19						
Mercury	0.0053	0.0002	mg/L	0.00500	107	85-115				
LCS Dup (B909044-BSD1)				Prepared: 09/09/19 Analyzed: 09/13/19						
Mercury	0.0052	0.0002	mg/L	0.00500	104	85-115	2.58	20		

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Acid Mine Drainage
Project Name / Number: Acid Mine Drainage
Project Manager: Clinton Casey

Reported:
09/13/19 16:54

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.
RPD Relative Percent Difference
LCS Laboratory Control Sample (Blank Spike)
RL Report Limit
MDL Method Detection Limit

Green Analytical Laboratories

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(970) 247-4220
Fax: (970) 247-4227

service@greenanalytical.com or dzufell@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006
COC - Revision 5.0

Bill to (if different):

ANALYSIS REQUEST

Company or Client:

SME

Address:

City:

State:

Zip:

Phone #:

Contact Person:

Clinton Carey

Email Report to:

Carey@SME-env.com

Project Name(optional):

Sampler Name (Print):

For Lab Use

Sample Name or Location

1908-328-01

-02

-03

-04

-05

Adit (1)

Above waterfall (2)

Downstream of mine (3)

La Plata Upstream (4)

La Plata Downstream (5)

8/29/19

8/29/19

8/29/19

8/29/19

8/29/19

10:00

10:30

11:20

12:40

13:00

GROUNDWATER

SURFACEWATER

WASTEWATER

PRODUCEDWATER

SOIL

DRINKING WATER

OTHER :

No preservation (general)

HNO₃

HCl

H₂SO₄

Other:

Other:

of containers

2

2

2

2

2

Temperature at receipt:

8.3/8.1°C

8.3/8.1°C

8.3/8.1°C

8.3/8.1°C

8.3/8.1°C

Report to State? (Circle)

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.



Analytical Services Quotation

Envirosource Corp. DBA Green Analytical Laboratories
75 Suttle St. Durango CO 81301 (970)247-4220 jeremy.allen@greenanalytical.com

Acid Mine Drainage
SME
Clinton Casey

Bid Date: 7/12/19
Bid Expires: 12/31/19

Matrix	Parameters	Method	#	TAT (days)	Unit Price	Extended Price
Water	Alkalinity as CaCO ₃	2320 B	1	10	\$15.00	\$15.00
Water	Bicarbonate as CaCO ₃	2320 B	1	10	\$0.00	\$0.00
Water	Carbonate as CaCO ₃	2320 B	1	10	\$0.00	\$0.00
Water	Hydroxide as CaCO ₃	2320 B	1	10	\$0.00	\$0.00
Water	pH	EPA150.1	1	10	\$12.00	\$12.00
Water	Total Dissolved Solids	EPA160.1	1	10	\$15.00	\$15.00
Water	Total Suspended Solids	EPA160.2	1	10	\$15.00	\$15.00
Water	Aluminum 200.2 by ICP	EPA200.7	1	10	\$13.00	\$13.00
Water	Calcium 200.2 by ICP	EPA200.7	1	10	\$13.00	\$13.00
Water	Iron 200.2 by ICP	EPA200.7	1	10	\$13.00	\$13.00
Water	Magnesium 200.2 by ICP	EPA200.7	1	10	\$13.00	\$13.00
Water	Hardness	EPA200.7/Calc	1	10	\$0.00	\$0.00
Water	Arsenic 200.2 by ICPMS	EPA200.8	1	10	\$18.00	\$18.00
Water	Cadmium 200.2 by ICPMS	EPA200.8	1	10	\$18.00	\$18.00
Water	Copper 200.2 by ICPMS	EPA200.8	1	10	\$18.00	\$18.00
Water	Lead 200.2 by ICPMS	EPA200.8	1	10	\$18.00	\$18.00
Water	Manganese 200.2 by ICPMS	EPA200.8	1	10	\$18.00	\$18.00
Water	Zinc 200.2 by ICPMS	EPA200.8	1	10	\$18.00	\$18.00
Water	Mercury Total by CVAA	EPA245.1	1	10	\$40.00	\$40.00
Water	Sulfate by IC	EPA300.0	1	10	\$15.00	\$15.00

\$272.00

200.2 Digest: \$15.00

Estimated Cost per Sample: **\$287.00**

5x [1 L general
250 general
250 metals HNO₃]



April 27, 2021

Mr. Scott Petsel, Vice President, Exploration
Metallic Minerals Corporation
Suite 904 - 409 Granville Street
Vancouver, BC V6C 1T2

Re: *Water Quality Sampling Report for 2020 for the Allard Mine Site*

Dear Mr. Petsel:

Please find enclosed our report for the 2020 baseline water quality assessment performed in the vicinity of the Allard Mine from Bedrock Creek (in La Plata Canyon) and the East Fork of the Mancos River, in La Plata and Montezuma Counties (respectively), Colorado. This assessment was performed in June and September of 2021 and consisted of nine samples as shown on Figure 2

We appreciate this opportunity to assist you on this project. Please contact us at (970) 259-9595 if you have any questions or require additional information.

Respectfully,

A handwritten signature in black ink that reads 'Clinton Casey'.

Clinton Casey, EP
Staff Scientist

Figures

- Figure 1. Topographic Location Map
Figure 2 Sampling Location Map

Appendices

- Appendix A Figures
Appendix B Tables
Appendix C Laboratory Results, Chains of Custody

1.0 INTRODUCTION

At the request of Mr. Scott Petsel of Metallic Minerals Corporation, SME Environmental, Inc. (SME) conducted field screening and water sample collection activities in the spring and fall of 2020. Enclosed are the results for the baseline water quality assessment performed in the vicinity of the Allard Mine from Bedrock Creek within La Plata Canyon and the East Fork of the Mancos River in La Plata and Montezuma Counties (respectively) Colorado. This assessment was performed in the spring (June 11, 2020) and the fall (September 23, 2020). This assessment consisted of eight sample locations in the spring and nine sample locations in the fall.

The location of the project area is depicted on [Figure 1](#) (Topographic Location Map), and the locations of samples within the project area are depicted in [Figure 2](#) (Sample Location Map).

1.1 Purpose

The purpose of this investigation was to gather available information to characterize the baseline water quality within the immediate watershed of the potential project area.

2.0 SAMPLING

Field activities are described in the sections below.

2.1 Water Sampling and Observation Methods

Water quality sampling was conducted on June 11, 2020 and September 23, 2020 by SME personnel. Sample locations are presented in [Figure 2](#), [Appendix A](#).

The surface water samples were collected at eight sample locations in the spring and nine sample locations in the fall to gather a representation of existing water chemistry and potential impacts to the La Plata and East Mancos Rivers. Each sample was collected with new, clean containers provided by green analytical and the sampler used new latex gloves at each sampling location.

All lab samples were labeled and placed in an insulated cooler with ice packs in preparation for lab submittal. The coolers containing the samples were transferred to Green Analytical Laboratory (Green) in Durango, Colorado under standard chain-of-custody procedures for laboratory analysis.

Non-disposable tools which came into contact with the sample water were decontaminated or disposed of between samples. Disposable sampling items such as nitrile gloves were placed in garbage bags and disposed of as municipal trash.

Field measurements were taken in situ at the time of sample collection for pH and temperature using an Oakton Handheld ECOTestr pH2+ device. Visual observations were also performed and noted at each sampling location at the time of each site visit.

3.0 RESULTS

Sample locations are presented in [Figure 2, Appendix A](#). For a summary of laboratory analytical results, please see [Table 1](#) Laboratory Results: Field Data, [Table 3](#) Laboratory Results: General Chemistry, [Table 3](#) Laboratory Results: Metals, which are also attached in [Appendix B](#).

4.0 DISCUSSION/CONCLUSION

Concentrations of potential contaminants were compared to the appropriate table within Regulation No. 34-Classification and numeric Standards for San Juan River and Dolores River Basins (5CCR 1002-34), which are utilized by the Colorado Department of Health and Environment (CDPHE) Water Quality Control Division (WQCD). These regulations establish classifications and numeric standards for the San Juan and the Dolores River Basins, including all tributaries and standing bodies of water south of the northern Dolores County line, these numeric standards are assigned to determine the allowable concentrations of various parameters and many of the regulatory standards are calculated based upon the chemistry of the waters sampled. Due to the location of this study the results were compared to Table COSJLP01, which is described as the mainstem of the La Plata River, including all wetlands and tributaries from the source to the Hay Gulch diversion south of Hesperus for samples 1-7 and 9. Table COSJLP04A, which is describes as the mainstem of the Mancos River, including all wetlands and tributaries from the source to the East, West, and Middle Forks to the San Juan National Forest Boundary for sample 8.

All of the parameters sampled were within regulatory standards for this waterway except for pH and sulfate. The pH above the waterfall (sample location 2) had a pH of 4.8 in the spring and 4.4 in the fall. Although this is above the level for the La Plata river these readings were collected fairly high in the watershed from the main drainage in Bedrock Creek and above the majority of known historical mining activities. Therefore, this low pH is not likely the result of mining activities. East Mancos Creek (sample location 8) had a pH of 6.1 in the spring and 4.4 in the fall and had 303 parts per million (ppm) sulfate; 250 ppm is the regulatory limit for sulfate and 6.5 is the minimum pH for this section of River. The low pH and high sulfate levels are likely a result of natural acid mine drainage with contributions from several small historical adits and mines within

this watershed. Other findings of note are a high concentration of dissolved solids and a high level of hardness being released from the adit (sample location 1 and 9). In particular a high amount of sulfates and calcium carbonates were observed, which are likely increasing the pH of these waters below the confluence of waters from the adit. High levels of aluminum and mineral deposition within the streambed was also observed at the adit, above the waterfall, and in the East Mancos River.

Please note that this environmental sampling event represents only a snapshot into the water chemistry at these locations and within this basin. The process used in this investigation is an attempt to control the degree to which uncertainty in data affects the outcomes of decisions that are based on those data. It should also be emphasized that only a representative number of samples were collected and analyzed, and SME considers it a possibility that there may be instances of water contamination at the site which may exceed regulatory limits.

5.0 LIMITATIONS

Variations in site conditions may occur and those not encountered during this investigation may be observed during future activities at the site. This investigation did not include an assessment of subsurface conditions or contaminants other than the areas that were investigated by the sampling effort. SME's conclusions and recommendations are based upon limited field screening, sampling, and analysis. This investigation does not guarantee the absence of contaminants throughout the target property or within the surface waters.

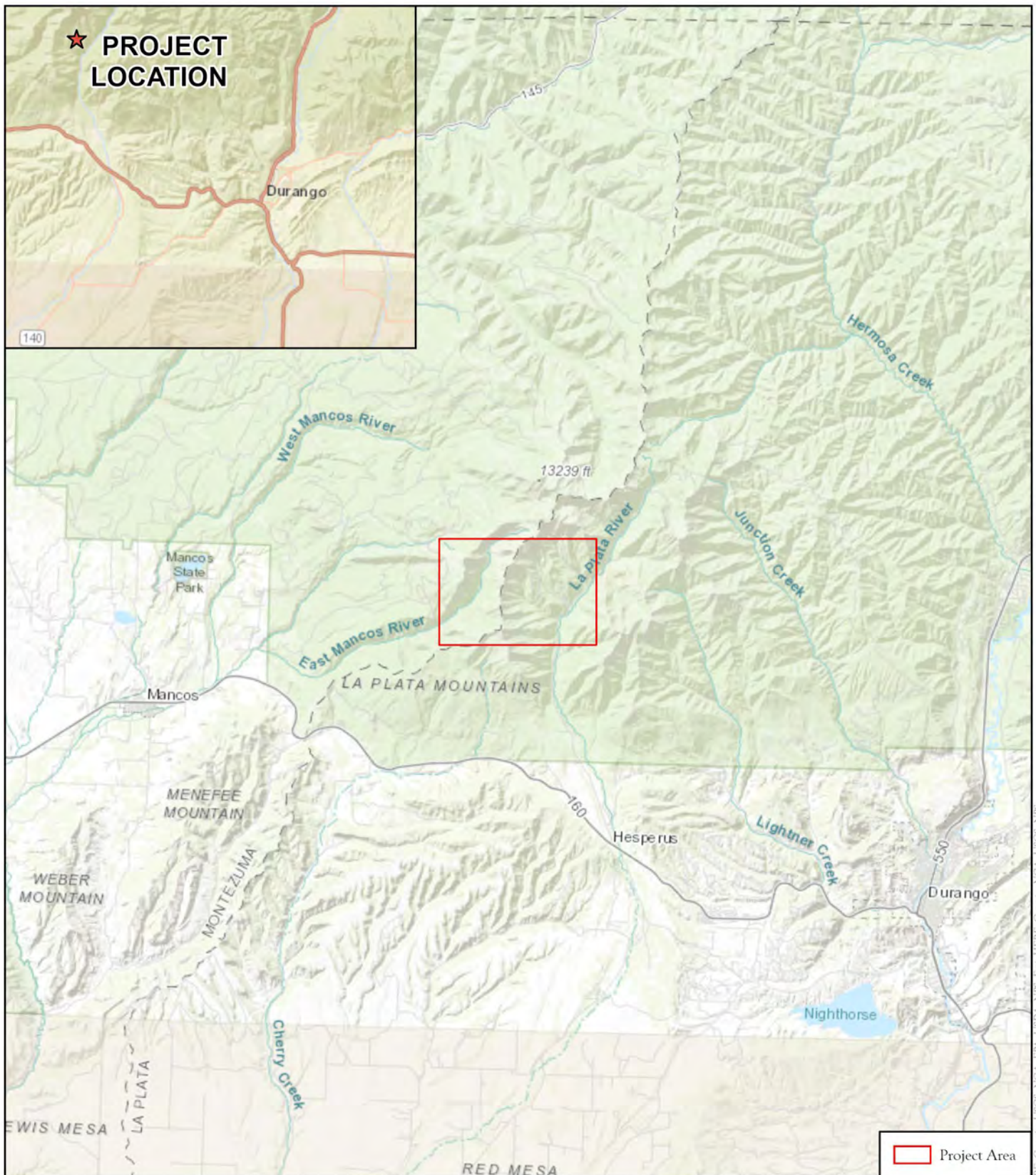
6.0 REFERENCES



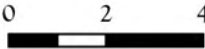
Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division. 2015. Regulation No. 34 - Classifications and Numeric Standards for San Juan River and Dolores River Basins (5 CCR 1002-34). CDPHE, Denver, Colorado.

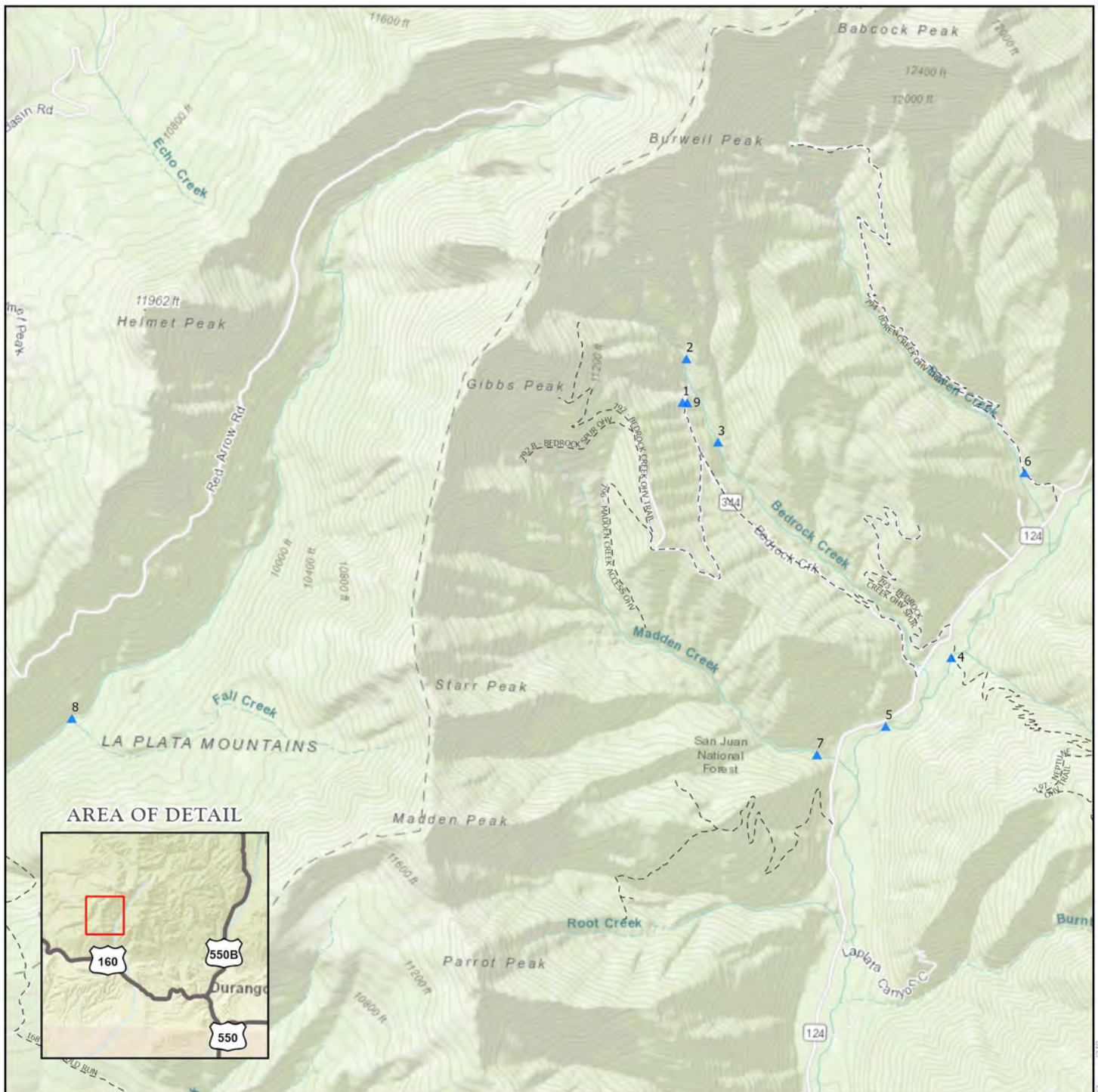
7.0 APPENDICES

APPENDIX A.

Figures



 <p>SME ENVIRONMENTAL CONSULTANTS</p> <p>679 East 2nd Ave. Unit E2, Durango, Colorado 81301 www.sme-env.com (970) 259-9595</p>	Drawn by:	Rvwd. by:	Project No.:	ROAD VICINITY MAP	
	KB	KZ	190024		
	Date:	Rsvd. Date:	Scale:	ALLARD CLAIM SAN JUAN NATIONAL FOREST LA PLATA COUNTY, COLORADO	
	3/11/2021	NA	1:250,000		
  <p>Miles</p>				FIGURE 1	



--- Trail

▲ Surface Water Sample

SAMPLE NAME

- (1) ADIT
- (2) ABOVE WATERFALL
- (3) DOWNSTREAM OF MINE
- (4) LA PLATA UPSTREAM
- (5) LA PLATA DOWNSTREAM

SAMPLE NAME

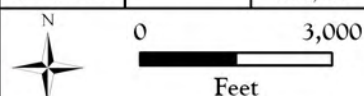
- (6) BASIN CREEK
- (7) MADDEN CREEK
- (8) EAST MANCOS CREEK
- (9) BELOW ADIT



ENVIRONMENTAL CONSULTANTS

679 East 2nd Ave. Unit E2, Durango, Colorado 81301
www.sme-env.com (970) 259-9595

Drawn by:	Rvwd. by:	Project No.:
KB	SM	190024
Date:	Rsvd. Date:	Scale:
3/11/2021		1:36,000



SAMPLE MAP

ALLARD CLAIM
SAN JUAN NATIONAL FOREST
LA PLATA COUNTY, COLORADO

FIGURE
2

APPENDIX B.

Tables

Table 1. Field Data

Sample Number	Date		Sample Type	pH		Temp (Celsius)		Visual Observations	
				Spring	Fall	Spring	Fall	Spring	Fall
Adit (1)	Spring (6/11/20)	Fall (9/23/20)	Grab	7.8	8.3	9.2	8.7	Clear water. Significant red varnish.	Clear water. Significant red varnish.
Above Waterfall(2)	Spring (6/11/20)	Fall (9/23/20)	Grab	4.8	4.4	12.7	15.7	Clear water. Red varnish.	Clear water. Red varnish.
Downstream of Mine (3)	Spring (6/11/20)	Fall (9/23/20)	Grab	6.6	7.3	14.8	16.1	Clear water. Minimal varnish.	Clear water. Minimal red staining. White/purple staining and fine sediment observed that seems new.
La Plata River-Upstream (4)	Spring (6/11/20)	Fall (9/23/20)	Grab	8.6	8.3	11.5	11.8	Clear water. No varnish.	Clear water. Minimal staining.
La Plata River-Downstream (5)	Spring (6/11/20)	Fall (9/23/20)	Grab	8.2	8.2	10.6	13.2	Clear water. Significant red varnish.	Clear water. Minimal staining.
Basin Creek (6)	Spring (6/11/20)	Fall (9/23/20)	Grab	7.9	8.0	12.3	11.1	Clear water. No varnish.	Clear water. Minimal staining.
Madden Creek (7)	Spring (6/11/20)	Fall (9/23/20)	Grab	8.4	8.4	8.6	10.6	Clear water. Significant red varnish.	Clear water. No staining.
East Mancos Creek (8)	Spring (6/12/20)	Fall (9/24/20)	Grab	6.1	4.4	11.8	7.2	Clear water. Significant red varnish.	Clear water. Significant red and white staining.
Below Adit (9)	NA	Fall (9/29/20)	Grab	NA	7.4	NA	10.2	NA	Clear water. Significant red and white staining.
CDPHE: Regulatory Standards				6.5-9.0	6.5-9.0	17	17	NA	NA

Table 2. Laboratory Results General Chemistry																	
			Analyte	Alkalinity, Bicarbonate as CaCO3		Alkalinity, Carbonate as CaCO3		Alkalinity, Hydroxide as CaCO3		Alkalinity, Total as CaCO3		Total Dissolved Solids		Total Suspended Solids		Sulfate	
			Method	2320 B										EPA 160.1		EPA 160.2	
Sample	Date		Sample Type	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Adit (1)	Spring (6/11/20)	Fall (9/23/20)	Grab	93.0	109.0	ND	ND	ND	ND	93.0	109.0	460.0	460.0	15.0	7.7	215.0	196.0
Above Waterfall(2)	Spring (6/11/20)	Fall (9/23/20)	Grab	ND	ND	ND	ND	ND	ND	ND	ND	60.0	140.0	ND	ND	25.5	66.2
Downstream of Mine (3)	Spring (6/11/20)	Fall (9/23/20)	Grab	ND	12.0	ND	ND	ND	ND	ND	12.0	70.0	130.0	ND	5.3	29.9	79.4
La Plata River- Upstream (4)	Spring (6/11/20)	Fall (9/23/20)	Grab	34.0	48.0	ND	ND	ND	ND	34.0	48.0	45.0	99.9	ND	ND	11.7	32.9
La Plata River- Downstream (5)	Spring (6/11/20)	Fall (9/23/20)	Grab	29.0	44.0	ND	ND	ND	ND	29.0	44.0	45.0	135.0	ND	ND	12.7	33.9
Basin Creek (6)	Spring (6/11/20)	Fall (9/23/20)	Grab	18.0	34.0	ND	ND	ND	ND	18.0	34.0	95.0	90.0	ND	ND	9.2	19.5
Madden Creek (7)	Spring (6/11/20)	Fall (9/23/20)	Grab	31.0	46.0	ND	ND	ND	ND	31.0	46.0	90.0	180.0	ND	ND	12.9	27.2
East Mancos Creek (8)	Spring (6/12/20)	Fall (9/24/20)	Grab	ND	ND	ND	ND	ND	ND	ND	ND	110.0	300.0	ND	ND	84.6	303.0
Below Adit (9) (1A)	NA	Fall (9/29/20)	Grab	NA	108.0	NA	ND	NA	ND	NA	108.0	NA	480.0	NA	ND	NA	216.0
CDPHE: Regulatory Standards				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	250

NA = No regulatory standard.

ND = Analyte was not detected at reporting limit

*EPA Regional Screening Level Summary Table - Residential Soil with Target Hazard Quotient of 01 (November 2018)

Table 3. Laboratory Results
Metals

				Analyte	Hardness as CaCO3	Aluminum		Calcium		Iron		Magnesium		Arsenic		Cadmium		Copper		Lead		Manganese		Zinc		Mercury		
				Method	2340 B		EPA 200.7										EPA 200.8											
Sample	Sample Date			Sample Type	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Adit (1)	Spring (6/11/20)	Fall (9/23/20)	Grab	348.0	282.0	ND	0.097	113.0	91.3	0.069	ND	16.2	13.0	0.0053	0.0047	ND	0.0001	ND	ND	ND	ND	0.550	0.542	0.0755	0.1340	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	340	340	NA	4.1981	NA	NA	NA	NA	4523.17	4217.17	497.36	410.76	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	0.8492	NA	NA	NA	NA	2499.06	2329.99	376.68	311.11	NA	NA
Above Waterfall(2)	Spring (6/11/20)	Fall (9/23/20)	Grab	20.0	39.8	1.240	3.540	6.790	13.7	0.584	0.474	0.735	1.38	ND	ND	0.0003	0.0011	0.2540	0.5590	0.0026	0.0237	0.1440	0.469	0.0753	0.2080	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	300	NA	NA	NA	340	0.4186	0.7633	2.9410	5.6414	10.7915	23.3796	1746.69	2196.67	37.02	69.23	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	300	NA	NA	NA	NA	NA	NA	1.0855	1.0672	2.2638	4.0758	0.4205	0.9110	965.05	1213.66	28.04	52.43	NA	NA
Downstream of Mine (3)	Spring (6/11/20)	Fall (9/23/20)	Grab	31.8	81.8	0.820	0.467	10.700	27.0	0.078	ND	1.260	3.49	ND	ND	0.0003	0.0009	0.2300	0.2250	0.0011	0.0013	0.0928	0.126	0.0348	0.1410	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	340	340	0.6275	1.4305	4.5663	11.1218	18.1911	51.8589	2038.46	2792.42	56.45	133.29	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	1.0746	1.0284	3.3646	7.5432	0.7088	2.0209	1126.25	1542.82	42.75	100.95	NA	NA
La Plata River- Upstream (4)	Spring (6/11/20)	Fall (9/23/20)	Grab	52.6	76.0	ND	ND	17.600	25.0	ND	ND	2.090	3.29	ND	ND	ND	ND	0.0028	0.0015	ND	ND	0.0012	ND	0.0294	0.0032	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	340	340	NA	NA	7.3366	10.3773	NA	NA	2410.48	2724.85	89.21	124.66	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1724	7.0838	NA	NA	1331.79	1505.48	67.57	94.42	NA	NA
La Plata River- Downstream (5)	Spring (6/11/20)	Fall (9/23/20)	Grab	51.2	74.2	ND	ND	17.200	24.5	ND	ND	2.020	3.17	ND	ND	ND	ND	0.0052	0.0040	ND	ND	0.0017	0.002	0.0029	0.0095	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	340	340	NA	NA	7.1524	10.1455	NA	NA	2388.92	2703.18	87.04	121.98	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	5.0456	6.9402	NA	NA	1319.88	1493.51	65.93	92.39	NA	NA		
Basin Creek (6)	Spring (6/11/20)	Fall (9/23/20)	Grab	33.2	47.6	ND	ND	11.100	15.5	ND	ND	1.330	2.15	ND	ND	ND	ND	0.0017	0.0014	ND	ND	0.0011	0.001	0.0025	0.0025	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	340	340	NA	NA	4.7556	6.6676	NA	NA	2067.92	2331.60	58.70	81.46	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	3.4908	4.7493	NA	NA	1142.53	1288.21	44.46	61.70	NA	NA		
Madden Creek (7)	Spring (6/11/20)	Fall (9/23/20)	Grab	53.6	61.7	ND	ND	18.300	20.4	ND	ND	1.940	2.59	ND	ND	ND	ND	0.0067	0.0055	ND	ND	0.0009	ND	0.0036	0.0042	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	NA	NA	NA	340	340	NA	NA	7.4680	8.5268	NA	NA	2425.65	2542.07	90.75	103.14	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	NA	NA	5.2563	5.9280	NA	NA	1340.17	1404.49	68.73	78.12	NA	NA		
East Mancos Creek (8)	Spring (6/12/20)	Fall (9/24/20)	Grab	48.7	102.0	5.830	28.000	15.0	30.5	0.298	0.567	2.70	6.29	ND	ND	0.0009	0.0034	0.8520	2.80	ND	ND	0.333	1.510	0.1070	0.3630	ND	ND	
CDPHE: Regulatory Standards-acute				NA	NA	NA	NA	NA	NA	300	300	NA	NA	340	340	0.9102	1.7336	6.8230	13.6925	NA	NA	2349.41	3005.44	83.17	162.91	NA	NA	
CDPHE: Regulatory Standards-chronic				NA	NA	NA	NA	NA	300	300	NA	NA	NA	NA	NA	NA	1.0590	1.0010	4.8429	9.1088	NA	NA	1298.05	1660.51	25.31	123.15	NA	NA
Below Adit (9)	NA	Fall (9/29/20)	Grab	NS	375.0	NS	0.400	NS	121.0	NS	5.790	NS	17.60	NS	0.0200	NS	ND	NS	ND	NS	ND	NS	0.615	NS	0.0863	NS	ND	
CDPHE: Regulatory Standards-acute				NS	NA	NS	NA	NS	NA	NS	300	NS	NA	NS	340	NS	NA	NS	NA	NS	NA	NS	4367.17	NS	532.30	NS	NA	
CDPHE: Regulatory Standards-chronic				NS	NA	NS	NA	NS	NA	NS	300	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	NA	NS	2562.04	NS	40.32	NS

NA = No regulatory standard.
NS = No sample was collected
ND = Analyte was not detected at reporting limit.
*Regulatory Standards above assume that Sculpin and Trout exist in waterways.

APPENDIX C.

Lab Results, Waste Manifest, Chains of Custody



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

26 June 2020

Clinton Casey
SME
679 E 2nd Ave, Ste E2
Durango, CO 81301
RE: Allard

Enclosed are the results of analyses for samples received by the laboratory on 06/12/20 17:00.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
1	2006116-01	Water	06/11/20 14:00	06/12/20 17:00	
2	2006116-02	Water	06/11/20 13:00	06/12/20 17:00	
3	2006116-03	Water	06/11/20 14:30	06/12/20 17:00	
4	2006116-04	Water	06/11/20 16:30	06/12/20 17:00	
5	2006116-05	Water	06/11/20 13:00	06/12/20 17:00	
6	2006116-06	Water	06/11/20 16:00	06/12/20 17:00	
7	2006116-07	Water	06/11/20 17:30	06/12/20 17:00	
8	2006116-08	Water	06/12/20 14:30	06/12/20 17:00	

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

1

2006116-01 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	93.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	93.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:26	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/19/20 19:02	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD	H1	JDA
Conductivity*	653	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:03	EPA335.4		LLG
Nitrate as N*	<0.020	0.020	0.010	mg/L	1	06/12/20 17:57	EPA300.0		AES
Nitrate+Nitrite as N by IC	<0.0400	0.0400	0.0155	mg/L	1	06/12/20 17:57	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 17:57	EPA300.0		AES
pH*	6.99			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:05	EPA365.1		LLG
Total Dissolved Solids*	460	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	15.0	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	215	10.0	1.52	mg/L	10	06/22/20 11:18	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 10:44	EPA200.7		AES
Calcium*	113	0.100	0.027	mg/L	1	06/22/20 10:44	EPA200.7		AES
Hardness as CaCO ₃	348	0.662	0.286	mg/L	1	06/22/20 10:44	2340 B		AES
Magnesium*	16.2	0.100	0.053	mg/L	1	06/22/20 10:44	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	06/16/20 16:42	EPA200.7		AES
Iron*	0.069	0.050	0.018	mg/L	1	06/16/20 16:42	EPA200.7		AES

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

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2006116-01 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	0.0053	0.0005	0.0001	mg/L	1	06/17/20 14:05	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	06/17/20 14:05	EPA200.8		AES
Chromium*	<0.0020	0.0020	0.0004	mg/L	2	06/19/20 13:23	EPA200.8		AES
Copper*	<0.0010	0.0010	0.0004	mg/L	2	06/19/20 13:23	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:05	EPA200.8		AES
Manganese*	0.550	0.0010	0.0002	mg/L	2	06/19/20 13:23	EPA200.8		AES
Molybdenum*	0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:05	EPA200.8		AES
Nickel*	0.0075	0.0010	0.0005	mg/L	2	06/19/20 13:23	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:05	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:05	EPA200.8		AES
Uranium	0.0026	0.0005	0.0002	mg/L	1	06/17/20 14:05	EPA200.8		AES
Zinc*	0.0755	0.0040	0.0006	mg/L	2	06/19/20 13:23	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

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2006116-02 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:27	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/19/20 19:21	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD	H1	JDA
Conductivity*	73.4	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:04	EPA335.4		LLG
Nitrate as N*	0.161	0.020	0.010	mg/L	1	06/12/20 18:15	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.161	0.0400	0.0155	mg/L	1	06/12/20 18:15	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 18:15	EPA300.0		AES
pH*	4.34			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:06	EPA365.1		LLG
Total Dissolved Solids*	60.0	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	25.5	1.00	0.152	mg/L	1	06/19/20 19:21	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 10:48	EPA200.7		AES
Calcium*	6.79	0.100	0.027	mg/L	1	06/22/20 10:48	EPA200.7		AES
Hardness as CaCO ₃	20.0	0.662	0.286	mg/L	1	06/22/20 10:48	2340 B		AES
Magnesium*	0.735	0.100	0.053	mg/L	1	06/22/20 10:48	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	1.24	0.050	0.012	mg/L	1	06/16/20 16:46	EPA200.7		AES
Iron*	0.584	0.050	0.018	mg/L	1	06/16/20 16:46	EPA200.7		AES

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Project Name / Number: Allard
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2006116-02 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:09	EPA200.8		AES
Cadmium*	0.0003	0.0001	0.00007	mg/L	1	06/17/20 14:09	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:09	EPA200.8		AES
Copper*	0.254	0.0005	0.0002	mg/L	1	06/17/20 14:09	EPA200.8		AES
Lead*	0.0026	0.0005	0.0001	mg/L	1	06/17/20 14:09	EPA200.8		AES
Manganese*	0.144	0.0005	0.0001	mg/L	1	06/17/20 14:09	EPA200.8		AES
Molybdenum*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:09	EPA200.8		AES
Nickel*	0.0027	0.0005	0.0003	mg/L	1	06/17/20 14:09	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:09	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:09	EPA200.8		AES
Uranium	0.0005	0.0005	0.0002	mg/L	1	06/17/20 14:09	EPA200.8		AES
Zinc*	0.0753	0.0020	0.0003	mg/L	1	06/17/20 14:09	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

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2006116-03 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:28	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/19/20 20:20	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD	H1	JDA
Conductivity*	86.2	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:05	EPA335.4		LLG
Nitrate as N*	0.147	0.020	0.010	mg/L	1	06/12/20 18:34	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.147	0.0400	0.0155	mg/L	1	06/12/20 18:34	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 18:34	EPA300.0		AES
pH*	5.15			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:07	EPA365.1		LLG
Total Dissolved Solids*	70.0	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	29.9	1.00	0.152	mg/L	1	06/19/20 20:20	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 10:55	EPA200.7		AES
Calcium*	10.7	0.100	0.027	mg/L	1	06/22/20 10:55	EPA200.7		AES
Hardness as CaCO ₃	31.8	0.662	0.286	mg/L	1	06/22/20 10:55	2340 B		AES
Magnesium*	1.26	0.100	0.053	mg/L	1	06/22/20 10:55	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	0.820	0.050	0.012	mg/L	1	06/16/20 16:48	EPA200.7		AES
Iron*	0.078	0.050	0.018	mg/L	1	06/16/20 16:48	EPA200.7		AES

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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

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2006116-03 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:26	EPA200.8		AES
Cadmium*	0.0003	0.0001	0.00007	mg/L	1	06/17/20 14:26	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:26	EPA200.8		AES
Copper*	0.230	0.0005	0.0002	mg/L	1	06/17/20 14:26	EPA200.8		AES
Lead*	0.0011	0.0005	0.0001	mg/L	1	06/17/20 14:26	EPA200.8		AES
Manganese*	0.0928	0.0005	0.0001	mg/L	1	06/17/20 14:26	EPA200.8		AES
Molybdenum*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:26	EPA200.8		AES
Nickel*	0.0024	0.0005	0.0003	mg/L	1	06/17/20 14:26	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:26	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:26	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	06/17/20 14:26	EPA200.8		AES
Zinc*	0.0648	0.0020	0.0003	mg/L	1	06/17/20 14:26	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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Project Manager: Clinton Casey

Reported:
06/26/20 16:51

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2006116-04 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	34.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	34.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:30	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/19/20 21:18	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD	H1	JDA
Conductivity*	100	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:06	EPA335.4		LLG
Nitrate as N*	0.045	0.020	0.010	mg/L	1	06/12/20 18:52	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.0450	0.0400	0.0155	mg/L	1	06/12/20 18:52	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 18:52	EPA300.0		AES
pH*	7.15			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:08	EPA365.1		LLG
Total Dissolved Solids*	45.0	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	11.7	1.00	0.152	mg/L	1	06/19/20 21:18	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 11:01	EPA200.7		AES
Calcium*	17.6	0.100	0.027	mg/L	1	06/22/20 11:01	EPA200.7		AES
Hardness as CaCO ₃	52.6	0.662	0.286	mg/L	1	06/22/20 11:01	2340 B		AES
Magnesium*	2.09	0.100	0.053	mg/L	1	06/22/20 11:01	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	06/16/20 16:50	EPA200.7		AES
Iron*	<0.050	0.050	0.018	mg/L	1	06/16/20 16:50	EPA200.7		AES

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06/26/20 16:51

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2006116-04 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:37	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	06/17/20 14:37	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:37	EPA200.8		AES
Copper*	0.0028	0.0005	0.0002	mg/L	1	06/17/20 14:37	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:37	EPA200.8		AES
Manganese*	0.0012	0.0005	0.0001	mg/L	1	06/17/20 14:37	EPA200.8		AES
Molybdenum*	0.0009	0.0005	0.0001	mg/L	1	06/17/20 14:37	EPA200.8		AES
Nickel*	0.0007	0.0005	0.0003	mg/L	1	06/17/20 14:37	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:37	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:37	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	06/17/20 14:37	EPA200.8		AES
Zinc*	0.0294	0.0020	0.0003	mg/L	1	06/17/20 14:37	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

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06/26/20 16:51

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2006116-05 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	29.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	29.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:31	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/19/20 21:37	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD	H1	JDA
Conductivity*	101	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:07	EPA335.4		LLG
Nitrate as N*	0.049	0.020	0.010	mg/L	1	06/12/20 19:47	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.0486	0.0400	0.0155	mg/L	1	06/12/20 19:47	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 19:47	EPA300.0		AES
pH*	7.15			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:08	EPA365.1		LLG
Total Dissolved Solids*	45.0	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	12.7	1.00	0.152	mg/L	1	06/19/20 21:37	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 11:04	EPA200.7		AES
Calcium*	17.2	0.100	0.027	mg/L	1	06/22/20 11:04	EPA200.7		AES
Hardness as CaCO ₃	51.2	0.662	0.286	mg/L	1	06/22/20 11:04	2340 B		AES
Magnesium*	2.02	0.100	0.053	mg/L	1	06/22/20 11:04	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	06/16/20 16:53	EPA200.7		AES
Iron*	<0.050	0.050	0.018	mg/L	1	06/16/20 16:53	EPA200.7		AES

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2006116-05 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:40	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	06/17/20 14:40	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:40	EPA200.8		AES
Copper*	0.0052	0.0005	0.0002	mg/L	1	06/17/20 14:40	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:40	EPA200.8		AES
Manganese*	0.0017	0.0005	0.0001	mg/L	1	06/17/20 14:40	EPA200.8		AES
Molybdenum*	0.0008	0.0005	0.0001	mg/L	1	06/17/20 14:40	EPA200.8		AES
Nickel*	0.0007	0.0005	0.0003	mg/L	1	06/17/20 14:40	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:40	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:40	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	06/17/20 14:40	EPA200.8		AES
Zinc*	0.0029	0.0020	0.0003	mg/L	1	06/17/20 14:40	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1	M5	LLG
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2006116-06 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	18.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	18.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:32	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/23/20 14:54	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD	H1	JDA
Conductivity*	70.2	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:08	EPA335.4		LLG
Nitrate as N*	0.041	0.020	0.010	mg/L	1	06/12/20 20:06	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.0405	0.0400	0.0155	mg/L	1	06/12/20 20:06	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 20:06	EPA300.0		AES
pH*	7.04			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:09	EPA365.1		LLG
Total Dissolved Solids*	95.0	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	9.23	1.00	0.152	mg/L	1	06/23/20 14:54	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 11:06	EPA200.7		AES
Calcium*	11.1	0.100	0.027	mg/L	1	06/22/20 11:06	EPA200.7		AES
Hardness as CaCO ₃	33.2	0.662	0.286	mg/L	1	06/22/20 11:06	2340 B		AES
Magnesium*	1.33	0.100	0.053	mg/L	1	06/22/20 11:06	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	06/16/20 16:55	EPA200.7		AES
Iron*	<0.050	0.050	0.018	mg/L	1	06/16/20 16:55	EPA200.7		AES

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2006116-06 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:44	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	06/17/20 14:44	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:44	EPA200.8		AES
Copper*	0.0017	0.0005	0.0002	mg/L	1	06/17/20 14:44	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:44	EPA200.8		AES
Manganese*	0.0011	0.0005	0.0001	mg/L	1	06/17/20 14:44	EPA200.8		AES
Molybdenum*	0.0009	0.0005	0.0001	mg/L	1	06/17/20 14:44	EPA200.8		AES
Nickel*	<0.0005	0.0005	0.0003	mg/L	1	06/17/20 14:44	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:44	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:44	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	06/17/20 14:44	EPA200.8		AES
Zinc*	0.0025	0.0020	0.0003	mg/L	1	06/17/20 14:44	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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2006116-07 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	31.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	31.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:38	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/23/20 15:52	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD		JDA
Conductivity*	108	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:11	EPA335.4		LLG
Nitrate as N*	0.046	0.020	0.010	mg/L	1	06/12/20 20:24	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.0456	0.0400	0.0155	mg/L	1	06/12/20 20:24	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 20:24	EPA300.0		AES
pH*	7.20			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:12	EPA365.1		LLG
Total Dissolved Solids*	90.0	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/16/20 11:27	EPA160.2		VJW
Sulfate*	12.9	1.00	0.152	mg/L	1	06/23/20 15:52	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 11:13	EPA200.7		AES
Calcium*	18.3	0.100	0.027	mg/L	1	06/22/20 11:13	EPA200.7		AES
Hardness as CaCO ₃	53.6	0.662	0.286	mg/L	1	06/22/20 11:13	2340 B		AES
Magnesium*	1.94	0.100	0.053	mg/L	1	06/22/20 11:13	EPA200.7		AES

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	06/16/20 16:57	EPA200.7		AES
Iron*	<0.050	0.050	0.018	mg/L	1	06/16/20 16:57	EPA200.7		AES

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2006116-07 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:48	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	06/17/20 14:48	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:48	EPA200.8		AES
Copper*	0.0067	0.0005	0.0002	mg/L	1	06/17/20 14:48	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:48	EPA200.8		AES
Manganese*	0.0009	0.0005	0.0001	mg/L	1	06/17/20 14:48	EPA200.8		AES
Molybdenum*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:48	EPA200.8		AES
Nickel*	0.0009	0.0005	0.0003	mg/L	1	06/17/20 14:48	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	06/17/20 14:48	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:48	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	06/17/20 14:48	EPA200.8		AES
Zinc*	0.0036	0.0020	0.0003	mg/L	1	06/17/20 14:48	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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2006116-08 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	06/22/20 14:25	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	06/22/20 14:25	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	06/16/20 15:42	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	06/23/20 16:56	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	06/12/20 17:15	HACH-DPD		JDA
Conductivity*	152	5.00		umho/cm @ 25.0°C	1	06/13/20 12:40	2510 B		FGH
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	06/17/20 16:14	EPA335.4		LLG
Nitrate as N*	0.133	0.020	0.010	mg/L	1	06/12/20 20:43	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.133	0.0400	0.0155	mg/L	1	06/12/20 20:43	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	06/12/20 20:43	EPA300.0		AES
pH*	3.71			pH Units	1	06/13/20 12:40	EPA150.1		FGH
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	06/19/20 16:13	EPA365.1		LLG
Total Dissolved Solids*	110	10.0		mg/L	1	06/16/20 14:25	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	06/19/20 16:35	EPA160.2		VJW
Sulfate*	84.6	2.00	0.305	mg/L	2	06/25/20 09:49	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	06/18/20 14:00	4500S2-D		VJW
Total Recoverable Metals by ICP (E200.7)									
Boron	<0.300	0.300	0.087	mg/L	1	06/22/20 11:15	EPA200.7		AES
Calcium*	15.0	0.100	0.027	mg/L	1	06/22/20 11:15	EPA200.7		AES
Hardness as CaCO ₃	48.7	0.662	0.286	mg/L	1	06/22/20 11:15	2340 B		AES
Magnesium*	2.70	0.100	0.053	mg/L	1	06/22/20 11:15	EPA200.7		AES
Dissolved Metals by ICP									
Aluminum*	5.83	0.050	0.012	mg/L	1	06/16/20 16:58	EPA200.7		AES
Iron*	0.298	0.050	0.018	mg/L	1	06/16/20 16:58	EPA200.7		AES

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2006116-08 (Surface Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0025	0.0025	0.0005	mg/L	5	06/19/20 13:26	EPA200.8		AES
Cadmium*	0.0009	0.0001	0.00007	mg/L	1	06/17/20 14:51	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	06/17/20 14:51	EPA200.8		AES
Copper*	0.852	0.0005	0.0002	mg/L	1	06/17/20 14:51	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	06/17/20 14:51	EPA200.8		AES
Manganese*	0.333	0.0005	0.0001	mg/L	1	06/17/20 14:51	EPA200.8		AES
Molybdenum*	<0.0025	0.0025	0.0006	mg/L	5	06/19/20 13:26	EPA200.8		AES
Nickel*	0.0100	0.0005	0.0003	mg/L	1	06/17/20 14:51	EPA200.8		AES
Selenium*	<0.0050	0.0050	0.0027	mg/L	5	06/19/20 13:26	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	06/17/20 14:51	EPA200.8		AES
Uranium	0.0043	0.0005	0.0002	mg/L	1	06/17/20 14:51	EPA200.8		AES
Zinc*	0.107	0.0020	0.0003	mg/L	1	06/17/20 14:51	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	06/16/20 12:45	EPA245.1		LLG
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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201027 - General Prep - Wet Chem

Blank (B201027-BLK1)

Prepared & Analyzed: 06/12/20

Nitrate as N	ND	0.020	mg/L
Nitrite as N	ND	0.020	mg/L

LCS (B201027-BS1)

Prepared & Analyzed: 06/12/20

Nitrate as N	0.953	0.020	mg/L	1.00	95.3	90-110
Nitrite as N	1.08	0.020	mg/L	1.00	108	90-110

LCS Dup (B201027-BSD1)

Prepared & Analyzed: 06/12/20

Nitrate as N	0.956	0.020	mg/L	1.00	95.6	90-110	0.314	20
Nitrite as N	1.06	0.020	mg/L	1.00	106	90-110	2.41	20

Batch B201030 - General Prep - Wet Chem

Blank (B201030-BLK1)

Prepared: 06/12/20 Analyzed: 06/16/20

Ammonia as N	ND	0.100	mg NH3-N/L
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LCS (B201030-BS1)

Prepared: 06/12/20 Analyzed: 06/16/20

Ammonia as N	2.73	0.100	mg NH3-N/L	2.50	109	90-110
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LCS Dup (B201030-BSD1)

Prepared: 06/12/20 Analyzed: 06/16/20

Ammonia as N	2.73	0.100	mg NH3-N/L	2.50	109	90-110	0.0660	20
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Batch B201031 - General Prep - Wet Chem

Blank (B201031-BLK1)

Prepared & Analyzed: 06/17/20

Cyanide, Total	ND	0.0100	mg/L
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LCS (B201031-BS1)

Prepared & Analyzed: 06/17/20

Cyanide, Total	0.0989	0.0100	mg/L	0.100	98.9	90-110
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LCS Dup (B201031-BSD1)

Prepared & Analyzed: 06/17/20

Cyanide, Total	0.100	0.0100	mg/L	0.100	100	90-110	1.41	20
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Batch B201040 - General Prep - Wet Chem

Blank (B201040-BLK1)

Prepared: 06/15/20 Analyzed: 06/16/20

Total Suspended Solids	ND	4.00	mg/L
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Batch B201042 - General Prep - Wet Chem

Duplicate (B201042-DUP1)

Source: 2006116-01

Prepared & Analyzed: 06/13/20

Conductivity	662	5.00	umho/cm @ 25.0°C	653	1.37	20
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Reference (B201042-SRM1)

Prepared & Analyzed: 06/13/20

Conductivity	491	5.00	umho/cm @ 25.0°C	488	101	90-110
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Batch B201044 - General Prep - Wet Chem

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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

General Chemistry - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201044 - General Prep - Wet Chem (Continued)

Duplicate (B201044-DUP1)		Source: 2006116-01		Prepared & Analyzed: 06/13/20						
pH	6.96		pH Units		6.99			0.430	20	
Reference (B201044-SRM1)		Prepared & Analyzed: 06/13/20								
pH	7.09		pH Units	7.00		101	98.5-101.4			

Batch B201046 - General Prep - Wet Chem

Blank (B201046-BLK1)		Prepared & Analyzed: 06/12/20								
Chlorine, Tot Resid	ND	0.100	mg/L							
Duplicate (B201046-DUP1)		Source: 2006116-01		Prepared & Analyzed: 06/12/20						
Chlorine, Tot Resid	ND	0.100	mg/L		ND				20	

Batch B201047 - General Prep - Wet Chem

Blank (B201047-BLK1)		Prepared: 06/15/20 Analyzed: 06/16/20								
Ammonia as N	ND	0.100	mg NH3-N/L							
LCS (B201047-BS1)		Prepared: 06/15/20 Analyzed: 06/16/20								
Ammonia as N	2.73	0.100	mg NH3-N/L	2.50		109	90-110			
LCS Dup (B201047-BSD1)		Prepared: 06/15/20 Analyzed: 06/16/20								
Ammonia as N	2.73	0.100	mg NH3-N/L	2.50		109	90-110	0.0330	20	

Batch B201048 - General Prep - Wet Chem

Blank (B201048-BLK1)		Prepared: 06/15/20 Analyzed: 06/19/20								
Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B201048-BS1)		Prepared: 06/15/20 Analyzed: 06/19/20								
Chloride	23.4	1.00	mg/L	25.0		93.6	90-110			
Sulfate	23.6	1.00	mg/L	25.0		94.3	90-110			
LCS Dup (B201048-BSD1)		Prepared: 06/15/20 Analyzed: 06/19/20								
Chloride	23.4	1.00	mg/L	25.0		93.6	90-110	0.0812	20	
Sulfate	23.6	1.00	mg/L	25.0		94.5	90-110	0.233	20	

Batch B201055 - General Prep - Wet Chem

Blank (B201055-BLK1)		Prepared & Analyzed: 06/16/20								
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (B201055-DUP1)		Source: 2006091-01		Prepared & Analyzed: 06/16/20						
Total Dissolved Solids	130	10.0	mg/L		115			12.3	20	
Reference (B201055-SRM1)		Prepared & Analyzed: 06/16/20								
Total Dissolved Solids	550	10.0	mg/L	570		96.5	85-115			

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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201068 - General Prep - Wet Chem

Blank (B201068-BLK1)

Prepared: 06/17/20 Analyzed: 06/19/20

Phosphorus, Total	ND	0.0500	mg P/L
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LCS (B201068-BS1)

Prepared: 06/17/20 Analyzed: 06/19/20

Phosphorus, Total	2.68	0.0500	mg P/L	2.50	107	90-110
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LCS Dup (B201068-BSD1)

Prepared: 06/17/20 Analyzed: 06/19/20

Phosphorus, Total	2.72	0.0500	mg P/L	2.50	109	90-110	1.28	20
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Batch B201075 - General Prep - Wet Chem

Blank (B201075-BLK1)

Prepared & Analyzed: 06/18/20

Sulfide	ND	0.0500	mg/L
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LCS (B201075-BS1)

Prepared & Analyzed: 06/18/20

Sulfide	0.286	0.0500	mg/L	0.250	114	85-115
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LCS Dup (B201075-BSD1)

Prepared & Analyzed: 06/18/20

Sulfide	0.283	0.0500	mg/L	0.250	113	85-115	1.05	20
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Batch B201084 - General Prep - Wet Chem

Blank (B201084-BLK1)

Prepared & Analyzed: 06/19/20

Total Suspended Solids	ND	4.00	mg/L
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Duplicate (B201084-DUP1)

Source: 2006149-01 Prepared & Analyzed: 06/19/20

Total Suspended Solids	88.6	4.00	mg/L	77.1	13.8	20
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Reference (B201084-SRM1)

Prepared & Analyzed: 06/19/20

Total Suspended Solids	97.0	4.00	mg/L	100	97.0	85-115
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Batch B201091 - General Prep - Wet Chem

Blank (B201091-BLK1)

Prepared & Analyzed: 06/22/20

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L

LCS (B201091-BS1)

Prepared & Analyzed: 06/22/20

Alkalinity, Bicarbonate as CaCO ₃	94.0	10.0	mg/L			85-115
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L			85-115
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L			85-115
Alkalinity, Total as CaCO ₃	94.0	10.0	mg/L	100	94.0	85-115

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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201091 - General Prep - Wet Chem (Continued)

LCS Dup (B201091-BSD1)

Prepared & Analyzed: 06/22/20

Alkalinity, Bicarbonate as CaCO ₃	94.0	10.0	mg/L				85-115	0.00	20	
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L				85-115		20	
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L				85-115		20	
Alkalinity, Total as CaCO ₃	94.0	10.0	mg/L	100		94.0	85-115	0.00	20	

Batch B201110 - General Prep - Wet Chem

Blank (B201110-BLK1)

Prepared & Analyzed: 06/23/20

Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							

LCS (B201110-BS1)

Prepared & Analyzed: 06/23/20

Chloride	24.1	1.00	mg/L	25.0		96.6	90-110			
Sulfate	24.2	1.00	mg/L	25.0		96.8	90-110			

LCS Dup (B201110-BSD1)

Prepared & Analyzed: 06/23/20

Chloride	24.0	1.00	mg/L	25.0		95.8	90-110	0.807	20	
Sulfate	24.0	1.00	mg/L	25.0		96.0	90-110	0.842	20	

Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201057 - Total Rec. 200.7/200.8/200.2

Blank (B201057-BLK1)

Prepared: 06/16/20 Analyzed: 06/22/20

Boron	ND	0.300	mg/L							
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							

LCS (B201057-BS1)

Prepared: 06/16/20 Analyzed: 06/22/20

Boron	4.03	0.300	mg/L	4.00		101	85-115			
Calcium	4.22	0.100	mg/L	4.00		105	85-115			
Magnesium	20.6	0.100	mg/L	20.0		103	85-115			

LCS Dup (B201057-BSD1)

Prepared: 06/16/20 Analyzed: 06/22/20

Boron	4.06	0.300	mg/L	4.00		102	85-115	0.676	20	
Calcium	4.19	0.100	mg/L	4.00		105	85-115	0.587	20	
Magnesium	20.5	0.100	mg/L	20.0		102	85-115	0.529	20	

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B201059 - Diss. 200.7/200.8										
Blank (B201059-BLK1)										
Prepared & Analyzed: 06/16/20										
Aluminum	ND	0.050	mg/L							
Iron	ND	0.050	mg/L							
LCS (B201059-BS1)										
Prepared & Analyzed: 06/16/20										
Aluminum	4.89	0.050	mg/L	5.00		97.8	85-115			
Iron	4.78	0.050	mg/L	5.00		95.6	85-115			
LCS Dup (B201059-BSD1)										
Prepared & Analyzed: 06/16/20										
Aluminum	4.88	0.050	mg/L	5.00		97.6	85-115	0.212	20	
Iron	4.79	0.050	mg/L	5.00		95.9	85-115	0.232	20	

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SME
679 E 2nd Ave, Ste E2
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201061 - Diss. 200.7/200.8

Blank (B201061-BLK1)

Prepared: 06/16/20 Analyzed: 06/17/20

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0001	mg/L
Chromium	ND	0.0010	mg/L
Copper	ND	0.0005	mg/L
Lead	ND	0.0005	mg/L
Manganese	ND	0.0005	mg/L
Molybdenum	ND	0.0005	mg/L
Nickel	ND	0.0005	mg/L
Selenium	ND	0.0010	mg/L
Silver	ND	0.0002	mg/L
Uranium	ND	0.0005	mg/L
Zinc	ND	0.0020	mg/L

LCS (B201061-BS1)

Prepared: 06/16/20 Analyzed: 06/17/20

Arsenic	0.0464	0.0005	mg/L	0.0500	92.8	85-115
Cadmium	0.0481	0.0001	mg/L	0.0500	96.1	85-115
Chromium	0.0470	0.0010	mg/L	0.0500	94.0	85-115
Copper	0.0458	0.0005	mg/L	0.0500	91.7	85-115
Lead	0.0482	0.0005	mg/L	0.0500	96.4	85-115
Manganese	0.0477	0.0005	mg/L	0.0500	95.5	85-115
Molybdenum	0.0478	0.0005	mg/L	0.0500	95.6	85-115
Nickel	0.0461	0.0005	mg/L	0.0500	92.1	85-115
Selenium	0.239	0.0010	mg/L	0.250	95.4	85-115
Silver	0.0478	0.0002	mg/L	0.0500	95.7	85-115
Uranium	0.0473	0.0005	mg/L	0.0500	94.5	85-115
Zinc	0.0468	0.0020	mg/L	0.0500	93.5	85-115

LCS Dup (B201061-BSD1)

Prepared: 06/16/20 Analyzed: 06/17/20

Arsenic	0.0459	0.0005	mg/L	0.0500	91.7	85-115	1.18	20
Cadmium	0.0469	0.0001	mg/L	0.0500	93.8	85-115	2.51	20
Chromium	0.0457	0.0010	mg/L	0.0500	91.4	85-115	2.84	20
Copper	0.0449	0.0005	mg/L	0.0500	89.7	85-115	2.12	20
Lead	0.0476	0.0005	mg/L	0.0500	95.1	85-115	1.33	20
Manganese	0.0466	0.0005	mg/L	0.0500	93.1	85-115	2.49	20
Molybdenum	0.0475	0.0005	mg/L	0.0500	95.0	85-115	0.619	20
Nickel	0.0447	0.0005	mg/L	0.0500	89.4	85-115	3.04	20
Selenium	0.235	0.0010	mg/L	0.250	94.2	85-115	1.34	20
Silver	0.0471	0.0002	mg/L	0.0500	94.2	85-115	1.49	20
Uranium	0.0468	0.0005	mg/L	0.0500	93.6	85-115	0.985	20
Zinc	0.0455	0.0020	mg/L	0.0500	90.9	85-115	2.81	20

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SME
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
06/26/20 16:51

Dissolved Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201034 - EPA 245.1/7470

Blank (B201034-BLK1)

Prepared: 06/12/20 Analyzed: 06/16/20

Mercury	ND	0.0002	mg/L							
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LCS (B201034-BS1)

Prepared: 06/12/20 Analyzed: 06/16/20

Mercury	0.0049	0.0002	mg/L	0.00500	98.3	85-115				
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LCS Dup (B201034-BSD1)

Prepared: 06/12/20 Analyzed: 06/16/20

Mercury	0.0052	0.0002	mg/L	0.00500	104	85-115	5.81	20		
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Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
H1	Sample was received several days after collected and subsequently analyzed past hold time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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Laboratories

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75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

FORM-006
COC - Revision 6.0

Company or Client: **JNE**

Address: **679 East 2nd Ave Unit E2**

City: **Durango** State: **CO** Zip: **81301**

Phone #: **970-259-9595**

Contact Person: **Clint Casey**

Email Report to: **ccasey@jne-anv.com**

Project Name(optional): **Alland**

Sampler Name (Print):

For Lab Use

Sample Name or Location

Collected	Date	Time	Matrix (check one)					# of containers			
			GROUNDWATER	SURFACEWATER	WASTEWATER	PRODUCEDWATER	SOIL	DRINKING WATER	OTHER :	No preservation (general)	
2006-11-01	6/11	1400	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OTHER: 2NaAc NaOH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-02	6/11	1300	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OTHER: NaOH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-03	6/11	1430	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-04	6/11	1630	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-05	6/11	1300	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-06	6/11	1600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-07	6/11	1730	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
116-08	6/12	1430	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

PLEASE NOTE: GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date: **6/12**

Received By:

Signature: **Fin Aza**

ADDITIONAL REMARKS:

Report to State? (Circle)

Yes No

Relinquished By:

Date:

Received By:

Relinquished By:

Date:

Received By:

Relinquished By:

Date:

Received By:

Relinquished By:

Date:

Received By:

Relinquished By:

Date:

Received By:

1050-#01
on ice
5.5/5.6°C

Temperature at receipt:

CHECKED BY: **FL**

† GAL cannot always accept verbal changes. Please fax or email written change requests.

* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.

Project Information

SME

679 E 2nd Ave, Ste E2
Durango, CO 81301

Phone:(970) 259-9595

6/12/2020

Fax:-

Laboratory PM: Debbie Zufelt

Project Name: Allard
Project Number: May 14, 2020
Client PM: Clinton Casey
Comments:

Analysis	Comment
Alkalinity, Bicarbonate	
Alkalinity, Carbonate	
Alkalinity, Hydroxide	
Alkalinity, Total	
Aluminum Dissolved by ICP	
Ammonia	
Arsenic Dissolved by ICPMS	
Boron 200.2 by ICP	
Cadmium Dissolved by ICPMS	
Chloride by IC	
Chlorine, Total Residual	
Chromium III, Dissolved by ICPMS	Run Only T-Cr per D.Z. & C.C. 06.12.20
Conductivity	
Copper Dissolved by ICPMS	
Cyanide, Total	
Hardness, 200.2 Metals	
Iron Dissolved by ICP	
Lead Dissolved by ICPMS	
Manganese Dissolved by ICPMS	
Mercury Dissolved by CVAA	
Molybdenum Dissolved by ICPMS	
Nickel Dissolved by ICPMS	
Nitrate/Nitrite as N by IC Package	
pH	
Phosphate as P, Total by Lachat	
Selenium Dissolved by ICPMS	
Silver Dissolved by ICPMS	
Solids, Total Dissolved (TDS)	
Solids, Total Suspended (TSS)	
Sulfate by IC	
Sulfide	
Uranium Dissolved by ICPMS	
Zinc Dissolved by ICPMS	

Chromium III, Dissolved by ICPMS subanalyses:

Chromium Dissolved by ICPMS
Chromium, Hexavalent Dissolved

Project Information

SME

679 E 2nd Ave, Ste E2
Durango, CO 81301

Phone:(970) 259-9595

6/12/2020

Fax:-

Laboratory PM: Debbie Zufelt

Project Name: Allard
Project Number: May 14, 2020
Client PM: Clinton Casey
Comments:

Analysis	Comment
<i>Hardness, 200.2 Metals subanalyses:</i>	
Calcium 200.2 by ICP	
Magnesium 200.2 by ICP	
<i>Nitrate/Nitrite as N by IC Package subanalyses:</i>	
Nitrate as N by IC	
Nitrite as N by IC	



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08 October 2020

Clinton Casey
SME
679 E 2nd Ave, Ste E2
Durango, CO 81301
RE: Allard

Enclosed are the results of analyses for samples received by the laboratory on 09/24/20 15:30.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Allard 8	2009301-01	Water	09/24/20 12:00	09/24/20 15:30	

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Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

Allard 8**2009301-01 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	10/01/20 09:30	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	10/01/20 09:30	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	10/01/20 09:30	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	10/01/20 09:30	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 15:12	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/07/20 22:49	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/25/20 10:00	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/25/20 11:25	3500-Cr D		LLG
Conductivity*	494	1.00		umho/cm @ 25.0°C	1	09/25/20 09:15	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 16:17	EPA335.4		LLG
Nitrate as N*	0.170	0.020	0.010	mg/L	1	09/24/20 22:08	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.170	0.0400	0.0155	mg/L	1	09/24/20 22:08	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 22:08	EPA300.0	M5	AES
pH*	3.78			pH Units	1	09/25/20 15:30	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:36	EPA365.1		LLG
Total Dissolved Solids*	300	10.0		mg/L	1	09/29/20 16:35	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/24/20 16:58	EPA160.2		VJW
Sulfate*	303	10.0	1.52	mg/L	10	10/08/20 11:17	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 14:22	EPA200.7		JDA
Calcium*	30.5	0.100	0.027	mg/L	1	09/29/20 14:21	EPA200.7		JDA
Hardness as CaCO ₃	102	0.662	0.286	mg/L	1	09/29/20 14:22	2340 B		JDA
Magnesium*	6.29	0.100	0.053	mg/L	1	09/29/20 14:22	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	28.0	0.050	0.012	mg/L	1	10/07/20 13:27	EPA200.7		AES
Iron*	0.567	0.050	0.018	mg/L	1	10/07/20 13:27	EPA200.7		AES

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	0.0137	0.0100	0.0033	mg/L	5	09/30/20 18:02	EPA200.8		JDA
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Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

Allard 8**2009301-01 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0200	0.0200	0.0044	mg/L	40	10/06/20 15:08	EPA200.8		AES
Cadmium*	0.0034	0.0001	0.00007	mg/L	1	10/06/20 12:21	EPA200.8		AES
Chromium*	0.0013	0.0010	0.0002	mg/L	1	10/06/20 12:21	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/06/20 12:21	Calculation		LLG
Copper*	2.80	0.0005	0.0002	mg/L	1	10/06/20 12:21	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	10/06/20 12:21	EPA200.8		AES
Manganese*	1.51	0.0005	0.0001	mg/L	1	10/06/20 12:21	EPA200.8		AES
Molybdenum*	<0.0200	0.0200	0.0045	mg/L	40	10/06/20 15:08	EPA200.8		AES
Nickel*	0.0374	0.0005	0.0003	mg/L	1	10/06/20 12:21	EPA200.8		AES
Selenium*	<0.0400	0.0400	0.0213	mg/L	40	10/06/20 15:08	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/06/20 12:21	EPA200.8		AES
Uranium	0.0216	0.0005	0.0002	mg/L	1	10/06/20 12:21	EPA200.8		AES
Zinc*	0.363	0.0020	0.0003	mg/L	1	10/06/20 12:21	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG
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679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202011 - General Prep - Wet Chem

Blank (B202011-BLK1)

Prepared & Analyzed: 09/24/20

Total Suspended Solids	ND	4.00	mg/L
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Duplicate (B202011-DUP1)

Source: 2009197-01

Prepared & Analyzed: 09/24/20

Total Suspended Solids	8.80	4.00	mg/L	8.00	9.52	20
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Reference (B202011-SRM1)

Prepared & Analyzed: 09/24/20

Total Suspended Solids	102	4.00	mg/L	100	102	85-115
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Batch B202013 - General Prep - Wet Chem

Blank (B202013-BLK1)

Prepared: 09/24/20 Analyzed: 09/26/20

Nitrate as N	ND	0.020	mg/L
Nitrite as N	ND	0.020	mg/L

LCS (B202013-BS1)

Prepared & Analyzed: 09/24/20

Nitrate as N	0.945	0.020	mg/L	1.00	94.5	90-110
Nitrite as N	1.01	0.020	mg/L	1.00	101	90-110

LCS Dup (B202013-BSD1)

Prepared & Analyzed: 09/24/20

Nitrate as N	0.952	0.020	mg/L	1.00	95.2	90-110	0.748	20
Nitrite as N	1.05	0.020	mg/L	1.00	105	90-110	3.27	20

Batch B202014 - General Prep - Wet Chem

Blank (B202014-BLK1)

Prepared & Analyzed: 09/25/20

Chromium VI, Dissolved	ND	0.00800	mg/L
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LCS (B202014-BS1)

Prepared & Analyzed: 09/25/20

Chromium VI, Dissolved	0.0232	0.00800	mg/L	0.0250	92.7	85-115
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LCS Dup (B202014-BSD1)

Prepared & Analyzed: 09/25/20

Chromium VI, Dissolved	0.0246	0.00800	mg/L	0.0250	98.3	85-115	5.91	20
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Batch B202028 - General Prep - Wet Chem

Duplicate (B202028-DUP1)

Source: 2009301-01

Prepared & Analyzed: 09/25/20

pH	3.81	pH Units	3.78	0.791	20
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Reference (B202028-SRM1)

Prepared & Analyzed: 09/25/20

pH	7.03	pH Units	7.00	100	98.5-101.4
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Batch B202030 - General Prep - Wet Chem

Duplicate (B202030-DUP1)

Source: 2009301-01

Prepared & Analyzed: 09/25/20

Conductivity	494	1.00 umho/cm @ 25.0°C	494	0.00	20
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch B202030 - General Prep - Wet Chem (Continued)

Reference (B202030-SRM1)

Prepared & Analyzed: 09/25/20

Conductivity	476	1.00	umho/cm @ 25.0°C	447	106	90-110			
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Batch B202036 - General Prep - Wet Chem

Blank (B202036-BLK1)

Prepared: 09/28/20 Analyzed: 09/29/20

Phosphorus, Total	ND	0.0500	mg P/L						
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LCS (B202036-BS1)

Prepared: 09/28/20 Analyzed: 09/29/20

Phosphorus, Total	2.55	0.0500	mg P/L	2.50	102	90-110			
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LCS Dup (B202036-BSD1)

Prepared: 09/28/20 Analyzed: 09/29/20

Phosphorus, Total	2.53	0.0500	mg P/L	2.50	101	90-110	0.852	20	
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Batch B202043 - General Prep - Wet Chem

Blank (B202043-BLK1)

Prepared & Analyzed: 09/29/20

Total Dissolved Solids	ND	10.0	mg/L						
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Duplicate (B202043-DUP1)

Source: 2009301-01

Prepared & Analyzed: 09/29/20

Total Dissolved Solids	320	10.0	mg/L	300			6.43	20	
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Reference (B202043-SRM1)

Prepared & Analyzed: 09/29/20

Total Dissolved Solids	370	10.0	mg/L	380	97.4	85-115			
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Batch B202049 - General Prep - Wet Chem

Blank (B202049-BLK1)

Prepared: 09/29/20 Analyzed: 09/30/20

Cyanide, Total	ND	0.0100	mg/L						
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LCS (B202049-BS1)

Prepared: 09/29/20 Analyzed: 09/30/20

Cyanide, Total	0.106	0.0100	mg/L	0.100	106	90-110			
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LCS Dup (B202049-BSD1)

Prepared: 09/29/20 Analyzed: 09/30/20

Cyanide, Total	0.0942	0.0100	mg/L	0.100	94.2	90-110	11.7	20	
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Batch B202060 - General Prep - Wet Chem

Blank (B202060-BLK1)

Prepared & Analyzed: 09/30/20

Sulfide	ND	0.0500	mg/L						
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LCS (B202060-BS1)

Prepared & Analyzed: 09/30/20

Sulfide	0.286	0.0500	mg/L	0.250	114	85-115			
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LCS Dup (B202060-BSD1)

Prepared & Analyzed: 09/30/20

Sulfide	0.283	0.0500	mg/L	0.250	113	85-115	1.05	20	
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Batch B202063 - General Prep - Wet Chem

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202063 - General Prep - Wet Chem (Continued)

Blank (B202063-BLK1)

Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N ND 0.100 mg NH3-N/L

LCS (B202063-BS1)

Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N 2.70 0.100 mg NH3-N/L 2.50 108 90-110

LCS Dup (B202063-BSD1)

Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N 2.66 0.100 mg NH3-N/L 2.50 106 90-110 1.41 20

Batch B202069 - General Prep - Wet Chem

Blank (B202069-BLK1)

Prepared & Analyzed: 09/24/20

Chlorine, Tot Resid ND 0.100 mg/L

Duplicate (B202069-DUP2)

Source: 2009301-01 Prepared & Analyzed: 09/25/20

Chlorine, Tot Resid ND 0.100 mg/L ND 20

Batch B202081 - General Prep - Wet Chem

Blank (B202081-BLK1)

Prepared & Analyzed: 10/01/20

Alkalinity, Bicarbonate as CaCO3 ND 10.0 mg/L

Alkalinity, Carbonate as CaCO3 ND 10.0 mg/L

Alkalinity, Hydroxide as CaCO3 ND 10.0 mg/L

Alkalinity, Total as CaCO3 ND 10.0 mg/L

LCS (B202081-BS1)

Prepared & Analyzed: 10/01/20

Alkalinity, Bicarbonate as CaCO3 103 10.0 mg/L 85-115

Alkalinity, Carbonate as CaCO3 ND 10.0 mg/L 85-115

Alkalinity, Hydroxide as CaCO3 ND 10.0 mg/L 85-115

Alkalinity, Total as CaCO3 103 10.0 mg/L 100 103 85-115

LCS Dup (B202081-BSD1)

Prepared & Analyzed: 10/01/20

Alkalinity, Bicarbonate as CaCO3 104 10.0 mg/L 85-115 0.966 20

Alkalinity, Carbonate as CaCO3 ND 10.0 mg/L 85-115 20

Alkalinity, Hydroxide as CaCO3 ND 10.0 mg/L 85-115 20

Alkalinity, Total as CaCO3 104 10.0 mg/L 100 104 85-115 0.966 20

Batch B202105 - General Prep - Wet Chem

Blank (B202105-BLK1)

Prepared: 10/06/20 Analyzed: 10/07/20

Chloride ND 1.00 mg/L

Sulfate ND 1.00 mg/L

LCS (B202105-BS1)

Prepared: 10/06/20 Analyzed: 10/07/20

Chloride 23.1 1.00 mg/L 25.0 92.4 90-110

Sulfate 23.6 1.00 mg/L 25.0 94.3 90-110

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202105 - General Prep - Wet Chem (Continued)

LCS Dup (B202105-BSD1)

Prepared: 10/06/20 Analyzed: 10/07/20

Chloride	23.2	1.00	mg/L	25.0		92.9	90-110	0.570	20	
Sulfate	23.8	1.00	mg/L	25.0		95.3	90-110	1.06	20	

Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202034 - Total Rec. 200.7/200.8/200.2

Blank (B202034-BLK1)

Prepared: 09/28/20 Analyzed: 09/29/20

Boron	ND	0.300	mg/L							
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							

LCS (B202034-BS1)

Prepared: 09/28/20 Analyzed: 09/29/20

Boron	3.66	0.300	mg/L	4.00		91.5	85-115			
Calcium	3.64	0.100	mg/L	4.00		91.0	85-115			
Magnesium	18.6	0.100	mg/L	20.0		93.1	85-115			

LCS Dup (B202034-BSD1)

Prepared: 09/28/20 Analyzed: 09/29/20

Boron	3.67	0.300	mg/L	4.00		91.6	85-115	0.132	20	
Calcium	3.63	0.100	mg/L	4.00		90.7	85-115	0.366	20	
Magnesium	18.6	0.100	mg/L	20.0		92.8	85-115	0.275	20	

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202104 - Diss. 200.7/200.8

Blank (B202104-BLK1)

Prepared: 10/06/20 Analyzed: 10/07/20

Aluminum	ND	0.050	mg/L
Iron	ND	0.050	mg/L

LCS (B202104-BS1)

Prepared: 10/06/20 Analyzed: 10/07/20

Aluminum	4.97	0.050	mg/L	5.00	99.4	85-115
Iron	4.75	0.050	mg/L	5.00	95.0	85-115

LCS Dup (B202104-BSD1)

Prepared: 10/06/20 Analyzed: 10/07/20

Aluminum	4.91	0.050	mg/L	5.00	98.2	85-115	1.21	20
Iron	4.69	0.050	mg/L	5.00	93.7	85-115	1.35	20

Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202035 - Total Rec. 200.7/200.8/200.2

Blank (B202035-BLK1)

Prepared: 09/28/20 Analyzed: 09/30/20

Chromium	ND	0.0020	mg/L
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LCS (B202035-BS1)

Prepared: 09/28/20 Analyzed: 09/30/20

Chromium	0.0534	0.0020	mg/L	0.0500	107	85-115
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LCS Dup (B202035-BSD1)

Prepared: 09/28/20 Analyzed: 09/30/20

Chromium	0.0567	0.0020	mg/L	0.0500	113	85-115	5.94	20
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679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202103 - Diss. 200.7/200.8

Blank (B202103-BLK1)

Prepared & Analyzed: 10/06/20

Arsenic	ND	0.0005	mg/L
Cadmium	ND	0.0001	mg/L
Chromium	ND	0.0010	mg/L
Copper	ND	0.0005	mg/L
Lead	ND	0.0005	mg/L
Manganese	ND	0.0005	mg/L
Molybdenum	ND	0.0005	mg/L
Nickel	ND	0.0005	mg/L
Selenium	ND	0.0010	mg/L
Silver	ND	0.0002	mg/L
Uranium	ND	0.0005	mg/L
Zinc	ND	0.0020	mg/L

LCS (B202103-BS1)

Prepared & Analyzed: 10/06/20

Arsenic	0.0463	0.0005	mg/L	0.0500	92.7	85-115
Cadmium	0.0477	0.0001	mg/L	0.0500	95.4	85-115
Chromium	0.0476	0.0010	mg/L	0.0500	95.1	85-115
Copper	0.0474	0.0005	mg/L	0.0500	94.7	85-115
Lead	0.0481	0.0005	mg/L	0.0500	96.2	85-115
Manganese	0.0496	0.0005	mg/L	0.0500	99.1	85-115
Molybdenum	0.0473	0.0005	mg/L	0.0500	94.6	85-115
Nickel	0.0464	0.0005	mg/L	0.0500	92.8	85-115
Selenium	0.247	0.0010	mg/L	0.250	98.9	85-115
Silver	0.0465	0.0002	mg/L	0.0500	93.0	85-115
Uranium	0.0469	0.0005	mg/L	0.0500	93.9	85-115
Zinc	0.0498	0.0020	mg/L	0.0500	99.7	85-115

LCS Dup (B202103-BSD1)

Prepared & Analyzed: 10/06/20

Arsenic	0.0467	0.0005	mg/L	0.0500	93.4	85-115	0.753	20
Cadmium	0.0463	0.0001	mg/L	0.0500	92.6	85-115	2.90	20
Chromium	0.0462	0.0010	mg/L	0.0500	92.5	85-115	2.78	20
Copper	0.0463	0.0005	mg/L	0.0500	92.5	85-115	2.37	20
Lead	0.0477	0.0005	mg/L	0.0500	95.4	85-115	0.793	20
Manganese	0.0474	0.0005	mg/L	0.0500	94.8	85-115	4.40	20
Molybdenum	0.0454	0.0005	mg/L	0.0500	90.9	85-115	3.95	20
Nickel	0.0457	0.0005	mg/L	0.0500	91.5	85-115	1.48	20
Selenium	0.241	0.0010	mg/L	0.250	96.6	85-115	2.41	20
Silver	0.0466	0.0002	mg/L	0.0500	93.3	85-115	0.357	20
Uranium	0.0474	0.0005	mg/L	0.0500	94.8	85-115	0.966	20
Zinc	0.0474	0.0020	mg/L	0.0500	94.9	85-115	4.93	20

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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

Dissolved Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B202045 - EPA 245.1/7470										
Blank (B202045-BLK1)				Prepared: 09/30/20 Analyzed: 10/02/20						
Mercury	ND	0.0002	mg/L							
LCS (B202045-BS1)				Prepared: 09/30/20 Analyzed: 10/02/20						
Mercury	0.0049	0.0002	mg/L	0.00500		97.6	85-115			
LCS Dup (B202045-BSD1)				Prepared: 09/30/20 Analyzed: 10/02/20						
Mercury	0.0049	0.0002	mg/L	0.00500		97.0	85-115	0.596	20	

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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/08/20 16:42

Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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75 Suttle St Durango, CO

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST
FORM-006
COC - Revision 6.0

FORM-006
COC - Revision 6.0

[illegible]



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07 October 2020

Clinton Casey
SME
679 E 2nd Ave, Ste E2
Durango, CO 81301
RE: Allard

Enclosed are the results of analyses for samples received by the laboratory on 09/23/20 16:00.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

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Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Allard 1	2009273-01	Water	09/23/20 11:00	09/23/20 16:00	
Allard 2	2009273-02	Water	09/23/20 11:30	09/23/20 16:00	
Allard 3	2009273-03	Water	09/23/20 12:00	09/23/20 16:00	
Allard 4	2009273-04	Water	09/23/20 14:00	09/23/20 16:00	
Allard 5	2009273-05	Water	09/23/20 14:30	09/23/20 16:00	
Allard 6	2009273-06	Water	09/23/20 13:30	09/23/20 16:00	
Allard 7	2009273-07	Water	09/23/20 15:00	09/23/20 16:00	

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679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 1**2009273-01 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	109	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	109	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 14:45	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 17:56	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	675	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 15:58	EPA335.4		LLG
Nitrate as N*	<0.020	0.020	0.010	mg/L	1	09/24/20 17:50	EPA300.0		AES
Nitrate+Nitrite as N by IC	<0.0400	0.0400	0.0155	mg/L	1	09/24/20 17:50	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 17:50	EPA300.0		AES
pH*	7.47			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:24	EPA365.1		LLG
Total Dissolved Solids*	460	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	7.73	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	196	10.0	1.52	mg/L	10	10/06/20 13:00	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:26	EPA200.7		JDA
Calcium*	91.3	0.100	0.027	mg/L	1	09/29/20 13:26	EPA200.7		JDA
Hardness as CaCO ₃	282	0.662	0.286	mg/L	1	09/29/20 13:26	2340 B		JDA
Magnesium*	13.0	0.100	0.053	mg/L	1	09/29/20 13:26	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	0.097	0.050	0.012	mg/L	1	09/28/20 16:42	EPA200.7		JDA
Iron*	<0.050	0.050	0.018	mg/L	1	09/28/20 16:42	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:02	EPA200.8		JDA
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679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 1**2009273-01 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Arsenic*	0.0047	0.0005	0.0001	mg/L	1	10/02/20 14:30	EPA200.8		AES
Cadmium*	0.0001	0.0001	0.00007	mg/L	1	10/02/20 14:30	EPA200.8		AES
Chromium*	0.0019	0.0010	0.0002	mg/L	1	10/02/20 14:30	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 14:30	Calculation		LLG
Copper*	<0.0005	0.0005	0.0002	mg/L	1	10/02/20 14:30	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 14:30	EPA200.8		AES
Manganese*	0.542	0.0010	0.0001	mg/L	1	10/02/20 14:30	EPA200.8	B3	AES
Molybdenum*	0.0008	0.0005	0.0001	mg/L	1	10/02/20 14:30	EPA200.8		AES
Nickel*	0.0051	0.0005	0.0003	mg/L	1	10/02/20 14:30	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	10/02/20 14:30	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 14:30	EPA200.8		AES
Uranium	0.0030	0.0005	0.0002	mg/L	1	10/02/20 14:30	EPA200.8		AES
Zinc*	0.134	0.0020	0.0003	mg/L	1	10/02/20 14:30	EPA200.8		AES
Dissolved Mercury by CVAA									
Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG

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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 2**2009273-02 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	<10.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 14:48	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 18:16	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	178	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 15:59	EPA335.4		LLG
Nitrate as N*	0.166	0.020	0.010	mg/L	1	09/24/20 18:45	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.166	0.0400	0.0155	mg/L	1	09/24/20 18:45	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 18:45	EPA300.0		AES
pH*	4.07			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:25	EPA365.1		LLG
Total Dissolved Solids*	140	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	66.2	2.00	0.305	mg/L	2	10/06/20 13:20	EPA300.0	M5	AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:38	EPA200.7		JDA
Calcium*	13.7	0.100	0.027	mg/L	1	09/29/20 13:38	EPA200.7		JDA
Hardness as CaCO ₃	39.8	0.662	0.286	mg/L	1	09/29/20 13:38	2340 B		JDA
Magnesium*	1.38	0.100	0.053	mg/L	1	09/29/20 13:38	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	3.54	0.050	0.012	mg/L	1	09/28/20 16:46	EPA200.7		JDA
Iron*	0.474	0.050	0.018	mg/L	1	09/28/20 16:46	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:06	EPA200.8		JDA
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Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 2**2009273-02 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Dissolved Metals by ICPMS									
Arsenic*	<0.0010	0.0010	0.0002	mg/L	2	10/02/20 14:51	EPA200.8		AES
Cadmium*	0.0011	0.0001	0.00007	mg/L	1	10/02/20 14:40	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	10/02/20 14:40	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 14:40	Calculation		LLG
Copper*	0.559	0.0005	0.0002	mg/L	1	10/02/20 14:40	EPA200.8		AES
Lead*	0.0237	0.0005	0.0001	mg/L	1	10/02/20 14:40	EPA200.8		AES
Manganese*	0.469	0.0010	0.0001	mg/L	1	10/02/20 14:40	EPA200.8	B3	AES
Molybdenum*	<0.0010	0.0010	0.0002	mg/L	2	10/02/20 14:51	EPA200.8		AES
Nickel*	0.0074	0.0005	0.0003	mg/L	1	10/02/20 14:40	EPA200.8		AES
Selenium*	<0.0020	0.0020	0.0011	mg/L	2	10/02/20 14:51	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 14:40	EPA200.8		AES
Uranium	0.0017	0.0005	0.0002	mg/L	1	10/02/20 14:40	EPA200.8		AES
Zinc*	0.208	0.0020	0.0003	mg/L	1	10/02/20 14:40	EPA200.8		AES
Dissolved Mercury by CVAA									
Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG

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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 3**2009273-03 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	12.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	12.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 14:49	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 19:53	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	244	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 16:00	EPA335.4		LLG
Nitrate as N*	0.244	0.020	0.010	mg/L	1	09/24/20 19:04	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.244	0.0400	0.0155	mg/L	1	09/24/20 19:04	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 19:04	EPA300.0		AES
pH*	6.23			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:26	EPA365.1		LLG
Total Dissolved Solids*	130	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	5.33	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	79.4	5.00	0.762	mg/L	5	10/06/20 14:18	EPA300.0	M5	AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:40	EPA200.7		JDA
Calcium*	27.0	0.100	0.027	mg/L	1	09/29/20 13:40	EPA200.7		JDA
Hardness as CaCO ₃	81.8	0.662	0.286	mg/L	1	09/29/20 13:40	2340 B		JDA
Magnesium*	3.49	0.100	0.053	mg/L	1	09/29/20 13:40	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	0.467	0.050	0.012	mg/L	1	09/28/20 16:48	EPA200.7		JDA
Iron*	<0.050	0.050	0.018	mg/L	1	09/28/20 16:48	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:20	EPA200.8		JDA
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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 3**2009273-03 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 14:54	EPA200.8		AES
Cadmium*	0.0009	0.0001	0.00007	mg/L	1	10/02/20 14:54	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	10/02/20 14:54	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 14:54	Calculation		LLG
Copper*	0.225	0.0005	0.0002	mg/L	1	10/02/20 14:54	EPA200.8		AES
Lead*	0.0013	0.0005	0.0001	mg/L	1	10/02/20 14:54	EPA200.8		AES
Manganese*	0.126	0.0010	0.0001	mg/L	1	10/02/20 14:54	EPA200.8	B3	AES
Molybdenum*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 14:54	EPA200.8		AES
Nickel*	0.0055	0.0005	0.0003	mg/L	1	10/02/20 14:54	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	10/02/20 14:54	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 14:54	EPA200.8		AES
Uranium	0.0006	0.0005	0.0002	mg/L	1	10/02/20 14:54	EPA200.8		AES
Zinc*	0.141	0.0020	0.0003	mg/L	1	10/02/20 14:54	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 4**2009273-04 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	48.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	48.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 14:51	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 20:51	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	188	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 16:02	EPA335.4		LLG
Nitrate as N*	0.123	0.020	0.010	mg/L	1	09/24/20 19:22	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.123	0.0400	0.0155	mg/L	1	09/24/20 19:22	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 19:22	EPA300.0		AES
pH*	7.47			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:26	EPA365.1		LLG
Total Dissolved Solids*	99.9	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	32.9	1.00	0.152	mg/L	1	10/05/20 20:51	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:47	EPA200.7		JDA
Calcium*	25.0	0.100	0.027	mg/L	1	09/29/20 13:47	EPA200.7		JDA
Hardness as CaCO ₃	76.0	0.662	0.286	mg/L	1	09/29/20 16:31	2340 B		JDA
Magnesium*	3.29	0.100	0.053	mg/L	1	09/29/20 16:31	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	09/28/20 16:51	EPA200.7		JDA
Iron*	<0.050	0.050	0.018	mg/L	1	09/28/20 16:51	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:31	EPA200.8		JDA
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679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 4**2009273-04 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 14:58	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	10/02/20 14:58	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	10/02/20 14:58	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 14:58	Calculation		LLG
Copper*	0.0015	0.0005	0.0002	mg/L	1	10/02/20 14:58	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 14:58	EPA200.8		AES
Manganese*	<0.0010	0.0010	0.0001	mg/L	1	10/02/20 14:58	EPA200.8	B3	AES
Molybdenum*	0.0011	0.0005	0.0001	mg/L	1	10/02/20 14:58	EPA200.8		AES
Nickel*	<0.0005	0.0005	0.0003	mg/L	1	10/02/20 14:58	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	10/02/20 14:58	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 14:58	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	10/02/20 14:58	EPA200.8		AES
Zinc*	0.0032	0.0020	0.0003	mg/L	1	10/02/20 14:58	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 5**2009273-05 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	44.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	44.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 14:52	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 21:11	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	187	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 16:03	EPA335.4		LLG
Nitrate as N*	0.110	0.020	0.010	mg/L	1	09/24/20 19:41	EPA300.0		AES
Nitrate+Nitrite as N by IC	0.110	0.0400	0.0155	mg/L	1	09/24/20 19:41	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 19:41	EPA300.0		AES
pH*	7.61			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:27	EPA365.1		LLG
Total Dissolved Solids*	135	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	33.9	1.00	0.152	mg/L	1	10/05/20 21:11	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:49	EPA200.7		JDA
Calcium*	24.5	0.100	0.027	mg/L	1	09/29/20 13:49	EPA200.7		JDA
Hardness as CaCO ₃	74.2	0.662	0.286	mg/L	1	09/29/20 16:33	2340 B		JDA
Magnesium*	3.17	0.100	0.053	mg/L	1	09/29/20 16:33	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	09/28/20 16:53	EPA200.7		JDA
Iron*	<0.050	0.050	0.018	mg/L	1	09/28/20 16:53	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:41	EPA200.8		JDA
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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 5**2009273-05 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:01	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	10/02/20 15:01	EPA200.8		AES
Chromium*	0.0012	0.0010	0.0002	mg/L	1	10/02/20 15:01	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 15:01	Calculation		LLG
Copper*	0.0040	0.0005	0.0002	mg/L	1	10/02/20 15:01	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:01	EPA200.8		AES
Manganese*	0.0020	0.0010	0.0001	mg/L	1	10/02/20 15:01	EPA200.8	B3	AES
Molybdenum*	0.0012	0.0005	0.0001	mg/L	1	10/02/20 15:01	EPA200.8		AES
Nickel*	0.0007	0.0005	0.0003	mg/L	1	10/02/20 15:01	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	10/02/20 15:01	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 15:01	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	10/02/20 15:01	EPA200.8		AES
Zinc*	0.0095	0.0020	0.0003	mg/L	1	10/02/20 15:01	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG
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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 6**2009273-06 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	34.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	34.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 14:58	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 21:30	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	120	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 16:04	EPA335.4		LLG
Nitrate as N*	<0.020	0.020	0.010	mg/L	1	09/24/20 20:36	EPA300.0		AES
Nitrate+Nitrite as N by IC	<0.0400	0.0400	0.0155	mg/L	1	09/24/20 20:36	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 20:36	EPA300.0		AES
pH*	7.50			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:28	EPA365.1		LLG
Total Dissolved Solids*	90.0	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	19.5	1.00	0.152	mg/L	1	10/05/20 21:30	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:51	EPA200.7		JDA
Calcium*	15.5	0.100	0.027	mg/L	1	09/29/20 13:51	EPA200.7		JDA
Hardness as CaCO ₃	47.6	0.662	0.286	mg/L	1	09/29/20 16:35	2340 B		JDA
Magnesium*	2.15	0.100	0.053	mg/L	1	09/29/20 16:35	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	09/28/20 16:55	EPA200.7		JDA
Iron*	<0.050	0.050	0.018	mg/L	1	09/28/20 16:55	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:45	EPA200.8		JDA
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 6**2009273-06 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:05	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	10/02/20 15:05	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	10/02/20 15:05	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 15:05	Calculation		LLG
Copper*	0.0014	0.0005	0.0002	mg/L	1	10/02/20 15:05	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:05	EPA200.8		AES
Manganese*	0.0010	0.0010	0.0001	mg/L	1	10/02/20 15:05	EPA200.8	B3	AES
Molybdenum*	0.0011	0.0005	0.0001	mg/L	1	10/02/20 15:05	EPA200.8		AES
Nickel*	<0.0005	0.0005	0.0003	mg/L	1	10/02/20 15:05	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	10/02/20 15:05	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 15:05	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	10/02/20 15:05	EPA200.8		AES
Zinc*	0.0025	0.0020	0.0003	mg/L	1	10/02/20 15:05	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 7**2009273-07 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate as CaCO ₃ *	46.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Carbonate as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Hydroxide as CaCO ₃ *	<10.0	10.0		mg/L	1	09/28/20 14:40	2320 B		VJW
Alkalinity, Total as CaCO ₃ *	46.0	10.0	7.16	mg/L	1	09/28/20 14:40	2320 B		VJW
Ammonia as N	<0.100	0.100	0.0251	mg NH ₃ -N/L	1	10/01/20 15:02	EPA350.1		LLG
Chloride*	<1.00	1.00	0.0886	mg/L	1	10/05/20 21:50	EPA300.0		AES
Chlorine, Tot Resid	<0.100	0.100		mg/L	1	09/24/20 10:30	HACH-DPD		JDA
Chromium VI, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	09/24/20 10:45	3500-Cr D		LLG
Conductivity*	161	1.00		umho/cm @ 25.0°C	1	09/24/20 14:00	2510 B		VJW
Cyanide, Total*	<0.0100	0.0100	0.00122	mg/L	1	09/30/20 16:05	EPA335.4		LLG
Nitrate as N*	<0.020	0.020	0.010	mg/L	1	09/24/20 20:54	EPA300.0		AES
Nitrate+Nitrite as N by IC	<0.0400	0.0400	0.0155	mg/L	1	09/24/20 20:54	EPA300.0		AES
Nitrite as N*	<0.020	0.020	0.005	mg/L	1	09/24/20 20:54	EPA300.0		AES
pH*	7.58			pH Units	1	09/24/20 14:00	EPA150.1		VJW
Phosphorus, Total	<0.0500	0.0500	0.00904	mg P/L	1	09/29/20 15:28	EPA365.1		LLG
Total Dissolved Solids*	180	10.0		mg/L	1	09/25/20 14:35	EPA160.1		VJW
Total Suspended Solids*	<4.00	4.00		mg/L	1	09/24/20 16:38	EPA160.2		VJW
Sulfate*	27.2	1.00	0.152	mg/L	1	10/05/20 21:50	EPA300.0		AES
Sulfide	<0.0500	0.0500	0.0258	mg/L	1	09/30/20 14:00	4500S2-D		VJW

Total Recoverable Metals by ICP (E200.7)

Boron	<0.300	0.300	0.087	mg/L	1	09/29/20 13:53	EPA200.7		JDA
Calcium*	20.4	0.100	0.027	mg/L	1	09/29/20 13:53	EPA200.7		JDA
Hardness as CaCO ₃	61.7	0.662	0.286	mg/L	1	09/29/20 16:37	2340 B		JDA
Magnesium*	2.59	0.100	0.053	mg/L	1	09/29/20 16:37	EPA200.7		JDA

Dissolved Metals by ICP

Aluminum*	<0.050	0.050	0.012	mg/L	1	09/28/20 16:58	EPA200.7		JDA
Iron*	<0.050	0.050	0.018	mg/L	1	09/28/20 16:58	EPA200.7		JDA

Total Recoverable Metals by ICPMS (E200.8)

Chromium*	<0.0100	0.0100	0.0033	mg/L	5	09/30/20 14:48	EPA200.8		JDA
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Allard 7**2009273-07 (Surface Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Dissolved Metals by ICPMS

Arsenic*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:08	EPA200.8		AES
Cadmium*	<0.0001	0.0001	0.00007	mg/L	1	10/02/20 15:08	EPA200.8		AES
Chromium*	<0.0010	0.0010	0.0002	mg/L	1	10/02/20 15:08	EPA200.8		AES
Chromium III, Dissolved	<0.00800	0.00800	0.00423	mg/L	1	10/02/20 15:08	Calculation		LLG
Copper*	0.0055	0.0005	0.0002	mg/L	1	10/02/20 15:08	EPA200.8		AES
Lead*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:08	EPA200.8		AES
Manganese*	<0.0010	0.0010	0.0001	mg/L	1	10/02/20 15:08	EPA200.8	B3	AES
Molybdenum*	<0.0005	0.0005	0.0001	mg/L	1	10/02/20 15:08	EPA200.8		AES
Nickel*	0.0005	0.0005	0.0003	mg/L	1	10/02/20 15:08	EPA200.8		AES
Selenium*	<0.0010	0.0010	0.0005	mg/L	1	10/02/20 15:08	EPA200.8		AES
Silver*	<0.0002	0.0002	0.00007	mg/L	1	10/02/20 15:08	EPA200.8		AES
Uranium	<0.0005	0.0005	0.0002	mg/L	1	10/02/20 15:08	EPA200.8		AES
Zinc*	0.0042	0.0020	0.0003	mg/L	1	10/02/20 15:08	EPA200.8		AES

Dissolved Mercury by CVAA

Mercury*	<0.0002	0.0002	0.00001	mg/L	1	10/02/20 14:39	EPA245.1		LLG
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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B202006 - General Prep - Wet Chem										
Blank (B202006-BLK1)				Prepared & Analyzed: 09/24/20						
Chromium VI, Dissolved	ND	0.00800	mg/L							
LCS (B202006-BS1)				Prepared & Analyzed: 09/24/20						
Chromium VI, Dissolved	0.0246	0.00800	mg/L	0.0250		98.3	85-115			
LCS Dup (B202006-BSD1)				Prepared & Analyzed: 09/24/20						
Chromium VI, Dissolved	0.0218	0.00800	mg/L	0.0250		87.0	85-115	12.2	20	
Batch B202011 - General Prep - Wet Chem										
Blank (B202011-BLK1)				Prepared & Analyzed: 09/24/20						
Total Suspended Solids	ND	4.00	mg/L							
Duplicate (B202011-DUP1)				Source: 2009197-01 Prepared & Analyzed: 09/24/20						
Total Suspended Solids	8.80	4.00	mg/L		8.00			9.52	20	
Reference (B202011-SRM1)				Prepared & Analyzed: 09/24/20						
Total Suspended Solids	102	4.00	mg/L	100		102	85-115			
Batch B202013 - General Prep - Wet Chem										
Blank (B202013-BLK1)				Prepared: 09/24/20 Analyzed: 09/26/20						
Nitrate as N	ND	0.020	mg/L							
Nitrite as N	ND	0.020	mg/L							
LCS (B202013-BS1)				Prepared & Analyzed: 09/24/20						
Nitrate as N	0.945	0.020	mg/L	1.00		94.5	90-110			
Nitrite as N	1.01	0.020	mg/L	1.00		101	90-110			
LCS Dup (B202013-BSD1)				Prepared & Analyzed: 09/24/20						
Nitrate as N	0.952	0.020	mg/L	1.00		95.2	90-110	0.748	20	
Nitrite as N	1.05	0.020	mg/L	1.00		105	90-110	3.27	20	
Batch B202021 - General Prep - Wet Chem										
Blank (B202021-BLK1)				Prepared & Analyzed: 09/25/20						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (B202021-DUP1)				Source: 2009300-01 Prepared & Analyzed: 09/25/20						
Total Dissolved Solids	125	10.0	mg/L		145			14.8	20	
Reference (B202021-SRM1)				Prepared & Analyzed: 09/25/20						
Total Dissolved Solids	370	10.0	mg/L	380		97.4	85-115			
Batch B202024 - General Prep - Wet Chem										
Duplicate (B202024-DUP1)				Source: 2009273-01 Prepared & Analyzed: 09/24/20						
pH	7.52		pH Units		7.47			0.667	20	

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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

General Chemistry - Quality Control
(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202024 - General Prep - Wet Chem (Continued)

Reference (B202024-SRM1)

Prepared & Analyzed: 09/24/20

pH	6.93		pH Units	7.00		99.0	98.5-101.4			
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Batch B202026 - General Prep - Wet Chem

Duplicate (B202026-DUP1)

Source: 2009273-01

Prepared & Analyzed: 09/24/20

Conductivity	679	1.00	umho/cm @ 25.0°C	675				0.591	20	
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Reference (B202026-SRM1)

Prepared & Analyzed: 09/24/20

Conductivity	465	1.00	umho/cm @ 25.0°C	447		104	90-110			
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Batch B202032 - General Prep - Wet Chem

Blank (B202032-BLK1)

Prepared & Analyzed: 09/28/20

Alkalinity, Bicarbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L							
Alkalinity, Total as CaCO ₃	ND	10.0	mg/L							

LCS (B202032-BS1)

Prepared & Analyzed: 09/28/20

Alkalinity, Bicarbonate as CaCO ₃	104	10.0	mg/L				85-115			
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L				85-115			
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L				85-115			
Alkalinity, Total as CaCO ₃	104	10.0	mg/L	100		104	85-115			

LCS Dup (B202032-BSD1)

Prepared & Analyzed: 09/28/20

Alkalinity, Bicarbonate as CaCO ₃	103	10.0	mg/L				85-115	0.966	20	
Alkalinity, Carbonate as CaCO ₃	ND	10.0	mg/L				85-115		20	
Alkalinity, Hydroxide as CaCO ₃	ND	10.0	mg/L				85-115		20	
Alkalinity, Total as CaCO ₃	103	10.0	mg/L	100		103	85-115	0.966	20	

Batch B202036 - General Prep - Wet Chem

Blank (B202036-BLK1)

Prepared: 09/28/20 Analyzed: 09/29/20

Phosphorus, Total	ND	0.0500	mg P/L							
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LCS (B202036-BS1)

Prepared: 09/28/20 Analyzed: 09/29/20

Phosphorus, Total	2.55	0.0500	mg P/L	2.50		102	90-110			
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LCS Dup (B202036-BSD1)

Prepared: 09/28/20 Analyzed: 09/29/20

Phosphorus, Total	2.53	0.0500	mg P/L	2.50		101	90-110	0.852	20	
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Batch B202049 - General Prep - Wet Chem

Blank (B202049-BLK1)

Prepared: 09/29/20 Analyzed: 09/30/20

Cyanide, Total	ND	0.0100	mg/L							
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Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202049 - General Prep - Wet Chem (Continued)

LCS (B202049-BS1) Prepared: 09/29/20 Analyzed: 09/30/20

Cyanide, Total	0.106	0.0100	mg/L	0.100	106	90-110
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LCS Dup (B202049-BSD1) Prepared: 09/29/20 Analyzed: 09/30/20

Cyanide, Total	0.0942	0.0100	mg/L	0.100	94.2	90-110	11.7	20
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Batch B202060 - General Prep - Wet Chem

Blank (B202060-BLK1) Prepared & Analyzed: 09/30/20

Sulfide	ND	0.0500	mg/L
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LCS (B202060-BS1) Prepared & Analyzed: 09/30/20

Sulfide	0.286	0.0500	mg/L	0.250	114	85-115
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LCS Dup (B202060-BSD1) Prepared & Analyzed: 09/30/20

Sulfide	0.283	0.0500	mg/L	0.250	113	85-115	1.05	20
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Batch B202062 - General Prep - Wet Chem

Blank (B202062-BLK1) Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N	ND	0.100	mg NH3-N/L
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LCS (B202062-BS1) Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N	2.68	0.100	mg NH3-N/L	2.50	107	90-110
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LCS Dup (B202062-BSD1) Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N	2.64	0.100	mg NH3-N/L	2.50	106	90-110	1.36	20
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Batch B202063 - General Prep - Wet Chem

Blank (B202063-BLK1) Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N	ND	0.100	mg NH3-N/L
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LCS (B202063-BS1) Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N	2.70	0.100	mg NH3-N/L	2.50	108	90-110
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LCS Dup (B202063-BSD1) Prepared: 09/30/20 Analyzed: 10/01/20

Ammonia as N	2.66	0.100	mg NH3-N/L	2.50	106	90-110	1.41	20
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Batch B202069 - General Prep - Wet Chem

Blank (B202069-BLK1) Prepared & Analyzed: 09/24/20

Chlorine, Tot Resid	ND	0.100	mg/L
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Duplicate (B202069-DUP1) Source: 2009273-01 Prepared & Analyzed: 09/24/20

Chlorine, Tot Resid	ND	0.100	mg/L	ND	20
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Duplicate (B202069-DUP2) Source: 2009301-01 Prepared & Analyzed: 09/25/20

Chlorine, Tot Resid	ND	0.100	mg/L	ND	20
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SME
679 E 2nd Ave, Ste E2
Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

**General Chemistry - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202069 - General Prep - Wet Chem (Continued)

Duplicate (B202069-DUP3)	Source: 2009346-01		Prepared & Analyzed: 09/30/20							
Chlorine, Tot Resid	ND	0.100	mg/L		ND				20	

Batch B202098 - General Prep - Wet Chem

Blank (B202098-BLK1)	Prepared & Analyzed: 10/05/20									
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Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							

LCS (B202098-BS1)	Prepared & Analyzed: 10/05/20									
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Chloride	23.0	1.00	mg/L	25.0		92.2	90-110			
Sulfate	23.6	1.00	mg/L	25.0		94.2	90-110			

LCS Dup (B202098-BSD1)	Prepared & Analyzed: 10/05/20									
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Chloride	22.9	1.00	mg/L	25.0		91.6	90-110	0.605	20	
Sulfate	24.0	1.00	mg/L	25.0		95.8	90-110	1.70	20	

Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202034 - Total Rec. 200.7/200.8/200.2

Blank (B202034-BLK1)	Prepared: 09/28/20 Analyzed: 09/29/20									
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Boron	ND	0.300	mg/L							
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							

LCS (B202034-BS1)	Prepared: 09/28/20 Analyzed: 09/29/20									
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Boron	3.66	0.300	mg/L	4.00		91.5	85-115			
Calcium	3.64	0.100	mg/L	4.00		91.0	85-115			
Magnesium	18.6	0.100	mg/L	20.0		93.1	85-115			

LCS Dup (B202034-BSD1)	Prepared: 09/28/20 Analyzed: 09/29/20									
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Boron	3.67	0.300	mg/L	4.00		91.6	85-115	0.132	20	
Calcium	3.63	0.100	mg/L	4.00		90.7	85-115	0.366	20	
Magnesium	18.6	0.100	mg/L	20.0		92.8	85-115	0.275	20	

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Project: Allard
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10/07/20 12:57

Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202005 - Diss. 200.7/200.8

Blank (B202005-BLK1)

Prepared: 09/24/20 Analyzed: 09/28/20

Aluminum	ND	0.050	mg/L
Iron	ND	0.050	mg/L

LCS (B202005-BS1)

Prepared: 09/24/20 Analyzed: 09/28/20

Aluminum	4.67	0.050	mg/L	5.00	93.3	85-115
Iron	4.61	0.050	mg/L	5.00	92.1	85-115

LCS Dup (B202005-BSD1)

Prepared: 09/24/20 Analyzed: 09/28/20

Aluminum	4.67	0.050	mg/L	5.00	93.5	85-115	0.169	20
Iron	4.66	0.050	mg/L	5.00	93.1	85-115	1.11	20

Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202035 - Total Rec. 200.7/200.8/200.2

Blank (B202035-BLK1)

Prepared: 09/28/20 Analyzed: 09/30/20

Chromium	ND	0.0020	mg/L
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LCS (B202035-BS1)

Prepared: 09/28/20 Analyzed: 09/30/20

Chromium	0.0534	0.0020	mg/L	0.0500	107	85-115
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LCS Dup (B202035-BSD1)

Prepared: 09/28/20 Analyzed: 09/30/20

Chromium	0.0567	0.0020	mg/L	0.0500	113	85-115	5.94	20
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Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Dissolved Metals by ICPMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B202008 - Diss. 200.7/200.8

Blank (B202008-BLK1)

Prepared: 09/24/20 Analyzed: 10/02/20

Arsenic	ND	0.0005	mg/L							
Cadmium	ND	0.0001	mg/L							
Chromium	ND	0.0010	mg/L							
Copper	ND	0.0005	mg/L							
Lead	ND	0.0005	mg/L							
Manganese	0.0005	0.0005	mg/L							
Molybdenum	ND	0.0005	mg/L							
Nickel	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Silver	ND	0.0002	mg/L							
Uranium	ND	0.0005	mg/L							
Zinc	ND	0.0020	mg/L							

B3

LCS (B202008-BS1)

Prepared: 09/24/20 Analyzed: 10/02/20

Arsenic	0.0539	0.0005	mg/L	0.0500	108	85-115				
Cadmium	0.0560	0.0001	mg/L	0.0500	112	85-115				
Chromium	0.0529	0.0010	mg/L	0.0500	106	85-115				
Copper	0.0526	0.0005	mg/L	0.0500	105	85-115				
Lead	0.0548	0.0005	mg/L	0.0500	110	85-115				
Manganese	0.0538	0.0005	mg/L	0.0500	108	85-115				
Molybdenum	0.0527	0.0005	mg/L	0.0500	105	85-115				
Nickel	0.0531	0.0005	mg/L	0.0500	106	85-115				
Selenium	0.272	0.0010	mg/L	0.250	109	85-115				
Silver	0.0529	0.0002	mg/L	0.0500	106	85-115				
Uranium	0.0540	0.0005	mg/L	0.0500	108	85-115				
Zinc	0.0535	0.0020	mg/L	0.0500	107	85-115				

LCS Dup (B202008-BSD1)

Prepared: 09/24/20 Analyzed: 10/02/20

Arsenic	0.0539	0.0005	mg/L	0.0500	108	85-115	0.106	20		
Cadmium	0.0540	0.0001	mg/L	0.0500	108	85-115	3.67	20		
Chromium	0.0520	0.0010	mg/L	0.0500	104	85-115	1.70	20		
Copper	0.0515	0.0005	mg/L	0.0500	103	85-115	2.13	20		
Lead	0.0545	0.0005	mg/L	0.0500	109	85-115	0.417	20		
Manganese	0.0534	0.0005	mg/L	0.0500	107	85-115	0.785	20		
Molybdenum	0.0535	0.0005	mg/L	0.0500	107	85-115	1.56	20		
Nickel	0.0521	0.0005	mg/L	0.0500	104	85-115	1.97	20		
Selenium	0.272	0.0010	mg/L	0.250	109	85-115	0.216	20		
Silver	0.0522	0.0002	mg/L	0.0500	104	85-115	1.28	20		
Uranium	0.0537	0.0005	mg/L	0.0500	107	85-115	0.548	20		
Zinc	0.0531	0.0020	mg/L	0.0500	106	85-115	0.611	20		

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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Dissolved Mercury by CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B202045 - EPA 245.1/7470										
Blank (B202045-BLK1)				Prepared: 09/30/20 Analyzed: 10/02/20						
Mercury	ND	0.0002	mg/L							
LCS (B202045-BS1)				Prepared: 09/30/20 Analyzed: 10/02/20						
Mercury	0.0049	0.0002	mg/L	0.00500		97.6	85-115			
LCS Dup (B202045-BSD1)				Prepared: 09/30/20 Analyzed: 10/02/20						
Mercury	0.0049	0.0002	mg/L	0.00500		97.0	85-115	0.596	20	

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SME
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Durango CO, 81301

Project: Allard
Project Name / Number: Allard
Project Manager: Clinton Casey

Reported:
10/07/20 12:57

Notes and Definitions

M5	Sample was chosen for matrix spike. Spike recovery did not meet laboratory acceptance criteria, possible matrix interference in sample.
B3	Target analyte detected in method blank or continuing calibration blank. Reporting limit elevated to account for blank result.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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SME

679 E 2nd Ave, Ste E2

Durango, CO 81301

Laboratory PM: Debbie Zufelt

Project Name: Allard

Project Number: May 14, 2020

Client PM: Clinton Casey

Comments:

Analysis

Comment

Alkalinity, Bicarbonate

Alkalinity, Carbonate

Alkalinity, Hydroxide

Alkalinity, Total

Aluminum Dissolved by ICP

Ammonia

Arsenic Dissolved by ICPMS

Boron 200.2 by ICP

Cadmium Dissolved by ICPMS

Chloride by IC

Chlorine, Total Residual

Chromium III, Dissolved by ICPMS

Conductivity

Copper Dissolved by ICPMS

Cyanide, Total

Hardness, 200.2 Metals

Iron Dissolved by ICP

Lead Dissolved by ICPMS

Manganese Dissolved by ICPMS

Mercury Dissolved by CVAA

Molybdenum Dissolved by ICPMS

Nickel Dissolved by ICPMS

Nitrate/Nitrite as N by IC Package

pH

Phosphate as P, Total by Lachat

Selenium Dissolved by ICPMS

Silver Dissolved by ICPMS

Solids, Total Dissolved (TDS)

Solids, Total Suspended (TSS)

Sulfate by IC

Sulfide

Uranium Dissolved by ICPMS

Zinc Dissolved by ICPMS

Chromium III, Dissolved by ICPMS subanalyses:

Chromium Dissolved by ICPMS

Chromium, Hexavalent Dissolved

9/23/2020

Phone:(970) 259-9595

Fax:-

Project Information

SME

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Durango, CO 81301
Laboratory PM: Debbie Zufelt
Phone: (970) 259-9595
Fax: -
9/23/2020

Project Name: Allard
Project Number: May 14, 2020
Client PM: Clinton Casey
Comments:

Analysis	Comment
Hardness, 200.2 Metals subanalyses:	
Calcium 200.2 by ICP	
Magnesium 200.2 by ICP	
Nitrate/Nitrite as N by IC Package subanalyses:	
Nitrate as N by IC	
Nitrite as N by IC	