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## M-1977-410 TR-10 THIRD QUARTER 2022 - WATER MONITORING REPORT DRMS

1 message

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**Rmittasch@nedmining.com** <Rmittasch@nedmining.com>

Mon, Oct 31, 2022 at 8:07 AM

To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>, Daniel Takami <danieltakami@gmail.com>

Cc: Sergio Rivera <sergio.rivera@novametallix.com>

Dear Mr. Lennberg

Please review the attached submission for our third quarter 2022 water monitoring report for both groundwater and surface water as related to TR10.

If you have any questions or you have problems opening the files due to their size please contact us immediately so that we can remedy the problem.

Kind Regards,

**Richard Mittasch, Vice President**

Nederland Mining Consultants, Inc.

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### 2 attachments



**TR-10 THIRD QUARTER 2022 - WATER MONITORING REPORT DRMS - 110122- v1r0.pdf**

6027K



**Appendices TR-10 THIRD QUARTER 2022.pdf**

12374K



**THIRD QUARTER 2022, GROUNDWATER, MINE EFFLUENT, SURFACE WATER AND TREATMENT PLANT  
EFFLUENT QUALITY**

**REPORT COMPLIANT WITH THE TERMS OF TECHNICAL REVISION #10 (TR-10)**

**Prepared by Grand Island Resources**

**November 1, 2022**



## Table of Contents

1. Introduction .....	3
2. Ground Water Monitoring .....	4
2.1. Water Quality Analytical Results.....	4
2.2. Groundwater Levels and Potentiometric Water Surface.....	8
3. Mine Effluent Monitoring .....	12
4. Surface Water Monitoring .....	16
4.1. Water Quality Analytical Results.....	16
4.2. Surface Water Flows .....	20
5. NPDES permit CO-0032751 Outfall 001 .....	21

## List of Appendices

### APPENDIX A. GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

APPENDIX A.1 JULY 2022 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

APPENDIX A.2 AUGUST 2022 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

APPENDIX A.3 SEPTEMBER 2022 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

### APPENDIX B OUTFALL-001 ANALYTICAL RESULTS

APPENDIX B.1 JULY 2022 OUTFALL-001 ANALYTICAL RESULTS

APPENDIX B.2 AUGUST 2022 OUTFALL-001 ANALYTICAL RESULTS

APPENDIX B.3 SEPTEMBER 2022 OUTFALL-001 ANALYTICAL RESULTS

### APPENDIX C SURFACE WATER ANALYTICAL RESULTS

APPENDIX C.1 JULY 2022 SURFACE WATER ANALYTICAL RESULTS

APPENDIX C.2 AUGUST 2022 SURFACE WATER ANALYTICAL RESULTS

APPENDIX C.3 SEPTEMBER 2022 SURFACE WATER ANALYTICAL RESULTS

### APPENDIX D CHAIN OF CUSTODY (COC) FORMS

### APPENDIX E FIELD FORMS

### APPENDIX F PHOTOGRAPHS

APPENDIX F.1 SAMPLE LOCATION 2022-01 PHOTOGRAPHS

APPENDIX F.2 SAMPLE LOCATION 2022-02 PHOTOGRAPHS



## 1. Introduction

On April 28, 2022, the Division of Reclamation, Mining and Safety (Division) approved the Technical Revision application (TR-10) filed with the Division on February 28, 2022, addressing the following: ***Modify the water management and treatment program and provide a surface water and groundwater monitoring program (in accordance with corrective action #1 of the Board Order issued for Violation No. MV-2021-017).***

The terms of TR-10 approved by the Division were thereby incorporated into Permit No. M-1977-410. All other conditions and requirements of Permit No. M-1977-410 remain in full force and effect. Grand Island Resources (The Operator) will need to provide five consecutive quarters of groundwater monitoring data that include all sampling parameters and standards required by ***WQCC's "Interim Narrative Standard"***. Water effluent from the mines is currently managed via the Treatment System into Coon Track Creek under CDPHE Water Quality Control Division (WQCD) National Pollutant Discharge Elimination System NPDES permit CO-0032751.

Technical Revision 10 (TR10) terms require The Operator to submit to DRMS Quarterly Water Monitoring Reports not later than 30 days from the end of the quarter. The Operator and GIR agreed to provide the reports on specific dates, the 3<sup>rd</sup> Quarter 2022 is being submitted on November 1, 2022, in accordance with the agreed upon schedule.

The quarterly reports must include:

- 1.1. Analytical results for the 7 sampling locations agreed upon between GIR and DRMS, shown on Figure 3;
- 1.2. Monthly Potentiometric Surface (water table) maps constructed from measurements made during the sampling events and will note exceedances of Regulation 41, Tables 1-4 water quality standards;
- 1.3. Laboratory data packages;
- 1.4. Chain of Custody sheets;
- 1.5. Filed sheets for the sampling event(s).



## **2. Ground Water Monitoring**

Three groundwater monitoring locations were identified on site, namely, Cabin Well (compliance), Cross Well and Caribou Well all of which have permanent pumping system installations and water level dataloggers. Water samples for water quality determination are collected via the existing permanent pumping systems.

### **2.1. Water Quality Analytical Results**

Test results for the three monitoring wells are presented on the table 2.1 Month of July, 2.2 Month of August and 2.3 Month of September; per TR-10 requirements, the results are compared with the most stringent concentrations (Standard) based on DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT Water Quality Control Commission REGULATION NO. 41 -THE BASIC STANDARDS FOR GROUNDWATER 5 CCR 1002-41. The complete Water Quality Analytical Results from the Laboratories are provided in the appendices.

The Operator submitted the 2<sup>nd</sup> Quarter Report to DRMS on August 15, 2022; DRMS issued a Letter of Additional Information Request on September 6, 2022; in that letter, DRMS noted that The Operator had tested for Total Metals as opposed to Dissolved Metals; that interpretation error on the part of The Operator carried through the samples taken in July and August as well as partially in September. The Operator has corrected the error and samples taken from October 2022 onward would be tested for dissolved metals.



**Table 2.1.1 Groundwater Quality Test Results – July 2022**

Sample Collected on: July 7, 2022							
Parameter	Standard	Cross Well1	Caribou Well	Cabin Well	Unit	Comments	Method
30-day Total Coliforms	2.2	ND	ND	ND	org/100 ml		SM 9221-9223
Aluminum	5	0.001	0.031	0.018	mg/l		EPA 200.8
Antimony	0.006	<0.0012	<0.0012	<0.0012	mg/l		EPA 200.8
Arsenic	0.01	<0.0006	<0.0006	<0.0006	mg/l		EPA 200.8
Asbestos	7,000,000	ND	ND	ND	fibers/liter		EPA 100.2M
Barium	2	0.0273	0.0061	0.0348	mg/l		EPA 200.8
Beryllium	0.004	<0.0001	<0.0001	<0.0001	mg/l		EPA 200.8
Beta and Photon Emitters	4	<3	<2.9	<3.1	mrem/year		SM 7110B
Boron	0.75	<0.01	<0.01	0.02	mg/l		EPA 200.7
Cadmium	0.005	0.0002	<0.0001	<0.0001	mg/l		EPA 200.8
Calcium	Non Corrosive	45.3	9.3	31.9	mg/l as CaCO3		EPA 200.7
Chloride	250	5.42	0.48	2.15	mg/l		EPA 300.0
Chlorophenol	0.0002	ND	ND	ND	mg/l	Standard in mg/l; results in ug/l	EPA 625
Chromium	0.1	<0.0015	<0.0015	<0.0015	mg/l		EPA 200.8
Cobalt	0.05	<0.0002	<0.0002	<0.0002	mg/l		EPA 200.8
Color	15	ND	ND	ND	color units		SM 2120 A
Copper	0.2	0.0266	0.3165	0.0009	mg/l		EPA 200.8
Corrosivity	Non Corrosive	-1.41	-3.48	-1.53	Langelier Units		SM 2330-B
Cyanide [Free]	0.2	<0.005	<0.005	<0.005	mg/l		ASTM D4282-15
Fluoride	2	<0.1	<0.1	<0.1	mg/l		EPA 300.0
Foaming Agents	0.5	0.1	0.1	0.1	mg/l		SM 5540 C
Gross Alpha Particle Activity	15	0.9	0.5	1	pCi/l		SM 7110B
Iron	0.3	0.031	0.023	0.055	mg/l		EPA 200.7
Lead	0.05	0.0034	0.0005	0.0012	mg/l		EPA 200.8
Lithium	2.5	ND	ND	ND	mg/l		E200.7
Manganese	0.05	0.003	0.0013	0.0107	mg/l		EPA 200.8
Max Total Coliforms	23	ND	ND	ND	org/100 ml		SM 9221-B
Mercury (inorganic)	0.002	<0.0002	<0.0002	<0.0002	mg/l		EPA 245.7
Molybdenum	0.21	0.0007	<0.0005	0.0045	mg/l		EPA 200.8
Nickel	0.1	<0.0009	<0.0009	<0.0009	mg/l		EPA 200.8
Nitrate	10	0.31	0.07	0.21	mg as N		EPA 300.0
Nitrate-NitriteTotal	10	0.22	0.1	0.25	mg as N		Calculation
Nitrite	1	<0.03	<0.03	<0.03	mg as N		EPA 300.0
Odor	3	ND	ND	ND	odor units		SM 2150 B
pH	6.5 - 8.5	6.81	6.01	6.98	pH units		SM 4500- H-B
Phenol	0.3	ND	ND	ND	mg/l	Standard in mg/l; results in ug/l	EPA 625
Selenium	0.02	<0.0008	<0.0008	<0.0008	mg/l		EPA 200.8
Silver Dissolved	0.05	<0.0005	<0.0005	<0.0005	mg/l		EPA 200.8
Silver Total		<0.0005	<0.0005	<0.0005	mg/l		EPA 200.8
Sulfate	250	11.56	2.72	7.02	mg/l		EPA 300.0
TDS	400	62	21	43	mg/l		SM 2540-C
Thallium	0.002	<0.0002	<0.0002	<0.0002	mg/l		EPA 200.8
Uranium	0.0168 - 0.03	<0.0002	<0.0002	<0.0002	mg/l		EPA 200.8
Vanadium	0.1	<0.001	<0.001	<0.001	mg/l		EPA 200.8
Zinc	2	6.43	0.063	0.163	mg/l		EPA 200.8

Note 1: The standard value indicated is for dissolved concentrations; the test results provided correspond to total concentrations this is due to an interpretation error by the Operator



**Table 2.1.2 Groundwater Quality Test Results – August 2022**

Sample Collected on: August 25, 2022							
Parameter	Standard	Cross Well	Caribou Well	Cabin Well	Unit	Comments	Method
30-day Total Coliforms	2.2	ND	ND	ND	org/100 ml		SM 9221-9223
Aluminum	5	ND	0.011	0.032	mg/l		EPA 200.8
Antimony	0.006	ND	ND	ND	mg/l		EPA 200.8
Arsenic	0.01	ND	ND	ND	mg/l		EPA 200.8
Asbestos	7,000,000	ND	ND	ND	fibers/liter		EPA 100.2M
Barium	2	0.0265	0.0058	0.0456	mg/l		EPA 200.8
Beryllium	0.004	ND	ND	ND	mg/l		EPA 200.8
Beta and Photon Emitters	4	<2.9	<2.9	<2.8	mrem/year		SM 7110B
Boron	0.75	ND	ND	ND	mg/l		EPA 200.7
Cadmium	0.005	0.0002	ND	0.0002	mg/l		EPA 200.8
Calcium	Non Corrosive	16.5	3.8	15.9	mg/l as CaCO <sub>3</sub>		EPA 200.7
Chloride	250	3.55	0.51	2.42	mg/l		EPA 300.0
Chlorophenol	0.0002	ND	ND	ND	mg/l	Standard in mg/l; results in ug/l	EPA 625
Chromium	0.1	ND	ND	ND	mg/l		EPA 200.8
Cobalt	0.05	ND	ND	ND	mg/l		EPA 200.8
Color	15	ND	ND	ND	color units		SM 2120 A
Copper	0.2	0.0065	0.3086	0.019	mg/l		EPA 200.8
Corrosivity	Non Corrosive	-1.84	-3.28	-1.72	Langelier Units		SM 2330-B
Cyanide [Free]	0.2	ND	ND	ND	mg/l		ASTM D4282-15
Fluoride	2	ND	0.24	0.26	mg/l		EPA 300.0
Foaming Agents	0.5	ND	ND	ND	mg/l		SM 5540 C
Gross Alpha Particle Activity	15	1.6	0.2	0.3	pCi/l		SM 7110B
Iron	0.3	0.032	0.016	0.323	mg/l		EPA 200.7
Lead	0.05	0.0006	0.0003	0.0044	mg/l		EPA 200.8
Lithium	2.5	ND	ND	ND	mg/l		E200.7
Manganese	0.05	0.0013	ND	0.034	mg/l		EPA 200.8
Max Total Coliforms	23	ND	ND	ND	org/100 ml		SM 9221-B
Mercury (inorganic)	0.002	ND	ND	ND	mg/l		EPA 245.7
Molybdenum	0.21	0.0006	ND	0.0059	mg/l		EPA 200.8
Nickel	0.1	ND	ND	ND	mg/l		EPA 200.8
Nitrate	10	0.22	0.1	0.25	mg as N		EPA 300.0
Nitrate-NitriteTotal	10	0.22	0.1	0.25	mg as N		Calculation
Nitrite	1	ND	ND	ND	mg as N		EPA 300.0
Odor	3	ND	ND	ND	odor units		SM 2150 B
pH	6.5 - 8.5	6.53	6.14	6.68	pH units		SM 4500- H-B
Phenol	0.3	ND	ND	ND	mg/l	Standard in mg/l; results in ug/l	EPA 625
Selenium	0.02	ND	ND	ND	mg/l		EPA 200.8
Silver Dissolved	0.05	ND	ND	ND	mg/l		EPA 200.8
Silver Total		ND	ND	ND	mg/l		EPA 200.8
Sulfate	250	9.29	2.75	8.76	mg/l		EPA 300.0
TDS	400	102	67	104	mg/l		SM 2540-C
Thallium	0.002	ND	ND	ND	mg/l		EPA 200.8
Uranium	0.0168 - 0.03	ND	ND	ND	mg/l		EPA 200.8
Vanadium	0.1	ND	ND	ND	mg/l		EPA 200.8
Zinc	2	0.639	0.003	0.346	mg/l		EPA 200.8

Note 1: The standard value indicated is for dissolved concentrations; the test results provided correspond to total concentrations, this is due to an interpretation error by the Operator



**Table 2.1.3 Groundwater Quality Test Results – September 2022**

Sample Collected on: September 27, 2022							
Parameter	Standard	Cross Well	Caribou Well	Cabin Well	Unit	Comments	Method
30-day Total Coliforms	2.2	ND	ND	ND	org/100 ml		SM 9221-9223
Aluminum	5	ND	0.027	0.031	mg/l	Dissolved	EPA 200.8
Antimony	0.006	ND	ND	ND	mg/l		EPA 200.8
Arsenic	0.01	ND	ND	ND	mg/l		EPA 200.8
Asbestos	7,000,000	ND	ND	ND	fibers/liter		EPA 100.2M
Barium	2	0.0279	0.0059	0.0449	mg/l		EPA 200.8
Beryllium	0.004	ND	ND	ND	mg/l		EPA 200.8
Beta and Photon Emitters	4	<2.8	3	<2.9	mrem/year		SM 7110B
Boron	0.75	ND	ND	ND	mg/l		EPA 200.7
Cadmium	0.005	0.0002	ND	ND	mg/l		EPA 200.8
Calcium	Non Corrosive	15.9	3.7	15.5	mg/l as CaCO <sub>3</sub>	Dissolved	EPA 200.7
Chloride	250	4.22	0.45	2.64	mg/l		EPA 300.0
Chlorophenol	0.0002	ND	ND	ND	mg/l	Standard in mg/l; results in	EPA 625
Chromium	0.1	ND	ND	ND	mg/l		EPA 200.8
Cobalt	0.05	ND	ND	ND	mg/l	Dissolved	EPA 200.8
Color	15	ND	ND	ND	color units		SM 2120 A
Copper	0.2	0.0045	0.4548	0.0011	mg/l	Dissolved	EPA 200.8
Corrosivity	Non Corrosive	-1.94	-3.38	-1.57	Langelier Units		SM 2330-B
Cyanide [Free]	0.2	ND	ND	ND	mg/l		ASTM D4282-15
Fluoride	2	ND	ND	ND	mg/l		EPA 300.0
Foaming Agents	0.5	ND	ND	ND	mg/l		SM 5540 C
Gross Alpha Particle Activity	15	1.4	0.2	0.9	pCi/l		SM 7110B
Iron	0.3	0.037	0.011	0.186	mg/l		EPA 200.7
Lead	0.05	0.0008	0.0004	0.002	mg/l		EPA 200.8
Lithium	2.5	ND	ND	ND	mg/l		E200.7
Manganese	0.05	0.0031	ND	0.19	mg/l		EPA 200.8
Max Total Coliforms	23	ND	ND	ND	org/100 ml		SM 9221-B
Mercury (inorganic)	0.002	ND	ND	ND	mg/l		EPA 245.7
Molybdenum	0.21	0.0006	ND	0.0056	mg/l		EPA 200.8
Nickel	0.1	ND	ND	ND	mg/l		EPA 200.8
Nitrate	10	0.26	0.16	0.31	mg as N		EPA 300.0
Nitrate-NitriteTotal	10	0.26	0.16	0.31	mg as N		Calculation
Nitrite	1	ND	ND	ND	mg as N		EPA 300.0
Odor	3	ND	ND	ND	odor units		SM 2150 B
pH	6.5 - 8.5	6.42	6.06	6.74	pH units		SM 4500- H-B
Phenol	0.3	ND	ND	ND	mg/l	Standard in mg/l; results in	EPA 625
Selenium	0.02	ND	ND	ND	mg/l	Dissolved	EPA 200.8
Silver Dissolved	0.05	ND	ND	ND	mg/l	Dissolved	EPA 200.8
Silver Total		ND	ND	ND	mg/l		EPA 200.8
Sulfate	250	10.12	2.75	8.96	mg/l		EPA 300.0
TDS	400	127	41	89	mg/l		SM 2540-C
Thallium	0.002	ND	ND	ND	mg/l		EPA 200.8
Uranium	0.0168 -0.03	ND	ND	ND	mg/l		EPA 200.8
Vanadium	0.1	ND	ND	ND	mg/l	Dissolved	EPA 200.8
Zinc	2	0.868	0.003	0.109	mg/l	Dissolved	EPA 200.8

Note 1: The standard value indicated is for dissolved concentrations; however, unless indicated on the Comments, the test results provided correspond to total concentrations this is due to an interpretation error by the Operator.



## 2.2. Groundwater Levels and Potentiometric Water Surface

Potentiometric Figures were developed based on recorded (automated dataloggers) groundwater elevations at each of the three monitoring wells at the time the water quality samples were collected. The Cross Winze water elevations are also included to depict Cross Mine dewatering.

Tables 2.2.1 Month of July; 2.2.2 Month of August and 2.2.3 Month of September provide sampling data and groundwater elevations used in the development of the potentiometric Figures 3 Month of July; 4 Month of August and 5 Month of September.

**Table 2.2.1 Wells Groundwater Elevation – July 2022**

WELL	COLLAR EL.	7-Jul-22
Caribou	9,744.25	9,720.14
Compliance	9,677.35	9,639.63
Cross	9,692.85	9,673.76
Winze	9,697.48	9,613.30

**Table 2.2.2 Wells Groundwater Elevation – August 2022**

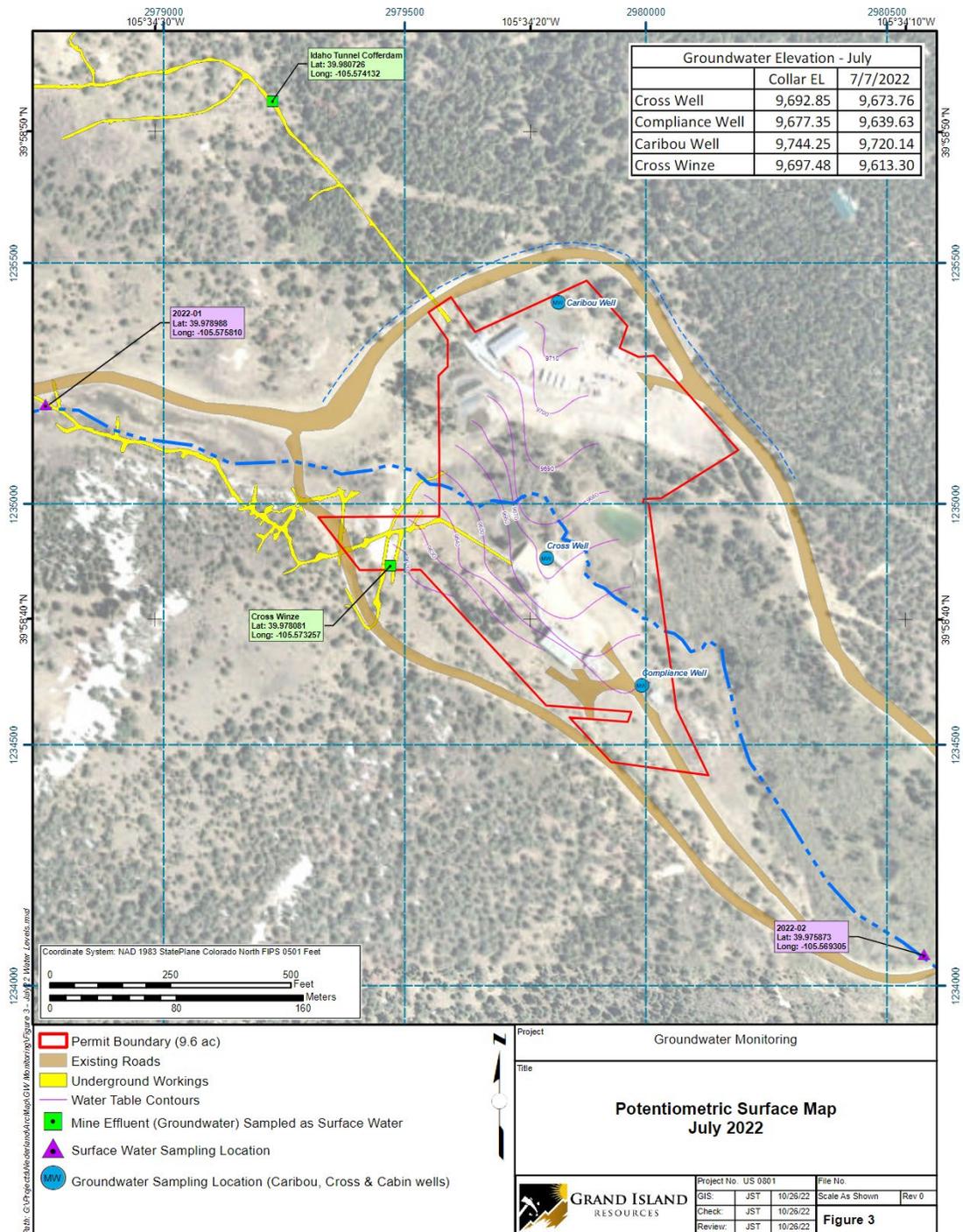
WELL	COLLAR EL.	25-Aug-22
Caribou	9,744.25	9,718.20
Compliance	9,677.35	9,638.69
Cross	9,692.85	9,665.23
Winze	9,697.48	9,605.60

**Table 2.2.3 Wells Groundwater Elevation – September 2022**

WELL	COLLAR EL.	27-Sep-22
Caribou	9,744.25	9,717.25
Compliance	9,677.35	9,638.25
Cross	9,692.85	9,668.10
Winze	9,697.48	9,667.70

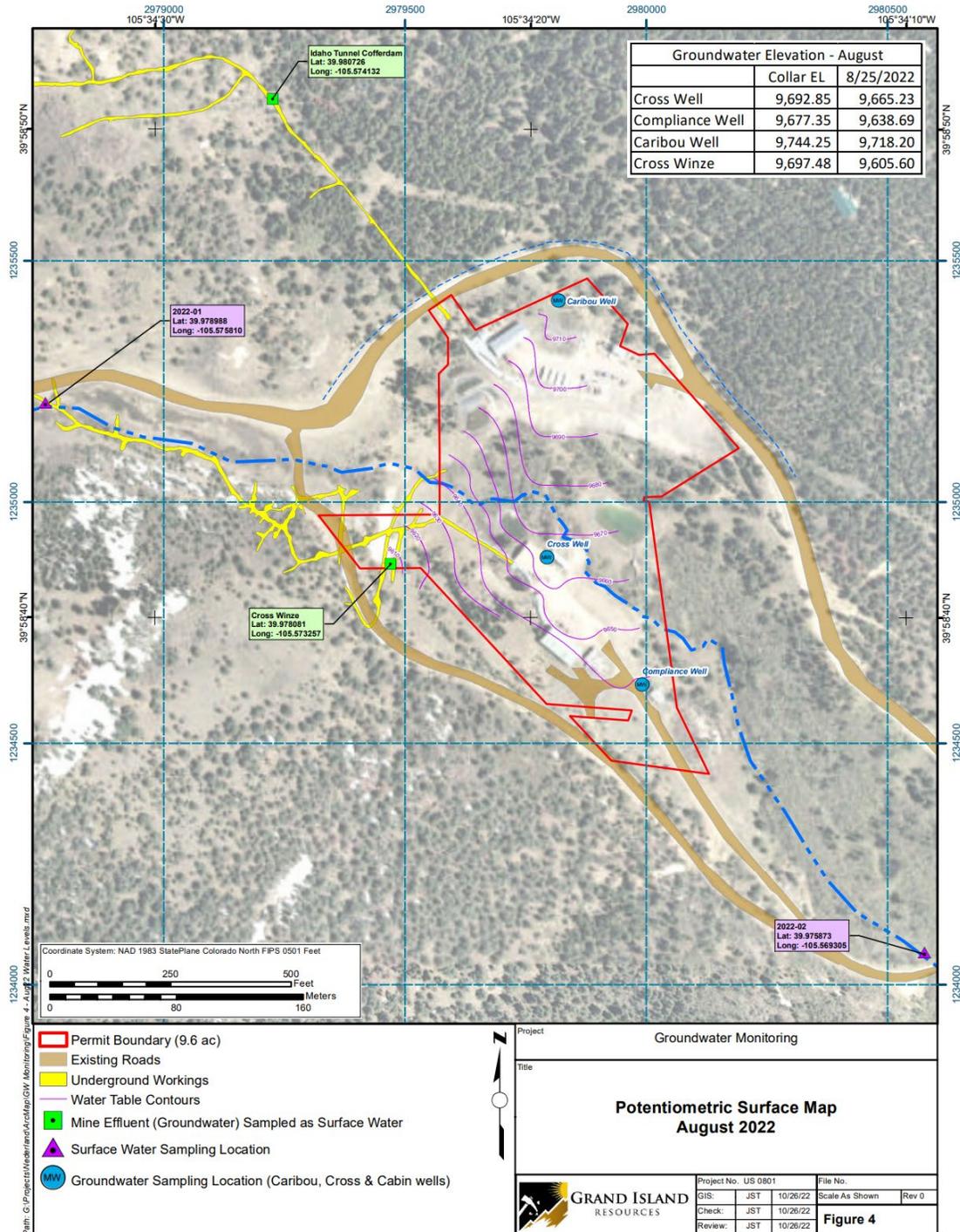


**Figure 3 Potentiometric Water Surface – July 2022**



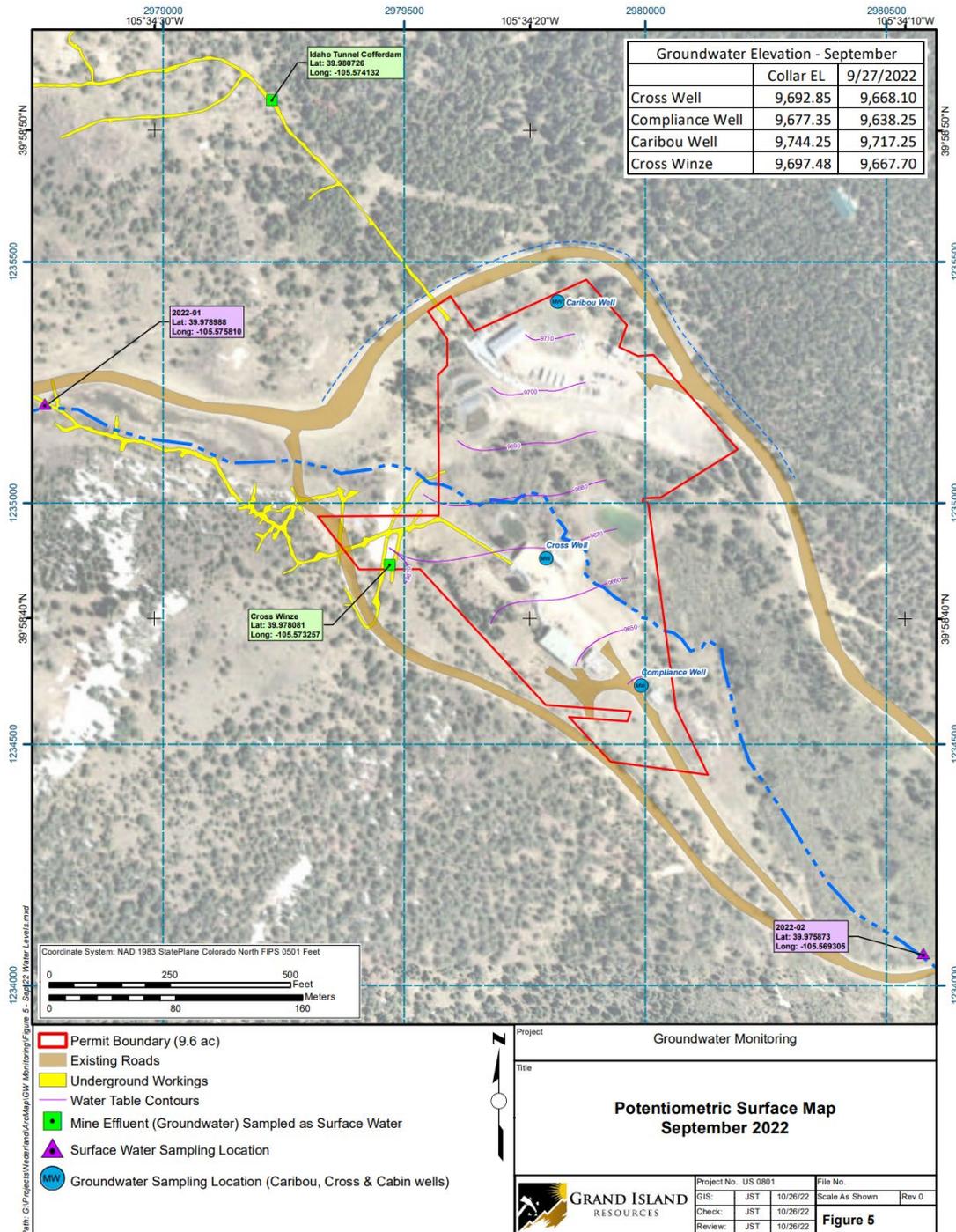


**Figure 4 Potentiometric Water Surface – August 2022**





**Figure 5 Potentiometric Water Surface – September 2022**





### **3. Mine Effluent Monitoring**

Two mine effluent monitoring locations were established, one in the Cross Mine and one in the Idaho Tunnel/Caribou Mine, namely Cross Portal and Caribou Portal, respectively. Water Quality Analytical Results are summarized on Tables 3.1. Month of July; 3.2. Month of August and 3.3 Month of September. The complete Water Quality Analytical Results from the Laboratories are provided in Appendix A

Mine effluent reports to the Water Treatment Plant and it is discharges via the NPDES permit CO-0032751 Outfall 001.



**Table 3.1 Mine Effluent Test Results – July 2022**

Sample Collected on: July 7, 2022				
Parameter	Cross Portal	Caribou Portal	Unit	Method
30-day Total Coliforms			org/100 ml	SM 9221-9223
Aluminum	0.047	0.003	mg/l	EPA 200.8
Antimony	ND	ND	mg/l	EPA 200.8
Arsenic	ND	ND	mg/l	EPA 200.8
Asbestos	ND	ND	fibers/liter	EPA 100.2M
Barium	0.627	0.512	mg/l	EPA 200.8
Beryllium	ND	ND	mg/l	EPA 200.8
Beta and Photon Emitters	<2.9	<3.0	mrem/year	SM 7110B
Boron	ND	ND	mg/l	EPA 200.7
Cadmium	0.002	0.0002	mg/l	EPA 200.8
Calcium	21.3	23.7	mg/l as CaCO <sub>3</sub>	EPA 200.7
Chloride	1.28	0.53	mg/l	EPA 300.0
Chlorophenol	ND	ND	mg/l	EPA 625
Chromium	ND	ND	mg/l	EPA 200.8
Cobalt	0.002	ND	mg/l	EPA 200.8
Color	8	ND	color units	SM 2120 A
Copper	0.0054	0.001	mg/l	EPA 200.8
Corrosivity	-0.87		Langelier Units	SM 2330-B
Cyanide [Free]	ND	ND	mg/l	ASTM D4282-15
Fluoride	ND	ND	mg/l	EPA 300.0
Foaming Agents	ND	ND	mg/l	SM 5540 C
Gross Alpha Particle Activity	2.2	4.1	pCi/l	SM 7110B
Iron	0.177	0.076	mg/l	EPA 200.7
Lead	0.198	0.0024	mg/l	EPA 200.8
Lithium	ND	ND	mg/l	E200.7
Manganese	0.244	0.0102	mg/l	EPA 200.8
Max Total Coliforms			org/100 ml	SM 9221-B
Mercury (inorganic)	ND	ND	mg/l	EPA 245.7
Molybdenum	0.0088	0.0056	mg/l	EPA 200.8
Nickel	ND	ND	mg/l	EPA 200.8
Nitrate	0.34	0.18	mg as N	EPA 300.0
Nitrate-NitriteTotal	0.34	0.18	mg as N	Calculation
Nitrite	ND	ND	mg as N	EPA 300.0
Odor	ND	ND	odor units	SM 2150 B
pH	7.21	7.4	pH units	SM 4500- H-B
Phenol	ND	ND	mg/l	EPA 625
Selenium	ND	ND	mg/l	EPA 200.8
Silver Dissolved	ND	ND	mg/l	EPA 200.8
Silver Total	ND	ND	mg/l	EPA 200.8
Sulfate	12.31	10.46	mg/l	EPA 300.0
TDS	69	75	mg/l	SM 2540-C
Thallium	ND	ND	mg/l	EPA 200.8
Uranium	0.0016	0.0051	mg/l	EPA 200.8
Vanadium	ND	ND	mg/l	EPA 200.8
Zinc	0.245	0.087	mg/l	EPA 200.8



**Table 3.2 Mine Effluent Test Results – August 2022**

Sample Collected on: August 25, 2022				
Parameter	Cross Portal	Caribou Portal	Unit	Method
30-day Total Coliforms			org/100 ml	SM 9221-9223
Aluminum	0.026	0.019	mg/l	EPA 200.8
Antimony	ND	ND	mg/l	EPA 200.8
Arsenic	ND	0.0007	mg/l	EPA 200.8
Asbestos	ND	ND	fibers/liter	EPA 100.2M
Barium	0.0738	0.0914	mg/l	EPA 200.8
Beryllium	ND	ND	mg/l	EPA 200.8
Beta and Photon Emitters	<2.8	<2.7	mrem/year	SM 7110B
Boron	ND	ND	mg/l	EPA 200.7
Cadmium	0.0013	0.0001	mg/l	EPA 200.8
Calcium	22	29.2	mg/l as CaCO <sub>3</sub>	EPA 200.7
Chloride	0.55	0.59	mg/l	EPA 300.0
Chlorophenol	ND	ND	mg/l	EPA 625
Chromium	ND	ND	mg/l	EPA 200.8
Cobalt	0.0004	ND	mg/l	EPA 200.8
Color	ND	ND	color units	SM 2120 A
Copper	0.0046	0.0016	mg/l	EPA 200.8
Corrosivity	-0.89	0.28	Langelier Units	SM 2330-B
Cyanide [Free]	ND	ND	mg/l	ASTM D4282-15
Fluoride	0.26	0.27	mg/l	EPA 300.0
Foaming Agents	ND	ND	mg/l	SM 5540 C
Gross Alpha Particle Activity	1.8	5.9	pCi/l	SM 7110B
Iron	0.458	0.132	mg/l	EPA 200.7
Lead	0.0271	0.0127	mg/l	EPA 200.8
Lithium	ND	ND	mg/l	E200.7
Manganese	0.0434	0.1443	mg/l	EPA 200.8
Max Total Coliforms			org/100 ml	SM 9221-B
Mercury (inorganic)	ND	ND	mg/l	EPA 245.7
Molybdenum	0.0053	0.0057	mg/l	EPA 200.8
Nickel	ND	ND	mg/l	EPA 200.8
Nitrate	0.19	0.2	mg as N	EPA 300.0
Nitrate-NitriteTotal	0.19	0.2	mg as N	Calculation
Nitrite	ND	ND	mg as N	EPA 300.0
Odor	ND	ND	odor units	SM 2150 B
pH	7.2	8.08	pH units	SM 4500- H-B
Phenol	ND	ND	mg/l	EPA 625
Selenium	ND	ND	mg/l	EPA 200.8
Silver Dissolved	ND	ND	mg/l	EPA 200.8
Silver Total	ND	ND	mg/l	EPA 200.8
Sulfate	9.21	11.42	mg/l	EPA 300.0
TDS	116	155	mg/l	SM 2540-C
Thallium	ND	ND	mg/l	EPA 200.8
Uranium	0.0006	0.0058	mg/l	EPA 200.8
Vanadium	ND	ND	mg/l	EPA 200.8
Zinc	0.229	0.02	mg/l	EPA 200.8



**Table 3.3 Mine Effluent Test Results – September 2022**

<b>Sample Collected on: September 27, 2022</b>				
<b>Parameter</b>	<b>Cross Portal</b>	<b>Caribou Portal</b>	<b>Unit</b>	<b>Method</b>
30-day Total Coliforms			org/100 ml	SM 9221-9223
Aluminum (dissolved)	0.009	0.003	mg/l	EPA 200.8
Antimony	ND	ND	mg/l	EPA 200.8
Arsenic	ND	0.0007	mg/l	EPA 200.8
Asbestos	ND	ND	fibers/liter	EPA 100.2M
Barium	0.07	0.0582	mg/l	EPA 200.8
Beryllium	ND	ND	mg/l	EPA 200.8
Beta and Photon Emitters	<3.0	5.1	mrem/year	SM 7110B
Boron (dissolved)	ND	ND	mg/l	EPA 200.7
Cadmium	0.001	ND	mg/l	EPA 200.8
Calcium	22.8	26.8	mg/l as CaCO3	EPA 200.7
Chloride	0.38	0.52	mg/l	EPA 300.0
Chlorophenol	ND	ND	mg/l	EPA 625
Chromium	ND	ND	mg/l	EPA 200.8
Cobalt (dissolved)	ND	ND	mg/l	EPA 200.8
Color	ND	ND	color units	SM 2120 A
Copper (dissolved)	0.0026	0.0008	mg/l	EPA 200.8
Corrosivity	-1.31	-0.63	Langelier Units	SM 2330-B
Cyanide [Free]	ND	ND	mg/l	ASTM D4282-15
Fluoride	ND	ND	mg/l	EPA 300.0
Foaming Agents	ND	ND	mg/l	SM 5540 C
Gross Alpha Particle Activity	2.5	6.7	pCi/l	SM 7110B
Iron	0.104	0.07	mg/l	EPA 200.7
Lead	0.0087	0.0021	mg/l	EPA 200.8
Lithium	ND	ND	mg/l	E200.7
Manganese	0.0216	0.0027	mg/l	EPA 200.8
Max Total Coliforms			org/100 ml	SM 9221-B
Mercury (inorganic)	ND	ND	mg/l	EPA 245.7
Molybdenum	0.0062	0.0057	mg/l	EPA 200.8
Nickel	ND	ND	mg/l	EPA 200.8
Nitrate	0.15	0.22	mg as N	EPA 300.0
Nitrate-NitriteTotal	0.15	0.22	mg as N	Calculation
Nitrite	ND	ND	mg as N	EPA 300.0
Odor	ND	ND	odor units	SM 2150 B
pH	6.71	7.22	pH units	SM 4500- H-B
Phenol	ND	ND	mg/l	EPA 625
Selenium (dissolved)	ND	ND	mg/l	EPA 200.8
Silver Dissolved	ND	ND	mg/l	EPA 200.8
Silver Total	ND	ND	mg/l	EPA 200.8
Sulfate	10.33	11.75	mg/l	EPA 300.0
TDS	122	139	mg/l	SM 2540-C
Thallium	ND	ND	mg/l	EPA 200.8
Uranium	0.0009	0.0059	mg/l	EPA 200.8
Vanadium (dissolved)	ND	ND	mg/l	EPA 200.8
Zinc (dissolved)	0.206	0.013	mg/l	EPA 200.8



## **4. Surface Water Monitoring**

Two surface water monitoring stations were determined to be sufficient and adequate to characterize surface water in the basin of interest. Station 2022-01 is located upstream of The Operator’s facility and Station 2022-02 is located downstream of The Operator’s facility.

### **4.1. Water Quality Analytical Results**

Tables 4.1.1 Month of July; 4.1.2 Month of August and 4.1.3 Month of September provide Surface Water Analytical Results for the 3<sup>rd</sup> quarter 2022.



**Table 4.1.1 Surface Water Analytical Results – July 2022**

<b>Sample Collected on: July 8, 2022</b>			
<b>Parameter</b>	<b>Sta. 2022-01</b>	<b>Sta. 2022-02</b>	<b>Unit</b>
Arsenic Potentially Dissolved	ND	ND	ug/L
Arsenic Total Recoverable	ND	ND	ug/L
Cadmium Potentially Dissolved	ND	ND	ug/L
Cadmium Total Recoverable	ND	0.11	ug/L
Chromium Potentially Dissolved	ND	ND	ug/L
Chromium Total Recoverable	ND	ND	ug/L
Chromium, hexavalent Dissolved	ND	ND	mg/L
Chromium, hexavalent Total	ND	ND	mg/L
Chromium, trivalent Potentially Dissolved	ND	ND	mg/L
Chromium, trivalent Total Recoverable	ND	ND	mg/L
Copper Potentially Dissolved	3.2	2.8	ug/L
Copper Total Recoverable	3	2.4	ug/L
Field pH	7.6	7.9	SU
Field Temperature	20	21	Celsius
Iron Total Recoverable	380	320	ug/L
Lead Potentially Dissolved	0.85	3.6	ug/L
Lead Total Recoverable	0.91	3.7	ug/L
Manganese Potentially Dissolved	17	13	ug/L
Mercury	5	4.8	ng/L
Mercury Total	ND	ND	ug/L
Nickel Potentially Dissolved	0.49	0.46	ug/L
pH adj. to 25 deg C	7.6	7.9	SU
Selenium Potentially Dissolved	ND	ND	ug/L
Silver Potentially Dissolved	0.12	0.17	ug/L
Specific Conductance	58	110	umhos/cm
Specific Conductance Total	58	110	umhos/cm
Sulfide Total	ND	ND	mg/L
Sulfide Total	ND	ND	mg/L
Temperature	20.4	20.7	Degrees C
Total Suspended Solids	2.8	3.6	mg/L
Un-ionized Hydrogen Sulfide Total	ND	ND	mg/L
Zinc	3.2	82	ug/L
Zinc Potentially Dissolved	3.7	17	ug/L

Note 1: For the Month of July, Station 2022-01 samples were labelled 2022A and Station 2022-02 samples were labelled 2022C, the laboratory results therefore reported 2022A and 2022C; samples and results labelled 2022B should be disregarded. The Operator corrected the condition going forward.



**Table 4.1.2 Surface Water Analytical Results – August 2022**

<b>Sample Collected on: August 25, 2022</b>			
<b>Parameter</b>	<b>Sta. 2022-01</b>	<b>Sta. 2022-02</b>	<b>Unit</b>
Arsenic Potentially Dissolved	ND	ND	ug/L
Arsenic Total Recoverable	ND	ND	ug/L
Cadmium Potentially Dissolved	ND	ND	ug/L
Cadmium Total Recoverable	ND	0.14	ug/L
Chromium Potentially Dissolved	ND	ND	ug/L
Chromium Total Recoverable	ND	ND	ug/L
Chromium, hexavalent Dissolved	ND	ND	mg/L
Chromium, hexavalent Total	0.0058	ND	mg/L
Chromium, trivalent Potentially Dissolved	ND	ND	mg/L
Chromium, trivalent Total Recoverable	ND	ND	mg/L
Copper Potentially Dissolved	2.4	3.0	ug/L
Copper Total Recoverable	2.5	3.0	ug/L
Field pH	7.5	7.9	SU
Field Temperature	19.0	20.0	Celsius
Iron Total Recoverable	450	320	ug/L
Lead Potentially Dissolved	0.24	4.0	ug/L
Lead Total Recoverable	0.39	3.30	ug/L
Manganese Potentially Dissolved	11.0	9.5	ug/L
Mercury	5.6	5.2	ng/L
Mercury Total	ND	ND	ug/L
Nickel Potentially Dissolved	0.70	0.53	ug/L
pH adj. to 25 deg C	7.5	7.9	SU
Selenium Potentially Dissolved	ND	ND	ug/L
Silver Potentially Dissolved	ND	ND	ug/L
Specific Conductance	56	110	umhos/cm
Specific Conductance Total	56	110	umhos/cm
Sulfide Total	ND	ND	mg/L
Sulfide Total	ND	ND	mg/L
Temperature	19.1	20.0	Degrees C
Total Suspended Solids	ND	2.0	mg/L
Un-ionized Hydrogen Sulfide Total	ND	ND	mg/L
Zinc	2.0	12.0	ug/L
Zinc Potentially Dissolved	9.5	15.0	ug/L



**Table 4.1.3 Surface Water Analytical Results – September 2022**

<b>Sample Collected on: September 26, 2022</b>			
<b>Parameter</b>	<b>Sta. 2022-01</b>	<b>Sta. 2022-02</b>	<b>Unit</b>
Arsenic Potentially Dissolved	<b>DRY BED</b>	ND	ug/L
Arsenic Total Recoverable		ND	ug/L
Cadmium Potentially Dissolved		ND	ug/L
Cadmium Total Recoverable		0.13	ug/L
Chromium Potentially Dissolved		ND	ug/L
Chromium Total Recoverable		ND	ug/L
Chromium, hexavalent Dissolved		ND	mg/L
Chromium, hexavalent Total		ND	mg/L
Chromium, trivalent Potentially Dissolved		ND	mg/L
Chromium, trivalent Total Recoverable		ND	mg/L
Copper Potentially Dissolved		ND	ug/L
Copper Total Recoverable		0.78	ug/L
Field pH		7.4	SU
Field Temperature		21	Celsius
Iron Total Recoverable		66	ug/L
Lead Potentially Dissolved		0.95	ug/L
Lead Total Recoverable		0.98	ug/L
Manganese Potentially Dissolved		5.6	ug/L
Mercury		2.9	ng/L
Mercury Total		ND	ug/L
Nickel Potentially Dissolved		ND	ug/L
pH adj. to 25 deg C		7.4	SU
Selenium Potentially Dissolved		ND	ug/L
Silver Potentially Dissolved		ND	ug/L
Specific Conductance		220	umhos/cm
Specific Conductance Total		220	umhos/cm
Sulfide Total		ND	mg/L
Sulfide Total		ND	mg/L
Temperature		20.5	Degrees C
Total Suspended Solids		ND	mg/L
Un-ionized Hydrogen Sulfide Total	ND	mg/L	
Zinc	11	ug/L	
Zinc Potentially Dissolved	6.2	ug/L	



## 4.2. Surface Water Flows

Flow measurements were taken at the Surface Water Sampling Stations 2022-01 and 2022-02 utilizing the stopwatch method. Estimated flows are shown on Tables 4.2.1 Month of July; 4.2.2 Month of August and 4.2.3 Month of September.

**Table 4.2.1 Surface Water Flow Estimates – July 2022**

Surface Water Flow Estimate - July				
Station	Velocity fps	Depth ft	Width ft	Flow cfs
2022-01	0.63	1.04	1.33	390
2022-02	0.40	0.88	1.83	288

**Table 4.2.2 Surface Water Flow Estimates – August 2022**

Surface Water Flow Estimate - August				
Station	Velocity fps	Depth ft	Width ft	Flow cfs
2022-01	3.00	0.88	1.33	1,571
2022-02	1.70	0.50	1.13	429

**Table 4.2.3 Surface Water Flow Estimates – August 2022**

Surface Water Flow Estimate - September				
Station	Velocity fps	Depth ft	Width ft	Flow gpm
2022-01	dry bed	-	-	-
2022-02	0.22	0.01	0.03	0.02



## **5. NPDES permit CO-0032751 Outfall 001**

Effluent from the Cross Mine and Idaho Tunnel/Caribou Mine is collected in sumps and ponds and it is pumped to the Water Treatment Plant (subject of TR-10). Treated water is released to Coon Track Creek via pipeline to Outfall-001 in accordance with CDPHE NPDES permit.

Tables 5.1 Month of July, 5.2 Month of August and 5.3 Month of September present the monthly DMRs filed by The Operator with CDPHE for the 3<sup>rd</sup> quarter 2022. For clarity, the DMR Record Sheets and full Analytical Laboratory Test Results are also included in Appendix B.

**Table 5.1 DMR July 2022**
**DMR Copy of Record**

<b>Permit</b>	
Permit #: <b>CO0032751</b>	Permittee: Grand Island Resources LLC
Major: No	Permittee Address: 12567 W Cedar Dr Lakewood, CO 80228
Permitted Feature: 001 External Outfall	Discharge: <b>001-A</b> Treated Mine Water to Coon Track Creek
<b>Facility: CROSS AND CARIBOU MINES</b>	
<b>Facility Location: CROSS AND CARIBOU MINES BOULDER COUNTY, CO 80466</b>	
<b>Report Dates &amp; Status</b>	
Monitoring Period: <b>From 07/01/22 to 07/31/22</b>	DMR Due Date: <b>08/28/22</b>
Status: <b>NetDMR Validated</b>	
<b>Considerations for Form Completion</b>	
Oil and grease - see I.A.2, pg 3. 30 day average is the highest monthly average during period reported.	
<b>Principal Executive Officer</b>	
First Name:	Title:
Last Name:	Telephone:
<b>No Data Indicator (NODI)</b>	
Form NODI: --	

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					Units	# of Ex.	Frequency of Analysis	Sample Type			
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3					Value 3		
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Sample						=	9.3		=	9.6		04 - deg C	99/99 - Continuous	RC - Recorder (auto)		
					Permit Req.																
					Value NODI																
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.1		=	8.1		12 - SU	02/30 - Twice Per Month	GR - GRAB		
					Permit Req.						>=	6.5 MINIMUM		<=	9.0 MAXIMUM		12 - SU	02/30 - Twice Per Month	GR - GRAB		
					Value NODI																
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						<	4.0		<	4.0		19 - mg/L	01/30 - Monthly	GR - GRAB		
					Permit Req.						<=	30.0 30DA AVG		<=	45.0 DAILY MX		19 - mg/L	01/30 - Monthly	GR - GRAB		
					Value NODI																
00978	Arsenic, total recoverable	1 - Effluent Gross	0	--	Sample						<	5.0					28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.																
					Value NODI																
00980	Iron, total recoverable	1 - Effluent Gross	0	--	Sample						<	100.0					28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.																
					Value NODI																
01094	Zinc, total recoverable	1 - Effluent Gross	0	--	Sample						<	10.0		<	10.0		28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.						<=	750.0 30DA AVG		<=	1500.0 DAILY MX		28 - ug/L	01/30 - Monthly	GR - GRAB		
					Value NODI																
01113	Cadmium, total recoverable	1 - Effluent Gross	0	--	Sample						<	1.0		<	1.0		28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.						<=	50.0 30DA AVG		<=	300.0 DAILY MX		28 - ug/L	01/30 - Monthly	GR - GRAB		
					Value NODI																
01114	Lead, total recoverable	1 - Effluent Gross	0	--	Sample						=	1.0		=	2.0		28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req.						<=	300.0 30DA AVG		<=	600.0 DAILY MX		28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Value NODI																
01119	Copper, total recoverable	1 - Effluent Gross	0	--	Sample						<	2.0		<	2.0		28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req.						<=	150.0 30DA AVG		<=	300.0 DAILY MX		28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Value NODI																
01220	Chromium, hexavalent dissolved [as	1 - Effluent	0	--	Sample						<	20.0		<	20.0		28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.																
					Value NODI																





**Table 5.2 DMR August 2022**
**DMR Copy of Record**

Permit		Permittee:		Facility:																
Permit #:	CO0032751	Grand Island Resources LLC		CROSS AND CARIBOU MINES																
Major:	No	Permittee Address:	12567 W Cedar Dr Lakewood, CO 80228	Facility Location:	CROSS AND CARIBOU MINES BOULDER COUNTY, CO 80466															
Permitted Feature:	001 External Outfall	Discharge:	001-A Treated Mine Water to Coon Track Creek																	
Report Dates & Status																				
Monitoring Period:	From 08/01/22 to 08/31/22	DMR Due Date:	09/28/22	Status:	NetDMR Validated															
Considerations for Form Completion																				
Oil and grease - see I.A.2, pg 3. 30 day average is the highest monthly average during period reported.																				
Principal Executive Officer																				
First Name:		Title:		Telephone:																
Last Name:																				
No Data Indicator (NODI)																				
Form NODI:	--																			
Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type			
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units	
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Sample						=	9.82		=	15.2	04 - deg C	99/99 - Continuous	RC - Recorder (auto)		
					Permit Req.															
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample						=	8.3		=	8.8	12 - SU	02/30 - Twice Per Month	GR - GRAB		
					Permit Req.						>=	6.5 MINIMUM		<=	9.0 MAXIMUM	12 - SU	02/30 - Twice Per Month	GR - GRAB		
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						<	4.0		<	4.0	19 - mg/L	01/30 - Monthly	GR - GRAB		
					Permit Req.						<=	30.0 30DA AVG		<=	45.0 DAILY MX	19 - mg/L	01/30 - Monthly	GR - GRAB		
					Value NODI															
00978	Arsenic, total recoverable	1 - Effluent Gross	0	--	Sample						<	5.0			28 - ug/L	01/30 - Monthly	GR - GRAB			
					Permit Req.											28 - ug/L	01/30 - Monthly	GR - GRAB		
					Value NODI															
00980	Iron, total recoverable	1 - Effluent Gross	0	--	Sample						<	100.0			28 - ug/L	01/30 - Monthly	GR - GRAB			
					Permit Req.											28 - ug/L	01/30 - Monthly	GR - GRAB		
					Value NODI															
01094	Zinc, total recoverable	1 - Effluent Gross	0	--	Sample						<	10.0		<	10.0	28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.						<=	750.0 30DA AVG		<=	1500.0 DAILY MX	28 - ug/L	01/30 - Monthly	GR - GRAB		
					Value NODI															
01113	Cadmium, total recoverable	1 - Effluent Gross	0	--	Sample						<	1.0		<	1.0	28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.						<=	50.0 30DA AVG		<=	300.0 DAILY MX	28 - ug/L	01/30 - Monthly	GR - GRAB		
					Value NODI															
01114	Lead, total recoverable	1 - Effluent Gross	0	--	Sample						<	1.0		<	1.0	28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req.						<=	300.0 30DA AVG		<=	600.0 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Value NODI															
01119	Copper, total recoverable	1 - Effluent Gross	0	--	Sample						<	2.0		<	2.0	28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Permit Req.						<=	150.0 30DA AVG		<=	300.0 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB		
					Value NODI															
01220	Chromium, hexavalent dissolved [as	1 - Effluent	0	--	Sample						<	20.0		<	20.0	28 - ug/L	01/30 - Monthly	GR - GRAB		
					Permit Req.												28 - ug/L	01/30 - Monthly	GR - GRAB	
					Value NODI															

Crj	Gross			Value NODI													
01303	Zinc, potentially dissolved	1 - Effluent Gross	8	--	Sample	=	6.5	=	13.0	28 - ug/L		02/30 - Twice Per Month	GR - GRAB				
					Permit Req.	<=	241.0 30DA AVG	<=	263.0 DAILY MX	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB				
					Value NODI												
01304	Silver, potentially dissolved	1 - Effluent Gross	8	--	Sample	<	0.045	<	0.045	28 - ug/L		02/30 - Twice Per Month	GR - GRAB				
					Permit Req.	<=	0.16 30DA AVG	<=	4.1 DAILY MX	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB				
					Value NODI												
01306	Copper, potentially dissolved	1 - Effluent Gross	8	--	Sample	=	2.6	=	2.7	28 - ug/L		02/30 - Twice Per Month	GR - GRAB				
					Permit Req.	<=	17.0 30DA AVG	<=	25.0 DAILY MX	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB				
					Value NODI												
01309	Arsenic, potentially dissolved	1 - Effluent Gross	0	--	Sample			<	5.0	28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit Req.				Req Mon DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
01313	Cadmium, potentially dissolved	1 - Effluent Gross	8	--	Sample	<	0.5	<	0.5	28 - ug/L		02/30 - Twice Per Month	GR - GRAB				
					Permit Req.	<=	0.82 30DA AVG	<=	3.2 DAILY MX	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB				
					Value NODI												
01314	Chromium, trivalent, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	20.0			28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit Req.		Req Mon 30DA AVG			28 - ug/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
01318	Lead, potentially dissolved	1 - Effluent Gross	8	--	Sample	<	1.0	<	1.0	28 - ug/L		02/30 - Twice Per Month	GR - GRAB				
					Permit Req.	<=	5.0 30DA AVG	<=	122.0 DAILY MX	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB				
					Value NODI												
01319	Manganese, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	2.0	<	2.0	28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit Req.		Req Mon 30DA AVG		Req Mon DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
01322	Nickel, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	2.0	<	2.0	28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit Req.		Req Mon 30DA AVG		Req Mon DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
01323	Selenium, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	5.0	<	5.0	28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit Req.		Req Mon 30DA AVG		Req Mon DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
03582	Oil and grease	1 - Effluent Gross	0	--	Sample												
					Permit Req.				<=	10.0 INST MAX	19 - mg/L		77/77 - Contingent	GR - GRAB			
					Value NODI					9 - Conditional Monitoring - Not Required This Period							
04262	Chromium, trivalent total recoverable	1 - Effluent Gross	0	--	Sample			<	20.0	28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit Req.				Req Mon DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	8	--	Sample	=	0.129355	=	0.269568	03 - MGD		99/99 - Continuous	RC - Recorder (auto)				
					Permit Req.	<=	0.148 30DA AVG		Req Mon DAILY MX	03 - MGD	0	99/99 - Continuous	RC - Recorder (auto)				
					Value NODI												
51202	Sulfide-hydrogen sulfide [undissociated]	1 - Effluent Gross	0	--	Sample	<	1.0			19 - mg/L		01/30 - Monthly	GR - GRAB				
					Permit Req.		Req Mon 30DA AVG			19 - mg/L	0	01/30 - Monthly	GR - GRAB				
					Value NODI												
					Sample	<	0.2	<	0.2	28 - ug/L		01/30 - Monthly	GR - GRAB				
					Permit												



**Table 5.3 DMR September 2022**
**DMR Copy of Record**

Permit		Permittee:		Facility:																
Permit #:	CO0032751	Grand Island Resources LLC		CROSS AND CARIBOU MINES																
Major:	No	Permittee Address:	12567 W Cedar Dr Lakewood, CO 80228	Facility Location:	CROSS AND CARIBOU MINES BOULDER COUNTY, CO 80466															
Permitted Feature:	001 External Outfall	Discharge:	001-A Treated Mine Water to Coon Track Creek																	
Report Dates & Status																				
Monitoring Period:	From 09/01/22 to 09/30/22	DMR Due Date:	10/28/22	Status:	NetDMR Validated															
Considerations for Form Completion																				
Oil and grease - see I.A.2, pg 3. 30 day average is the highest monthly average during period reported.																				
Principal Executive Officer																				
First Name:		Title:		Telephone:																
Last Name:																				
No Data Indicator (NODI)																				
Form NODI:	--																			
Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type			
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units	
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Sample						=	11.11		=	16.8	04 - deg C	0	99/99 - Continuous	RC - Recorder (auto)	
					Permit Req.															04 - deg C
					Value NODI															
00400	pH	1 - Effluent Gross	0	--	Sample						=	8.2		=	8.8	12 - SU	0	02/30 - Twice Per Month	GR - GRAB	
					Permit Req.						>=	6.5 MINIMUM		<=	9.0 MAXIMUM	12 - SU				
					Value NODI															
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						<	4.0		<	4.0	19 - mg/L	0	01/30 - Monthly	GR - GRAB	
					Permit Req.						<=	30.0 30DA AVG		<=	45.0 DAILY MX	19 - mg/L				
					Value NODI															
00978	Arsenic, total recoverable	1 - Effluent Gross	0	--	Sample						<	5.0			28 - ug/L	0	01/30 - Monthly	GR - GRAB		
					Permit Req.														28 - ug/L	
					Value NODI															
00980	Iron, total recoverable	1 - Effluent Gross	0	--	Sample						<	100.0			28 - ug/L	0	01/30 - Monthly	GR - GRAB		
					Permit Req.														28 - ug/L	
					Value NODI															
01094	Zinc, total recoverable	1 - Effluent Gross	0	--	Sample						<	10.0		<	10.0	28 - ug/L	0	01/30 - Monthly	GR - GRAB	
					Permit Req.						<=	750.0 30DA AVG		<=	1500.0 DAILY MX	28 - ug/L				
					Value NODI															
01113	Cadmium, total recoverable	1 - Effluent Gross	0	--	Sample						<	1.0		<	1.0	28 - ug/L	0	01/30 - Monthly	GR - GRAB	
					Permit Req.						<=	50.0 30DA AVG		<=	300.0 DAILY MX	28 - ug/L				
					Value NODI															
01114	Lead, total recoverable	1 - Effluent Gross	0	--	Sample						<	1.0		<	1.0	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB	
					Permit Req.						<=	300.0 30DA AVG		<=	600.0 DAILY MX	28 - ug/L				
					Value NODI															
01119	Copper, total recoverable	1 - Effluent Gross	0	--	Sample						<	2.0		<	2.0	28 - ug/L	0	02/30 - Twice Per Month	GR - GRAB	
					Permit Req.						<=	150.0 30DA AVG		<=	300.0 DAILY MX	28 - ug/L				
					Value NODI															
01220	Chromium, hexavalent dissolved [as	1 - Effluent	0	--	Sample						<	20.0		<	20.0	28 - ug/L	0	01/30 - Monthly	GR - GRAB	
					Permit Req.															28 - ug/L
					Value NODI															

Crj		Gross			Value NODI															
01303	Zinc, potentially dissolved	1 - Effluent Gross	9	--	Sample															
					Permit Req.															
					Value NODI															
01304	Silver, potentially dissolved	1 - Effluent Gross	9	--	Sample															
					Permit Req.															
					Value NODI															
01306	Copper, potentially dissolved	1 - Effluent Gross	9	--	Sample															
					Permit Req.															
					Value NODI															
01309	Arsenic, potentially dissolved	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
01313	Cadmium, potentially dissolved	1 - Effluent Gross	9	--	Sample															
					Permit Req.															
					Value NODI															
01314	Chromium, trivalent, potentially dissolved	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
01318	Lead, potentially dissolved	1 - Effluent Gross	9	--	Sample															
					Permit Req.															
					Value NODI															
01319	Manganese, potentially dissolved	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
01322	Nickel, potentially dissolved	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
01323	Selenium, potentially dissolved	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
03582	Oil and grease	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
04262	Chromium, trivalent total recoverable	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	9	--	Sample															
					Permit Req.															
					Value NODI															
51202	Sulfide-hydrogen sulfide [undissociated]	1 - Effluent Gross	0	--	Sample															
					Permit Req.															
					Value NODI															





## **Appendices**

## APPENDIX A GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

APPENDIX A.1 JULY 2022 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 433532****7/18/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Cross Portal  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 7/8/2022 09:07**Collected by:** B. Moran

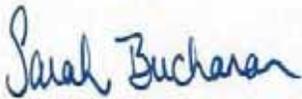
The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)**"NA"** Not Analyzed**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.**"DF"** This column indicates the contaminant dilution factor.**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	8	1	7/7/2022 13:45		7/8/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	7/7/2022 13:45		7/8/2022 13:40
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	1	7/7/2022 13:45		7/8/2022 12:25



Sarah Buchanan, Project Manager

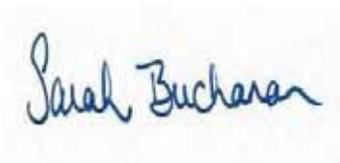
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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166  
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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP7/18/2022	2120B,5540C,2150B



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Sarah Buchanan, Project Manager

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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 433534****7/18/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Cross Well  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 7/8/2022 09:07**Collected by:** B. Moran

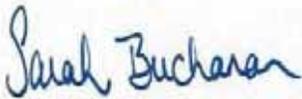
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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	7/7/2022 14:10		7/8/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	7/7/2022 14:10		7/8/2022 13:40
				MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole						
1920	Odor Threshold	2150B	3	ton	1	ND	1	7/7/2022 14:10		7/8/2022 12:25



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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP7/18/2022	2120B,5540C,2150B



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(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 433534****7/18/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Compliance Well  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 7/8/2022 09:07**Collected by:** B. Moran

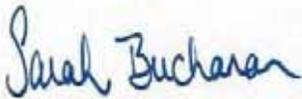
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**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)**"NA"** Not Analyzed**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.**"DF"** This column indicates the contaminant dilution factor.**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	7/7/2022 14:40		7/8/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	7/7/2022 14:40		7/8/2022 13:40
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	1	7/7/2022 14:40		7/8/2022 12:25



Sarah Buchanan, Project Manager

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP7/18/2022	2120B,5540C,2150B



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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 433536****7/18/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Caribou Portal  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 7/8/2022 09:07**Collected by:** B. Moran

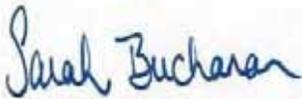
The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	7/7/2022 15:00		7/8/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	7/7/2022 15:00		7/8/2022 13:40
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	1	7/7/2022 15:00		7/8/2022 12:25



Sarah Buchanan, Project Manager

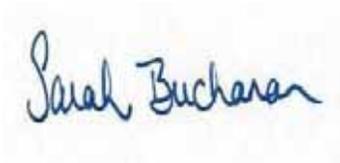
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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP7/18/2022	2120B,5540C,2150B



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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 433538****7/18/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Caribou Well  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 7/8/2022 09:07**Collected by:** B. Moran

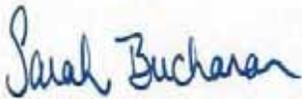
The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	7/7/2022 16:00		7/8/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	7/7/2022 16:00		7/8/2022 13:40
				MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole						
1920	Odor Threshold	2150B	3	ton	1	ND	1	7/7/2022 16:00		7/8/2022 12:25



Sarah Buchanan, Project Manager

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP7/18/2022	2120B,5540C,2150B



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Sarah Buchanan, Project Manager

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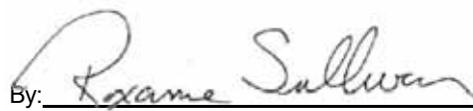
Customer ID: 20040H

Account ID: Z01034

Stuart Nielson  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City, CO 80640

# ANALYTICAL REPORT

*Report may only be copied in its entirety.  
Results reported herein relate only to discrete samples  
submitted by the client. Hazen Research, Inc. does not warrant  
that the results are representative of anything other than the  
samples that were received in the laboratory*

By:   
Roxanne Sullivan  
Analytical Laboratories Director

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02275-001					
<b>Customer Sample ID</b>			220707190-01H - Cross Well sampled on 07/07/22 @ 1210					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.9	1.2	0.1	SM 7110 B	7/13/22 @ 1107	AS
Gross Beta	pCi/L	T	<3.0	2.1	3.0	SM 7110 B	7/13/22 @ 1107	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than



**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

Lab Control ID: 22M02275  
 Received: Jul 08, 2022  
 Reported: Jul 18, 2022  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02275-002					
<b>Customer Sample ID</b>			220707190-02H - Compliance Well sampled on 07/07/22 @ 1240					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	1.0	1.0	0.1	SM 7110 B	7/13/22 @ 1108	AS
Gross Beta	pCi/L	T	<3.1	2.1	3.1	SM 7110 B	7/13/22 @ 1108	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than



**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

Lab Control ID: 22M02275  
 Received: Jul 08, 2022  
 Reported: Jul 18, 2022  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02275-003					
<b>Customer Sample ID</b>			220707190-03H - Caribou Well sampled on 07/07/22 @ 1400					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.5	0.9	0.1	SM 7110 B	7/13/22 @ 1109	AS
Gross Beta	pCi/L	T	<2.9	2.3	2.9	SM 7110 B	7/13/22 @ 1109	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02275-004					
<b>Customer Sample ID</b>			220707190-04H - Cross Portal sampled on 07/07/22 @ 1145					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	2.2	1.4	0.1	SM 7110 B	7/13/22 @ 1110	AS
Gross Beta	pCi/L	T	<2.9	2.4	2.9	SM 7110 B	7/13/22 @ 1110	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02275-005					
<b>Customer Sample ID</b>			220707190-05H - Caribou Portal sampled on 07/07/22 @ 1300					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	4.1	1.9	0.1	SM 7110 B	7/13/22 @ 1111	AS
Gross Beta	pCi/L	T	<3.0	2.3	3.0	SM 7110 B	7/13/22 @ 1111	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

**Batch QC Summary Form**

Analyte: Gross Alpha

Control Standard/LFB: ID: C-11a\_001 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11a\_001 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(45.7) (1.000)}{57.4} - \frac{(1.9) (0.200)}{57.4} \times 100 = 79\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 30 %	x		
Spike Recovery	70 - 130 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap			x
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

     x Batch QC Passes\*\*  
     Batch QC Fails  
     Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative: The duplicate 1 in the batch was over calibration range and could not be counted. Data quality is not adversely affected and therefore the data is being reported.

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

22M02270 \_\_\_\_\_  
22M02268 \_\_\_\_\_  
22M02271 \_\_\_\_\_  
22M02272 \_\_\_\_\_  
22M02275 \_\_\_\_\_  
22M02289 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:  
 \_\_\_\_\_

\_\_\_\_\_ 07/14/2022 \_\_\_\_\_  
 Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C-11a\_001 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11a\_001 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

Calculation:  $\frac{(39.0) (1.000)}{44} - \frac{(0.7) (0.200)}{44} \times 100 = 88\%$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap			x
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

  x Batch QC Passes\*\*  
       Batch QC Fails  
       Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative: The duplicate 1 in the batch was over calibration range and could not be counted. Data quality is not adversely affected and therefore the data is being reported.

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

22M02270 \_\_\_\_\_  
22M02268 \_\_\_\_\_  
22M02271 \_\_\_\_\_  
22M02272 \_\_\_\_\_  
22M02275 \_\_\_\_\_  
22M02289 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:  
 \_\_\_\_\_

\_\_\_\_\_ 07/14/2022 \_\_\_\_\_  
 Date



Ship To: Hazen Research  
 Preserved: Y **(N)**  
 HNO3 Lot #: N/A  
 Date Preserved: N/A

22M02275

<b>Report To Information</b> Company Name: Colorado Analytical Laboratory Report To: Stuart Nielson E-Mail: stuartnielson@coloradolab.com Address: 10411 Heinz Way Commerce City, CO 80640 Phone: 303-559-2313	<b>Bill To Information (if different from report to)</b> Project Name: _____ CAL TASK: 220707190 JML Compliance Samples: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Submit Data to CDPHE: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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**Tests Requested**

Sample Date/Time	Sample ID	Matrix	Container Type
7/7/22 12:10 PM	220707190-01H - Cross Well	Water - Ground	1L - Unpreserved
7/7/22 12:40 PM	220707190-02H - Compliance Well	Water - Ground	1L - Unpreserved
7/7/22 2:00 PM	220707190-03H - Caribou Well	Water - Ground	1L - Unpreserved
7/7/22 11:45 AM	220707190-04H - Cross Portal	Water - Ground	1L - Unpreserved
7/7/22 1:00 PM	220707190-05H - Caribou Portal	Water - Ground	1L - Unpreserved

pres: (AOS) 7/8/22 1645 AJS  
 pH V: 07/11/22 0850 KR

FedEx 5909 4113 5520

Relinquished by: <u>ASDAMA</u> (Signature)	Date: 7/8/22 Time: 1100	Received by: <u>AS</u> (Signature)	Date: 7/8/22 Time: 1630	Relinquished by: _____ (Signature)	Date: _____ Time: _____	Received by: _____ (Signature)	Date: _____ Time: _____
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# ANALYTICAL SUMMARY REPORT

July 26, 2022

Colorado Analytical Laboratories Inc  
PO Box 507  
Brighton, CO 80601-0507

Work Order: C22070357

Project Name: 220707190

Energy Laboratories, Inc. Casper WY received the following 5 samples for Colorado Analytical Laboratories Inc on 7/12/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C22070357-001	220707190-01F-Cross Well	07/07/22 12:10	07/12/22	Groundwater	Metals by ICP/ICPMS, Total Metals Preparation by EPA 200.2
C22070357-002	220707190-02F-Compliance Well	07/07/22 12:40	07/12/22	Groundwater	Same As Above
C22070357-003	220707190-03F-Caribou Well	07/07/22 14:00	07/12/22	Groundwater	Same As Above
C22070357-004	220707190-04F-Cross Portal	07/07/22 11:45	07/12/22	Groundwater	Same As Above
C22070357-005	220707190-05F-Caribou Portal	07/07/22 13:00	07/12/22	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:



CLIENT: Colorado Analytical Laboratories Inc

Project: 220707190

Report Date: 07/26/22

Work Order: C22070357

## CASE NARRATIVE

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Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220707190  
Lab ID: C22070357-001  
Client Sample ID: 220707190-01F-Cross Well

Report Date: 07/26/22  
Collection Date: 07/07/22 12:10  
DateReceived: 07/12/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	07/16/22 00:38 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220707190  
Lab ID: C22070357-002  
Client Sample ID: 220707190-02F-Compliance Well

Report Date: 07/26/22  
Collection Date: 07/07/22 12:40  
Date Received: 07/12/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	07/16/22 00:43 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220707190  
Lab ID: C22070357-003  
Client Sample ID: 220707190-03F-Caribou Well

Report Date: 07/26/22  
Collection Date: 07/07/22 14:00  
DateReceived: 07/12/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	07/16/22 00:47 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220707190  
Lab ID: C22070357-004  
Client Sample ID: 220707190-04F-Cross Portal

Report Date: 07/26/22  
Collection Date: 07/07/22 11:45  
DateReceived: 07/12/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	07/16/22 00:51 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220707190  
Lab ID: C22070357-005  
Client Sample ID: 220707190-05F-Caribou Portal

Report Date: 07/26/22  
Collection Date: 07/07/22 13:00  
DateReceived: 07/12/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	07/16/22 00:56 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C22070357

Report Date: 07/18/22

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E200.7								Analytical Run: ICP203-B_220715A		
Lab ID: ICV	Continuing Calibration Verification Standard									
Lithium	1.24	mg/L	0.10	99	95	105			07/15/22 09:46	
Lab ID: CCV	Continuing Calibration Verification Standard									
Lithium	1.25	mg/L	0.10	100	90	110			07/16/22 00:26	
Method: E200.7								Batch: 168428		
Lab ID: MB-168428	Method Blank				Run: ICP203-B_220715A			07/15/22 23:51		
Lithium	ND	mg/L	0.006							
Lab ID: LCS3-168428	Laboratory Control Sample				Run: ICP203-B_220715A			07/16/22 00:34		
Lithium	1.04	mg/L	0.10	104	85	115				
Lab ID: B22070942-001CMS3	Sample Matrix Spike				Run: ICP203-B_220715A			07/16/22 01:26		
Lithium	1.04	mg/L	0.10	104	70	130				
Lab ID: B22070942-001CMSD3	Sample Matrix Spike Duplicate				Run: ICP203-B_220715A			07/16/22 01:30		
Lithium	1.04	mg/L	0.10	104	70	130	0.3	20		



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc

Report Date: 07/26/22

Project: 220707190

Collection Date: 07/07/22 13:00

Qualifiers: C22070357-005

Date Received: 07/12/22

Lab ID: RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

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Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C22070357

Login completed by: Kirsten L. Smith

Date Received: 7/12/2022

Reviewed by: Alyson T. Degnan

Received by: mar

Reviewed Date: 7/13/2022

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on all shipping container(s)/cooler(s)? Yes  No  Not Present
- Custody seals intact on all sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time?  
(Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) Yes  No
  
- Temp Blank received in all shipping container(s)/cooler(s)? Yes  No  Not Applicable
- Container/Temp Blank temperature: 2.4°C Melted Ice
- Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). Yes  No  No VOA vials submitted
- Water - pH acceptable upon receipt? Yes  No  Not Applicable

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

## Contact and Corrective Action Comments:

None



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

*22070357*

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Nielson</u> E-Mail: <u>stuartnielson@coloradolab.com</u>		<b>Bill To Information (if different from report to)</b>		<b>Project Name</b> -	
Address: <u>10411 Helinz Way</u> <u>Commerce City, CO 80640</u> Phone: <u>303-659-2313</u>		Address:		CAL TASK 220707190 JML	
				Compliance Samples: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Submit Data to CDPHE: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Tests Requested

Sample Date/Time	Sample ID	Matrix	Metals (Sub)										Container Type		
7/7/22 12:10 PM	220707190-01F - Cross Well	Water - Ground													500 ml Cylinder - HNO3
7/7/22 12:40 PM	220707190-02F - Compliance Well	Water - Ground													500 ml Cylinder - HNO3
7/7/22 2:00 PM	220707190-03F - Garibou Well	Water - Ground													500 ml Cylinder - HNO3
7/7/22 11:45 AM	220707190-04F - Cross Portal	Water - Ground													500 ml Cylinder - HNO3
7/7/22 1:00 PM	220707190-05F - Garibou Portal	Water - Ground													500 ml Cylinder - HNO3

Comment: 220707190-01F - Please report Lithium.  
 220707190-02F - Please report Lithium.  
 220707190-03F - Please report Lithium.  
 220707190-04F - Please report Lithium.  
 220707190-05F - Please report Lithium.

Relinquished by: (Signature) <i>Adam</i>	Date: Time: <i>7/11/22 1500</i>	Received by: (Signature)	Date: Time:	Relinquished by: (Signature)	Date: Time:	Received by: (Signature) <i>M. Key</i>	Date: Time: <i>7/12/2022</i>
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## Built Environment Reservoirs

July 19, 2022

**Subcontractor Number:**

**Laboratory Report:** RES 529946-1

**Project #/P.O. #:** 220707190

**Project Description:** Grand Island Resources

Jessi Lupfer  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City CO 80640

Dear Jessi,

Eurofins Reservoirs is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA LAP, LLC), Lab ID 101533 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Eurofins Reservoirs has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

**RES 529946-1** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Eurofins Reservoirs will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed, as received by the customer. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Eurofins Reservoirs. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,



by Norberto Zimbelman

Jeanne Spencer  
President



# EUROFINS RESERVOIRS ENVIRONMENTAL, INC

NVLAP Lab Code 101896-0  
 AIHALAP, LLC. LAB ID 101533

**TABLE: I ANALYSIS: TEM WATER SAMPLE ANALYTICAL RESULTS**

RES Job Number: RES 529946-1  
 Client: Colorado Analytical Laboratories, Inc.  
 Client Project/P.O.: 220707190  
 Client Project Description: Grand Island Resources  
 Date Samples Received: July 08, 2022  
 Analysis Type: REI TEM SOP / USEPA 100.2-M  
 Turnaround: Standard 10  
 Date Samples Analyzed: July 14 - July 19, 2022

NA = Not Analyzed  
 NR = Not Received  
 ND = None Detected  
 TR = Trace; <1 % Visual Estimate  
 Trem-Act = Tremolite-Actinolite

Laboratory Sample ID	Client ID Number	Aliquot Deposited on Filter (ml)	Dilution Factor	Total Number of Asbestos Structures Detected	Greater than 10 Micron Length Asbestos Structures Detected	Analytical Sensitivity	Total Asbestos Concentration	Greater than 10 Micron Length Asbestos Concentration
529946 -	220707190-01G Cross Well	20	1	ND	ND	0.17	BAS	BAS
529946 -	220707190-02G Compliance Well	20	1	ND	ND	0.17	BAS	BAS
529946 -	220707190-03G Caribou Well	20	1	ND	ND	0.17	BAS	BAS
529946 -	220707190-04G Cross Portal	20	1	ND	ND	0.17	BAS	BAS
529946 -	220707190-05G Caribou Portal	20	1	ND	ND	0.17	BAS	BAS

Filter Material = Mixed Cellulose Ester  
 Filter Diameter = 25mm  
 Effective Filter Area = 0mm<sup>2</sup>  
 Average Grid Opening = 0.010mm<sup>2</sup>

*N. Zimbelman*  
 Norberto Zimbelman  
 Analyst





Built Environment Reservoirs

RES Job #: 529946

SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES	
Company:	Colorado Analytical Laboratories, Inc.	Company:	Colorado Analytical Laboratories, Inc.	Contact:	Jessi Lupfer	-1	TEM Standard 10
Address:	10411 Heinz Way	Address:	10411 Heinz Way	Phone:	(303) 659-2313		
	Commerce City, CO 80640		Commerce City, CO 80640	Fax:			
Project Number and/or P.O. #:	220707190			Cell:			
Project Description/Location:	Grand Island Resources			Final Data Deliverable Email Address:	Jessilupfer@coloradolab.com (+ 4 ADDNL. CONTACTS)		

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm		DTL RUSH PRIORITY STANDARD		REQUESTED ANALYSIS		VALID MATRIX CODES		LAB NOTES																
PLM / PCM / TEM				PLM - Short Report, Long Report, CARB 435	TEM - Drinking Water (EPA 100.2)	PCB - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s)	ORGANICS - Methamphetamine, TSS	VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or 1-2), Listeria, E. coli O157:H7, E. coli/Coliiforms - Plated, Yeast & Mold, Aerobic Plate Count, Coliforms/E. coli - (State Water, Drinking Water, Non-Drinking Water, +/- Quantification), Lactic Acid, Viable Microbial Count (w/ID or w/ID), Enterococcus (+/- or Quantification), Legionella (P, NP, C)	MEDICAL - Bioterror, LAL	MOLD - Spore Trap, Bulk Mold, Particulate Identification	Sample Volume (L) / Area	Length (or Aliquots) x Width (or Area per Aliquot)	Matrix Code	# of Containers	Date Collected mm/dd/yy	Time Collected hh:mm	Laboratory Analysis Instructions					
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm																								
Dust																								
Metals																								
Organics*																								
MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm																								
Viable Analysis**																								
Medical Device Analysis																								
Mold Analysis																								
Special Instructions:																								
Client Sample ID Number	(Sample ID's must be unique)																							
1	220707190-01G Cross Well																							
2	220707190-02G Compliance Well																							
3	220707190-03G Caribou Well																							
4	220707190-04G Cross Portal																							
5	220707190-05G Caribou Portal																							

EREI establishes a unique Lab Sample ID, for each sample, by preceding each unique Client Sample ID with the laboratory RES Job Number. EREI will analyze incoming samples based on information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing, client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days. Failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By:		Jessi Lupfer	Date/Time: 07/08/2022 10:49:41	Sample Condition: <b>Acceptable</b>
Received By:		Jessica Shapiro	Date/Time: 07/08/2022 12:50:20	Carrier: <b>Hand</b>

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	07/14/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	529946-1	Date Received	07/08/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220707190-01G Cross Well	Method	EPA 100.2	Scope Align	07/14/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	F5-4	ND									
	F5-1	ND									
	E5-4	ND									
	E5-1	ND									
	C5-4	ND									
B	F3-6	ND								Yes	
	E3-6	ND									
	C4-1	ND									
	B4-4	ND									
	B4-1	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	07/14/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	529946-1	Date Received	07/08/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220707190-02G Compliance Well	Method	EPA 100.2	Scope Align	07/14/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	F5-3	ND									
	E5-3	ND									
	C5-6	ND									
	C5-3	ND									
	B5-6	ND									
A	G4-3	ND									
	F4-3	ND									
	E4-6	ND									
	E4-1	ND									
	C4-6	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	07/19/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	529946-1	Date Received	07/08/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220707190-03G Caribou Well	Method	EPA 100.2	Scope Align	07/19/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	E3-1	B			1.30µm	0.15µm	NAM	NAM			
	E4-4	ND									
	F3-1	ND									
	E3-4	ND									
	C3-4	ND									
	C3-1	ND									
B	F3-1	ND									
	E3-1	ND									
	C3-4	ND									
	B3-4	ND									

\*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	07/15/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	529946-1	Date Received	07/08/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220707190-04G Cross Portal	Method	EPA 100.2	Scope Align	07/15/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	H3-1	ND									
	G3-4	ND									
	G3-1	ND									
	F3-4	ND									
	E3-4	ND									
B	E4-4	ND								Yes	
	C4-1	ND									
	B4-1	ND									
	A4-4	ND									
	B5-1	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	07/17/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	529946-1	Date Received	07/08/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220707190-05G Caribou Portal	Method	EPA 100.2	Scope Align	07/17/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G3-6	ND								Yes	
	F3-6	ND									
	E3-6	ND									
	C4-1	ND									
	B4-1	ND									
A	G6-1	ND								Yes	
	F6-1	ND									
	F4-6	ND									
	E4-6	ND									
	C4-4	ND								Yes	

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 7/7/22 12:10 PM  
Lab Number: 220707190-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/13/22	QC58114	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	7/13/22	QC58114	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/13/22	QC58114	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/13/22	QC58114	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	7/13/22	QC58114	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	7/13/22	QC58114	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	7/13/22	QC58114	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	7/13/22	QC58114	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	7/13/22	QC58114	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Anthracene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
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Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 7/7/22 12:10 PM

Lab Number: 220707190-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	7/13/22	QC58114	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Chrysene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Fluorene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	7/13/22	QC58114	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	7/13/22	QC58114	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS

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Report To: Patrick Delaney  
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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
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Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 7/7/22 12:10 PM  
Lab Number: 220707190-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	7/13/22	QC58114	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Phenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Pyrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	33.9	16 - 145
2-Fluorobiphenyl	90.4	60 - 140
2-Fluorophenol	95.8	60 - 140
Nitrobenzene-d5	101.2	15 - 314
Phenol-d5	95.4	8 - 424
p-Terphenyl-d14	90.0	44 - 135

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Suite 250  
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Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 7/7/22 12:40 PM  
Lab Number: 220707190-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/13/22	QC58114	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	7/13/22	QC58114	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/13/22	QC58114	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/13/22	QC58114	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	7/13/22	QC58114	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	7/13/22	QC58114	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	7/13/22	QC58114	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	7/13/22	QC58114	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	7/13/22	QC58114	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Anthracene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS

Abbreviations/References:

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## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
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Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Compliance Well  
Sample Date/Time: 7/7/22 12:40 PM

Lab Number: 220707190-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	7/13/22	QC58114	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Chrysene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Fluorene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	7/13/22	QC58114	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	7/13/22	QC58114	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 7/7/22 12:40 PM  
Lab Number: 220707190-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	7/13/22	QC58114	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Phenol	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS
Pyrene	ND	EPA 625	10.0 ug/L	7/13/22	QC58114	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	36.9	16 - 145
2-Fluorobiphenyl	86.8	60 - 140
2-Fluorophenol	92.1	60 - 140
Nitrobenzene-d5	100.0	15 - 314
Phenol-d5	90.7	8 - 424
p-Terphenyl-d14	92.9	44 - 135

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
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12567 W Cedar Dr  
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Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
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Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 7/7/22 2:00 PM  
Lab Number: 220707190-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	7/14/22	QC58114	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	7/14/22	QC58114	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	7/14/22	QC58114	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	7/14/22	QC58114	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	7/14/22	QC58114	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	7/14/22	QC58114	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Caribou Well

Sample Date/Time: 7/7/22 2:00 PM

Lab Number: 220707190-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	7/14/22	QC58114	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Chrysene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Fluorene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	7/14/22	QC58114	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	7/14/22	QC58114	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190	Date Received: 7/7/22
Client PO:	Date Reported: 7/27/22
Client Project:	Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 7/7/22 2:00 PM  
Lab Number: 220707190-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	7/14/22	QC58114	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Phenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	33.4	16 - 145
2-Fluorobiphenyl	87.0	60 - 140
2-Fluorophenol	93.4	60 - 140
Nitrobenzene-d5	97.9	15 - 314
Phenol-d5	92.4	8 - 424
p-Terphenyl-d14	97.7	44 - 135

Abbreviations/References:

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 7/7/22 11:45 AM  
Lab Number: 220707190-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	7/14/22	QC58114	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	7/14/22	QC58114	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	7/14/22	QC58114	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	7/14/22	QC58114	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	7/14/22	QC58114	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	7/14/22	QC58114	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Abbreviations/ References:

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 7/7/22 11:45 AM

Lab Number: 220707190-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	7/14/22	QC58114	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Chrysene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Fluorene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	7/14/22	QC58114	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	7/14/22	QC58114	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Abbreviations/ References:

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(s) Spike amount low relative to the sample amount.  
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## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 7/7/22 11:45 AM  
Lab Number: 220707190-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	7/14/22	QC58114	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Phenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	35.5	16 - 145
2-Fluorobiphenyl	84.6	60 - 140
2-Fluorophenol	90.2	60 - 140
Nitrobenzene-d5	96.1	15 - 314
Phenol-d5	89.9	8 - 424
p-Terphenyl-d14	95.6	44 - 135

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
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Date Analyzed = Date Test Completed

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190	Date Received: 7/7/22
Client PO:	Date Reported: 7/27/22
Client Project:	Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 7/7/22 1:00 PM  
Lab Number: 220707190-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	7/14/22	QC58114	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	7/14/22	QC58114	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	7/14/22	QC58114	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	7/14/22	QC58114	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	7/14/22	QC58114	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	7/14/22	QC58114	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	7/14/22	QC58114	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Abbreviations/ References:

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Caribou Portal

Sample Date/Time: 7/7/22 1:00 PM

Lab Number: 220707190-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	7/14/22	QC58114	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Chrysene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Fluorene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	7/14/22	QC58114	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	7/14/22	QC58114	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 7/7/22 1:00 PM  
Lab Number: 220707190-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	7/14/22	QC58114	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Phenol	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS
Pyrene	ND	EPA 625	10.0 ug/L	7/14/22	QC58114	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	31.1	16 - 145
2-Fluorobiphenyl	83.8	60 - 140
2-Fluorophenol	89.0	60 - 140
Nitrobenzene-d5	96.3	15 - 314
Phenol-d5	90.6	8 - 424
p-Terphenyl-d14	100.1	44 - 135

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 7/7/22  
Project Name:

Test	QC Batch ID	QC Type	Result	Method
1,2,4-Trichlorobenzene	QC58114	Method Blank	ND	EPA 625
1,2-Dichlorobenzene	QC58114	Method Blank	ND	EPA 625
1,2-diphenylhydrazine (as Azobenzene)	QC58114	Method Blank	ND	EPA 625
1,3-Dichlorobenzene	QC58114	Method Blank	ND	EPA 625
1,4-Dichlorobenzene	QC58114	Method Blank	ND	EPA 625
2,4,6-Trichlorophenol	QC58114	Method Blank	ND	EPA 625
2,4-Dichlorophenol	QC58114	Method Blank	ND	EPA 625
2,4-Dimethylphenol	QC58114	Method Blank	ND	EPA 625
2,4-Dinitrophenol	QC58114	Method Blank	ND	EPA 625
2,4-Dinitrotoluene	QC58114	Method Blank	ND	EPA 625
2,6-Dinitrotoluene	QC58114	Method Blank	ND	EPA 625
2-Chloronaphthalene	QC58114	Method Blank	ND	EPA 625
2-Chlorophenol	QC58114	Method Blank	ND	EPA 625
2-Nitrophenol	QC58114	Method Blank	ND	EPA 625
3,3'-Dichlorobenzidine	QC58114	Method Blank	ND	EPA 625
4,6-Dinitro-2-methylphenol	QC58114	Method Blank	ND	EPA 625
4-Bromophenyl phenyl ether	QC58114	Method Blank	ND	EPA 625
4-Chloro-3-methylphenol	QC58114	Method Blank	ND	EPA 625
4-Chlorophenyl phenyl ether	QC58114	Method Blank	ND	EPA 625
4-Nitrophenol	QC58114	Method Blank	ND	EPA 625
Acenaphthene	QC58114	Method Blank	ND	EPA 625
Acenaphthylene	QC58114	Method Blank	ND	EPA 625
Anthracene	QC58114	Method Blank	ND	EPA 625
Benzidine	QC58114	Method Blank	ND	EPA 625
Benzo(a)anthracene	QC58114	Method Blank	ND	EPA 625
Benzo(a)pyrene	QC58114	Method Blank	ND	EPA 625
Benzo(b)fluoranthene	QC58114	Method Blank	ND	EPA 625
Benzo(g,h,i)perylene	QC58114	Method Blank	ND	EPA 625
Benzo(k)fluoranthene	QC58114	Method Blank	ND	EPA 625
Bis(2-chloroethoxy) methane	QC58114	Method Blank	ND	EPA 625
Bis(2-chloroethyl) ether	QC58114	Method Blank	ND	EPA 625
Bis(2-chloroisopropyl) ether	QC58114	Method Blank	ND	EPA 625
Bis(2-ethylhexyl) phthalate	QC58114	Method Blank	ND	EPA 625
Butylbenzylphthalate	QC58114	Method Blank	ND	EPA 625
Chrysene	QC58114	Method Blank	ND	EPA 625
Dibenzo(a,h)anthracene	QC58114	Method Blank	ND	EPA 625
Diethyl phthalate	QC58114	Method Blank	ND	EPA 625
Dimethyl phthalate	QC58114	Method Blank	ND	EPA 625
Di-n-butyl phthalate	QC58114	Method Blank	ND	EPA 625
Di-n-octyl phthalate	QC58114	Method Blank	ND	EPA 625
Fluoranthene	QC58114	Method Blank	ND	EPA 625

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Fluorene	QC58114	Method Blank	ND	EPA 625
Hexachlorobenzene	QC58114	Method Blank	ND	EPA 625
Hexachlorobutadiene	QC58114	Method Blank	ND	EPA 625
Hexachlorocyclopentadiene	QC58114	Method Blank	ND	EPA 625
Hexachloroethane	QC58114	Method Blank	ND	EPA 625
Indeno(1,2,3-cd)pyrene	QC58114	Method Blank	ND	EPA 625
Isophorone	QC58114	Method Blank	ND	EPA 625
Naphthalene	QC58114	Method Blank	ND	EPA 625
Nitrobenzene	QC58114	Method Blank	ND	EPA 625
n-Nitrosodimethylamine	QC58114	Method Blank	ND	EPA 625
n-Nitroso-di-n-propylamine	QC58114	Method Blank	ND	EPA 625
n-Nitrosodiphenylamine (as Diphenyla	QC58114	Method Blank	ND	EPA 625
Pentachlorophenol	QC58114	Method Blank	ND	EPA 625
Phenanthrene	QC58114	Method Blank	ND	EPA 625
Phenol	QC58114	Method Blank	ND	EPA 625
Pyrene	QC58114	Method Blank	ND	EPA 625

est	QC Batch ID	QC Type	Limits	% Rec	RPD	Method	
1,2,4-Trichlorobenzene	QC58114	LCS	61 - 130	75.5	-	EPA 625	
		LCS Dup	-	75.3	-		
		MS	44 - 142	78.3	-		
		MSD	0 - 50	-	3.3		
1,2-Dichlorobenzene	QC58114	LCS	65 - 135	73.1	-	EPA 625	
		LCS Dup	-	73.3	-		
		MS	18 - 190	76.3	-		
		MSD	0 - 57	-	1.8		
1,2-diphenylhydrazine (as Azobenzene)	QC58114	LCS	67 - 114	76.9	-	EPA 625	
		LCS Dup	-	77.1	-		
		MS	60 - 121	76.7	-		
		MSD	0 - 21	-	2.6		
1,3-Dichlorobenzene	QC58114	LCS	70 - 130	68.5	-	EPA 625	
		Analyte is above QC criteria in the LCS and LCS Dup; may be subject to low bias. MBS 7/20/2022					
		LCS Dup	-	69.9	-		
		Analyte is above QC criteria in the LCS and LCS Dup; may be subject to low bias. MBS 7/20/2022					
1,4-Dichlorobenzene	QC58114	LCS	56 - 135	70.1	-	EPA 625	
		LCS Dup	-	70.8	-		
		MS	18 - 190	74.6	-		
		MSD	0 - 57	-	1.6		
2,4,6-Trichlorophenol	QC58114	LCS	69 - 130	73.2	-	EPA 625	
		LCS Dup	-	74.2	-		
		MS	37 - 144	71.4	-		
		MSD	0 - 58	-	4.7		
2,4-Dichlorophenol	QC58114	LCS	64 - 130	77.7	-	EPA 625	
		LCS Dup	-	76.6	-		
		MS	39 - 135	78.1	-		
		MSD	0 - 50	-	2.1		
2,4-Dimethylphenol	QC58114	LCS	58 - 130	93.1	-	EPA 625	
		LCS Dup	-	94.9	-		
		MS	32 - 120	96.5	-		
		MSD	0 - 58	-	0.1		
2,4-Dinitrophenol	QC58114	LCS	39 - 173	54.2	-	EPA 625	

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		LCS Dup	-	41.4	-	
		MS	1 - 191	51.2	-	
		MSD	0 - 132	-	23.8	
2,4-Dinitrotoluene	QC58114	LCS	53 - 130	82.9	-	EPA 625
		LCS Dup	-	82.8	-	
		MS	39 - 139	79.9	-	
		MSD	0 - 42	-	3.6	
2,6-Dinitrotoluene	QC58114	LCS	68 - 137	82.3	-	EPA 625
		LCS Dup	-	84.4	-	
		MS	50 - 158	80.8	-	
		MSD	0 - 48	-	5.4	
2-Chloronaphthalene	QC58114	LCS	70 - 130	75.7	-	EPA 625
		LCS Dup	-	76.3	-	
		MS	60 - 120	77.7	-	
		MSD	0 - 24	-	3.6	
2-Chlorophenol	QC58114	LCS	55 - 130	81.1	-	EPA 625
		LCS Dup	-	82.5	-	
		MS	23 - 134	84.0	-	
		MSD	0 - 61	-	0.2	
2-Nitrophenol	QC58114	LCS	61 - 163	90.9	-	EPA 625
		LCS Dup	-	91.3	-	
		MS	29 - 182	91.0	-	
		MSD	0 - 55	-	0.5	
3,3'-Dichlorobenzidine	QC58114	LCS	18 - 213	48.9	-	EPA 625
		LCS Dup	-	52.1	-	
		MS	1 - 262	44.7	-	
		MSD	0 - 108	-	27.8	
4,6-Dinitro-2-methylphenol	QC58114	LCS	56 - 130	87.4	-	EPA 625
		LCS Dup	-	84.9	-	
		MS	1 - 181	86.5	-	
		MSD	0 - 203	-	1.4	
4-Bromophenyl phenyl ether	QC58114	LCS	70 - 130	76.2	-	EPA 625
		LCS Dup	-	77.8	-	
		MS	53 - 127	76.7	-	
		MSD	0 - 43	-	3.8	
4-Chloro-3-methylphenol	QC58114	LCS	68 - 130	77.1	-	EPA 625
		LCS Dup	-	79.8	-	
		MS	22 - 147	77.4	-	
		MSD	0 - 73	-	5.5	
4-Chlorophenyl phenyl ether	QC58114	LCS	57 - 145	77.4	-	EPA 625
		LCS Dup	-	78.4	-	
		MS	25 - 158	78.6	-	
		MSD	0 - 61	-	2.7	
4-Nitrophenol	QC58114	LCS	35 - 130	44.3	-	EPA 625
		LCS Dup	-	40.6	-	
		MS	1 - 132	32.0	-	
		MSD	0 - 131	-	0.6	
Acenaphthene	QC58114	LCS	70 - 130	78.7	-	EPA 625
		LCS Dup	-	79.3	-	
		MS	47 - 145	79.4	-	
		MSD	0 - 48	-	3.3	

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Acenaphthylene	QC58114	LCS	60 - 130	69.8	-	EPA 625
		LCS Dup	-	71.7	-	
		MS	33 - 145	73.0	-	
		MSD	0 - 74	-	1.5	
Anthracene	QC58114	LCS	58 - 130	81.8	-	EPA 625
		LCS Dup	-	82.0	-	
		MS	27 - 133	81.6	-	
		MSD	0 - 81	-	2.0	
Benzidine	QC58114	LCS	1 - 231	23.5	-	EPA 625
		LCS Dup	-	21.2	-	
		MS	1 - 318	15.4	-	
		MSD	0 - 218	-	24.1	
Benzo(a)anthracene	QC58114	LCS	42 - 133	80.4	-	EPA 625
		LCS Dup	-	82.5	-	
		MS	33 - 143	81.9	-	
		MSD	0 - 53	-	0.1	
Benzo(a)pyrene	QC58114	LCS	32 - 148	90.5	-	EPA 625
		LCS Dup	-	89.5	-	
		MS	17 - 163	88.8	-	
		MSD	0 - 72	-	1.2	
Benzo(b)fluoranthene	QC58114	LCS	42 - 140	86.9	-	EPA 625
		LCS Dup	-	87.1	-	
		MS	24 - 159	88.0	-	
		MSD	0 - 71	-	1.9	
Benzo(g,h,i)perylene	QC58114	LCS	13 - 195	56.7	-	EPA 625
		LCS Dup	-	49.9	-	
		MS	1 - 219	52.6	-	
		MSD	0 - 97	-	0.8	
Benzo(k)fluoranthene	QC58114	LCS	25 - 146	79.9	-	EPA 625
		LCS Dup	-	82.8	-	
		MS	11 - 162	83.8	-	
		MSD	0 - 63	-	0.5	
Bis(2-chloroethoxy) methane	QC58114	LCS	52 - 164	84.7	-	EPA 625
		LCS Dup	-	84.5	-	
		MS	33 - 184	86.8	-	
		MSD	0 - 54	-	2.3	
Bis(2-chloroethyl) ether	QC58114	LCS	52 - 130	82.2	-	EPA 625
		LCS Dup	-	81.7	-	
		MS	12 - 158	85.9	-	
		MSD	0 - 108	-	1.2	
Bis(2-chloroisopropyl) ether	QC58114	LCS	63 - 139	74.9	-	EPA 625
		LCS Dup	-	73.4	-	
		MS	36 - 166	77.6	-	
		MSD	0 - 76	-	1.9	
Bis(2-ethylhexyl) phthalate	QC58114	LCS	43 - 137	81.1	-	EPA 625
		LCS Dup	-	81.1	-	
		MS	8 - 158	78.5	-	
		MSD	0 - 82	-	1.7	
Butylbenzylphthalate	QC58114	LCS	43 - 140	89.3	-	EPA 625
		LCS Dup	-	92.6	-	

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		MS	1 - 152	91.2	-	
		MSD	0 - 60	-	1.1	
Chrysene	QC58114	LCS	44 - 140	81.5	-	EPA 625
		LCS Dup	-	82.2	-	
		MS	17 - 168	84.4	-	
		MSD	0 - 87	-	1.9	
Dibenzo(a,h)anthracene	QC58114	LCS	13 - 200	52.7	-	EPA 625
		LCS Dup	-	46.3	-	
		MS	1 - 227	48.8	-	
		MSD	0 - 126	-	1.7	
Diethyl phthalate	QC58114	LCS	47 - 130	84.9	-	EPA 625
		LCS Dup	-	85.5	-	
		MS	1 - 120	85.7	-	
		MSD	0 - 100	-	1.1	
Dimethyl phthalate	QC58114	LCS	50 - 130	81.0	-	EPA 625
		LCS Dup	-	82.5	-	
		MS	1 - 120	82.4	-	
		MSD	0 - 183	-	2.3	
Di-n-butyl phthalate	QC58114	LCS	52 - 130	92.9	-	EPA 625
		LCS Dup	-	93.3	-	
		MS	1 - 120	93.0	-	
		MSD	0 - 47	-	1.9	
Di-n-octyl phthalate	QC58114	LCS	21 - 132	70.7	-	EPA 625
		LCS Dup	-	69.2	-	
		MS	4 - 146	65.5	-	
		MSD	0 - 69	-	1.8	
Fluoranthene	QC58114	LCS	47 - 130	87.0	-	EPA 625
		LCS Dup	-	87.7	-	
		MS	26 - 137	87.6	-	
		MSD	0 - 66	-	0.9	
Fluorene	QC58114	LCS	70 - 130	78.3	-	EPA 625
		LCS Dup	-	80.1	-	
		MS	59 - 121	80.6	-	
		MSD	0 - 38	-	2.6	
Hexachlorobenzene	QC58114	LCS	38 - 142	76.1	-	EPA 625
		LCS Dup	-	77.1	-	
		MS	1 - 152	77.1	-	
		MSD	0 - 55	-	4.8	
Hexachlorobutadiene	QC58114	LCS	68 - 130	70.2	-	EPA 625
		LCS Dup	-	70.4	-	
		MS	24 - 120	71.8	-	
		MSD	0 - 62	-	7.0	
Hexachlorocyclopentadiene	QC58114	LCS	8 - 106	32.9	-	EPA 625
		LCS Dup	-	14.4	-	
		MS	1 - 111	11.1	-	
		MSD	0 - 41	-	128.7	
%RPD above upper QC limit, analyte within QC limits no corrective action required. SPF 7/20/2022						
Hexachloroethane	QC58114	LCS	55 - 130	73.0	-	EPA 625
		LCS Dup	-	73.4	-	
		MS	40 - 120	76.6	-	
		MSD	0 - 52	-	2.1	

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method	
Indeno(1,2,3-cd)pyrene	QC58114	LCS	13 - 151	55.0	-	EPA 625	
		LCS Dup	-	50.4	-		
		MS	1 - 171	51.4	-		
		MSD	0 - 99	-	2.9		
Isophorone	QC58114	LCS	52 - 180	86.2	-	EPA 625	
		LCS Dup	-	88.1	-		
		MS	21 - 196	89.9	-		
		MSD	0 - 93	-	1.2		
Naphthalene	QC58114	LCS	70 - 130	82.7	-	EPA 625	
		LCS Dup	-	82.8	-		
		MS	21 - 133	85.1	-		
		MSD	0 - 65	-	2.2		
Nitrobenzene	QC58114	LCS	54 - 158	83.8	-	EPA 625	
		LCS Dup	-	84.7	-		
		MS	35 - 180	86.3	-		
		MSD	0 - 62	-	2.2		
n-Nitrosodimethylamine	QC58114	LCS	57 - 141	75.2	-	EPA 625	
		LCS Dup	-	72.6	-		
		MS	30 - 168	72.5	-		
		MSD	0 - 68	-	3.9		
n-Nitroso-di-n-propylamine	QC58114	LCS	59 - 170	83.4	-	EPA 625	
		LCS Dup	-	84.3	-		
		MS	1 - 230	85.1	-		
		MSD	0 - 87	-	1.6		
n-Nitrosodiphenylamine (as Diphenylamine)	QC58114	LCS	70 - 130	93.2	-	EPA 625	
		LCS Dup	-	92.4	-		
		MS	65 - 135	94.2	-		
		MSD	0 - 20	-	1.3		
Pentachlorophenol	QC58114	LCS	42 - 152	29.7	-	EPA 625	
		Analyte is above QC criteria in the LCS and LCS Dup; may be subject to low bias. MBS 7/20/2022					
		LCS Dup	-	23.8	-		
		Analyte is above QC criteria in the LCS and LCS Dup; may be subject to low bias. MBS 7/20/2022					
		MS	14 - 176	3.3	-		
		Analyte recovery below lower QC limits. Analyte may be subject to low bias. LH 7/21/22					
Phenanthrene	QC58114	LCS	67 - 130	81.3	-	EPA 625	
		analyte recovery below lower QC limits may be subject to low bias. SPF 7/20/2022					
		LCS Dup	-	81.1	-		
		MS	54 - 120	81.3	-		
		MSD	0 - 39	-	2.0		
		Phenol	QC58114	LCS	48 - 130		79.1
LCS Dup	-			80.0	-		
MS	5 - 120			81.5	-		
MSD	0 - 64			-	1.6		
Pyrene	QC58114	LCS	70 - 130	86.1	-	EPA 625	
		LCS Dup	-	85.4	-		
		MS	52 - 120	85.7	-		
		MSD	0 - 49	-	1.3		

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(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



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DATA APPROVED FOR RELEASE BY

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Abbreviations/References:

RL = Reporting Limit = Minimum Level  
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C/S Info:

Deliver Via: )40

ZZ.

Seals Present Yes D

No

Date/Time: Relinquished By:

1' C/S Charge O I

Terri B. f C/I cert.f  
P...Ssanible Pres. Y.e.o  
Ω

4 or N.A. 4

Date/Time: Received By: v

Date/Time:

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well

Sample Date/Time: 7/7/22 12:10 PM

Lab Number: 220707190-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	68.0 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Calcium as CaCO3	45.3 mg/L	EPA 200.7	0.1 mg/L	7/11/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Langelier Index	-1.41 units	SM 2330-B	units	7/15/22	-	SAN
pH	6.81 units	SM 4500-H-B	0.01 units	7/7/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	7/7/22	-	DAT
Total Alkalinity	68.0 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	7/13/22	QC58133	DEK
Total Dissolved Solids	62 mg/L	SM 2540-C	5 mg/L	7/14/22	QC58137	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 7/7/22 12:40 PM  
Lab Number: 220707190-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	49.3 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Calcium as CaCO3	31.9 mg/L	EPA 200.7	0.1 mg/L	7/11/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Langelier Index	-1.53 units	SM 2330-B	units	7/15/22	-	SAN
pH	6.98 units	SM 4500-H-B	0.01 units	7/7/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	7/7/22	-	DAT
Total Alkalinity	49.3 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	7/13/22	QC58133	DEK
Total Dissolved Solids	43 mg/L	SM 2540-C	5 mg/L	7/14/22	QC58137	DEK

Abbreviations/ References:

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mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well

Sample Date/Time: 7/7/22 2:00 PM

Lab Number: 220707190-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	18.0 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Calcium as CaCO3	9.3 mg/L	EPA 200.7	0.1 mg/L	7/11/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Langelier Index	-3.48 units	SM 2330-B	units	7/15/22	-	SAN
pH	6.01 units	SM 4500-H-B	0.01 units	7/7/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	7/7/22	-	DAT
Total Alkalinity	18.0 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	7/13/22	QC58133	DEK
Total Dissolved Solids	21 mg/L	SM 2540-C	5 mg/L	7/14/22	QC58137	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal

Sample Date/Time: 7/7/22 11:45 AM

Lab Number: 220707190-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	84.4 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Calcium as CaCO3	51.1 mg/L	EPA 200.7	0.1 mg/L	7/11/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Langelier Index	-0.87 units	SM 2330-B	units	7/15/22	-	SAN
pH	7.21 units	SM 4500-H-B	0.01 units	7/7/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	7/7/22	-	DAT
Total Alkalinity	84.4 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	7/13/22	QC58133	DEK
Total Dissolved Solids	69 mg/L	SM 2540-C	5 mg/L	7/14/22	QC58137	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 7/7/22 1:00 PM

Lab Number: 220707190-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	105.5 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Calcium as CaCO3	57.7 mg/L	EPA 200.7	0.1 mg/L	7/11/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	7/13/22	-	DEK
Langelier Index	-0.53 units	SM 2330-B	units	7/15/22	-	SAN
pH	7.40 units	SM 4500-H-B	0.01 units	7/7/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	7/7/22	-	DAT
Total Alkalinity	105.5 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	7/13/22	QC58133	DEK
Total Dissolved Solids	75 mg/L	SM 2540-C	5 mg/L	7/14/22	QC58137	DEK

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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Analytical QC Summary**

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 7/7/22  
Project Name:

Test	QC Batch ID	QC Type	Result	Method
Total Alkalinity	QC58133	Blank	ND	SM 2320-B
Total Dissolved Solids	QC58137	Blank	ND	SM 2540-C
<hr/>				
Total Alkalinity	QC58133	Duplicate	0 - 20	-
		LCS	90 - 110	101.8
		LCS-2	90 - 110	102.9
Total Dissolved Solids	QC58137	Duplicate	0 - 20	-
		LCS	85 - 115	98.0

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

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(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.



C/S Info:

40

Deliver Via:

ZZ

Seals Present Yes **D**

No

Date/Time: Relinquished By:

**1** C/S Charge **0**

**Tenn. B. J.** C/I cert.  
P...Ssanple Pres. **Y e o**  
**Q**

Date/Time:

Received By: **v**

Date/Time:

**4** or **11.1.1**

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190	Date Received: 7/7/22
Client PO:	Date Reported: 7/27/22
Client Project:	Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 7/7/22 12:10 PM  
Lab Number: 220707190-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	5.42 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58049	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	7/12/22	QC58099	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	7/8/22	QC58053	MLT
Nitrate Nitrogen	0.31 mg/L	EPA 300.0	0.05 mg/L	7/8/22	QC58050	MLT
Nitrate/ Nitrite Nitrogen	0.31 mg/L	Calculation	0.05 mg/L	7/12/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	7/8/22	QC58051	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	7/13/22	QC58104	DPL
Sulfate	11.56 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58052	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	7/8/22	-	ECM
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	7/12/22	QC58095	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	7/12/22	QC58081	MLT
Aluminum	0.001 mg/L	EPA 200.8	0.001 mg/L	7/12/22	QC58095	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	7/12/22	QC58095	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	7/12/22	QC58095	MBN
Barium	0.0273 mg/L	EPA 200.8	0.0007 mg/L	7/12/22	QC58095	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	7/12/22	QC58095	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	7/12/22	QC58095	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	7/12/22	QC58095	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	7/12/22	QC58095	MBN
Copper	0.0266 mg/L	EPA 200.8	0.0008 mg/L	7/12/22	QC58095	MBN
Lead	0.0034 mg/L	EPA 200.8	0.0001 mg/L	7/12/22	QC58095	MBN

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## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 7/7/22 12:10 PM  
Lab Number: 220707190-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0030 mg/L	EPA 200.8	0.0008 mg/L	7/12/22	QC58095	MBN
Molybdenum	0.0007 mg/L	EPA 200.8	0.0005 mg/L	7/12/22	QC58095	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	7/12/22	QC58095	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	7/12/22	QC58095	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	7/12/22	QC58095	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	7/12/22	QC58095	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	7/12/22	QC58095	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	7/12/22	QC58095	MBN
Zinc	6.43 mg/L	EPA 200.8	0.001 mg/L	7/12/22	QC58095	MBN
Boron	ND	EPA 200.7	0.01 mg/L	7/11/22	QC58066	MAT
Calcium	18.7 mg/L	EPA 200.7	0.1 mg/L	7/11/22	QC58066	MAT
Iron	0.031 mg/L	EPA 200.7	0.005 mg/L	7/11/22	QC58066	MAT

**Abbreviations/ References:**

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190	Date Received: 7/7/22
Client PO:	Date Reported: 7/27/22
Client Project:	Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 7/7/22 12:40 PM  
Lab Number: 220707190-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	2.15 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58049	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	7/12/22	QC58099	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	7/8/22	QC58053	MLT
Nitrate Nitrogen	0.21 mg/L	EPA 300.0	0.05 mg/L	7/8/22	QC58050	MLT
Nitrate/ Nitrite Nitrogen	0.21 mg/L	Calculation	0.05 mg/L	7/12/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	7/8/22	QC58051	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	7/13/22	QC58104	DPL
Sulfate	7.02 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58052	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	7/8/22	-	ECM
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	7/12/22	QC58081	MLT
Aluminum	0.018 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	7/13/22	QC58095	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	7/13/22	QC58095	MBN
Barium	0.0348 mg/L	EPA 200.8	0.0007 mg/L	7/13/22	QC58095	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	7/13/22	QC58095	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Copper	0.0009 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Lead	0.0012 mg/L	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN

Abbreviations/ References:

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 7/7/22 12:40 PM  
Lab Number: 220707190-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0107 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Molybdenum	0.0045 mg/L	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	7/13/22	QC58095	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Zinc	0.163 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Boron	0.02 mg/L	EPA 200.7	0.01 mg/L	7/11/22	QC58066	MAT
Calcium	12.7 mg/L	EPA 200.7	0.1 mg/L	7/11/22	QC58066	MAT
Iron	0.055 mg/L	EPA 200.7	0.005 mg/L	7/11/22	QC58066	MAT

**Abbreviations/ References:**

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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well  
Sample Date/Time: 7/7/22 2:00 PM  
Lab Number: 220707190-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.48 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58049	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	7/12/22	QC58099	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	7/8/22	QC58053	MLT
Nitrate Nitrogen	0.07 mg/L	EPA 300.0	0.05 mg/L	7/8/22	QC58050	MLT
Nitrate/ Nitrite Nitrogen	0.07 mg/L	Calculation	0.05 mg/L	7/12/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	7/8/22	QC58051	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	7/13/22	QC58104	DPL
Sulfate	2.72 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58052	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	7/8/22	-	ECM
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	7/12/22	QC58081	MLT
Aluminum	0.031 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	7/13/22	QC58095	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	7/13/22	QC58095	MBN
Barium	0.0061 mg/L	EPA 200.8	0.0007 mg/L	7/13/22	QC58095	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	7/13/22	QC58095	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Copper	0.3165 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Lead	0.0005 mg/L	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190	Date Received: 7/7/22
Client PO:	Date Reported: 7/27/22
Client Project:	Matrix: Water - Ground

**Customer Sample ID** Caribou Well  
Sample Date/Time: 7/7/22 2:00 PM  
Lab Number: 220707190-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0013 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	7/13/22	QC58095	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Zinc	0.063 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Boron	ND	EPA 200.7	0.01 mg/L	7/11/22	QC58066	MAT
Calcium	3.7 mg/L	EPA 200.7	0.1 mg/L	7/11/22	QC58066	MAT
Iron	0.023 mg/L	EPA 200.7	0.005 mg/L	7/11/22	QC58066	MAT

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 7/7/22 11:45 AM  
Lab Number: 220707190-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	1.28 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58049	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	7/12/22	QC58099	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	7/8/22	QC58053	MLT
Nitrate Nitrogen	0.34 mg/L	EPA 300.0	0.05 mg/L	7/8/22	QC58050	MLT
Nitrate/ Nitrite Nitrogen	0.34 mg/L	Calculation	0.05 mg/L	7/12/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	7/8/22	QC58051	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	7/13/22	QC58104	DPL
Sulfate	12.31 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58052	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	7/8/22	-	ECM
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	7/12/22	QC58081	MLT
Aluminum	0.047 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	7/13/22	QC58095	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	7/13/22	QC58095	MBN
Barium	0.0627 mg/L	EPA 200.8	0.0007 mg/L	7/13/22	QC58095	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Cadmium	0.0020 mg/L	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	7/13/22	QC58095	MBN
Cobalt	0.0002 mg/L	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Copper	0.0054 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Lead	0.0198 mg/L	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 7/7/22 11:45 AM  
Lab Number: 220707190-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0244 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Molybdenum	0.0088 mg/L	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	7/13/22	QC58095	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Uranium	0.0016 mg/L	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Zinc	0.245 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Boron	ND	EPA 200.7	0.01 mg/L	7/11/22	QC58066	MAT
Calcium	21.3 mg/L	EPA 200.7	0.1 mg/L	7/11/22	QC58066	MAT
Iron	0.177 mg/L	EPA 200.7	0.005 mg/L	7/11/22	QC58066	MAT

**Abbreviations/ References:**

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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal  
Sample Date/Time: 7/7/22 1:00 PM  
Lab Number: 220707190-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.53 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58049	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	7/12/22	QC58099	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	7/8/22	QC58053	MLT
Nitrate Nitrogen	0.18 mg/L	EPA 300.0	0.05 mg/L	7/8/22	QC58050	MLT
Nitrate/ Nitrite Nitrogen	0.18 mg/L	Calculation	0.05 mg/L	7/12/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	7/8/22	QC58051	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	7/13/22	QC58104	DPL
Sulfate	10.46 mg/L	EPA 300.0	0.01 mg/L	7/8/22	QC58052	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	7/8/22	-	ECM
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	7/12/22	QC58081	MLT
Aluminum	0.003 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	7/13/22	QC58095	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	7/13/22	QC58095	MBN
Barium	0.0512 mg/L	EPA 200.8	0.0007 mg/L	7/13/22	QC58095	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	7/13/22	QC58095	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Copper	0.0010 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Lead	0.0024 mg/L	EPA 200.8	0.0001 mg/L	7/13/22	QC58095	MBN

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220707190  
Client PO:  
Client Project:

Date Received: 7/7/22  
Date Reported: 7/27/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal  
Sample Date/Time: 7/7/22 1:00 PM  
Lab Number: 220707190-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0102 mg/L	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Molybdenum	0.0056 mg/L	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	7/13/22	QC58095	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	7/13/22	QC58095	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	7/13/22	QC58095	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Uranium	0.0051 mg/L	EPA 200.8	0.0002 mg/L	7/13/22	QC58095	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Zinc	0.087 mg/L	EPA 200.8	0.001 mg/L	7/13/22	QC58095	MBN
Boron	ND	EPA 200.7	0.01 mg/L	7/11/22	QC58066	MAT
Calcium	23.7 mg/L	EPA 200.7	0.1 mg/L	7/11/22	QC58066	MAT
Iron	0.076 mg/L	EPA 200.7	0.005 mg/L	7/11/22	QC58066	MAT

**Abbreviations/ References:**

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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Analytical QC Summary**

TASK NO: 220707190

Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 7/7/22  
Project Name:

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC58049	Blank	ND	EPA 300.0
Cyanide-Free	QC58099	Blank	ND	ASTM D4282-15
Fluoride	QC58053	Blank	ND	EPA 300.0
Mercury	QC58081	Method Blank	ND	EPA 245.7
Aluminum	QC58095	Method Blank	ND	EPA 200.8
Antimony	QC58095	Method Blank	ND	EPA 200.8
Arsenic	QC58095	Method Blank	ND	EPA 200.8
Barium	QC58095	Method Blank	ND	EPA 200.8
Beryllium	QC58095	Method Blank	ND	EPA 200.8
Cadmium	QC58095	Method Blank	ND	EPA 200.8
Chromium	QC58095	Method Blank	ND	EPA 200.8
Cobalt	QC58095	Method Blank	ND	EPA 200.8
Copper	QC58095	Method Blank	ND	EPA 200.8
Lead	QC58095	Method Blank	ND	EPA 200.8
Manganese	QC58095	Method Blank	ND	EPA 200.8
Molybdenum	QC58095	Method Blank	ND	EPA 200.8
Nickel	QC58095	Method Blank	ND	EPA 200.8
Selenium	QC58095	Method Blank	ND	EPA 200.8
Silver	QC58095	Method Blank	ND	EPA 200.8
Thallium	QC58095	Method Blank	ND	EPA 200.8
Uranium	QC58095	Method Blank	ND	EPA 200.8
Vanadium	QC58095	Method Blank	ND	EPA 200.8
Zinc	QC58095	Method Blank	ND	EPA 200.8
Boron	QC58066	Method Blank	ND	EPA 200.7
Calcium	QC58066	Method Blank	ND	EPA 200.7
Iron	QC58066	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC58050	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC58051	Blank	ND	EPA 300.0
Phenols - Total	QC58104	Blank	ND	EPA 420.4
Sulfate	QC58052	Blank	ND	EPA 300.0

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC58049	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	103.0	-	
		MS	75 - 125	103.9	-	
Cyanide-Free	QC58099	Duplicate	0 - 20	-	100.0	ASTM D4282-15
		LCS	90 - 110	101.4	-	
		MS	75 - 125	1.5	-	
		MSD	0 - 30	-	200.0	
Free MS and MSD low. Reran twice with similar results of zero. Free LFB was in range. Matrix interference likely. ECM						
Fluoride	QC58053	Duplicate	0 - 20	-	1.6	EPA 300.0

Abbreviations/References:

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 ug/L = Micrograms Per Liter or PPB  
 mpn/100 mls = Most Probable Number Index/ 100 mls  
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) Spike amount low relative to the sample amount.  
 ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		LCS	90 - 110	101.2	-	
		MS	75 - 125	100.1	-	
Mercury	QC58081	Duplicate	0 - 20	-	0.0	EPA 245.7
		LCS	90 - 110	102.8	-	
		MS	80 - 120	90.0	-	
Aluminum	QC58095	LCS	90 - 110	100.1	-	EPA 200.8
		MS	70 - 130	95.5	-	
		MSD	0 - 10	-	5.7	
Antimony	QC58095	LCS	90 - 110	102.8	-	EPA 200.8
		MS	70 - 130	95.7	-	
		MSD	0 - 10	-	0.4	
Arsenic	QC58095	LCS	90 - 110	100.3	-	EPA 200.8
		MS	70 - 130	99.6	-	
		MSD	0 - 10	-	4.2	
Barium	QC58095	LCS	90 - 110	98.4	-	EPA 200.8
		MS	70 - 130	87.1	-	
		MSD	0 - 10	-	0.1	
Beryllium	QC58095	LCS	90 - 110	97.2	-	EPA 200.8
		MS	70 - 130	94.0	-	
		MSD	0 - 10	-	2.0	
Cadmium	QC58095	LCS	90 - 110	98.1	-	EPA 200.8
		MS	70 - 130	93.1	-	
		MSD	0 - 10	-	1.6	
Chromium	QC58095	LCS	90 - 110	100.2	-	EPA 200.8
		MS	70 - 130	98.4	-	
		MSD	0 - 10	-	0.3	
Cobalt	QC58095	LCS	90 - 110	101.0	-	EPA 200.8
		MS	70 - 130	96.0	-	
		MSD	0 - 10	-	1.2	
Copper	QC58095	LCS	90 - 110	98.7	-	EPA 200.8
		MS	70 - 130	93.8	-	
		MSD	0 - 10	-	0.5	
Lead	QC58095	LCS	90 - 110	98.0	-	EPA 200.8
		MS	70 - 130	87.2	-	
		MSD	0 - 10	-	1.2	
Manganese	QC58095	LCS	90 - 110	102.4	-	EPA 200.8
		MS	70 - 130	95.4	-	
		MSD	0 - 10	-	0.9	
Molybdenum	QC58095	LCS	90 - 110	97.3	-	EPA 200.8
		MS	70 - 130	101.7	-	
		MSD	0 - 10	-	2.0	
Nickel	QC58095	LCS	90 - 110	100.7	-	EPA 200.8
		MS	70 - 130	91.3	-	
		MSD	0 - 10	-	3.7	
Selenium	QC58095	LCS	90 - 110	103.4	-	EPA 200.8
		MS	70 - 130	90.1	-	
		MSD	0 - 10	-	3.3	
Silver	QC58095	LCS	90 - 110	92.6	-	EPA 200.8
		MS	70 - 130	75.3	-	
		MSD	0 - 10	-	3.1	
Thallium	QC58095	LCS	90 - 110	98.1	-	EPA 200.8

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

		MS	70 - 130	88.4	-	
		MSD	0 - 10	-	1.5	
Uranium	QC58095	LCS	90 - 110	96.5	-	EPA 200.8
		MS	70 - 130	92.6	-	
		MSD	0 - 10	-	0.3	
Vanadium	QC58095	LCS	90 - 110	98.7	-	EPA 200.8
		MS	70 - 130	101.2	-	
		MSD	0 - 10	-	1.5	
Zinc	QC58095	LCS	90 - 110	101.5	-	EPA 200.8
		MS	70 - 130	87.4	-	
		MSD	0 - 10	-	2.0	
Boron	QC58066	Duplicate	0 - 20	-	7.2	EPA 200.7
		LCS	90 - 110	106.4	-	
		MS	75 - 125	80.4	-	
Calcium	QC58066	Duplicate	0 - 20	-	0.8	EPA 200.7
		LCS	90 - 110	107.0	-	
		MS	75 - 125	82.1	-	
Iron	QC58066	Duplicate	0 - 20	-	12.8	EPA 200.7
		LCS	90 - 110	105.7	-	
		MS	75 - 125	84.4	-	
Nitrate Nitrogen	QC58050	Duplicate	0 - 20	-	3.0	EPA 300.0
		LCS	90 - 110	97.2	-	
		MS	75 - 125	93.2	-	
Nitrite Nitrogen	QC58051	Duplicate	0 - 20	-	2.0	EPA 300.0
		LCS	90 - 110	97.5	-	
		MS	75 - 125	96.5	-	
Phenols - Total	QC58104	Duplicate	0 - 20	-	1.6	EPA 420.4
		LCS	90 - 110	102.0	-	
		MS	75 - 125	92.8	-	
Sulfate	QC58052	Duplicate	0 - 20	-	0.3	EPA 300.0
		LCS	90 - 110	102.6	-	
		MS	75 - 125	102.5	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

**Abbreviations/ References:**

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.



C/S Info:

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Seals Present Yes D

No

Date/Time: Relinquished By:

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Date/Time:

APPENDIX A.2 AUGUST 2022 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well

Sample Date/Time: 8/25/22 12:10 PM

Lab Number: 220825126-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	63.3 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Calcium as CaCO3	40.2 mg/L	EPA 200.7	0.1 mg/L	8/29/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Langelier Index	-1.84 units	SM 2330-B	units	9/1/22	-	SAN
pH	6.53 units	SM 4500-H-B	0.01 units	8/25/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	8/25/22	-	DAT
Total Alkalinity	63.3 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	8/29/22	QC59263	TAB
Total Dissolved Solids	102 mg/L	SM 2540-C	5 mg/L	8/31/22	QC59273	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 8/25/22 12:40 PM  
Lab Number: 220825126-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	65.0 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Calcium as CaCO3	36.5 mg/L	EPA 200.7	0.1 mg/L	8/29/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Langelier Index	-1.72 units	SM 2330-B	units	9/1/22	-	SAN
pH	6.68 units	SM 4500-H-B	0.01 units	8/25/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	8/25/22	-	DAT
Total Alkalinity	65.0 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	8/29/22	QC59263	TAB
Total Dissolved Solids	104 mg/L	SM 2540-C	5 mg/L	8/31/22	QC59273	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well

Sample Date/Time: 8/25/22 2:00 PM

Lab Number: 220825126-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	20.5 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Calcium as CaCO3	9.6 mg/L	EPA 200.7	0.1 mg/L	8/29/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Langelier Index	-3.28 units	SM 2330-B	units	9/1/22	-	SAN
pH	6.14 units	SM 4500-H-B	0.01 units	8/25/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	8/25/22	-	DAT
Total Alkalinity	20.5 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	8/29/22	QC59263	TAB
Total Dissolved Solids	67 mg/L	SM 2540-C	5 mg/L	8/31/22	QC59273	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal

Sample Date/Time: 8/25/22 11:45 AM

Lab Number: 220825126-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	90.4 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Calcium as CaCO3	53.8 mg/L	EPA 200.7	0.1 mg/L	8/29/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Langelier Index	-0.89 units	SM 2330-B	units	9/1/22	-	SAN
pH	7.20 units	SM 4500-H-B	0.01 units	8/25/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	8/25/22	-	DAT
Total Alkalinity	90.4 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	8/29/22	QC59263	TAB
Total Dissolved Solids	116 mg/L	SM 2540-C	5 mg/L	8/31/22	QC59273	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 8/25/22 1:00 PM

Lab Number: 220825126-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	136.2 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Calcium as CaCO3	70.2 mg/L	EPA 200.7	0.1 mg/L	8/29/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	8/29/22	-	TAB
Langelier Index	0.28 units	SM 2330-B	units	9/1/22	-	SAN
pH	8.08 units	SM 4500-H-B	0.01 units	8/25/22	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	8/25/22	-	DAT
Total Alkalinity	136.2 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	8/29/22	QC59263	TAB
Total Dissolved Solids	155 mg/L	SM 2540-C	5 mg/L	8/31/22	QC59273	DEK

Abbreviations/ References:

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mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 8/25/22  
Project Name: Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method		
Total Alkalinity	QC59263	Blank	ND	SM 2320-B		
Total Dissolved Solids	QC59273	Blank	ND	SM 2540-C		
<hr/>						
Total Alkalinity	QC59263	Duplicate	0 - 20	-	0.2	SM 2320-B
		LCS	90 - 110	104.5	-	
		LCS-2	90 - 110	106.5	-	
Total Dissolved Solids	QC59273	Duplicate	0 - 20	-	1.2	SM 2540-C
		LCS	85 - 115	102.6	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

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## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 8/25/22 12:10 PM  
Lab Number: 220825126-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.55 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59253	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	8/31/22	QC59324	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	8/26/22	QC59254	AMJ
Nitrate Nitrogen	0.22 mg/L	EPA 300.0	0.05 mg/L	8/26/22	QC59255	AMJ
Nitrate/ Nitrite Nitrogen	0.22 mg/L	Calculation	0.05 mg/L	8/31/22	-	LJG
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	8/26/22	QC59258	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	8/30/22	QC59282	DPL
Sulfate	9.29 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59257	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	8/26/22	-	NAB
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	8/30/22	QC59287	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	8/30/22	QC59279	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	8/30/22	QC59279	MBN
Barium	0.0265 mg/L	EPA 200.8	0.0007 mg/L	8/30/22	QC59279	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	8/30/22	QC59279	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Copper	0.0065 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Lead	0.0006 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 8/25/22 12:10 PM  
Lab Number: 220825126-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0013 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Molybdenum	0.0006 mg/L	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	8/30/22	QC59279	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Zinc	0.639 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Boron	ND	EPA 200.7	0.01 mg/L	8/29/22	QC59242	MBN
Calcium	16.5 mg/L	EPA 200.7	0.1 mg/L	8/29/22	QC59242	MBN
Iron	0.032 mg/L	EPA 200.7	0.005 mg/L	8/29/22	QC59242	MBN

**Abbreviations/References:**

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 8/25/22 12:40 PM  
Lab Number: 220825126-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	2.42 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59253	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	8/31/22	QC59324	DPL
Fluoride	0.26 mg/L	EPA 300.0	0.10 mg/L	8/26/22	QC59254	AMJ
Nitrate Nitrogen	0.25 mg/L	EPA 300.0	0.05 mg/L	8/26/22	QC59255	AMJ
Nitrate/ Nitrite Nitrogen	0.25 mg/L	Calculation	0.05 mg/L	8/31/22	-	LJG
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	8/26/22	QC59258	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	8/30/22	QC59282	DPL
Sulfate	8.76 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59257	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	8/26/22	-	NAB
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	8/30/22	QC59287	MLT
Aluminum	0.032 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	8/30/22	QC59279	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	8/30/22	QC59279	MBN
Barium	0.0456 mg/L	EPA 200.8	0.0007 mg/L	8/30/22	QC59279	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	8/30/22	QC59279	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Copper	0.0019 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Lead	0.0044 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN

Abbreviations/ References:

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 8/25/22 12:40 PM  
Lab Number: 220825126-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0340 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Molybdenum	0.0059 mg/L	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	8/30/22	QC59279	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Zinc	0.346 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Boron	ND	EPA 200.7	0.01 mg/L	8/29/22	QC59242	MBN
Calcium	15.9 mg/L	EPA 200.7	0.1 mg/L	8/29/22	QC59242	MBN
Iron	0.323 mg/L	EPA 200.7	0.005 mg/L	8/29/22	QC59242	MBN

**Abbreviations/References:**

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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well

Sample Date/Time: 8/25/22 2:00 PM

Lab Number: 220825126-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.51 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59253	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	8/31/22	QC59324	DPL
Fluoride	0.24 mg/L	EPA 300.0	0.10 mg/L	8/26/22	QC59254	AMJ
Nitrate Nitrogen	0.10 mg/L	EPA 300.0	0.05 mg/L	8/26/22	QC59255	AMJ
Nitrate/ Nitrite Nitrogen	0.10 mg/L	Calculation	0.05 mg/L	8/31/22	-	LJG
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	8/26/22	QC59258	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	8/30/22	QC59282	DPL
Sulfate	2.75 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59257	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	8/26/22	-	NAB
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	8/30/22	QC59287	MLT
Aluminum	0.011 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	8/30/22	QC59279	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	8/30/22	QC59279	MBN
Barium	0.0058 mg/L	EPA 200.8	0.0007 mg/L	8/30/22	QC59279	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	8/30/22	QC59279	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Copper	0.3086 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Lead	0.0003 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well  
Sample Date/Time: 8/25/22 2:00 PM  
Lab Number: 220825126-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	ND	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	8/30/22	QC59279	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Zinc	0.003 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Boron	ND	EPA 200.7	0.01 mg/L	8/29/22	QC59242	MBN
Calcium	3.8 mg/L	EPA 200.7	0.1 mg/L	8/29/22	QC59242	MBN
Iron	0.016 mg/L	EPA 200.7	0.005 mg/L	8/29/22	QC59242	MBN

**Abbreviations/References:**

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 8/25/22 11:45 AM  
Lab Number: 220825126-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.55 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59253	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	8/31/22	QC59324	DPL
Fluoride	0.26 mg/L	EPA 300.0	0.10 mg/L	8/26/22	QC59254	AMJ
Nitrate Nitrogen	0.19 mg/L	EPA 300.0	0.05 mg/L	8/26/22	QC59255	AMJ
Nitrate/ Nitrite Nitrogen	0.19 mg/L	Calculation	0.05 mg/L	8/31/22	-	LJG
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	8/26/22	QC59258	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	8/30/22	QC59282	DPL
Sulfate	9.21 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59257	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	8/26/22	-	NAB
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	8/30/22	QC59287	MLT
Aluminum	0.026 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	8/30/22	QC59279	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	8/30/22	QC59279	MBN
Barium	0.0738 mg/L	EPA 200.8	0.0007 mg/L	8/30/22	QC59279	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Cadmium	0.0013 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	8/30/22	QC59279	MBN
Cobalt	0.0004 mg/L	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Copper	0.0046 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Lead	0.0271 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN

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(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 8/25/22 11:45 AM  
Lab Number: 220825126-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0434 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Molybdenum	0.0053 mg/L	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	8/30/22	QC59279	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Uranium	0.0006 mg/L	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Zinc	0.229 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Boron	ND	EPA 200.7	0.01 mg/L	8/29/22	QC59242	MBN
Calcium	22.0 mg/L	EPA 200.7	0.1 mg/L	8/29/22	QC59242	MBN
Iron	0.458 mg/L	EPA 200.7	0.005 mg/L	8/29/22	QC59242	MBN

**Abbreviations/References:**

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(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 8/25/22 1:00 PM

Lab Number: 220825126-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.59 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59253	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	8/31/22	QC59324	DPL
Fluoride	0.27 mg/L	EPA 300.0	0.10 mg/L	8/26/22	QC59254	AMJ
Nitrate Nitrogen	0.20 mg/L	EPA 300.0	0.05 mg/L	8/26/22	QC59255	AMJ
Nitrate/ Nitrite Nitrogen	0.20 mg/L	Calculation	0.05 mg/L	8/31/22	-	LJG
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	8/26/22	QC59258	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	8/30/22	QC59282	DPL
Sulfate	11.42 mg/L	EPA 300.0	0.01 mg/L	8/26/22	QC59257	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	8/26/22	-	NAB
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	8/30/22	QC59287	MLT
Aluminum	0.019 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	8/30/22	QC59279	MBN
Arsenic	0.0007 mg/L	EPA 200.8	0.0006 mg/L	8/30/22	QC59279	MBN
Barium	0.0914 mg/L	EPA 200.8	0.0007 mg/L	8/30/22	QC59279	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Cadmium	0.0001 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	8/30/22	QC59279	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Copper	0.0016 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Lead	0.0127 mg/L	EPA 200.8	0.0001 mg/L	8/30/22	QC59279	MBN

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 8/25/22 1:00 PM

Lab Number: 220825126-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.1443 mg/L	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Molybdenum	0.0057 mg/L	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	8/30/22	QC59279	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	8/30/22	QC59279	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	8/30/22	QC59279	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Uranium	0.0058 mg/L	EPA 200.8	0.0002 mg/L	8/30/22	QC59279	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Zinc	0.020 mg/L	EPA 200.8	0.001 mg/L	8/30/22	QC59279	MBN
Boron	ND	EPA 200.7	0.01 mg/L	8/29/22	QC59242	MBN
Calcium	29.2 mg/L	EPA 200.7	0.1 mg/L	8/29/22	QC59242	MBN
Iron	0.132 mg/L	EPA 200.7	0.005 mg/L	8/29/22	QC59242	MBN

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Analytical QC Summary**

TASK NO: 220825126

Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 8/25/22  
Project Name: Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC59253	Blank	ND	EPA 300.0
Cyanide-Free	QC59324	Blank	ND	ASTM D4282-15
Fluoride	QC59254	Blank	ND	EPA 300.0
Mercury	QC59287	Method Blank	ND	EPA 245.7
Aluminum	QC59279	Method Blank	ND	EPA 200.8
Antimony	QC59279	Method Blank	ND	EPA 200.8
Arsenic	QC59279	Method Blank	ND	EPA 200.8
Barium	QC59279	Method Blank	ND	EPA 200.8
Beryllium	QC59279	Method Blank	ND	EPA 200.8
Cadmium	QC59279	Method Blank	ND	EPA 200.8
Chromium	QC59279	Method Blank	ND	EPA 200.8
Cobalt	QC59279	Method Blank	ND	EPA 200.8
Copper	QC59279	Method Blank	ND	EPA 200.8
Lead	QC59279	Method Blank	ND	EPA 200.8
Manganese	QC59279	Method Blank	ND	EPA 200.8
Molybdenum	QC59279	Method Blank	ND	EPA 200.8
Nickel	QC59279	Method Blank	ND	EPA 200.8
Selenium	QC59279	Method Blank	ND	EPA 200.8
Silver	QC59279	Method Blank	ND	EPA 200.8
Thallium	QC59279	Method Blank	ND	EPA 200.8
Uranium	QC59279	Method Blank	ND	EPA 200.8
Vanadium	QC59279	Method Blank	ND	EPA 200.8
Zinc	QC59279	Method Blank	ND	EPA 200.8
Boron	QC59242	Method Blank	ND	EPA 200.7
Calcium	QC59242	Method Blank	ND	EPA 200.7
Iron	QC59242	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC59255	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC59258	Blank	ND	EPA 300.0
Phenols - Total	QC59282	Blank	ND	EPA 420.4
Sulfate	QC59257	Blank	ND	EPA 300.0

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC59253	Duplicate	0 - 20	-	0.2	EPA 300.0
		LCS	90 - 110	96.5	-	
		MS	75 - 125	92.6	-	
Cyanide-Free	QC59324	Duplicate	0 - 20	-	0.0	ASTM D4282-15
		LCS	90 - 110	101.6	-	
		MS	75 - 125	107.5	-	
		MSD	0 - 30	-	0.0	
Fluoride	QC59254	Duplicate	0 - 20	-	1.5	EPA 300.0
		LCS	90 - 110	108.5	-	
		MS	75 - 125	103.4	-	

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 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) Spike amount low relative to the sample amount.  
 ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Mercury	QC59287	Duplicate	0 - 20	-	0.0	EPA 245.7
		LCS	90 - 110	105.4	-	
		MS	80 - 120	98.0	-	
Aluminum	QC59279	LCS	90 - 110	99.8	-	EPA 200.8
		MS	70 - 130	118.9	-	
		MSD	0 - 10	-	2.0	
Antimony	QC59279	LCS	90 - 110	104.9	-	EPA 200.8
		MS	70 - 130	100.7	-	
		MSD	0 - 10	-	1.5	
Arsenic	QC59279	LCS	90 - 110	102.7	-	EPA 200.8
		MS	70 - 130	104.7	-	
		MSD	0 - 10	-	2.7	
Barium	QC59279	LCS	90 - 110	101.2	-	EPA 200.8
		MS	70 - 130	97.9	-	
		MSD	0 - 10	-	0.2	
Beryllium	QC59279	LCS	90 - 110	97.6	-	EPA 200.8
		MS	70 - 130	101.3	-	
		MSD	0 - 10	-	3.3	
Cadmium	QC59279	LCS	90 - 110	98.2	-	EPA 200.8
		MS	70 - 130	96.4	-	
		MSD	0 - 10	-	5.0	
Chromium	QC59279	LCS	90 - 110	100.9	-	EPA 200.8
		MS	70 - 130	95.8	-	
		MSD	0 - 10	-	4.1	
Cobalt	QC59279	LCS	90 - 110	102.3	-	EPA 200.8
		MS	70 - 130	98.1	-	
		MSD	0 - 10	-	0.3	
Copper	QC59279	LCS	90 - 110	99.9	-	EPA 200.8
		MS	70 - 130	90.3	-	
		MSD	0 - 10	-	3.0	
Lead	QC59279	LCS	90 - 110	95.8	-	EPA 200.8
		MS	70 - 130	90.1	-	
		MSD	0 - 10	-	0.9	
Manganese	QC59279	LCS	90 - 110	104.3	-	EPA 200.8
		MS	70 - 130	99.3	-	
		MSD	0 - 10	-	3.2	
Molybdenum	QC59279	LCS	90 - 110	100.9	-	EPA 200.8
		MS	70 - 130	92.5	-	
		MSD	0 - 10	-	3.7	
Nickel	QC59279	LCS	90 - 110	101.3	-	EPA 200.8
		MS	70 - 130	98.5	-	
		MSD	0 - 10	-	1.2	
Selenium	QC59279	LCS	90 - 110	104.2	-	EPA 200.8
		MS	70 - 130	119.3	-	
		MSD	0 - 10	-	5.4	
Silver	QC59279	LCS	90 - 110	93.8	-	EPA 200.8
		MS	70 - 130	86.9	-	
		MSD	0 - 10	-	2.6	
Thallium	QC59279	LCS	90 - 110	95.7	-	EPA 200.8
		MS	70 - 130	88.8	-	
		MSD	0 - 10	-	0.5	

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ND = Not Detected at Reporting Limit.

Uranium	QC59279	LCS	90 - 110	94.4	-	EPA 200.8
		MS	70 - 130	85.6	-	
		MSD	0 - 10	-	1.8	
Vanadium	QC59279	LCS	90 - 110	100.5	-	EPA 200.8
		MS	70 - 130	100.3	-	
		MSD	0 - 10	-	0.2	
Zinc	QC59279	LCS	90 - 110	99.1	-	EPA 200.8
		MS	70 - 130	83.6	-	
		MSD	0 - 10	-	2.2	
Boron	QC59242	Duplicate	0 - 20	-	5.9	EPA 200.7
		LCS	90 - 110	100.7	-	
		MS	75 - 125	118.5	-	
Calcium	QC59242	Duplicate	0 - 20	-	2.7	EPA 200.7
		LCS	90 - 110	95.3	-	
		MS	75 - 125	104.9	-	
Iron	QC59242	Duplicate	0 - 20	-	13.3	EPA 200.7
		LCS	90 - 110	98.0	-	
		MS	75 - 125	113.2	-	
Nitrate Nitrogen	QC59255	Duplicate	0 - 20	-	0.7	EPA 300.0
		LCS	90 - 110	95.1	-	
		MS	75 - 125	86.0	-	
Nitrite Nitrogen	QC59258	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	94.2	-	
		MS	75 - 125	88.4	-	
Phenols - Total	QC59282	Duplicate	0 - 20	-	0.0	EPA 420.4
		LCS	90 - 110	92.6	-	
		MS	75 - 125	86.1	-	
Sulfate	QC59257	Duplicate	0 - 20	-	1.0	EPA 300.0
		LCS	90 - 110	96.9	-	
		MS	75 - 125	91.6	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

**Abbreviations/ References:**

RL = Reporting Limit = Minimum Level  
 mg/L = Milligrams Per Liter or PPM  
 ug/L = Micrograms Per Liter or PPB  
 mprn/100 mls = Most Probable Number Index/ 100 mls  
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) Spike amount low relative to the sample amount.  
 ND = Not Detected at Reporting Limit.



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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 8/25/22 12:10 PM  
Lab Number: 220825126-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	8/31/22	QC59278	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	8/31/22	QC59278	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	8/31/22	QC59278	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 8/25/22 12:10 PM

Lab Number: 220825126-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Chrysene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluorene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	8/31/22	QC59278	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	8/31/22	QC59278	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Abbreviations/ References:

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Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
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Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 8/25/22 12:10 PM  
Lab Number: 220825126-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	8/31/22	QC59278	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Phenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	70.0	16 - 145
2-Fluorobiphenyl	88.7	60 - 140
2-Fluorophenol	88.8	60 - 140
Nitrobenzene-d5	95.8	15 - 314
Phenol-d5	86.3	8 - 424
p-Terphenyl-d14	156.2	44 - 135

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 9/2/2022

Abbreviations/References:

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Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 8/25/22 12:40 PM  
Lab Number: 220825126-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	8/31/22	QC59278	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	8/31/22	QC59278	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	8/31/22	QC59278	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

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Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126	Date Received: 8/25/22
Client PO:	Date Reported: 10/11/22
Client Project: Monthly Groundwater	Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 8/25/22 12:40 PM

Lab Number: 220825126-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Chrysene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluorene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	8/31/22	QC59278	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	8/31/22	QC59278	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Abbreviations/References:

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 8/25/22 12:40 PM  
Lab Number: 220825126-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	8/31/22	QC59278	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Phenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	66.3	16 - 145
2-Fluorobiphenyl	87.7	60 - 140
2-Fluorophenol	85.5	60 - 140
Nitrobenzene-d5	92.4	15 - 314
Phenol-d5	82.5	8 - 424
p-Terphenyl-d14	152.4	44 - 135

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 9/2/2022

Abbreviations/ References:

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Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 8/25/22 2:00 PM  
Lab Number: 220825126-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	8/31/22	QC59278	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	8/31/22	QC59278	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	8/31/22	QC59278	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

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12567 W Cedar Dr  
Suite 250  
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Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well  
Sample Date/Time: 8/25/22 2:00 PM  
Lab Number: 220825126-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benizidine	ND	EPA 625	150.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Chrysene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluorene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	8/31/22	QC59278	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	8/31/22	QC59278	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Abbreviations/ References:

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Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 8/25/22 2:00 PM  
Lab Number: 220825126-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	8/31/22	QC59278	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Phenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	70.4	16 - 145
2-Fluorobiphenyl	91.5	60 - 140
2-Fluorophenol	96.2	60 - 140
Nitrobenzene-d5	97.5	15 - 314
Phenol-d5	86.2	8 - 424
p-Terphenyl-d14	159.5	44 - 135

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 9/2/2022

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
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(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 8/25/22 11:45 AM  
Lab Number: 220825126-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	8/31/22	QC59278	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	8/31/22	QC59278	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	8/31/22	QC59278	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Abbreviations/ References:

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Task No.: 220825126  
Client PO:  
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Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 8/25/22 11:45 AM

Lab Number: 220825126-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Chrysene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluorene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	8/31/22	QC59278	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	8/31/22	QC59278	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Abbreviations/ References:

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Task No.: 220825126  
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Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 8/25/22 11:45 AM  
Lab Number: 220825126-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	8/31/22	QC59278	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Phenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	73.3	16 - 145
2-Fluorobiphenyl	89.5	60 - 140
2-Fluorophenol	93.9	60 - 140
Nitrobenzene-d5	95.6	15 - 314
Phenol-d5	84.5	8 - 424
p-Terphenyl-d14	160.3	44 - 135

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 9/2/2022

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Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 8/25/22 1:00 PM  
Lab Number: 220825126-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	8/31/22	QC59278	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	8/31/22	QC59278	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	8/31/22	QC59278	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	8/31/22	QC59278	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	8/31/22	QC59278	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	8/31/22	QC59278	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

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12567 W Cedar Dr  
Suite 250  
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Task No.: 220825126  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 8/25/22  
Date Reported: 10/11/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal  
Sample Date/Time: 8/25/22 1:00 PM  
Lab Number: 220825126-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzydine	ND	EPA 625	150.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Chrysene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Fluorene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	8/31/22	QC59278	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	8/31/22	QC59278	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

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Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 8/25/22 1:00 PM  
Lab Number: 220825126-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	8/31/22	QC59278	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Phenol	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS
Pyrene	ND	EPA 625	10.0 ug/L	8/31/22	QC59278	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	68.9	16 - 145
2-Fluorobiphenyl	87.9	60 - 140
2-Fluorophenol	95.4	60 - 140
Nitrobenzene-d5	96.7	15 - 314
Phenol-d5	86.6	8 - 424
p-Terphenyl-d14	161.1	44 - 135

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 9/2/2022

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 8/25/22  
Project Name: Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
1,2,4-Trichlorobenzene	QC59278	Method Blank	ND	EPA 625
1,2-Dichlorobenzene	QC59278	Method Blank	ND	EPA 625
1,2-diphenylhydrazine (as Azobenzene)	QC59278	Method Blank	ND	EPA 625
1,3-Dichlorobenzene	QC59278	Method Blank	ND	EPA 625
1,4-Dichlorobenzene	QC59278	Method Blank	ND	EPA 625
2,4,6-Trichlorophenol	QC59278	Method Blank	ND	EPA 625
2,4-Dichlorophenol	QC59278	Method Blank	ND	EPA 625
2,4-Dimethylphenol	QC59278	Method Blank	ND	EPA 625
2,4-Dinitrophenol	QC59278	Method Blank	ND	EPA 625
2,4-Dinitrotoluene	QC59278	Method Blank	ND	EPA 625
2,6-Dinitrotoluene	QC59278	Method Blank	ND	EPA 625
2-Chloronaphthalene	QC59278	Method Blank	ND	EPA 625
2-Chlorophenol	QC59278	Method Blank	ND	EPA 625
2-Nitrophenol	QC59278	Method Blank	ND	EPA 625
3,3'-Dichlorobenzidine	QC59278	Method Blank	ND	EPA 625
4,6-Dinitro-2-methylphenol	QC59278	Method Blank	ND	EPA 625
4-Bromophenyl phenyl ether	QC59278	Method Blank	ND	EPA 625
4-Chloro-3-methylphenol	QC59278	Method Blank	ND	EPA 625
4-Chlorophenyl phenyl ether	QC59278	Method Blank	ND	EPA 625
4-Nitrophenol	QC59278	Method Blank	ND	EPA 625
Acenaphthene	QC59278	Method Blank	ND	EPA 625
Acenaphthylene	QC59278	Method Blank	ND	EPA 625
Anthracene	QC59278	Method Blank	ND	EPA 625
Benzidine	QC59278	Method Blank	ND	EPA 625
Benzo(a)anthracene	QC59278	Method Blank	ND	EPA 625
Benzo(a)pyrene	QC59278	Method Blank	ND	EPA 625
Benzo(b)fluoranthene	QC59278	Method Blank	ND	EPA 625
Benzo(g,h,i)perylene	QC59278	Method Blank	ND	EPA 625
Benzo(k)fluoranthene	QC59278	Method Blank	ND	EPA 625
Bis(2-chloroethoxy) methane	QC59278	Method Blank	ND	EPA 625
Bis(2-chloroethyl) ether	QC59278	Method Blank	ND	EPA 625
Bis(2-chloroisopropyl) ether	QC59278	Method Blank	ND	EPA 625
Bis(2-ethylhexyl) phthalate	QC59278	Method Blank	ND	EPA 625
Butylbenzylphthalate	QC59278	Method Blank	ND	EPA 625
Chrysene	QC59278	Method Blank	ND	EPA 625
Dibenzo(a,h)anthracene	QC59278	Method Blank	ND	EPA 625
Diethyl phthalate	QC59278	Method Blank	ND	EPA 625
Dimethyl phthalate	QC59278	Method Blank	ND	EPA 625
Di-n-butyl phthalate	QC59278	Method Blank	ND	EPA 625
Di-n-octyl phthalate	QC59278	Method Blank	ND	EPA 625
Fluoranthene	QC59278	Method Blank	ND	EPA 625

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Fluorene	QC59278	Method Blank	ND	EPA 625
Hexachlorobenzene	QC59278	Method Blank	ND	EPA 625
Hexachlorobutadiene	QC59278	Method Blank	ND	EPA 625
Hexachlorocyclopentadiene	QC59278	Method Blank	ND	EPA 625
Hexachloroethane	QC59278	Method Blank	ND	EPA 625
Indeno(1,2,3-cd)pyrene	QC59278	Method Blank	ND	EPA 625
Isophorone	QC59278	Method Blank	ND	EPA 625
Naphthalene	QC59278	Method Blank	ND	EPA 625
Nitrobenzene	QC59278	Method Blank	ND	EPA 625
n-Nitrosodimethylamine	QC59278	Method Blank	ND	EPA 625
n-Nitroso-di-n-propylamine	QC59278	Method Blank	ND	EPA 625
n-Nitrosodiphenylamine (as Diphenyla	QC59278	Method Blank	ND	EPA 625
Pentachlorophenol	QC59278	Method Blank	ND	EPA 625
Phenanthrene	QC59278	Method Blank	ND	EPA 625
Phenol	QC59278	Method Blank	ND	EPA 625
Pyrene	QC59278	Method Blank	ND	EPA 625

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
1,2,4-Trichlorobenzene	QC59278	LCS	61 - 130	78.0	-	EPA 625
		LCS Dup	-	85.0	-	
		MS	44 - 142	84.5	-	
		MSD	0 - 50	-	0.8	
1,2-Dichlorobenzene	QC59278	LCS	65 - 135	82.4	-	EPA 625
		LCS Dup	-	89.4	-	
		MS	18 - 190	88.4	-	
		MSD	0 - 57	-	0.5	
1,2-diphenylhydrazine (as Azobenzene)	QC59278	LCS	67 - 114	89.8	-	EPA 625
		LCS Dup	-	94.8	-	
		MS	60 - 121	89.6	-	
		MSD	0 - 21	-	39.8	
Analyte recovery above upper QC limits due to matrix interference. No corrective action required. LH 9/7/22						
1,3-Dichlorobenzene	QC59278	LCS	70 - 130	78.9	-	EPA 625
		LCS Dup	-	86.6	-	
		MS	59 - 156	84.8	-	
		MSD	0 - 43	-	0.3	
1,4-Dichlorobenzene	QC59278	LCS	56 - 135	80.6	-	EPA 625
		LCS Dup	-	87.3	-	
		MS	18 - 190	87.6	-	
		MSD	0 - 57	-	1.1	
2,4,6-Trichlorophenol	QC59278	LCS	69 - 130	70.0	-	EPA 625
		LCS Dup	-	82.2	-	
		MS	37 - 144	88.7	-	
		MSD	0 - 58	-	6.3	
2,4-Dichlorophenol	QC59278	LCS	64 - 130	66.1	-	EPA 625
		LCS Dup	-	76.6	-	
		MS	39 - 135	80.8	-	
		MSD	0 - 50	-	0.0	
2,4-Dimethylphenol	QC59278	LCS	58 - 130	88.7	-	EPA 625
		LCS Dup	-	97.5	-	
		MS	32 - 120	101.9	-	
		MSD	0 - 58	-	4.5	
2,4-Dinitrophenol	QC59278	LCS	39 - 173	20.3	-	EPA 625

Analyte is below QC criteria in the LCS and LCS dup; may be subject to low bias. MBS 9/2/2022

**Abbreviations/ References:**

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		LCS Dup	-	28.5	-	
Analyte is below QC criteria in the LCS and LCS dup; may be subject to low bias. MBS 9/2/2022						
		MS	1 - 191	60.5	-	
		MSD	0 - 132	-	5.7	
2,4-Dinitrotoluene	QC59278	LCS	53 - 130	90.4	-	EPA 625
		LCS Dup	-	100.0	-	
		MS	39 - 139	95.3	-	
		MSD	0 - 42	-	2.1	
2,6-Dinitrotoluene	QC59278	LCS	68 - 137	85.8	-	EPA 625
		LCS Dup	-	101.2	-	
		MS	50 - 158	98.4	-	
		MSD	0 - 48	-	2.2	
2-Chloronaphthalene	QC59278	LCS	70 - 130	84.2	-	EPA 625
		LCS Dup	-	93.2	-	
		MS	60 - 120	87.7	-	
		MSD	0 - 24	-	1.2	
2-Chlorophenol	QC59278	LCS	55 - 130	82.9	-	EPA 625
		LCS Dup	-	95.1	-	
		MS	23 - 134	91.5	-	
		MSD	0 - 61	-	1.4	
2-Nitrophenol	QC59278	LCS	61 - 163	68.7	-	EPA 625
		LCS Dup	-	88.3	-	
		MS	29 - 182	81.8	-	
		MSD	0 - 55	-	5.7	
3,3'-Dichlorobenzidine	QC59278	LCS	18 - 213	65.9	-	EPA 625
		LCS Dup	-	70.8	-	
		MS	1 - 262	39.3	-	
		MSD	0 - 108	-	18.1	
4,6-Dinitro-2-methylphenol	QC59278	LCS	56 - 130	62.9	-	EPA 625
		LCS Dup	-	72.5	-	
		MS	1 - 181	94.7	-	
		MSD	0 - 203	-	2.4	
4-Bromophenyl phenyl ether	QC59278	LCS	70 - 130	82.6	-	EPA 625
		LCS Dup	-	88.1	-	
		MS	53 - 127	88.8	-	
		MSD	0 - 43	-	0.7	
4-Chloro-3-methylphenol	QC59278	LCS	68 - 130	73.7	-	EPA 625
		LCS Dup	-	86.4	-	
		MS	22 - 147	93.5	-	
		MSD	0 - 73	-	0.1	
4-Chlorophenyl phenyl ether	QC59278	LCS	57 - 145	90.0	-	EPA 625
		LCS Dup	-	96.2	-	
		MS	25 - 158	95.2	-	
		MSD	0 - 61	-	0.6	
4-Nitrophenol	QC59278	LCS	35 - 130	54.0	-	EPA 625
		LCS Dup	-	73.3	-	
		MS	1 - 132	81.6	-	
		MSD	0 - 131	-	6.6	
Acenaphthene	QC59278	LCS	70 - 130	88.5	-	EPA 625
		LCS Dup	-	96.2	-	
		MS	47 - 145	93.8	-	

**Abbreviations/References:**

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

		MSD	0 - 48	-	1.4	
Acenaphthylene	QC59278	LCS	60 - 130	81.5	-	EPA 625
		LCS Dup	-	88.4	-	
		MS	33 - 145	86.7	-	
		MSD	0 - 74	-	2.5	
Anthracene	QC59278	LCS	58 - 130	91.8	-	EPA 625
		LCS Dup	-	96.0	-	
		MS	27 - 133	96.3	-	
		MSD	0 - 81	-	2.8	
Benidine	QC59278	LCS	1 - 231	15.8	-	EPA 625
		LCS Dup	-	21.3	-	
		MS	1 - 318	18.4	-	
		MSD	0 - 218	-	13.5	
Benzo(a)anthracene	QC59278	LCS	42 - 133	102.0	-	EPA 625
		LCS Dup	-	98.1	-	
		MS	33 - 143	91.6	-	
		MSD	0 - 53	-	0.8	
Benzo(a)pyrene	QC59278	LCS	32 - 148	102.4	-	EPA 625
		LCS Dup	-	105.5	-	
		MS	17 - 163	102.3	-	
		MSD	0 - 72	-	1.8	
Benzo(b)fluoranthene	QC59278	LCS	42 - 140	101.3	-	EPA 625
		LCS Dup	-	100.2	-	
		MS	24 - 159	97.7	-	
		MSD	0 - 71	-	2.6	
Benzo(g,h,i)perylene	QC59278	LCS	13 - 195	60.8	-	EPA 625
		LCS Dup	-	71.4	-	
		MS	1 - 219	80.0	-	
		MSD	0 - 97	-	1.5	
Benzo(k)fluoranthene	QC59278	LCS	25 - 146	96.5	-	EPA 625
		LCS Dup	-	97.7	-	
		MS	11 - 162	94.3	-	
		MSD	0 - 63	-	0.0	
Bis(2-chloroethoxy) methane	QC59278	LCS	52 - 164	84.5	-	EPA 625
		LCS Dup	-	92.6	-	
		MS	33 - 184	90.6	-	
		MSD	0 - 54	-	1.6	
Bis(2-chloroethyl) ether	QC59278	LCS	52 - 130	93.6	-	EPA 625
		LCS Dup	-	100.8	-	
		MS	12 - 158	98.3	-	
		MSD	0 - 108	-	0.3	
Bis(2-chloroisopropyl) ether	QC59278	LCS	63 - 139	84.2	-	EPA 625
		LCS Dup	-	89.1	-	
		MS	36 - 166	87.5	-	
		MSD	0 - 76	-	0.0	
Bis(2-ethylhexyl) phthalate	QC59278	LCS	43 - 137	80.2	-	EPA 625
		LCS Dup	-	93.3	-	
		MS	8 - 158	93.8	-	
		MSD	0 - 82	-	6.3	
Butylbenzylphthalate	QC59278	LCS	43 - 140	74.0	-	EPA 625

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(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		LCS Dup	-	84.4	-	
		MS	1 - 152	91.9	-	
		MSD	0 - 60	-	4.8	
Chrysene	QC59278	LCS	44 - 140	105.7	-	EPA 625
		LCS Dup	-	97.4	-	
		MS	17 - 168	91.4	-	
		MSD	0 - 87	-	0.2	
Dibenzo(a,h)anthracene	QC59278	LCS	13 - 200	54.1	-	EPA 625
		LCS Dup	-	64.0	-	
		MS	1 - 227	74.7	-	
		MSD	0 - 126	-	0.6	
Diethyl phthalate	QC59278	LCS	47 - 130	92.6	-	EPA 625
		LCS Dup	-	100.7	-	
		MS	1 - 120	97.3	-	
		MSD	0 - 100	-	1.8	
Dimethyl phthalate	QC59278	LCS	50 - 130	89.8	-	EPA 625
		LCS Dup	-	98.0	-	
		MS	1 - 120	94.8	-	
		MSD	0 - 183	-	3.9	
Di-n-butyl phthalate	QC59278	LCS	52 - 130	85.4	-	EPA 625
		LCS Dup	-	96.2	-	
		MS	1 - 120	100.3	-	
		MSD	0 - 47	-	2.2	
Di-n-octyl phthalate	QC59278	LCS	21 - 132	70.6	-	EPA 625
		LCS Dup	-	90.6	-	
		MS	4 - 146	99.7	-	
		MSD	0 - 69	-	3.9	
Fluoranthene	QC59278	LCS	47 - 130	93.0	-	EPA 625
		LCS Dup	-	96.3	-	
		MS	26 - 137	98.3	-	
		MSD	0 - 66	-	0.1	
Fluorene	QC59278	LCS	70 - 130	90.8	-	EPA 625
		LCS Dup	-	96.3	-	
		MS	59 - 121	93.5	-	
		MSD	0 - 38	-	1.8	
Hexachlorobenzene	QC59278	LCS	38 - 142	86.3	-	EPA 625
		LCS Dup	-	91.5	-	
		MS	1 - 152	89.0	-	
		MSD	0 - 55	-	1.2	
Hexachlorobutadiene	QC59278	LCS	68 - 130	70.4	-	EPA 625
		LCS Dup	-	79.8	-	
		MS	24 - 120	82.5	-	
		MSD	0 - 62	-	0.7	
Hexachlorocyclopentadiene	QC59278	LCS	8 - 106	35.9	-	EPA 625
		LCS Dup	-	46.1	-	
		MS	1 - 111	50.8	-	
		MSD	0 - 41	-	19.4	
Hexachloroethane	QC59278	LCS	55 - 130	78.7	-	EPA 625
		LCS Dup	-	89.3	-	
		MS	40 - 120	88.2	-	
		MSD	0 - 52	-	3.6	

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Compound	QC	Method	Range	Concentration	RPD	Reference
Indeno(1,2,3-cd)pyrene	QC59278	LCS	13 - 151	56.6	-	EPA 625
		LCS Dup	-	65.5	-	
		MS	1 - 171	75.9	-	
		MSD	0 - 99	-	3.3	
Isophorone	QC59278	LCS	52 - 180	86.5	-	EPA 625
		LCS Dup	-	96.1	-	
		MS	21 - 196	92.5	-	
		MSD	0 - 93	-	3.6	
Naphthalene	QC59278	LCS	70 - 130	85.6	-	EPA 625
		LCS Dup	-	92.4	-	
		MS	21 - 133	86.5	-	
		MSD	0 - 65	-	3.6	
Nitrobenzene	QC59278	LCS	54 - 158	87.8	-	EPA 625
		LCS Dup	-	92.6	-	
		MS	35 - 180	93.1	-	
		MSD	0 - 62	-	0.9	
n-Nitrosodimethylamine	QC59278	LCS	57 - 141	78.8	-	EPA 625
		LCS Dup	-	78.7	-	
		MS	30 - 168	80.9	-	
		MSD	0 - 68	-	2.2	
n-Nitroso-di-n-propylamine	QC59278	LCS	59 - 170	91.2	-	EPA 625
		LCS Dup	-	100.6	-	
		MS	1 - 230	94.2	-	
		MSD	0 - 87	-	1.3	
n-Nitrosodiphenylamine (as Diphenylamine)	QC59278	LCS	70 - 130	105.3	-	EPA 625
		LCS Dup	-	114.6	-	
		MS	65 - 135	111.4	-	
		MSD	0 - 20	-	1.8	
Pentachlorophenol	QC59278	LCS	42 - 152	61.0	-	EPA 625
		LCS Dup	-	75.6	-	
		MS	14 - 176	99.8	-	
		MSD	0 - 86	-	3.9	
Phenanthrene	QC59278	LCS	67 - 130	91.4	-	EPA 625
		LCS Dup	-	94.0	-	
		MS	54 - 120	94.7	-	
		MSD	0 - 39	-	0.6	
Phenol	QC59278	LCS	48 - 130	77.7	-	EPA 625
		LCS Dup	-	92.7	-	
		MS	5 - 120	89.4	-	
		MSD	0 - 64	-	1.0	
Pyrene	QC59278	LCS	70 - 130	94.3	-	EPA 625
		LCS Dup	-	97.6	-	
		MS	52 - 120	98.4	-	
		MSD	0 - 49	-	0.3	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.

**Abbreviations/References:**

RL = Reporting Limit = Minimum Level  
 mg/L = Milligrams Per Liter or PPM  
 ug/L = Micrograms Per Liter or PPB  
 mpn/100 mls = Most Probable Number Index/ 100 mls  
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) Spike amount low relative to the sample amount.  
 ND = Not Detected at Reporting Limit.



DATA APPROVED FOR RELEASE BY

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Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 435355****9/23/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Cross Portal  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 8/26/2022 08:58**Collected by:** B. Moran

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)**"NA"** Not Analyzed**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.**"DF"** This column indicates the contaminant dilution factor.**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	Y5	1	8/25/2022 13:45	8/26/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	Y5	1	8/25/2022 13:45	8/26/2022 13:30
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	Y5	1	8/25/2022 13:45	8/26/2022 11:40

**Qualifiers:**

Y5: Sample received above the recommended temperature. Sample does not meet method requirements for acceptable thermal preservation.



Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP9/23/2022	2120B,5540C,2150B



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Christine MacMillan, Technical Director

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166  
 (440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS**

**SAMPLE CODE: 435357**

**9/23/2022**

**Customer:** Grand Island Resources  
 Brooke Moran  
 12567 West Cedar Rd  
 Lakewood, CO 80228

**Source:** Caribou Well  
**Source City:** Nederland  
**Source State:** CO

**Date/Time Received:** 8/26/2022 08:58

**Collected by:** B. Moran

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	Y5	1	8/25/2022 16:00	8/26/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	Y5	1	8/25/2022 16:00	8/26/2022 13:30
			MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole							
1920	Odor Threshold	2150B	3	ton	1	ND	Y5	1	8/25/2022 16:00	8/26/2022 11:40

**Qualifiers:**

Y5: Sample received above the recommended temperature. Sample does not meet method requirements for acceptable thermal preservation.



Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP9/23/2022	2120B,5540C,2150B



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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 435357****9/23/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Caribou Portal  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 8/26/2022 08:58**Collected by:** B. Moran

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)**"NA"** Not Analyzed**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.**"DF"** This column indicates the contaminant dilution factor.**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	Y5	1	8/25/2022 15:00	8/26/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	Y5	1	8/25/2022 15:00	8/26/2022 13:30
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	Y5	1	8/25/2022 15:00	8/26/2022 11:40

**Qualifiers:**

Y5: Sample received above the recommended temperature. Sample does not meet method requirements for acceptable thermal preservation.



Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP9/23/2022	2120B,5540C,2150B



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**ANALYTICAL REPORTS**

**SAMPLE CODE: 435359**

**9/23/2022**

**Customer:** Grand Island Resources  
 Brooke Moran  
 12567 West Cedar Rd  
 Lakewood, CO 80228

**Source:** Compliance Well  
**Source City:** Nederland  
**Source State:** CO

**Date/Time Received:** 8/26/2022 08:58

**Collected by:** B. Moran

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	Y5	1	8/25/2022 14:40	8/26/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	Y5	1	8/25/2022 14:40	8/26/2022 13:30
	MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole									
1920	Odor Threshold	2150B	3	ton	1	ND	Y5	1	8/25/2022 14:40	8/26/2022 11:40

**Qualifiers:**

Y5: Sample received above the recommended temperature. Sample does not meet method requirements for acceptable thermal preservation.



Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**

SAM Analyst	Tests
SP9/23/2022	2120B,5540C,2150B



---

Christine MacMillan, Technical Director

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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 4353511****9/23/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Cross Well  
**Source City:** Nederland  
**Source State:** CO**Date/Time Received:** 8/26/2022 08:58**Collected by:** B. Moran

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)**"NA"** Not Analyzed**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.**"DF"** This column indicates the contaminant dilution factor.**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	Y5	1	8/25/2022 14:10	8/26/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	Y5	1	8/25/2022 14:10	8/26/2022 13:30
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	Y5	1	8/25/2022 14:10	8/26/2022 11:40

**Qualifiers:**

Y5: Sample received above the recommended temperature. Sample does not meet method requirements for acceptable thermal preservation.



Christine MacMillan, Technical Director

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**National Testing Laboratories, Ltd**

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(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS**

SAM Analyst	Tests
SP9/23/2022	2120B,5540C,2150B



---

Christine MacMillan, Technical Director

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**ANALYTICAL REPORTS**  
SAMPLE CODE: 4353513

Built Environment  
Reservoirs

August 26, 2022

9/23/2022  
Subcontractor Number:

Laboratory Report: **RES 534898-1**

Project #/P.O. #: **220825126**

Project Description: **Grand Island**

Angela Forte  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City CO 80640

Dear Angela,

Eurofins Reservoirs is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA LAP, LLC), Lab ID 101533 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Eurofins Reservoirs has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

**RES 534898-1** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Eurofins Reservoirs will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed, as received by the customer. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Eurofins Reservoirs. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,



by Norberto Zimbelman

Jeanne Spencer  
President



Christine MacMillan, Technical Director

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Page 1 of 1 4353513 Custom Compliance

(303) 964-1986



Date Printed: 10/25/2022 9:27:21 AM

(866) RESI-ENV

5801 Logan St,  
Suite 100,  
Denver, CO  
80216

[www.reilab.com](http://www.reilab.com)  
<https://clients.reilab.com>

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# EUROFINS RESERVOIRS ENVIRONMENTAL, INC

NVLAP Lab Code 101896-0  
 AIHALAP, LLC. LAB ID 101533

**TABLE: I ANALYSIS: TEM WATER SAMPLE ANALYTICAL RESULTS**

RES Job Number: RES 534898-1  
 Client: Colorado Analytical Laboratories, Inc.  
 Client Project/P.O.: 220825126  
 Client Project Description: Grand Island  
 Date Samples Received: August 26, 2022  
 Analysis Type: TEM Waste Water Analysis  
 Turnaround: Standard  
 Date Samples Analyzed: August 26, 2022

NA = Not Analyzed  
 NR = Not Received  
 ND = None Detected  
 TR = Trace; <1 % Visual Estimate  
 Trem-Act = Tremolite-Actinolite

Laboratory Sample ID	Client ID Number	Aliquot Deposited on Filter (ml)	Dilution Factor	Total		Analytical Sensitivity	Total	
				Number of Asbestos Structures Detected	Greater than 10 Micron Length Asbestos Structures Detected		Asbestos Concentration	Greater than 10 Micron Length Asbestos Concentration
534898 - 220825126-01G Cross Well		20	1	ND	ND	0.17	BAS	BAS
534898 - 220825126-02G Compliance Well		20	1	ND	ND	0.17	BAS	BAS
534898 - 220825126-03G Caribou Well		20	1	ND	ND	0.17	BAS	BAS
534898 - 220825126-04G Cross Portal		20	1	ND	ND	0.17	BAS	BAS
534898 - 220825126-05G Caribou Portal		20	1	ND	ND	0.17	BAS	BAS

Filter Material = Mixed Cellulose Ester  
 Filter Diameter = 25mm  
 Effective Filter Area = 0mm<sup>2</sup>  
 Average Grid Opening = 0.010mm<sup>2</sup>

*N. Zimbelman*  
 Norberto Zimbelman  
 Analyst





Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	08/26/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	534898-1	Date Received	08/26/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220825126-01G Cross Well	Method	TEM Waste Water Analysis	Scope Align	08/26/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G4-1	ND									
	F4-1	ND									
	E4-1	ND									
	C4-1	ND									
	B4-1	ND									
A	K4-4	ND									
	H4-4	ND									
	G4-4	ND									
	G4-1	ND									
	G5-1	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	08/26/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	534898-1	Date Received	08/26/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220825126-02G Compliance Well	Method	TEM Waste Water Analysis	Scope Align	08/26/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	H3-3	ND									
	G3-3	ND									
	F3-3	ND									
	E3-3	ND									
	C3-3	ND									
B	H3-6	ND									
	G3-3	ND									
	F3-3	ND									
	E3-3	ND									
	C3-3	ND								Yes	

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	08/26/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	534898-1	Date Received	08/26/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220825126-03G Caribou Well	Method	TEM Waste Water Analysis	Scope Align	08/26/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G4-6	ND								Yes	Yes
	F4-6	ND									
	E4-6	ND									
	C4-6	ND									
	B4-6	ND									
	A4-6	ND									
A	G5-6	ND									
	F5-6	ND									
	G4-6	ND									
	E4-6	ND								Yes	Yes

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	08/26/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	534898-1	Date Received	08/26/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220825126-04G Cross Portal	Method	TEM Waste Water Analysis	Scope Align	08/26/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	E6-4	ND									
	E5-4	ND									
	C5-4	ND									
	C5-1	ND									
	B5-1	ND									
B	G6-1	ND									
	F6-1	ND									
	E6-1	ND									
	C6-1	ND									
	B6-4	ND									





Hazen Research, Inc.  
4601 Indiana Street  
Golden, CO 80403 USA  
Tel: (303) 279-4501  
Fax: (303) 278-1528

Lab Control ID: 22M02647  
Received: Aug 26, 2022  
Reported: Sep 29, 2022  
Purchase Order No.  
None Received

Customer ID: 20040H  
Account ID: Z01034

PORT

Stuart Nielson  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City, CO 80640

## ANALYTICAL REPORT

\*NAM = Non Asbestos Material

*Report may only be copied in its entirety.  
Results reported herein relate only to discrete samples  
submitted by the client. Hazen Research, Inc. does not warrant  
that the results are representative of anything other than the  
samples that were received in the laboratory*



By: \_\_\_\_\_  
Roxanne Sullivan  
Analytical Laboratories Director

<b>Lab Sample ID</b>			22M02647-001					
<b>Customer Sample ID</b>			220825126-01H - Cross Well sampled on 08/25/22 @ 1210					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	1.6	1.2	0.1	SM 7110 B	9/24/22 @ 1040	AS
Gross Beta	pCi/L	T	<2.9	2.3	2.9	SM 7110 B	9/24/22 @ 1040	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than



**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

Lab Control ID: 22M02647  
 Received: Aug 26, 2022  
 Reported: Sep 29, 2022  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02647-002					
<b>Customer Sample ID</b>			220825126-02H - Compliance Well sampled on 08/25/22 @ 1240					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.3	0.9	0.1	SM 7110 B	9/24/22 @ 1041	AS
Gross Beta	pCi/L	T	<2.8	2.2	2.8	SM 7110 B	9/24/22 @ 1041	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than



**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

Lab Control ID: 22M02647  
 Received: Aug 26, 2022  
 Reported: Sep 29, 2022  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02647-003					
<b>Customer Sample ID</b>			220825126-03H - Caribou Well sampled on 08/25/22 @ 1400					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.2	0.7	0.1	SM 7110 B	9/24/22 @ 1042	AS
Gross Beta	pCi/L	T	<2.9	2.1	2.9	SM 7110 B	9/24/22 @ 1042	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than



**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

Lab Control ID: 22M02647  
 Received: Aug 26, 2022  
 Reported: Sep 29, 2022  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02647-004					
<b>Customer Sample ID</b>			220825126-04H - Cross Portal sampled on 08/25/22 @ 1145					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	1.8	1.4	0.1	SM 7110 B	9/24/22 @ 1043	AS
Gross Beta	pCi/L	T	<2.8	2.2	2.8	SM 7110 B	9/24/22 @ 1043	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02647-005					
<b>Customer Sample ID</b>			220825126-05H - Caribou Portal sampled on 08/25/22 @ 1300					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	5.9	2.2	0.1	SM 7110 B	9/24/22 @ 1045	AS
Gross Beta	pCi/L	T	<2.7	2.1	2.7	SM 7110 B	9/24/22 @ 1045	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

**Batch QC Summary Form**

Analyte: Gross Alpha

Control Standard/LFB: ID: C-11a\_001 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11a\_001 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

Calculation:  $\frac{(49.8) (1.000)}{57.4} - \frac{(0.1) (0.200)}{57.4} \times 100 = 87\%$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 30 %	x		
Spike Recovery	70 - 130 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

     x Batch QC Passes\*\*  
     Batch QC Fails  
     Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>22M02658</u>	<u>22M02679</u>
<u>22M02717</u>	<u>22M02681</u>
<u>22M02718</u>	<u>22M02682</u>
<u>22M02744</u>	<u>22M02709</u>
<u>22M02745</u>	<u>22M02712</u>
<u>22M02746</u>	<u>22M02741</u>
<u>22M02646</u>	_____
<u>22M02647</u>	_____
<u>22M02677</u>	_____
<u>22M02678</u>	_____

Evaluator:

 \_\_\_\_\_

09/27/2022

Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C-11a\_001 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11a\_001 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(40.3) - (1.000)}{44} - \frac{(0.1) - (0.200)}{44} \times 100 = 92\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

     x Batch QC Passes\*\*  
     Batch QC Fails  
     Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>22M02658</u>	<u>22M02679</u>
<u>22M02717</u>	<u>22M02681</u>
<u>22M02718</u>	<u>22M02682</u>
<u>22M02744</u>	<u>22M02709</u>
<u>22M02745</u>	<u>22M02712</u>
<u>22M02746</u>	<u>22M02741</u>
<u>22M02646</u>	_____
<u>22M02647</u>	_____
<u>22M02677</u>	_____
<u>22M02678</u>	_____

Evaluator:

*Rosanne Sullivan* \_\_\_\_\_

09/27/2022

Date







# ANALYTICAL SUMMARY REPORT

September 20, 2022

Colorado Analytical Laboratories Inc  
PO Box 507  
Brighton, CO 80601-0507

Work Order: C22081232

Project Name: 220825126

Energy Laboratories, Inc. Casper WY received the following 5 samples for Colorado Analytical Laboratories Inc on 8/30/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C22081232-001	220825126-01F - Cross Well	08/25/22 12:10	08/30/22	Groundwater	Metals by ICP/ICPMS, Total Metals Preparation by EPA 200.2
C22081232-002	220825126-02F - Compliance Well	08/25/22 12:40	08/30/22	Groundwater	Same As Above
C22081232-003	220825126-03F - Caribou Well	08/25/22 14:00	08/30/22	Groundwater	Same As Above
C22081232-004	220825126-04F - Cross Portal	08/25/22 11:45	08/30/22	Groundwater	Same As Above
C22081232-005	220825126-05F - Caribou Portal	08/25/22 13:00	08/30/22	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:



CLIENT: Colorado Analytical Laboratories Inc

Project: 220825126

Report Date: 09/20/22

Work Order: C22081232

## CASE NARRATIVE

---

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220825126  
Lab ID: C22081232-001  
Client Sample ID: 220825126-01F - Cross Well

Report Date: 09/20/22  
Collection Date: 08/25/22 12:10  
DateReceived: 08/30/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	09/12/22 13:07 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220825126  
Lab ID: C22081232-002  
Client Sample ID: 220825126-02F - Compliance Well

Report Date: 09/20/22  
Collection Date: 08/25/22 12:40  
Date Received: 08/30/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	09/12/22 13:11 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220825126  
Lab ID: C22081232-003  
Client Sample ID: 220825126-03F - Caribou Well

Report Date: 09/20/22  
Collection Date: 08/25/22 14:00  
DateReceived: 08/30/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	09/12/22 13:15 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220825126  
Lab ID: C22081232-004  
Client Sample ID: 220825126-04F - Cross Portal

Report Date: 09/20/22  
Collection Date: 08/25/22 11:45  
DateReceived: 08/30/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	09/12/22 13:20 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220825126  
Lab ID: C22081232-005  
Client Sample ID: 220825126-05F - Caribou Portal

Report Date: 09/20/22  
Collection Date: 08/25/22 13:00  
DateReceived: 08/30/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	09/12/22 13:24 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



## QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C22081232

Report Date: 09/12/22

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E200.7										Analytical Run: ICP204-B_220912A	
Lab ID: ICV		Continuing Calibration Verification Standard								09/12/22 12:05	
Lithium		1.29	mg/L	0.10	103	95	105				
Lab ID: CCV		Continuing Calibration Verification Standard								09/12/22 12:55	
Lithium		1.30	mg/L	0.10	104	90	110				
Method: E200.7										Batch: 170259	
Lab ID: MB-170259		Method Blank								Run: ICP204-B_220912A	09/12/22 12:13
Lithium		ND	mg/L	0.006							
Lab ID: LCS3-170259		Laboratory Control Sample								Run: ICP204-B_220912A	09/12/22 12:17
Lithium		1.08	mg/L	0.10	108	85	115				
Lab ID: B22082897-014BMS3		Sample Matrix Spike								Run: ICP204-B_220912A	09/12/22 12:33
Lithium		1.17	mg/L	0.25	111	70	130				
Lab ID: B22082897-014BMSD		Sample Matrix Spike Duplicate								Run: ICP204-B_220912A	09/12/22 12:38
Lithium		1.17	mg/L	0.25	112	70	130	0.3	20		
Lab ID: B22090108-001CMS3		Sample Matrix Spike								Run: ICP204-B_220912A	09/12/22 13:40
Lithium		1.10	mg/L	0.10	108	70	130				
Lab ID: B22090108-001CMSD		Sample Matrix Spike Duplicate								Run: ICP204-B_220912A	09/12/22 13:52
Lithium		1.06	mg/L	0.10	105	70	130	3.6	20		

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C22081232

Login completed by: Ciara M. Leis

Date Received: 8/30/2022

Reviewed by: cjohnson

Received by: aps

Reviewed Date: 8/31/2022

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on all shipping container(s)/cooler(s)? Yes  No  Not Present
- Custody seals intact on all sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time?  
(Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) Yes  No
- Temp Blank received in all shipping container(s)/cooler(s)? Yes  No  Not Applicable
- Container/Temp Blank temperature: 21.2°C No Ice
- Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). Yes  No  No VOA vials submitted
- Water - pH acceptable upon receipt? Yes  No  Not Applicable

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

## Contact and Corrective Action Comments:

None



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

2208612352

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Nielson</u> E-Mail: <u>stuartnielson@coloradolab.com</u>		<b>Bill To Information (if different from report to)</b> Address: CAL TASK 220825126 NAB		<b>Project Name</b> -
<b>Address:</b> 10411 Heinz Way Commerce City, CO 80640 Phone: <u>303-659-2313</u>		<b>Compliance Samples:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <b>Submit Data to CDPHE:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

**Tests Requested**

Sample Date/Time	Sample ID	Matrix	Metals (Sub)	Container Type
8/25/22 12:10 PM	220825126-01F - Cross Well	Water - Ground	X	500 ml Cylinder - HNO3
8/25/22 12:40 PM	220825126-02F - Compliance Well	Water - Ground	X	500 ml Cylinder - HNO3
8/25/22 2:00 PM	220825126-03F - Caribou Well	Water - Ground	X	500 ml Cylinder - HNO3
8/25/22 11:45 AM	220825126-04F - Cross Portal	Water - Ground	X	500 ml Cylinder - HNO3
8/25/22 1:00 PM	220825126-05F - Caribou Portal	Water - Ground	X	500 ml Cylinder - HNO3

**Comment:** 220825126-01F - Please report Lithium.  
 220825126-02F - Please report Lithium.  
 220825126-03F - Please report Lithium.  
 220825126-04F - Please report Lithium.  
 220825126-05F - Please report Lithium.

<b>Relinquished by:</b> (Signature)	<b>Date:</b> 8/29/22 <b>Time:</b> 16:00	<b>Received by:</b> (Signature)	<b>Date:</b> 8/29/22 <b>Time:</b> 12:07
--	--	------------------------------------	--

8/29/22  
 April Szmarzki  
 08/30/22 12:07  
 Page 1 of 1

APPENDIX A.3 SEPTEMBER 2022 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS



## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 9/27/22 12:10 PM  
Lab Number: 220927128-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	4.22 mg/L	EPA 300.0	0.01 mg/L	9/27/22	QC60037	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	9/30/22	QC59981	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	9/27/22	QC59900	AMJ
Nitrate Nitrogen	0.26 mg/L	EPA 300.0	0.05 mg/L	9/27/22	QC60038	AMJ
Nitrate/ Nitrite Nitrogen	0.26 mg/L	Calculation	0.05 mg/L	9/29/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	9/27/22	QC60039	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	9/28/22	QC60050	DPL
Sulfate	10.12 mg/L	EPA 300.0	0.01 mg/L	9/27/22	QC60040	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	9/28/22	-	AKF
<i>Dissolved</i>						
Aluminum	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Copper	0.0045 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Zinc	0.868 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	9/29/22	QC59950	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	9/29/22	QC59915	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	9/29/22	QC59915	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Well  
Sample Date/Time: 9/27/22 12:10 PM  
Lab Number: 220927128-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Barium	0.0279 mg/L	EPA 200.8	0.0007 mg/L	9/29/22	QC59915	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	9/29/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Copper	0.0048 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Lead	0.0008 mg/L	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Manganese	0.0031 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Molybdenum	0.0006 mg/L	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	9/29/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Zinc	0.878 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
Calcium	15.9 mg/L	EPA 200.7	0.1 mg/L	9/29/22	QC59941	MAT
Iron	0.037 mg/L	EPA 200.7	0.005 mg/L	9/29/22	QC59941	MAT

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well

Sample Date/Time: 9/27/22 2:00 PM

Lab Number: 220927128-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.45 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60037	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	9/30/22	QC59981	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	9/28/22	QC59900	AMJ
Nitrate Nitrogen	0.16 mg/L	EPA 300.0	0.05 mg/L	9/28/22	QC60038	AMJ
Nitrate/ Nitrite Nitrogen	0.16 mg/L	Calculation	0.05 mg/L	9/29/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	9/28/22	QC60039	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	9/28/22	QC60050	DPL
Sulfate	2.75 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60040	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	9/28/22	-	AKF
<i>Dissolved</i>						
Aluminum	0.027 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Copper	0.4548 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Zinc	0.003 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	9/29/22	QC59950	MLT
Aluminum	0.028 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	9/29/22	QC59915	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	9/29/22	QC59915	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well

Sample Date/Time: 9/27/22 2:00 PM

Lab Number: 220927128-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Barium	0.0059 mg/L	EPA 200.8	0.0007 mg/L	9/29/22	QC59915	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	9/29/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Copper	0.4705 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Lead	0.0004 mg/L	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	9/29/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Zinc	0.003 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
Calcium	3.7 mg/L	EPA 200.7	0.1 mg/L	9/29/22	QC59941	MAT
Iron	0.011 mg/L	EPA 200.7	0.005 mg/L	9/29/22	QC59941	MAT

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 9/27/22 11:45 AM  
Lab Number: 220927128-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.39 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60037	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	9/30/22	QC59981	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	9/28/22	QC59900	AMJ
Nitrate Nitrogen	0.15 mg/L	EPA 300.0	0.05 mg/L	9/28/22	QC60038	AMJ
Nitrate/ Nitrite Nitrogen	0.15 mg/L	Calculation	0.05 mg/L	9/29/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	9/28/22	QC60039	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	9/28/22	QC60050	DPL
Sulfate	10.33 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60040	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	9/28/22	-	AKF
<i>Dissolved</i>						
Aluminum	0.009 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Copper	0.0026 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Zinc	0.206 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	9/29/22	QC59950	MLT
Aluminum	0.018 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	9/29/22	QC59915	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	9/29/22	QC59915	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal  
Sample Date/Time: 9/27/22 11:45 AM  
Lab Number: 220927128-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Barium	0.0700 mg/L	EPA 200.8	0.0007 mg/L	9/29/22	QC59915	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Cadmium	0.0010 mg/L	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	9/29/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Copper	0.0032 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Lead	0.0087 mg/L	EPA 200.8	0.0001 mg/L	9/29/22	QC59915	MBN
Manganese	0.0216 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Molybdenum	0.0062 mg/L	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	9/29/22	QC59915	MBN
Selenium	0.0011 mg/L	EPA 200.8	0.0008 mg/L	9/29/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/29/22	QC59915	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Uranium	0.0009 mg/L	EPA 200.8	0.0002 mg/L	9/29/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Zinc	0.216 mg/L	EPA 200.8	0.001 mg/L	9/29/22	QC59915	MBN
Boron	0.01 mg/L	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
Calcium	22.8 mg/L	EPA 200.7	0.1 mg/L	9/29/22	QC59941	MAT
Iron	0.104 mg/L	EPA 200.7	0.005 mg/L	9/29/22	QC59941	MAT

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 9/27/22 1:15 PM

Lab Number: 220927128-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.52 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60037	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	9/30/22	QC59981	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	9/28/22	QC59900	AMJ
Nitrate Nitrogen	0.22 mg/L	EPA 300.0	0.05 mg/L	9/28/22	QC60038	AMJ
Nitrate/ Nitrite Nitrogen	0.22 mg/L	Calculation	0.05 mg/L	9/29/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	9/28/22	QC60039	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	9/28/22	QC60050	DPL
Sulfate	11.75 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60040	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	9/28/22	-	AKF
<i>Dissolved</i>						
Aluminum	0.003 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Copper	0.0008 mg/L	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Zinc	0.013 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	9/29/22	QC59950	MLT
Aluminum	0.003 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	9/30/22	QC59915	MBN
Arsenic	0.0007 mg/L	EPA 200.8	0.0006 mg/L	9/30/22	QC59915	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 9/27/22 1:15 PM

Lab Number: 220927128-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Barium	0.0582 mg/L	EPA 200.8	0.0007 mg/L	9/30/22	QC59915	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	9/30/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Copper	0.0008 mg/L	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Lead	0.0021 mg/L	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Manganese	0.0027 mg/L	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Molybdenum	0.0057 mg/L	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	9/30/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Uranium	0.0059 mg/L	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Zinc	0.013 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
Calcium	26.8 mg/L	EPA 200.7	0.1 mg/L	9/29/22	QC59941	MAT
Iron	0.070 mg/L	EPA 200.7	0.005 mg/L	9/29/22	QC59941	MAT

Abbreviations/References:

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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 9/27/22 12:40 PM  
Lab Number: 220927128-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	2.64 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60037	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	9/30/22	QC59981	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	9/28/22	QC59900	AMJ
Nitrate Nitrogen	0.31 mg/L	EPA 300.0	0.05 mg/L	9/28/22	QC60038	AMJ
Nitrate/ Nitrite Nitrogen	0.31 mg/L	Calculation	0.05 mg/L	9/29/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	9/28/22	QC60039	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	9/28/22	QC60050	DPL
Sulfate	8.96 mg/L	EPA 300.0	0.01 mg/L	9/28/22	QC60040	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	9/28/22	-	AKF
<i>Dissolved</i>						
Aluminum	0.031 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Copper	0.0011 mg/L	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Zinc	0.109 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	9/29/22	QC59950	MLT
Aluminum	0.032 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	9/30/22	QC59915	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	9/30/22	QC59915	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 9/27/22 12:40 PM  
Lab Number: 220927128-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Barium	0.0449 mg/L	EPA 200.8	0.0007 mg/L	9/30/22	QC59915	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	9/30/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Copper	0.0011 mg/L	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Lead	0.0020 mg/L	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Manganese	0.0190 mg/L	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Molybdenum	0.0056 mg/L	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	9/30/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Vanadium	0.003 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Zinc	0.130 mg/L	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
Calcium	15.5 mg/L	EPA 200.7	0.1 mg/L	9/29/22	QC59941	MAT
Iron	0.186 mg/L	EPA 200.7	0.005 mg/L	9/29/22	QC59941	MAT

Abbreviations/References:

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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well - FB  
Sample Date/Time: 9/27/22 1:00 PM  
Lab Number: 220927128-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.01 mg/L	9/28/22	QC60037	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	9/30/22	QC59981	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	9/28/22	QC59900	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.05 mg/L	9/28/22	QC60038	AMJ
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	9/29/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	9/28/22	QC60039	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	9/28/22	QC60050	DPL
Sulfate	ND	EPA 300.0	0.01 mg/L	9/28/22	QC60040	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	9/28/22	-	AKF
<i>Dissolved</i>						
Aluminum	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
<i>Total</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	9/29/22	QC59950	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	9/30/22	QC59915	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	9/30/22	QC59915	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well - FB  
Sample Date/Time: 9/27/22 1:00 PM  
Lab Number: 220927128-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Barium	ND	EPA 200.8	0.0007 mg/L	9/30/22	QC59915	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	9/30/22	QC59915	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	9/30/22	QC59915	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	9/30/22	QC59915	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	9/30/22	QC59915	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	9/30/22	QC59915	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	9/30/22	QC59915	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	9/30/22	QC59915	MBN
Boron	ND	EPA 200.7	0.01 mg/L	9/29/22	QC59941	MAT
Calcium	ND	EPA 200.7	0.1 mg/L	9/29/22	QC59941	MAT
Iron	ND	EPA 200.7	0.005 mg/L	9/29/22	QC59941	MAT

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Analytical QC Summary**

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 9/27/22  
Project Name: Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC60037	Blank	ND	EPA 300.0
Cyanide-Free	QC59981	Blank	ND	ASTM D4282-15
Fluoride	QC59900	Blank	ND	EPA 300.0
Mercury	QC59950	Method Blank	ND	EPA 245.7
Aluminum	QC59915	Method Blank	ND	EPA 200.8
Antimony	QC59915	Method Blank	ND	EPA 200.8
Arsenic	QC59915	Method Blank	ND	EPA 200.8
Barium	QC59915	Method Blank	ND	EPA 200.8
Beryllium	QC59915	Method Blank	ND	EPA 200.8
Cadmium	QC59915	Method Blank	ND	EPA 200.8
Chromium	QC59915	Method Blank	ND	EPA 200.8
Cobalt	QC59915	Method Blank	ND	EPA 200.8
Copper	QC59915	Method Blank	ND	EPA 200.8
Lead	QC59915	Method Blank	ND	EPA 200.8
Manganese	QC59915	Method Blank	ND	EPA 200.8
Molybdenum	QC59915	Method Blank	ND	EPA 200.8
Nickel	QC59915	Method Blank	ND	EPA 200.8
Selenium	QC59915	Method Blank	ND	EPA 200.8
Silver	QC59915	Method Blank	ND	EPA 200.8
Thallium	QC59915	Method Blank	ND	EPA 200.8
Uranium	QC59915	Method Blank	ND	EPA 200.8
Vanadium	QC59915	Method Blank	ND	EPA 200.8
Zinc	QC59915	Method Blank	ND	EPA 200.8
Boron	QC59941	Method Blank	ND	EPA 200.7
Calcium	QC59941	Method Blank	ND	EPA 200.7
Iron	QC59941	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC60038	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC60039	Blank	ND	EPA 300.0
Phenols - Total	QC60050	Blank	ND	EPA 420.4
Sulfate	QC60040	Blank	ND	EPA 300.0

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC60037	Duplicate	0 - 20	-	1.9	EPA 300.0
		LCS	90 - 110	101.7	-	
		MS	75 - 125	98.4	-	
Cyanide-Free	QC59981	Duplicate	0 - 20	-	0.0	ASTM D4282-15
		LCS	90 - 110	95.6	-	
		MS	75 - 125	116.5	-	
		MSD	0 - 30	-	0.4	
Fluoride	QC59900	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	91.1	-	
		MS	75 - 125	95.6	-	

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
 mg/L = Milligrams Per Liter or PPM  
 ug/L = Micrograms Per Liter or PPB  
 mpn/100 mls = Most Probable Number Index/ 100 mls  
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) Spike amount low relative to the sample amount.  
 ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Mercury	QC59950	Duplicate	0 - 20	-	0.0	EPA 245.7
		LCS	90 - 110	104.0	-	
		MS	80 - 120	88.0	-	
Aluminum	QC59915	LCS	90 - 110	94.3	-	EPA 200.8
		MS	70 - 130	93.4	-	
		MSD	0 - 10	-	7.6	
Antimony	QC59915	LCS	90 - 110	102.1	-	EPA 200.8
		MS	70 - 130	107.1	-	
		MSD	0 - 10	-	0.1	
Arsenic	QC59915	LCS	90 - 110	96.9	-	EPA 200.8
		MS	70 - 130	113.7	-	
		MSD	0 - 10	-	1.4	
Barium	QC59915	LCS	90 - 110	97.6	-	EPA 200.8
		MS	70 - 130	104.4	-	
		MSD	0 - 10	-	2.8	
Beryllium	QC59915	LCS	90 - 110	99.4	-	EPA 200.8
		MS	70 - 130	116.5	-	
		MSD	0 - 10	-	1.1	
Cadmium	QC59915	LCS	90 - 110	96.8	-	EPA 200.8
		MS	70 - 130	105.9	-	
		MSD	0 - 10	-	1.9	
Chromium	QC59915	LCS	90 - 110	101.5	-	EPA 200.8
		MS	70 - 130	108.4	-	
		MSD	0 - 10	-	0.3	
Cobalt	QC59915	LCS	90 - 110	103.9	-	EPA 200.8
		MS	70 - 130	108.2	-	
		MSD	0 - 10	-	0.0	
Copper	QC59915	LCS	90 - 110	101.2	-	EPA 200.8
		MS	70 - 130	111.9	-	
		MSD	0 - 10	-	0.1	
Lead	QC59915	LCS	90 - 110	97.0	-	EPA 200.8
		MS	70 - 130	105.1	-	
		MSD	0 - 10	-	1.8	
Manganese	QC59915	LCS	90 - 110	102.8	-	EPA 200.8
		MS	70 - 130	104.3	-	
		MSD	0 - 10	-	3.0	
Molybdenum	QC59915	LCS	90 - 110	97.8	-	EPA 200.8
		MS	70 - 130	104.0	-	
		MSD	0 - 10	-	2.0	
Nickel	QC59915	LCS	90 - 110	102.4	-	EPA 200.8
		MS	70 - 130	108.7	-	
		MSD	0 - 10	-	0.1	
Selenium	QC59915	LCS	90 - 110	100.4	-	EPA 200.8
		MS	70 - 130	115.7	-	
		MSD	0 - 10	-	9.2	
Silver	QC59915	LCS	90 - 110	91.9	-	EPA 200.8
		MS	70 - 130	100.3	-	
		MSD	0 - 10	-	1.4	
Thallium	QC59915	LCS	90 - 110	104.7	-	EPA 200.8
		MS	70 - 130	111.7	-	
		MSD	0 - 10	-	2.0	

**Abbreviations/ References:**

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ug/L = Micrograms Per Liter or PPB  
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(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Uranium	QC59915	LCS	90 - 110	98.4	-	EPA 200.8
		MS	70 - 130	104.9	-	
		MSD	0 - 10	-	1.7	
Vanadium	QC59915	LCS	90 - 110	100.2	-	EPA 200.8
		MS	70 - 130	107.7	-	
		MSD	0 - 10	-	0.2	
Zinc	QC59915	LCS	90 - 110	97.8	-	EPA 200.8
		MS	70 - 130	110.9	-	
		MSD	0 - 10	-	1.5	
Boron	QC59941	Duplicate	0 - 20	-	0.0	EPA 200.7
		LCS	90 - 110	98.5	-	
		MS	75 - 125	113.5	-	
Calcium	QC59941	Duplicate	0 - 20	-	0.8	EPA 200.7
		LCS	90 - 110	93.4	-	
		MS	75 - 125	108.5	-	
Iron	QC59941	Duplicate	0 - 20	-	0.5	EPA 200.7
		LCS	90 - 110	98.3	-	
		MS	75 - 125	112.0	-	
Nitrate Nitrogen	QC60038	Duplicate	0 - 20	-	0.3	EPA 300.0
		LCS	90 - 110	98.3	-	
		MS	75 - 125	90.7	-	
Nitrite Nitrogen	QC60039	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	105.0	-	
		MS	75 - 125	100.3	-	
Phenols - Total	QC60050	Duplicate	0 - 20	-	0.0	EPA 420.4
		LCS	90 - 110	101.0	-	
		MS	75 - 125	122.0	-	
Sulfate	QC60040	Duplicate	0 - 20	-	1.3	EPA 300.0
		LCS	90 - 110	101.1	-	
		MS	75 - 125	98.8	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

**Abbreviations/ References:**

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Commerce City Lab**  
10411 Heinz Way  
Commerce City CO 80640

**Lakewood Service Center**  
610 Garrison Street, Unit E  
Lakewood CO 80215

**Phone: 303-659-2313**

[www.coloradolab.com](http://www.coloradolab.com)

**Chain of Custody Form**

<b>Report To Information</b>		Bill To: Infotl1at101 (if different from report to)		Project Name/ Number	
Company Name: <b>Is:(owJ ResovvI</b>		Company Name: <b>rfe6jt-Clacd</b>			
Contact Name: <b>pot vi'cl/C De..lotne.i</b>		Contact Name:			
Address: <b>12567 W.cedar Rd Ste.250</b>		Address:		Task Number (Lab Use Only)	
City: <b>Lakewood State CO zip 80228</b>		City: State Zip		CAL Task 220927128	
Phone: <b>315-414-6986</b>		Phone:		JML )	
Email: <b>pdelaney@blackfoxmining.com</b>		Email:			
Sample Collector: <b>BM</b>		Sample Collector:			
Sample Collector Phone: <b>303--50b-1618</b>		Sample Collector Phone:			

**Tests Requested**

Date	Time	Sample Matrix (Select One OnM		Drinking Water D	No. of Containers	Grab or (Check One Only) Composite	Tests Requested
		Waste Water D	Soil Sludge0				
9/27/22	12:10				8		
9/27/22	14:00				8		
9/27/22	11:45				8		
9/27/22	13:15				8		
9/27/22	12:40				8		
9/27/22	12:40				8		
9/27/22	13:00				8		

Instructions: please v<;e.. q,vote.. reJNSed q1 ; C/SInfo:

<b>Requisition/ColIS: have</b> 	<b>Date/Time: en</b> 9/27/22 4:42 pm	<b>Received by: e.d.</b> 	Deliver Via: <b>1-D</b>	C/S/Char/le 0	Seals Present Yes D No 0
Date/Time: <b>16:47</b>		Relinquished By:		Term: /: °C/lee <b>17</b>	Sample Pres. Y <sup>mm</sup> -170No D

$O_{j,i7,z} I_p$  a g e 1 6 o f 1 6



Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 9/27/22 12:10 PM  
Lab Number: 220927128-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	65.1 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Calcium as CaCO3	40.0 mg/L	EPA 200.7	0.1 mg/L	9/29/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Langelier Index	-1.94 units	SM 2330-B	units	10/4/22	-	SAN
pH	6.42 units	SM 4500-H-B	0.01 units	9/27/22	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	9/27/22	-	DEK
Total Alkalinity	65.1 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	9/28/22	QC59949	TAB
Total Dissolved Solids	127 mg/L	SM 2540-C	5 mg/L	10/3/22	QC59951	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Well

Sample Date/Time: 9/27/22 2:00 PM

Lab Number: 220927128-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	19.9 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Calcium as CaCO3	9.3 mg/L	EPA 200.7	0.1 mg/L	9/29/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Langelier Index	-3.38 units	SM 2330-B	units	10/4/22	-	SAN
pH	6.06 units	SM 4500-H-B	0.01 units	9/27/22	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	9/27/22	-	DEK
Total Alkalinity	19.9 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	9/28/22	QC59949	TAB
Total Dissolved Solids	41 mg/L	SM 2540-C	5 mg/L	10/3/22	QC59951	DEK

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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Cross Portal

Sample Date/Time: 9/27/22 11:45 AM

Lab Number: 220927128-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	100.0 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Calcium as CaCO3	57.0 mg/L	EPA 200.7	0.1 mg/L	9/29/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Langelier Index	-1.31 units	SM 2330-B	units	10/4/22	-	SAN
pH	6.71 units	SM 4500-H-B	0.01 units	9/27/22	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	9/27/22	-	DEK
Total Alkalinity	100.0 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	9/28/22	QC59949	TAB
Total Dissolved Solids	122 mg/L	SM 2540-C	5 mg/L	10/3/22	QC59951	DEK

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Caribou Portal

Sample Date/Time: 9/27/22 1:15 PM

Lab Number: 220927128-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	129.5 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Calcium as CaCO3	65.3 mg/L	EPA 200.7	0.1 mg/L	9/29/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Langelier Index	-0.63 units	SM 2330-B	units	10/4/22	-	SAN
pH	7.22 units	SM 4500-H-B	0.01 units	9/27/22	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	9/27/22	-	DEK
Total Alkalinity	129.5 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	9/28/22	QC59949	TAB
Total Dissolved Solids	139 mg/L	SM 2540-C	5 mg/L	10/3/22	QC59951	DEK

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mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 9/27/22 12:40 PM  
Lab Number: 220927128-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	63.0 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Calcium as CaCO3	39.5 mg/L	EPA 200.7	0.1 mg/L	9/29/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Langelier Index	-1.57 units	SM 2330-B	units	10/4/22	-	SAN
pH	6.74 units	SM 4500-H-B	0.01 units	9/27/22	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	9/27/22	-	DEK
Total Alkalinity	63.0 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	9/28/22	QC59949	TAB
Total Dissolved Solids	89 mg/L	SM 2540-C	5 mg/L	10/3/22	QC59951	DEK

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ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well - FB  
Sample Date/Time: 9/27/22 1:00 PM  
Lab Number: 220927128-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Calcium as CaCO3	ND	EPA 200.7	0.1 mg/L	9/29/22	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	9/28/22	-	TAB
Langelier Index	-5.42 units	SM 2330-B	units	10/4/22	-	SAN
pH	7.04 units	SM 4500-H-B	0.01 units	9/27/22	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	9/27/22	-	DEK
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO3	9/28/22	QC59949	TAB
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	10/3/22	QC59951	DEK

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ug/L = Micrograms Per Liter or PPB  
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Date Analyzed = Date Test Completed

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(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Analytical QC Summary**

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 9/27/22  
Project Name: Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
Total Alkalinity	QC59949	Blank	ND	SM 2320-B
Total Dissolved Solids	QC59951	Blank	ND	SM 2540-C
<hr/>				
Total Alkalinity	QC59949	Duplicate	0 - 20	-
		LCS	90 - 110	104.1
		LCS-2	90 - 110	104.3
				1.6
				SM 2320-B
Total Dissolved Solids	QC59951	Duplicate	0 - 20	-
		LCS	85 - 115	98.8
				3.0
				SM 2540-C

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**Commerce City Lab**  
10411 Heinz Way  
Commerce City CO 80640

**Lakewood Service Center**  
610 Garrison Street, Unit E  
Lakewood CO 80215

**Phone: 303-659-2313**

[www.coloradolab.com](http://www.coloradolab.com)

**Chain of Custody Form**

<b>Report To Information</b>		Bill To: Infotl1at1011 (if different from report to)		Project Name/ Number	
Company Name: <u>Is:(owJ ResovvT</u>		Company Name: <u>rfe6jt-Clacd</u>			
Contact Name: <u>pot vi'cl/C De..lotne.i</u>		Contact Name:			
Address: <u>125167 W.cedar Rd Ste.250</u>		Address:		Task Number (Lab Use Only)	
City: <u>Lakewood State CO zip 80228</u>		City State Zip		CAL Task 220927128	
Phone: <u>315-414-6986</u>		Phone:		JML )	
Email: <u>pdelaney@blackfoxmining.com</u>		Email:			
Sample Collector: <u>BM</u>		Sample Collector:			
Sample Collector Phone: <u>303--50b-1618</u>		Sample Collector Phone:			

**Tests Requested**

Date	Time	Sample Matrix (Select One OnM		Drinking Water D	No. of Containers	Grab or (Check One Only) Composite	Tests Requested
		Waste Water D	Soil Sludge0				
9/27/22	12:10	CROSS WELL			8	G	QBO22050014
9/27/22	14:00	CARIBOU WELL			8	G	
9/27/22	11:45	CROSS PORTAL			8	G	
9/27/22	13:15	CARIBOU PORTAL			8	G	
9/27/22	12:40	COMPLIANCE WELL			8	G	
9/27/22	12:40	COMPLIANCE-MS			8	G	
9/27/22	12:50	COMPLIANCE-DUPLICATE			8	G	
9/27/22	13:00	COMPLIANCE-FB			8	G	

Instructions: please v<;;e.. q,vote.. reJNSed q1 ; C/SInfo:

Seals Present Yes D No 0

Deliver Via: 1-D C/S/Char: le 0 Term: /: °C/lee 17

Sample Pres. Y<sup>mm</sup>-170No D

Date/Time: 16:47

7,21P

Relinquished By:

a g e 8

Date/Time:

o f 8

Received By: /

Date/Time:



Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 9/27/22 12:10 PM  
Lab Number: 220927128-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/4/22	QC59959	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	10/4/22	QC59959	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/4/22	QC59959	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/4/22	QC59959	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	10/4/22	QC59959	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	10/4/22	QC59959	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	10/4/22	QC59959	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	10/4/22	QC59959	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	10/4/22	QC59959	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Anthracene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 9/27/22 12:10 PM

Lab Number: 220927128-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	10/4/22	QC59959	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Chrysene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Fluorene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	10/4/22	QC59959	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	10/4/22	QC59959	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS

Abbreviations/ References:

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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
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Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Well  
Sample Date/Time: 9/27/22 12:10 PM  
Lab Number: 220927128-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	10/4/22	QC59959	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Phenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Pyrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	57.7	16 - 145
2-Fluorobiphenyl	84.7	60 - 140
2-Fluorophenol	66.9	60 - 140
Nitrobenzene-d5	81.4	15 - 314
Phenol-d5	74.9	8 - 424
p-Terphenyl-d14	136.0	44 - 135

Surrogate is above QC criteria; meets QC criteria in LCS and LCS Dup. Most likely sample matrix related. MBS 10/7/2022

Abbreviations/References:

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Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 9/27/22 2:00 PM  
Lab Number: 220927128-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/4/22	QC59959	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	10/4/22	QC59959	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/4/22	QC59959	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/4/22	QC59959	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	10/4/22	QC59959	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	10/4/22	QC59959	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	10/4/22	QC59959	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	10/4/22	QC59959	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	10/4/22	QC59959	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Anthracene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS

Abbreviations/ References:

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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
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Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 9/27/22 2:00 PM  
Lab Number: 220927128-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzdine	ND	EPA 625	150.0 ug/L	10/4/22	QC59959	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Chrysene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Fluorene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	10/4/22	QC59959	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	10/4/22	QC59959	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS

Abbreviations/ References:

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Caribou Well  
Sample Date/Time: 9/27/22 2:00 PM  
Lab Number: 220927128-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	10/4/22	QC59959	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Phenol	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS
Pyrene	ND	EPA 625	10.0 ug/L	10/4/22	QC59959	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	43.2	16 - 145
2-Fluorobiphenyl	90.0	60 - 140
2-Fluorophenol	71.8	60 - 140
Nitrobenzene-d5	85.8	15 - 314
Phenol-d5	77.3	8 - 424
p-Terphenyl-d14	143.8	44 - 135

Surrogate is above QC criteria; meets QC criteria in LCS and LCS Dup. Most likely sample matrix related. MBS 10/7/2022

Abbreviations/References:

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12567 W Cedar Dr  
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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 9/27/22 11:45 AM  
Lab Number: 220927128-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	10/5/22	QC59959	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	10/5/22	QC59959	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	10/5/22	QC59959	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

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Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 9/27/22 11:45 AM

Lab Number: 220927128-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Chrysene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluorene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	10/5/22	QC59959	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	10/5/22	QC59959	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

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12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Cross Portal  
Sample Date/Time: 9/27/22 11:45 AM  
Lab Number: 220927128-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	10/5/22	QC59959	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Phenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	52.4	16 - 145
2-Fluorobiphenyl	83.8	60 - 140
2-Fluorophenol	69.8	60 - 140
Nitrobenzene-d5	83.8	15 - 314
Phenol-d5	75.4	8 - 424
p-Terphenyl-d14	149.5	44 - 135

Surrogate is above QC criteria; meets QC criteria in LCS and LCS Dup. Most likely sample matrix related. MBS 10/7/2022

Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 9/27/22 1:15 PM  
Lab Number: 220927128-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	10/5/22	QC59959	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	10/5/22	QC59959	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	10/5/22	QC59959	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Abbreviations/ References:

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12567 W Cedar Dr  
Suite 250  
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Bill To: Accounts Payable  
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Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 9/27/22 1:15 PM  
Lab Number: 220927128-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Chrysene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluorene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	10/5/22	QC59959	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	10/5/22	QC59959	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Abbreviations/ References:

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Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Caribou Portal  
Sample Date/Time: 9/27/22 1:15 PM  
Lab Number: 220927128-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	10/5/22	QC59959	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Phenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	53.0	16 - 145
2-Fluorobiphenyl	85.7	60 - 140
2-Fluorophenol	70.8	60 - 140
Nitrobenzene-d5	83.0	15 - 314
Phenol-d5	77.8	8 - 424
p-Terphenyl-d14	161.2	44 - 135

Surrogate is above QC criteria; meets QC criteria in LCS and LCS Dup. Most likely sample matrix related. MBS 10/7/2022

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Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Compliance Well  
Sample Date/Time: 9/27/22 12:40 PM  
Lab Number: 220927128-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	10/5/22	QC59959	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	10/5/22	QC59959	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	10/5/22	QC59959	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

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Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Compliance Well  
Sample Date/Time: 9/27/22 12:40 PM

Lab Number: 220927128-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Chrysene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluorene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	10/5/22	QC59959	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	10/5/22	QC59959	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Abbreviations/References:

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
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Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well  
Sample Date/Time: 9/27/22 12:40 PM  
Lab Number: 220927128-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	10/5/22	QC59959	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Phenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	48.1	16 - 145
2-Fluorobiphenyl	92.2	60 - 140
2-Fluorophenol	67.1	60 - 140
Nitrobenzene-d5	86.9	15 - 314
Phenol-d5	73.7	8 - 424
p-Terphenyl-d14	150.0	44 - 135

Surrogate is above QC criteria; meets QC criteria in LCS and LCS Dup. Most likely sample matrix related. MBS 10/7/2022

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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Date Analyzed = Date Test Completed

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ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 220927128

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

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Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Compliance Well - FB  
Sample Date/Time: 9/27/22 1:00 PM  
Lab Number: 220927128-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	10/5/22	QC59959	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	10/5/22	QC59959	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	10/5/22	QC59959	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	10/5/22	QC59959	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	10/5/22	QC59959	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	10/5/22	QC59959	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Abbreviations/References:

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(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

Report To: Patrick Delaney  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Bill To: Accounts Payable  
Company: Grand Island Resources LLC  
12567 W Cedar Dr  
Suite 250  
Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

**Customer Sample ID** Compliance Well - FB  
Sample Date/Time: 9/27/22 1:00 PM  
Lab Number: 220927128-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benizidine	ND	EPA 625	150.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Chrysene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Fluorene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	10/5/22	QC59959	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	10/5/22	QC59959	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

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Lakewood CO 80228

Task No.: 220927128  
Client PO:  
Client Project: Monthly Groundwater

Date Received: 9/27/22  
Date Reported: 10/14/22  
Matrix: Water - Ground

Customer Sample ID Compliance Well - FB  
Sample Date/Time: 9/27/22 1:00 PM  
Lab Number: 220927128-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	10/5/22	QC59959	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Phenol	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS
Pyrene	ND	EPA 625	10.0 ug/L	10/5/22	QC59959	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	42.7	16 - 145
2-Fluorobiphenyl	89.4	60 - 140
2-Fluorophenol	66.3	60 - 140
Nitrobenzene-d5	82.9	15 - 314
Phenol-d5	72.8	8 - 424
p-Terphenyl-d14	167.6	44 - 135

Surrogate is above QC criteria; meets QC criteria in LCS and LCS Dup. Most likely sample matrix related. MBS 10/7/2022

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Report To: Patrick Delaney  
Company: Grand Island Resources LLC

Receive Date: 9/27/22  
Project Name: Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
1,2,4-Trichlorobenzene	QC59959	Method Blank	ND	EPA 625
1,2-Dichlorobenzene	QC59959	Method Blank	ND	EPA 625
1,2-diphenylhydrazine (as Azobenzene)	QC59959	Method Blank	ND	EPA 625
1,3-Dichlorobenzene	QC59959	Method Blank	ND	EPA 625
1,4-Dichlorobenzene	QC59959	Method Blank	ND	EPA 625
2,4,6-Trichlorophenol	QC59959	Method Blank	ND	EPA 625
2,4-Dichlorophenol	QC59959	Method Blank	ND	EPA 625
2,4-Dimethylphenol	QC59959	Method Blank	ND	EPA 625
2,4-Dinitrophenol	QC59959	Method Blank	ND	EPA 625
2,4-Dinitrotoluene	QC59959	Method Blank	ND	EPA 625
2,6-Dinitrotoluene	QC59959	Method Blank	ND	EPA 625
2-Chloronaphthalene	QC59959	Method Blank	ND	EPA 625
2-Chlorophenol	QC59959	Method Blank	ND	EPA 625
2-Nitrophenol	QC59959	Method Blank	ND	EPA 625
3,3'-Dichlorobenzidine	QC59959	Method Blank	ND	EPA 625
4,6-Dinitro-2-methylphenol	QC59959	Method Blank	ND	EPA 625
4-Bromophenyl phenyl ether	QC59959	Method Blank	ND	EPA 625
4-Chloro-3-methylphenol	QC59959	Method Blank	ND	EPA 625
4-Chlorophenyl phenyl ether	QC59959	Method Blank	ND	EPA 625
4-Nitrophenol	QC59959	Method Blank	ND	EPA 625
Acenaphthene	QC59959	Method Blank	ND	EPA 625
Acenaphthylene	QC59959	Method Blank	ND	EPA 625
Anthracene	QC59959	Method Blank	ND	EPA 625
Benzidine	QC59959	Method Blank	ND	EPA 625
Benzo(a)anthracene	QC59959	Method Blank	ND	EPA 625
Benzo(a)pyrene	QC59959	Method Blank	ND	EPA 625
Benzo(b)fluoranthene	QC59959	Method Blank	ND	EPA 625
Benzo(g,h,i)perylene	QC59959	Method Blank	ND	EPA 625
Benzo(k)fluoranthene	QC59959	Method Blank	ND	EPA 625
Bis(2-chloroethoxy) methane	QC59959	Method Blank	ND	EPA 625
Bis(2-chloroethyl) ether	QC59959	Method Blank	ND	EPA 625
Bis(2-chloroisopropyl) ether	QC59959	Method Blank	ND	EPA 625
Bis(2-ethylhexyl) phthalate	QC59959	Method Blank	ND	EPA 625
Butylbenzylphthalate	QC59959	Method Blank	ND	EPA 625
Chrysene	QC59959	Method Blank	ND	EPA 625
Dibenzo(a,h)anthracene	QC59959	Method Blank	ND	EPA 625
Diethyl phthalate	QC59959	Method Blank	ND	EPA 625
Dimethyl phthalate	QC59959	Method Blank	ND	EPA 625
Di-n-butyl phthalate	QC59959	Method Blank	ND	EPA 625
Di-n-octyl phthalate	QC59959	Method Blank	ND	EPA 625
Fluoranthene	QC59959	Method Blank	ND	EPA 625

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Fluorene	QC59959	Method Blank	ND	EPA 625
Hexachlorobenzene	QC59959	Method Blank	ND	EPA 625
Hexachlorobutadiene	QC59959	Method Blank	ND	EPA 625
Hexachlorocyclopentadiene	QC59959	Method Blank	ND	EPA 625
Hexachloroethane	QC59959	Method Blank	ND	EPA 625
Indeno(1,2,3-cd)pyrene	QC59959	Method Blank	ND	EPA 625
Isophorone	QC59959	Method Blank	ND	EPA 625
Naphthalene	QC59959	Method Blank	ND	EPA 625
Nitrobenzene	QC59959	Method Blank	ND	EPA 625
n-Nitrosodimethylamine	QC59959	Method Blank	ND	EPA 625
n-Nitroso-di-n-propylamine	QC59959	Method Blank	ND	EPA 625
n-Nitrosodiphenylamine (as Diphenyla	QC59959	Method Blank	ND	EPA 625
Pentachlorophenol	QC59959	Method Blank	ND	EPA 625
Phenanthrene	QC59959	Method Blank	ND	EPA 625
Phenol	QC59959	Method Blank	ND	EPA 625
Pyrene	QC59959	Method Blank	ND	EPA 625

1,2,4-Trichlorobenzene	QC59959	LCS	61 - 130	75.5	-	EPA 625
		LCS Dup	-	81.8	-	
		MS	44 - 142	80.5	-	
		MSD	0 - 50	-	5.0	
1,2-Dichlorobenzene	QC59959	LCS	65 - 135	80.5	-	EPA 625
		LCS Dup	-	84.8	-	
		MS	18 - 190	85.4	-	
		MSD	0 - 57	-	7.6	
1,2-diphenylhydrazine (as Azobenzene)	QC59959	LCS	67 - 114	89.6	-	EPA 625
		LCS Dup	-	92.1	-	
		MS	60 - 121	90.8	-	
		MSD	0 - 21	-	4.3	
1,3-Dichlorobenzene	QC59959	LCS	70 - 130	73.4	-	EPA 625
		LCS Dup	-	80.4	-	
		MS	59 - 156	79.9	-	
		MSD	0 - 43	-	5.8	
1,4-Dichlorobenzene	QC59959	LCS	56 - 135	75.4	-	EPA 625
		LCS Dup	-	82.3	-	
		MS	18 - 190	81.5	-	
		MSD	0 - 57	-	6.4	
2,4,6-Trichlorophenol	QC59959	LCS	69 - 130	83.5	-	EPA 625
		LCS Dup	-	79.8	-	
		MS	37 - 144	88.8	-	
		MSD	0 - 58	-	1.5	
2,4-Dichlorophenol	QC59959	LCS	64 - 130	76.7	-	EPA 625
		LCS Dup	-	79.9	-	
		MS	39 - 135	82.2	-	
		MSD	0 - 50	-	2.0	
2,4-Dimethylphenol	QC59959	LCS	58 - 130	89.1	-	EPA 625
		LCS Dup	-	91.1	-	
		MS	32 - 120	90.8	-	
		MSD	0 - 58	-	9.0	
2,4-Dinitrophenol	QC59959	LCS	39 - 173	47.9	-	EPA 625
		LCS Dup	-	55.6	-	

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Chemical Name	QC#	Method	Range	Value	RPD	Reference
		MS	1 - 191	71.7	-	
		MSD	0 - 132	-	3.7	
2,4-Dinitrotoluene	QC59959	LCS	53 - 130	96.3	-	EPA 625
		LCS Dup	-	97.3	-	
		MS	39 - 139	99.0	-	
		MSD	0 - 42	-	2.4	
2,6-Dinitrotoluene	QC59959	LCS	68 - 137	94.2	-	EPA 625
		LCS Dup	-	92.8	-	
		MS	50 - 158	94.6	-	
		MSD	0 - 48	-	0.2	
2-Chloronaphthalene	QC59959	LCS	70 - 130	84.4	-	EPA 625
		LCS Dup	-	88.9	-	
		MS	60 - 120	88.7	-	
		MSD	0 - 24	-	6.4	
2-Chlorophenol	QC59959	LCS	55 - 130	73.8	-	EPA 625
		LCS Dup	-	78.6	-	
		MS	23 - 134	81.0	-	
		MSD	0 - 61	-	3.8	
2-Nitrophenol	QC59959	LCS	61 - 163	80.6	-	EPA 625
		LCS Dup	-	86.2	-	
		MS	29 - 182	88.2	-	
		MSD	0 - 55	-	3.2	
3,3'-Dichlorobenzidine	QC59959	LCS	18 - 213	76.5	-	EPA 625
		LCS Dup	-	72.5	-	
		MS	1 - 262	73.2	-	
		MSD	0 - 108	-	2.7	
4,6-Dinitro-2-methylphenol	QC59959	LCS	56 - 130	78.1	-	EPA 625
		LCS Dup	-	81.3	-	
		MS	1 - 181	88.2	-	
		MSD	0 - 203	-	5.9	
4-Bromophenyl phenyl ether	QC59959	LCS	70 - 130	84.9	-	EPA 625
		LCS Dup	-	86.6	-	
		MS	53 - 127	85.9	-	
		MSD	0 - 43	-	3.2	
4-Chloro-3-methylphenol	QC59959	LCS	68 - 130	97.1	-	EPA 625
		LCS Dup	-	94.4	-	
		MS	22 - 147	100.1	-	
		MSD	0 - 73	-	2.4	
4-Chlorophenyl phenyl ether	QC59959	LCS	57 - 145	88.9	-	EPA 625
		LCS Dup	-	91.1	-	
		MS	25 - 158	91.1	-	
		MSD	0 - 61	-	6.9	
4-Nitrophenol	QC59959	LCS	35 - 130	92.1	-	EPA 625
		LCS Dup	-	68.5	-	
		MS	1 - 132	79.3	-	
		MSD	0 - 131	-	5.1	
Acenaphthene	QC59959	LCS	70 - 130	87.8	-	EPA 625
		LCS Dup	-	92.2	-	
		MS	47 - 145	92.3	-	
		MSD	0 - 48	-	7.5	

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Acenaphthylene	QC59959	LCS	60 - 130	80.7	-	EPA 625
		LCS Dup	-	85.5	-	
		MS	33 - 145	84.2	-	
		MSD	0 - 74	-	7.6	
Anthracene	QC59959	LCS	58 - 130	92.7	-	EPA 625
		LCS Dup	-	95.1	-	
		MS	27 - 133	93.8	-	
		MSD	0 - 81	-	2.7	
Benzidine	QC59959	LCS	1 - 231	23.2	-	EPA 625
		LCS Dup	-	14.4	-	
		MS	1 - 318	19.1	-	
		MSD	0 - 218	-	26.2	
Benzo(a)anthracene	QC59959	LCS	42 - 133	99.2	-	EPA 625
		LCS Dup	-	97.0	-	
		MS	33 - 143	96.8	-	
		MSD	0 - 53	-	1.3	
Benzo(a)pyrene	QC59959	LCS	32 - 148	108.0	-	EPA 625
		LCS Dup	-	109.3	-	
		MS	17 - 163	107.8	-	
		MSD	0 - 72	-	0.5	
Benzo(b)fluoranthene	QC59959	LCS	42 - 140	104.7	-	EPA 625
		LCS Dup	-	103.6	-	
		MS	24 - 159	74.5	-	
		MSD	0 - 71	-	32.1	
Benzo(g,h,i)perylene	QC59959	LCS	13 - 195	103.3	-	EPA 625
		LCS Dup	-	90.4	-	
		MS	1 - 219	104.7	-	
		MSD	0 - 97	-	1.1	
Benzo(k)fluoranthene	QC59959	LCS	25 - 146	99.2	-	EPA 625
		LCS Dup	-	100.0	-	
		MS	11 - 162	99.5	-	
		MSD	0 - 63	-	0.4	
Bis(2-chloroethoxy) methane	QC59959	LCS	52 - 164	81.6	-	EPA 625
		LCS Dup	-	85.8	-	
		MS	33 - 184	86.3	-	
		MSD	0 - 54	-	7.0	
Bis(2-chloroethyl) ether	QC59959	LCS	52 - 130	77.2	-	EPA 625
		LCS Dup	-	83.1	-	
		MS	12 - 158	81.7	-	
		MSD	0 - 108	-	4.9	
Bis(2-chloroisopropyl) ether	QC59959	LCS	63 - 139	74.5	-	EPA 625
		LCS Dup	-	80.7	-	
		MS	36 - 166	80.7	-	
		MSD	0 - 76	-	9.3	
Bis(2-ethylhexyl) phthalate	QC59959	LCS	43 - 137	79.8	-	EPA 625
		LCS Dup	-	75.8	-	
		MS	8 - 158	79.8	-	
		MSD	0 - 82	-	0.1	
Butylbenzylphthalate	QC59959	LCS	43 - 140	84.1	-	EPA 625
		LCS Dup	-	79.2	-	
		MS	1 - 152	90.6	-	

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		MSD	0 - 60	-	0.3	
Chrysene	QC59959	LCS	44 - 140	105.2	-	EPA 625
		LCS Dup	-	105.5	-	
		MS	17 - 168	103.6	-	
		MSD	0 - 87	-	2.5	
Dibenzo(a,h)anthracene	QC59959	LCS	13 - 200	107.7	-	EPA 625
		LCS Dup	-	91.8	-	
		MS	1 - 227	106.5	-	
		MSD	0 - 126	-	1.1	
Diethyl phthalate	QC59959	LCS	47 - 130	89.8	-	EPA 625
		LCS Dup	-	91.2	-	
		MS	1 - 120	89.3	-	
		MSD	0 - 100	-	0.5	
Dimethyl phthalate	QC59959	LCS	50 - 130	87.4	-	EPA 625
		LCS Dup	-	88.4	-	
		MS	1 - 120	87.2	-	
		MSD	0 - 183	-	1.0	
Di-n-butyl phthalate	QC59959	LCS	52 - 130	84.8	-	EPA 625
		LCS Dup	-	81.8	-	
		MS	1 - 120	84.4	-	
		MSD	0 - 47	-	2.6	
Di-n-octyl phthalate	QC59959	LCS	21 - 132	88.1	-	EPA 625
		LCS Dup	-	77.5	-	
		MS	4 - 146	88.5	-	
		MSD	0 - 69	-	1.5	
Fluoranthene	QC59959	LCS	47 - 130	95.1	-	EPA 625
		LCS Dup	-	95.3	-	
		MS	26 - 137	94.9	-	
		MSD	0 - 66	-	0.9	
Fluorene	QC59959	LCS	70 - 130	91.8	-	EPA 625
		LCS Dup	-	94.0	-	
		MS	59 - 121	93.5	-	
		MSD	0 - 38	-	4.6	
Hexachlorobenzene	QC59959	LCS	38 - 142	84.4	-	EPA 625
		LCS Dup	-	88.5	-	
		MS	1 - 152	85.8	-	
		MSD	0 - 55	-	2.6	
Hexachlorobutadiene	QC59959	LCS	68 - 130	71.9	-	EPA 625
		LCS Dup	-	79.2	-	
		MS	24 - 120	82.6	-	
		MSD	0 - 62	-	11.9	
Hexachlorocyclopentadiene	QC59959	LCS	8 - 106	63.1	-	EPA 625
		LCS Dup	-	62.7	-	
		MS	1 - 111	65.1	-	
		MSD	0 - 41	-	5.7	
Hexachloroethane	QC59959	LCS	55 - 130	80.5	-	EPA 625
		LCS Dup	-	87.2	-	
		MS	40 - 120	89.3	-	
		MSD	0 - 52	-	10.1	
Indeno(1,2,3-cd)pyrene	QC59959	LCS	13 - 151	100.7	-	EPA 625

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Chemical	QC#	Method	Range	Mean	SD	Reference
		LCS Dup	-	90.6	-	
		MS	1 - 171	101.3	-	
		MSD	0 - 99	-	0.8	
Isophorone	QC59959	LCS	52 - 180	85.7	-	EPA 625
		LCS Dup	-	91.1	-	
		MS	21 - 196	90.2	-	
		MSD	0 - 93	-	7.7	
Naphthalene	QC59959	LCS	70 - 130	84.1	-	EPA 625
		LCS Dup	-	90.1	-	
		MS	21 - 133	89.5	-	
		MSD	0 - 65	-	7.8	
Nitrobenzene	QC59959	LCS	54 - 158	81.7	-	EPA 625
		LCS Dup	-	87.6	-	
		MS	35 - 180	87.9	-	
		MSD	0 - 62	-	9.4	
n-Nitrosodimethylamine	QC59959	LCS	57 - 141	66.0	-	EPA 625
		LCS Dup	-	71.2	-	
		MS	30 - 168	72.0	-	
		MSD	0 - 68	-	3.1	
n-Nitroso-di-n-propylamine	QC59959	LCS	59 - 170	87.9	-	EPA 625
		LCS Dup	-	92.3	-	
		MS	1 - 230	87.6	-	
		MSD	0 - 87	-	4.3	
n-Nitrosodiphenylamine (as Diphenylamine)	QC59959	LCS	70 - 130	113.4	-	EPA 625
		LCS Dup	-	117.1	-	
		MS	65 - 135	115.3	-	
		MSD	0 - 20	-	2.3	
Pentachlorophenol	QC59959	LCS	42 - 152	70.9	-	EPA 625
		LCS Dup	-	77.5	-	
		MS	14 - 176	81.5	-	
		MSD	0 - 86	-	5.1	
Phenanthrene	QC59959	LCS	67 - 130	95.8	-	EPA 625
		LCS Dup	-	99.0	-	
		MS	54 - 120	96.5	-	
		MSD	0 - 39	-	2.4	
Phenol	QC59959	LCS	48 - 130	75.6	-	EPA 625
		LCS Dup	-	81.5	-	
		MS	5 - 120	80.1	-	
		MSD	0 - 64	-	2.8	
Pyrene	QC59959	LCS	70 - 130	95.3	-	EPA 625
		LCS Dup	-	96.2	-	
		MS	52 - 120	99.6	-	
		MSD	0 - 49	-	1.8	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.

**Abbreviations/References:**

RL = Reporting Limit = Minimum Level  
 mg/L = Milligrams Per Liter or PPM  
 ug/L = Micrograms Per Liter or PPB  
 mprn/100 mls = Most Probable Number Index/ 100 mls  
 Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) Spike amount low relative to the sample amount.  
 ND = Not Detected at Reporting Limit.



DATA APPROVED FOR RELEASE BY

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Abbreviations/References:

RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) Spike amount low relative to the sample amount.  
ND = Not Detected at Reporting Limit.

**10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313**

**Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507**

**Commerce City Lab**  
10411 Heinz Way  
Commerce City CO 80640

**Lakewood Service Center**  
610 Garrison Street, Unit E  
Lakewood CO 80215

**Phone: 303-659-2313**

[www.coloradolab.com](http://www.coloradolab.com)

**Chain of Custody Form**

<b>Report To Information</b>		Bill To: Infotl1at1011 (if different from report to)		Project Name/ Number	
Company Name: <u>Is:(owJ ResovvI</u>		Company Name: <u>rfe6jt-Clacd</u>			
Contact Name: <u>pot vi'cl/C De..lotne.i</u>		Contact Name:			
Address: <u>125167 W.cedar Rd Ste.250</u>		Address:		Task Number (Lab Use Only)	
City: <u>Lakewood State CO zip 80228</u>		City: State Zip		CAL Task 220927128	
Phone: <u>315-414-6986</u>		Phone:		JML )	
Email: <u>pdelaney@blackfoxmining.com</u>		Email:			
Sample Collector: <u>BM</u>		Sample Collector:			
Sample Collector Phone: <u>303--50b-1618</u>		Sample Collector Phone:		PO No.:	

Tests Requested

Date	Time	Sample Matrix (Select One OnM		Drinking Water D	No. of Containers	Grab or (Check One Only) Composite	Tests Requested
		Waste Water D	Soil Sludge0				
9/27/22	12:10				8		
9/27/22	14:00				8		
9/27/22	11:45				8		
9/27/22	13:15				8		
9/27/22	12:40				8		
9/27/22	12:40				8		
9/27/22	13:00				8		

Instructions: please v<;e.. q,vote.. reJlSed q1 ; C/SInfo:

<b>Requisition/Collys:</b> have 	<b>Date/Time:</b> en 9/27/22 4:42 pm	<b>Received by:</b> <u>WA</u>	<b>Relinquished By:</b>	<b>Date/Time:</b>
<b>Deliver Via:</b> <u>1-D</u>		<b>C/S/Char/le:</b> 0	<b>Seals Present:</b> Yes D No 0	<b>Temp. /:</b> °C/°F <u>77</u>
<b>Sample Pres. Y'''-170No D</b>		<b>Received By:</b> / <b>Date/Time:</b>		

16:47

$O_{j,i7,z} I_p$  a g e 2 6 o f 2 6



**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 436745****10/3/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Cross Well**Date/Time Received:** 9/28/2022 10:45**Collected by:** B. Moran

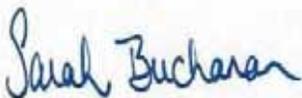
The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (\*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)**"NA"** Not Analyzed**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.**"DF"** This column indicates the contaminant dilution factor.**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	9/27/2022 14:10		9/28/2022 12:25
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	9/27/2022 14:10		9/28/2022 14:45
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	1	9/27/2022 14:10		9/28/2022 12:00

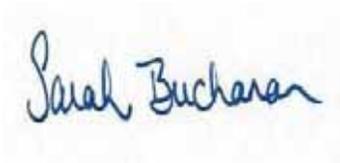


Sarah Buchanan, Project Manager

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP10/3/2022	2120B,5540C,2150B



---

Sarah Buchanan, Project Manager

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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 436747****10/3/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Caribou Well**Date/Time Received:** 9/28/2022 10:45**Collected by:** B. Moran

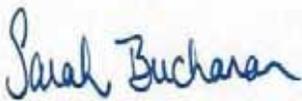
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**Legend:**

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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	9/27/2022 16:00		9/28/2022 12:25
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	9/27/2022 16:00		9/28/2022 14:45
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	1	9/27/2022 16:00		9/28/2022 12:00



Sarah Buchanan, Project Manager

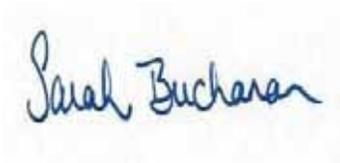
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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP10/3/2022	2120B,5540C,2150B



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Sarah Buchanan, Project Manager

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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 436747****10/3/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Cross Portal**Date/Time Received:** 9/28/2022 10:45**Collected by:** B. Moran

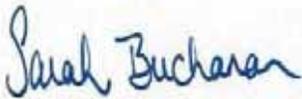
The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	9/27/2022 13:45		9/28/2022 12:25
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	9/27/2022 13:45		9/28/2022 14:45
										MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole
1920	Odor Threshold	2150B	3	ton	1	ND	1	9/27/2022 13:45		9/28/2022 12:00



Sarah Buchanan, Project Manager

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**ANALYTICAL REPORTS**

SAI	Analyst	Tests
	SP10/3/2022	2120B,5540C,2150B



---

Sarah Buchanan, Project Manager

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**National Testing Laboratories, Ltd**556 South Mansfield, Ypsilanti, MI, 48197-5166  
(440) 449-2525, Fax: (440) 449-8585**ANALYTICAL REPORTS****SAMPLE CODE: 436749****10/3/2022****Customer:** Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood, CO 80228**Source:** Caribou Portal**Date/Time Received:** 9/28/2022 10:45**Collected by:** B. Moran

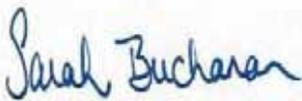
The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

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Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	9/27/2022 15:15		9/28/2022 12:25
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	9/27/2022 15:15		9/28/2022 14:45
				MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole						
1920	Odor Threshold	2150B	3	ton	1	ND	1	9/27/2022 15:15		9/28/2022 12:00



Sarah Buchanan, Project Manager

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**ANALYTICAL REPORTS**

SAM Analyst	Tests
SP10/3/2022	2120B,5540C,2150B



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Sarah Buchanan, Project Manager

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**National Testing Laboratories, Ltd**

556 South Mansfield, Ypsilanti, MI, 48197-5166  
 (440) 449-2525, Fax: (440) 449-8585

**ANALYTICAL REPORTS**

**SAMPLE CODE: 436749**

**10/6/2022**

**Customer:** Grand Island Resources  
 Brooke Moran  
 12567 West Cedar Rd  
 Lakewood, CO 80228

**Source:** Compliance Well

**Date/Time Received:** 9/28/2022 10:45

**Collected by:** B. Moran

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

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**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
<b>Physical Factors</b>										
1905	Apparent Color	2120B	15	CU	3	ND	1	9/27/2022 14:40		9/28/2022 12:25
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	9/27/2022 14:40		9/28/2022 14:45
			MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole							
1920	Odor Threshold	2150B	3	ton	1	ND	1	9/27/2022 14:40		9/28/2022 12:00



Sarah Buchanan, Project Manager

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Lab Control ID: 22M02868

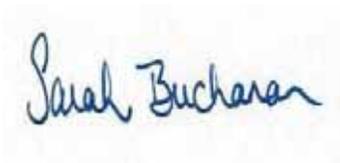
Received: Sep 28, 2022

Reported: Oct 12, 2022

Purchase Order No.

None Received

Analyst	Tests
SP	2120B,5540C,2150B



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Sarah Buchanan, Project Manager

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Laboratory



**Hazen Research, Inc.**  
4601 Indiana Street  
Golden, CO 80403 USA  
Tel: (303) 279-4501  
Fax: (303) 278-1528

**atories, Ltd**  
MI, 48197-5166  
) 449-8585

Customer ID: 20040H  
Account ID: Z01034  
6749

Stuart Nielson  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City, CO 80640

# ANALYTICAL REPORT

*Report may only be copied in its entirety.  
Results reported herein relate only to discrete samples  
submitted by the client. Hazen Research, Inc. does not warrant  
that the results are representative of anything other than the  
samples that were received in the laboratory*

By: A handwritten signature in black ink that reads "Roxanne Sullivan". The signature is written in a cursive style and is positioned above a horizontal line.

Roxanne Sullivan  
Analytical Laboratories Director

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02868-001					
<b>Customer Sample ID</b>			220927128-01H - Cross Well sampled on 09/27/22 @ 1210					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	1.4	1.3	0.1	SM 7110 B	10/9/22 @ 1343	AS
Gross Beta	pCi/L	T	<2.8	2.2	2.8	SM 7110 B	10/9/22 @ 1343	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02868-002					
<b>Customer Sample ID</b>			220927128-02H - Caribou Well sampled on 09/27/22 @ 1400					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.2	0.9	0.1	SM 7110 B	10/9/22 @ 1345	AS
Gross Beta	pCi/L	T	3.0	2.2	2.9	SM 7110 B	10/9/22 @ 1345	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02868-003					
<b>Customer Sample ID</b>			220927128-03H - Cross Portal sampled on 09/27/22 @ 1145					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	2.5	1.5	0.1	SM 7110 B	10/9/22 @ 1346	AS
Gross Beta	pCi/L	T	<3.0	2.2	3.0	SM 7110 B	10/9/22 @ 1346	AS

Certification ID's: CO/EPA CO00008

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Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than



**Hazen Research, Inc.**  
 4601 Indiana Street  
 Golden, CO 80403 USA  
 Tel: (303) 279-4501  
 Fax: (303) 278-1528

Lab Control ID: 22M02868  
 Received: Sep 28, 2022  
 Reported: Oct 12, 2022  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02868-004					
<b>Customer Sample ID</b>			220927128-04H - Caribou Portal sampled on 09/27/22 @ 1315					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	6.7	2.4	0.1	SM 7110 B	10/9/22 @ 1347	AS
Gross Beta	pCi/L	T	5.1	2.5	3.1	SM 7110 B	10/9/22 @ 1347	AS

Certification ID's: CO/EPA CO00008

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Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02868-005					
<b>Customer Sample ID</b>			220927128-05H - Compliance Well sampled on 09/27/22 @ 1240					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.9	1.0	0.1	SM 7110 B	10/9/22 @ 1348	AS
Gross Beta	pCi/L	T	<2.9	2.3	2.9	SM 7110 B	10/9/22 @ 1348	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

Customer ID: 20040H  
 Account ID: Z01034  
**ANALYTICAL REPORT**

Stuart Nielson  
 Colorado Analytical Laboratories, Inc.

<b>Lab Sample ID</b>			22M02868-006					
<b>Customer Sample ID</b>			220927128-06H - Compliance Well - FB sampled on 09/27/22 @ 1300					
<b>Parameter</b>	<b>Units</b>	<b>Code</b>	<b>Result</b>	<b>Precision* +/-</b>	<b>Detection Limit</b>	<b>Method</b>	<b>Analysis Date / Time</b>	<b>Analyst</b>
Gross Alpha	pCi/L	T	0.8	0.9	0.1	SM 7110 B	10/9/22 @ 1349	AS
Gross Beta	pCi/L	T	<2.8	2.1	2.8	SM 7110 B	10/9/22 @ 1349	AS

Certification ID's: CO/EPA CO00008

\*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Total Residual (AR) = As Received < = Less Than

**Batch QC Summary Form**

Analyte: Gross Alpha

Control Standard/LFB: ID: C-11a\_001 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11a\_001 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

Calculation:  $\frac{(44.4) (1.000)}{57.4} - \frac{(1.6) (0.200)}{57.4} \times 100 = 77\%$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 30 %	x		
Spike Recovery	70 - 130 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

    x Batch QC Passes\*\*  
       Batch QC Fails  
       Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>22M02841</u>	<u>22M02871</u>
<u>22M02842</u>	<u>22M02873</u>
<u>22M02846</u>	<u>22M02874</u>
<u>22M02860</u>	_____
<u>22M02864</u>	_____
<u>22M02865</u>	_____
<u>22M02867</u>	_____
<u>22M02880</u>	_____
<u>22M02921</u>	_____
<u>22M02868</u>	_____

Evaluator:

 \_\_\_\_\_

10/11/2022

Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C-11a\_001 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11a\_001 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(39.9) (1.000)}{44} - \frac{(1.9) (0.200)}{44} \times 100 = 90\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap	x		

\* Required for batch size greater than 10 samples.

Conclusions:

  x   Batch QC Passes\*\*  
       Batch QC Fails  
       Batch QC Passes, with exceptions\*\*:

Reruns Required: \_\_\_\_\_

Narrative:

\*\*All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

<u>22M02841</u>	<u>22M02871</u>
<u>22M02842</u>	<u>22M02873</u>
<u>22M02846</u>	<u>22M02874</u>
<u>22M02860</u>	_____
<u>22M02864</u>	_____
<u>22M02865</u>	_____
<u>22M02867</u>	_____
<u>22M02880</u>	_____
<u>22M02921</u>	_____
<u>22M02868</u>	_____

Evaluator:

*Rosanne Sullivan* \_\_\_\_\_

10/11/2022

Date

21.-JVIO 2808

Ship To: Hazewesear.ch  
Preserved: Y, N \\  
HN03 Lot#: " 1/A  
Date Preserved: 01/1k



<b>Report To Information</b> Company Name: Colorado Analytical Laboratory Report To: Stuart Nielson E-Mail: stuartnielson@coloradolab.com		<b>Project Name</b> -	
<b>Address:</b> 10411 Heinz Wa Commerce City, CO 80640 Phone: 303-659-2313		<b>Bill To Information (if different from report to)</b>  <b>Address:</b> CAL TASK 220927128 JML	
		Compliance Samples: Yes <input type="checkbox"/> No Submit Data to CDPHE: Yes <input type="checkbox"/> No	

**Tests Requested**

0  
or  
<f  
>

Sample Date/Time	Sample ID	Matrix	Container Type
9/27/22 12:10PM	220927128-01H - Cross Well	Water - Ground	1L - Unpreserved
9/27/22 2:00PM	220927128-02H - Caribou Well	Water - Ground	1L - Unpreserved
9/27/22 11:45AM	220927128-03H - Cross Portal	Water - Ground	1L - Unpreserved
9/27/22 11:55PM	220927128-04H - Caribou Portal	Water - Ground	1L - Unpreserved
9/27/22 1240 PM	220927128-05H - Compliance Well	Water - Ground	1L - Unpreserved
9/27/22 1:00 PM	220927128-06H - Compliance Well - FB	Water - Ground	1L - Unpreserved

**Comment:**

Signature: [Signature]  
Date: Time: [Date] [Time]

Relinquished by: [Signature]  
Date: Time: 9/28/22 1:00 PM

Relinquished by: [Signature]  
Date: Time: [Date] [Time]

Received by: [Signature]  
Date: Time: [Date] [Time]

HAZEN HENNINGSON

*F, :a Ei. to4? 6/2+ + '1-3!*





# ANALYTICAL SUMMARY REPORT

October 13, 2022

Colorado Analytical Laboratories Inc  
PO Box 507  
Brighton, CO 80601-0507

Work Order: C22091173

Project Name: 220927128

Energy Laboratories, Inc. Casper WY received the following 6 samples for Colorado Analytical Laboratories Inc on 9/29/2022 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C22091173-001	220927128-01F - Cross Well	09/27/22 12:10	09/29/22	Groundwater	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Total Metals pH check by the Laboratory FIRST Metals Preparation by EPA 200.2 Sample Filtering, Metals
C22091173-002	220927128-02F - Caribou Well	09/27/22 14:00	09/29/22	Groundwater	Same As Above
C22091173-003	220927128-03F - Cross Portal	09/27/22 11:45	09/29/22	Groundwater	Same As Above
C22091173-004	220927128-04F - Caribou Portal	09/27/22 13:15	09/29/22	Groundwater	Same As Above
C22091173-005	220927128-05F - Compliance Well	09/27/22 12:40	09/29/22	Groundwater	Same As Above
C22091173-006	220927128-06F - Compliance Well - FB	09/27/22 13:00	09/29/22	Groundwater	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:



CLIENT: Colorado Analytical Laboratories Inc

Project: 220927128

Report Date: 10/13/22

Work Order: C22091173

## CASE NARRATIVE

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Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220927128  
Lab ID: C22091173-001  
Client Sample ID: 220927128-01F - Cross Well

Report Date: 10/13/22  
Collection Date: 09/27/22 12:10  
DateReceived: 09/29/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.05		E200.7	10/07/22 03:48 / eli-b
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	10/06/22 19:32 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit  
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220927128  
Lab ID: C22091173-002  
Client Sample ID: 220927128-02F - Caribou Well

Report Date: 10/13/22  
Collection Date: 09/27/22 14:00  
Date Received: 09/29/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.05		E200.7	10/07/22 03:52 / eli-b
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	10/06/22 19:36 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit  
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220927128  
Lab ID: C22091173-003  
Client Sample ID: 220927128-03F - Cross Portal

Report Date: 10/13/22  
Collection Date: 09/27/22 11:45  
DateReceived: 09/29/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.05	E200.7		10/07/22 03:56 / eli-b
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1	E200.7		10/06/22 19:41 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit  
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220927128  
Lab ID: C22091173-004  
Client Sample ID: 220927128-04F - Caribou Portal

Report Date: 10/13/22  
Collection Date: 09/27/22 13:15  
Date Received: 09/29/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.05		E200.7	10/07/22 04:01 / eli-b
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	10/06/22 19:45 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit  
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220927128  
Lab ID: C22091173-005  
Client Sample ID: 220927128-05F - Compliance Well

Report Date: 10/13/22  
Collection Date: 09/27/22 12:40  
DateReceived: 09/29/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.05	E200.7		10/07/22 04:05 / eli-b
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1	E200.7		10/06/22 19:49 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit  
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc  
Project: 220927128  
Lab ID: C22091173-006  
Client Sample ID: 220927128-06F - Compliance Well - FB

Report Date: 10/13/22  
Collection Date: 09/27/22 13:00  
DateReceived: 09/29/22  
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.05		E200.7	10/07/22 04:09 / eli-b
<b>METALS, TOTAL</b>							
Lithium	ND	mg/L		0.1		E200.7	10/06/22 19:53 / eli-b

Report Definitions: RL - Analyte Reporting Limit  
QCL - Quality Control Limit  
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level  
ND - Not detected at the Reporting Limit (RL)



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C22091173

Report Date: 10/10/22

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
Method: E200.7										Analytical Run: ICP203-B_221006A	
Lab ID: ICV		Continuing Calibration Verification Standard								10/06/22 11:45	
Lithium		1.26	mg/L	0.10	101	95	105				
Lab ID: CCV		Continuing Calibration Verification Standard								10/07/22 03:24	
Lithium		1.26	mg/L	0.10	101	90	110				
Method: E200.7										Batch: R389179	
Lab ID: MB-6500DIS221006A		Method Blank								Run: ICP203-B_221006A	10/06/22 12:09
Lithium		ND	mg/L	0.01							
Lab ID: LFB-6500DIS221006A		Laboratory Fortified Blank								Run: ICP203-B_221006A	10/06/22 12:13
Lithium		1.05	mg/L	0.10	105	85	115				
Lab ID: B22092156-041BMS2		Sample Matrix Spike								Run: ICP203-B_221006A	10/06/22 13:59
Lithium		2.20	mg/L	0.10	108	70	130				
Lab ID: B22092156-041BMSD		Sample Matrix Spike Duplicate								Run: ICP203-B_221006A	10/06/22 14:03
Lithium		2.21	mg/L	0.10	108	70	130	0.6	20		
Method: E200.7										Analytical Run: ICP204-B_221006A	
Lab ID: ICV		Continuing Calibration Verification Standard								10/06/22 11:19	
Lithium		1.27	mg/L	0.10	102	95	105				
Lab ID: CCV		Continuing Calibration Verification Standard								10/06/22 19:11	
Lithium		1.32	mg/L	0.10	105	90	110				
Method: E200.7										Batch: 171217	
Lab ID: MB-171217		Method Blank								Run: ICP204-B_221006A	10/06/22 18:18
Lithium		ND	mg/L	0.006							
Lab ID: LCS3-171217		Laboratory Control Sample								Run: ICP204-B_221006A	10/06/22 18:30
Lithium		1.08	mg/L	0.10	108	85	115				
Lab ID: B22092839-009BMS3		Sample Matrix Spike								Run: ICP204-B_221006A	10/06/22 18:46
Lithium		1.10	mg/L	0.10	107	70	130				
Lab ID: B22092839-009BMSD		Sample Matrix Spike Duplicate								Run: ICP204-B_221006A	10/06/22 18:50
Lithium		1.10	mg/L	0.10	107	70	130	0.6	20		

### Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C22091173

Login completed by: Madison A. Ray

Date Received: 9/29/2022

Reviewed by: Cjohnson

Received by: jdj

Reviewed Date: 9/30/2022

Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on all shipping container(s)/cooler(s)? Yes  No  Not Present
- Custody seals intact on all sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time?  
(Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.) Yes  No
- Temp Blank received in all shipping container(s)/cooler(s)? Yes  No  Not Applicable
- Container/Temp Blank temperature: 11.8°C No Ice
- Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4"). Yes  No  No VOA vials submitted
- Water - pH acceptable upon receipt? Yes  No  Not Applicable

## Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

## Contact and Corrective Action Comments:

Dissolved Metals/Hardness were filtered and preserved to pH <2 with 2 mL of nitric acid per 250 mL in the laboratory. According to 40CFR136, samples for Dissolved Metals should be filtered and preserved within 15 minutes of collection.

9/29/2022 MR



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

<b>Report To Information</b> Company Name: Colorado Analytical Laboratory Report To: Stuart Nielson E-Mail: stuart@nelsoncoloradolab.com Address: 10411 Helix Way Commerce City, CO 80540 Phone: 303-559-2313		<b>Bill To Information (if different from report to)</b> Address: CAL TASK 220927128 JML		<b>Project Name</b> -	
		<b>Compliance Samples:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		<b>Submit Data to CDPH:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Tests Requested

Sample Date/Time	Sample ID	Matrix	Metals (Sub)	Container Type
8/27/22 12:10 PM	220927128-01F - Cross Well	Water - Ground	X	500 ml Cylinder - Unpreserved
8/27/22 2:00 PM	220927128-02F - Carbon Well	Water - Ground	X	500 ml Cylinder - Unpreserved
8/27/22 11:45 AM	220927128-03F - Cross Well	Water - Ground	X	500 ml Cylinder - Unpreserved
8/27/22 1:13 PM	220927128-04F - Carbon Point	Water - Ground	X	500 ml Cylinder - Unpreserved
8/27/22 12:40 PM	220927128-05F - Compliance Well	Water - Ground	X	500 ml Cylinder - Unpreserved
8/27/22 1:50 PM	220927128-06F - Compliance Well - FB	Water - Ground	X	500 ml Cylinder - Unpreserved

Comment: 220927128-01F - Please report Lithium as Total and Dissolved

220927128-02F - Please report Lithium as Total and Dissolved

220927128-03F - Please report Lithium as Total and Dissolved

220927128-04F - Please report Lithium as Total and Dissolved

220927128-05F - Please report Lithium as Total and Dissolved

220927128-06F - Please report Lithium as Total and Dissolved

3.0°

Requisitioned by: <i>[Signature]</i> Date: 9/28/22 Time: 1500	Received by: <i>[Signature]</i>	Date:	Time:	Requisitioned by: <i>[Signature]</i>	Date:	Time:	Received by: <i>[Signature]</i>	Date:	Time:
---	---------------------------------	-------	-------	--------------------------------------	-------	-------	---------------------------------	-------	-------

Jose Suarez 9/29 11:44 Jose Suarez

22091173



## Built Environment Reservoirs

September 29, 2022

**Subcontractor Number:**

**Laboratory Report:** RES 537999-1

**Project #/P.O. #:** 220927128

**Project Description:** Grand Island Resources

Jessi Lupfer  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City CO 80640

Dear Jessi,

Eurofins Reservoirs is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA LAP, LLC), Lab ID 101533 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Eurofins Reservoirs has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

**RES 537999-1** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Eurofins Reservoirs will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed, as received by the customer. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Eurofins Reservoirs. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,



by Norberto Zimbelman

Jeanne Spencer  
President



# EUROFINS RESERVOIRS ENVIRONMENTAL, INC

NVLAP Lab Code 101896-0  
 AIHALAP, LLC. LAB ID 101533

**TABLE: I ANALYSIS: TEM WATER SAMPLE ANALYTICAL RESULTS**

RES Job Number: RES 537999-1  
 Client: Colorado Analytical Laboratories, Inc.  
 Client Project/P.O.: 220927128  
 Client Project Description: Grand Island Resources  
 Date Samples Received: September 28, 2022  
 Analysis Type: REI TEM SOP / USEPA 100.2-M  
 Turnaround: Standard 10  
 Date Samples Analyzed: September 29, 2022

NA = Not Analyzed  
 NR = Not Received  
 ND = None Detected  
 TR = Trace; <1 % Visual Estimate  
 Trem-Act = Tremolite-Actinolite

Laboratory Sample ID	Client ID Number	Aliquot Deposited on Filter (ml)	Dilution Factor	Total Number of Asbestos Structures Detected	Greater than 10 Micron Length Asbestos Structures Detected (million struct/L)	Analytical Sensitivity	Total Asbestos Concentration	Greater than 10 Micron Length Asbestos Concentration
537999 - 220927128-01G Cross Well		20	1	ND	ND	0.17	BAS	BAS
537999 - 220927128-02G Caribou Well		20	1	ND	ND	0.17	BAS	BAS
537999 - 220927128-03G Cross Portal		20	1	ND	ND	0.17	BAS	BAS
537999 - 220927128-04G Caribou Portal		20	1	ND	ND	0.17	BAS	BAS
537999 - 220927128-05G Compliance Well		20	1	ND	ND	0.17	BAS	BAS
537999 - 220927128-06G Compliance Well - FB		20	1	ND	ND	0.17	BAS	BAS

Filter Material = Mixed Cellulose Ester

Filter Diameter = 25mm

Effective Filter Area = 0mm<sup>2</sup>

Average Grid Opening = 0.010mm<sup>2</sup>

*N. Zumbel*  
 Norberto Zumbel  
 Analyst

*Alejandro Mejia*  
 Alejandro Mejia  
 Analyst





# Built Environment Reservoirs

RES Job #: 537999

SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES	
Company:	Colorado Analytical Laboratories, Inc.	Company:	Colorado Analytical Laboratories, Inc.	Contact:	Jessi Lupfer	-1	TEM Standard 10
Address:	10411 Heinz Way	Address:	10411 Heinz Way	Phone:	(303) 659-2313		
	Commerce City, CO 80640		Commerce City, CO 80640	Fax:			
Project Number and/or P.O. #:	220927128			Cell:			
Project Description/Location:	Grand Island Resources			Final Data Deliverable Email Address:	Jessilupfer@coloradolab.com (+ 6 ADDNL. CONTACTS)		

Client Sample ID Number <small>(Sample ID's must be unique)</small>	ASBESTOS	CHEMISTRY	MICROBIOLOGY	REQUESTED ANALYSIS		VALID MATRIX CODES		LAB NOTES											
				PLM - Short Report, Long Report, CARB 435	TEM - Drinking Water (EPA 100.2)	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable		METALS - Analyte(s)	MEDICAL - Bioterror, LAL	MOLD - Spore Trap, Bulk Mold, Particulate Identification	Length (or Aliquots) x Width (or Area per Aliquot)	Matrix Code	# of Containers	Date Collected mm/dd/yy	Time Collected hh:mm			
1	X																		
2	X																		
3	X																		
4	X																		
5	X																		
6	X																		

Requested Analysis	Matrix Code	# of Containers	Date Collected	Time Collected	LAB NOTES
PLM - Short Report, Long Report, CARB 435					
TEM - Drinking Water (EPA 100.2)					
PCM - 7400A, 7400B, OSHA					
DUST - Total, Respirable					
METALS - Analyte(s)					
Lead Only (7082, 7420, Waste Water, Foodware, Multi Metals (7303, 6020A, 200.8, Waste Water, Foodware, OSHA ID-125G), pH (Liquid or Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan					
ORGANICS - Methamphetamine, TSS					
VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or 1-2), Listeria, E. coli O157:H7, E. coli/Coliforms - Plated, S aureus, Yeast & Mold, Aerobic Plate Count, Coliforms/E. coli - (State Water, Drinking Water, Non-Drinking Water, +/- Quantification), Lactic Acid, Viable Microbial Count (w/ID or w/ID), Enterococcus (+/- or Quantification), Legionella (P, NP, C)					
MEDICAL - Bioterror, LAL					
MOLD - Spore Trap, Bulk Mold, Particulate Identification					

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm  
 DTL RUSH PRIORITY STANDARD  
 CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm  
 RUSH PRIORITY STANDARD  
 Dust  
 RUSH PRIORITY STANDARD  
 Metals  
 RUSH PRIORITY STANDARD  
 Organics\*  
 SAME DAY RUSH PRIORITY STANDARD  
 MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm  
 PRIORITY STANDARD  
 Viable Analysis\*\*  
 RUSH STANDARD  
 Medical Device Analysis  
 RUSH STANDARD  
 Mold Analysis  
 RUSH PRIORITY STANDARD  
 \*\*\*Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.\*\*  
 Special Instructions:

Relinquished By:

Received By:

Date/Time: 09/28/2022 9:51:19  
 Date/Time: 09/28/2022 11:44:06  
 Sample Condition: Acceptable  
 Carrier: Fed-Ex

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	AME
Primary Scope	JEM-100CX II	Sample Type	Water	Analysis Date	09/29/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	537999-1	Date Received	09/28/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220927128-01G Cross Well	Method	EPA 100.2	Scope Align	09/29/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	E4-1	ND									
	E4-4	ND									
	F4-1	ND									
	F4-4	ND									
	G4-1	ND									
B	E6-4	ND									
	F6-1	ND									
	F6-4	ND									
	G6-1	ND									
	G6-4	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	09/29/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	537999-1	Date Received	09/28/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220927128-02G Caribou Well	Method	EPA 100.2	Scope Align	09/29/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	F6-6	ND									Yes
	F6-3	ND									
	E6-6	ND									
	E6-3	ND									
	C6-6	ND									
	C6-3	ND									
B	B5-6	ND									
	B5-3	ND									
	A5-6	ND									
	A5-3	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	09/29/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	537999-1	Date Received	09/28/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220927128-03G Cross Portal	Method	EPA 100.2	Scope Align	09/29/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G4-3	ND									
	F4-3	ND									
	E4-3	ND									
	C4-3	ND									
	B4-3	ND									
A	K5-3	ND									
	H5-3	ND									
	F5-3	ND									
	E5-3	ND									
	C5-3	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	09/29/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	537999-1	Date Received	09/28/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220927128-04G Caribou Portal	Method	EPA 100.2	Scope Align	09/29/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	H6-3	ND									
	G6-6	ND									
	G6-3	ND									
	F6-6	ND									
	F6-3	ND									
	E6-6	ND									
B	G6-1	ND									
	F6-1	ND									
	C6-1	ND									
	B6-1	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	09/29/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	537999-1	Date Received	09/28/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220927128-05G Compliance Well	Method	EPA 100.2	Scope Align	09/29/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	H5-1	ND									
	G5-1	ND									
	F5-1	ND									
	E5-1	ND								Yes	
	C5-1	ND									
	B5-1	ND									
A	G5-1	ND									
	F5-1	ND									
	E5-1	ND									
	C5-1	ND									

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	09/29/2022
Voltage	100KV	Vol/Area	1L	Prep Method	Indirect
Magnification	20000	Res Number	537999-1	Date Received	09/28/2022
Primary Filter Area (mm <sup>2</sup> )		Sec. Filter Area (mm <sup>2</sup> )	346	Grid Opening Area (mm <sup>2</sup> )	0.01
Sample ID	220927128-06G Compliance Well - FB	Method	EPA 100.2	Scope Align	09/29/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G3-3	ND									
	F3-3	ND									
	C3-3	ND									
	B3-3	ND									
	A3-3	ND									
C	H2-4	ND									
	G2-4	ND									
	F2-4	ND									
	E2-4	ND									
	C2-4	ND									

## APPENDIX B OUTFALL-001 ANALYTICAL RESULTS

APPENDIX B.1 JULY 2022 OUTFALL-001 ANALYTICAL RESULTS

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

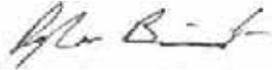
Laboratory Job ID: 280-164184-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
7/20/2022 3:08:22 PM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	7
Method Summary .....	8
Sample Summary .....	9
Client Sample Results .....	10
QC Sample Results .....	12
QC Association .....	19
Chronicle .....	22
Certification Summary .....	23
Chain of Custody .....	25
Receipt Checklists .....	27

# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-164184-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

**Job ID: 280-164184-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-164184-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 07/08/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 13.0 C.

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

A low level mercury kit was received for sample OUTFALL-001 (280-164184-1) but low level mercury analysis was not requested on the chain of custody. The laboratory logged the sample for low level mercury analysis per the sample volume received and will proceed with analysis unless instructed otherwise. The client was notified on 7/8/2022.

### **TOTAL RECOVERABLE METALS (ICP)**

Sample OUTFALL-001 (280-164184-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 07/12/2022 and analyzed on 07/13/2022.

Iron was detected in method blank MB 280-580546/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL-001 (280-164184-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 07/15/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Sample OUTFALL-001 (280-164184-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 07/15/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

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## Job ID: 280-164184-1 (Continued)

---

### Laboratory: Eurofins Denver (Continued)

#### TOTAL MERCURY (CVAA)

Sample OUTFALL-001 (280-164184-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared and analyzed on 07/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Sample OUTFALL-001 (280-164184-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 07/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Sample OUTFALL-001 (280-164184-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 07/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SPECIFIC CONDUCTIVITY

Sample OUTFALL-001 (280-164184-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 07/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL SUSPENDED SOLIDS

Sample OUTFALL-001 (280-164184-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 07/14/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL HEXAVALENT CHROMIUM

Sample OUTFALL-001 (280-164184-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 07/08/2022.

Chromium, hexavalent failed the recovery criteria high for the MS of sample OUTFALL-001 (280-164184-1) in batch 280-580379. Chromium, hexavalent exceeded the RPD limit for the MSD of sample OUTFALL-001 (280-164184-1) in batch 280-580379. Sample matrix interference is suspected because the associated laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries were within acceptance limits. Refer to the QC report for details.

The initial calibration verification (ICV) result for batch 280-580379 was above the upper control limit. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### DISSOLVED HEXAVALENT CHROMIUM

Sample OUTFALL-001 (280-164184-1) was analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 07/08/2022.

Chromium, hexavalent failed the recovery criteria high for the MSD of sample OUTFALL-001 (280-164184-1) in batch 280-580379. Sample matrix interference is suspected because the associated laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries were within acceptance limits. Refer to the QC report for details.

The initial calibration verification (ICV) result for batch 280-580379 was above the upper control limit. Sample results were non-detects, and have been reported as qualified data.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

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## Job ID: 280-164184-1 (Continued)

---

### Laboratory: Eurofins Denver (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CORROSIVITY (PH)**

Sample OUTFALL-001 (280-164184-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 07/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SULFIDE**

Sample OUTFALL-001 (280-164184-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 07/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HYDROGEN SULFIDE**

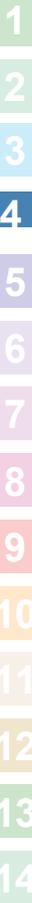
Sample OUTFALL-001 (280-164184-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 07/19/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **LOW LEVEL MERCURY**

Sample OUTFALL-001 (280-164184-1) was analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 07/12/2022 and analyzed on 07/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-164184-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	3.5		0.50	0.20	ng/L	1			1631E	Total/NA
Iron	61	J B	100	9.1	ug/L	1			200.7 Rev 4.4	Total Recoverable
Copper	0.77	J	2.0	0.71	ug/L	1			200.8	Total Recoverable
Lead	2.0		1.0	0.23	ug/L	1			200.8	Total Recoverable
Zinc	4.2	J	10	2.0	ug/L	1			200.8	Total Recoverable
Copper	0.86	J	2.0	0.71	ug/L	1			200.8	Potentially Dissolved
Lead	2.1		1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Manganese	1.2	J	2.0	0.51	ug/L	1			200.8	Potentially Dissolved
Zinc	5.6	J	10	2.0	ug/L	1			200.8	Potentially Dissolved
Specific Conductance	160		2.0	2.0	umhos/cm	1			SM 2510B	Total/NA
pH adj. to 25 deg C	7.3	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA
Temperature	20.0	HF	1.0	1.0	Degrees C	1			SM 4500 H+ B	Total/NA
Field pH	7.3		1.0	1.0	SU	1			SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1			SM4500 S2 H	Total/NA
Specific Conductance	160		2.0	2.0	umhos/cm	1			SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Method Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL PEN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 3500 CR B	Chromium, Hexavalent	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM 4500 S2 D	Sulfide, Total	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	TAL DEN
1631E	Preparation, Mercury, Low Level	EPA	TAL PEN
200.7	Preparation, Total Recoverable Metals	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
245.1	Preparation, Mercury	EPA	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

**Protocol References:**

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

- TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
- TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-164184-1

Project/Site: Wastewater Discharge - Nederland, CO

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-164184-1	OUTFALL-001	Water	07/08/22 12:45	07/08/22 14:23

1

2

3

4

5

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11

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14

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: 1631E - Mercury, Low Level (CVAFS)

Client Sample ID: OUTFALL-001

Date Collected: 07/08/22 12:45

Date Received: 07/08/22 14:23

Lab Sample ID: 280-164184-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	3.5		0.50	0.20	ng/L		07/12/22 15:55	07/13/22 13:46	1

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: OUTFALL-001

Date Collected: 07/08/22 12:45

Date Received: 07/08/22 14:23

Lab Sample ID: 280-164184-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	61	J B	100	9.1	ug/L		07/12/22 16:32	07/13/22 20:42	1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001

Date Collected: 07/08/22 12:45

Date Received: 07/08/22 14:23

Lab Sample ID: 280-164184-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 18:02	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 18:02	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 18:02	1
Copper	0.77	J	2.0	0.71	ug/L		07/15/22 08:51	07/15/22 18:02	1
Lead	2.0		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 18:02	1
Zinc	4.2	J	10	2.0	ug/L		07/15/22 08:51	07/15/22 18:02	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 07/08/22 12:45

Date Received: 07/08/22 14:23

Lab Sample ID: 280-164184-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 19:40	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 19:40	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 19:40	1
Copper	0.86	J	2.0	0.71	ug/L		07/15/22 08:51	07/15/22 19:40	1
Lead	2.1		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 19:40	1
Manganese	1.2	J	2.0	0.51	ug/L		07/15/22 08:51	07/15/22 19:40	1
Nickel	ND		2.0	0.28	ug/L		07/15/22 08:51	07/15/22 19:40	1
Selenium	ND		5.0	1.0	ug/L		07/15/22 08:51	07/15/22 19:40	1
Silver	ND		0.50	0.045	ug/L		07/15/22 08:51	07/15/22 19:40	1
Zinc	5.6	J	10	2.0	ug/L		07/15/22 08:51	07/15/22 19:40	1

## Method: 245.1 - Mercury (CVAA)

Client Sample ID: OUTFALL-001

Date Collected: 07/08/22 12:45

Date Received: 07/08/22 14:23

Lab Sample ID: 280-164184-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		07/12/22 16:45	07/12/22 20:45	1

Eurofins Denver

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## General Chemistry

**Client Sample ID: OUTFALL-001**  
**Date Collected: 07/08/22 12:45**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164184-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Specific Conductance</b>	<b>160</b>		2.0	2.0	umhos/cm			07/13/22 10:32	1
Total Suspended Solids	ND		4.0	1.1	mg/L			07/14/22 13:03	1
Chromium, hexavalent	ND	F1 ^1+	0.020	0.0040	mg/L			07/08/22 19:12	1
<b>pH adj. to 25 deg C</b>	<b>7.3</b>	<b>HF</b>	0.1	0.1	SU			07/12/22 13:34	1
<b>Temperature</b>	<b>20.0</b>	<b>HF</b>	1.0	1.0	Degrees C			07/12/22 13:34	1
Sulfide	ND		0.050	0.022	mg/L			07/13/22 19:53	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			07/19/22 10:15	1
<b>Field pH</b>	<b>7.3</b>		1.0	1.0	SU			07/19/22 10:15	1
<b>Field Temperature</b>	<b>20</b>		1.0	1.0	Celsius			07/19/22 10:15	1
<b>Specific Conductance</b>	<b>160</b>		2.0	2.0	umhos/cm			07/19/22 10:15	1
Sulfide	ND		4.0	4.0	mg/L			07/19/22 10:15	1

## General Chemistry - Total Recoverable

**Client Sample ID: OUTFALL-001**  
**Date Collected: 07/08/22 12:45**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164184-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			07/20/22 10:28	1

## General Chemistry - Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 07/08/22 12:45**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164184-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	F1 F2 ^1+	0.020	0.0040	mg/L			07/08/22 19:17	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 07/08/22 12:45**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164184-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			07/20/22 10:29	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-584528/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 584671

Prep Type: Total/NA  
 Prep Batch: 584528

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.50	0.20	ng/L		07/12/22 16:40	07/13/22 10:00	1

Lab Sample ID: LCS 400-584528/4-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 584671

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury									

Lab Sample ID: LCSD 400-584528/5-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 584671

Prep Type: Total/NA  
 Prep Batch: 584528

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-580546/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580778

Prep Type: Total Recoverable  
 Prep Batch: 580546

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	12.7	J	100	9.1	ug/L		07/12/22 16:32	07/13/22 18:36	1

Lab Sample ID: LCS 280-580546/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580778

Prep Type: Total Recoverable  
 Prep Batch: 580546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-580934/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Total Recoverable  
 Prep Batch: 580934

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 17:55	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 17:55	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 17:55	1
Copper	ND		2.0	0.71	ug/L		07/15/22 08:51	07/15/22 17:55	1
Lead	ND		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 17:55	1
Zinc	ND		10	2.0	ug/L		07/15/22 08:51	07/15/22 17:55	1

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-580934/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Total Recoverable  
 Prep Batch: 580934  
 %Rec

Analyte	Spike	LCS	LCS
Arsenic			
Cadmium			
Chromium			
Copper			
Lead			
Zinc			

Lab Sample ID: 280-164184-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Total Recoverable  
 Prep Batch: 580934  
 %Rec

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	ND		40.0	39.4		ug/L		99	79 - 120
Cadmium	ND		40.0	38.2		ug/L		95	89 - 111
Chromium	ND		40.0	39.2		ug/L		98	86 - 115
Copper	0.77	J	40.0	40.1		ug/L		98	90 - 115
Lead	2.0		40.0	40.9		ug/L		97	88 - 115
Zinc	4.2	J	40.0	43.4		ug/L		98	88 - 115

Lab Sample ID: 280-164184-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Total Recoverable  
 Prep Batch: 580934  
 %Rec

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	ND		40.0	42.3		ug/L		106	79 - 120	7	20
Cadmium	ND		40.0	41.6		ug/L		104	89 - 111	9	20
Chromium	ND		40.0	41.7		ug/L		104	86 - 115	6	20
Copper	0.77	J	40.0	43.2		ug/L		106	90 - 115	7	20
Lead	2.0		40.0	42.6		ug/L		102	88 - 115	4	20
Zinc	4.2	J	40.0	45.6		ug/L		104	88 - 115	5	20

Lab Sample ID: MB 280-580415/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Potentially Dissolved  
 Prep Batch: 580705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 19:17	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 19:17	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 19:17	1
Copper	ND		2.0	0.71	ug/L		07/15/22 08:51	07/15/22 19:17	1
Lead	ND		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 19:17	1
Manganese	ND		2.0	0.51	ug/L		07/15/22 08:51	07/15/22 19:17	1
Nickel	ND		2.0	0.28	ug/L		07/15/22 08:51	07/15/22 19:17	1
Selenium	ND		5.0	1.0	ug/L		07/15/22 08:51	07/15/22 19:17	1
Silver	ND		0.50	0.045	ug/L		07/15/22 08:51	07/15/22 19:17	1

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

1

2

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Zinc	ND	10	2.0 ug/L	07/15/22 08:51	07/15/22 19:17	1
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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-580415/2-B

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Potentially Dissolved  
 Prep Batch: 580705  
 %Rec

Analyte	Spike	LCS	LCS
Arsenic			
Cadmium			
Chromium			
Copper			
Lead			
Manganese			
Nickel			
Selenium			
Silver			
Zinc			

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-580616/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580726

Prep Type: Total/NA  
 Prep Batch: 580616

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		07/12/22 16:45	07/12/22 20:40	1

Lab Sample ID: LCS 280-580616/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580726

Prep Type: Total/NA  
 Prep Batch: 580616  
 %Rec

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	5.00	5.05		ug/L		101	90 - 110

Lab Sample ID: 280-164184-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580726

Prep Type: Total/NA  
 Prep Batch: 580616  
 %Rec

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		5.00	5.01		ug/L		100	80 - 120

Lab Sample ID: 280-164184-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580726

Prep Type: Total/NA  
 Prep Batch: 580616  
 %Rec

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Mercury	ND		5.00	5.04		ug/L		101	80 - 120	0	10

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

1

2

## Method: SM-2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-580679/5

Matrix: Water

Analysis Batch: 580679

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		2.0	2.0	umhos/cm			07/13/22 10:32	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: LCS 280-580679/4  
 Matrix: Water  
 Analysis Batch: 580679

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

**Analyte**

Specific Conductance

Lab Sample ID: 280-164184-1 DU  
 Matrix: Water  
 Analysis Batch: 580679

Client Sample ID: OUTFALL-001  
 Prep Type: Total/NA

	Sample	Sample	DU	DU	RPD
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**Analyte**

Specific Conductance

	Result	Qualifier			
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160

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-580852/2  
 Matrix: Water  
 Analysis Batch: 580852

Client Sample ID: Method Blank  
 Prep Type: Total/NA

MB MB

**Analyte**

Total Suspended Solids

	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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	ND		4.0	1.1	mg/L			07/14/22 13:02	1
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Lab Sample ID: LCS 280-580852/1

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580852

Prep Type: Total/NA

**Analyte**

Total Suspended Solids

	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
	100	79.6		mg/L		80	79 - 114

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-580379/10  
 Matrix: Water  
 Analysis Batch: 580379

Client Sample ID: Method Blank  
 Prep Type: Total/NA

MB MB

**Analyte**

Chromium, hexavalent

	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:11	1
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Lab Sample ID: LCS 280-580379/8

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Matrix: Water  
 Analysis Batch: 580379

**Analyte**

Chromium, hexavalent

	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
	0.100	0.101	^1+	mg/L		101	91 - 112

Lab Sample ID: LCSD 280-580379/9

Client Sample ID: Lab Control Sample Dup

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

1

2

**Matrix: Water**  
**Analysis Batch: 580379**

**Prep Type: Total/NA**

**Analyte**

Chromium, hexavalent

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-164184-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Total/NA

Analyte	Sample		Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Chromium, hexavalent	ND	F1 ^1+	0.100	0.100	^1+	mg/L		100	91 - 112

Lab Sample ID: 280-164184-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Total/NA

Analyte	Sample		Spike	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Chromium, hexavalent	ND	F1 ^1+	0.100	0.123	^1+ F1	mg/L		123	91 - 112	20	20

Lab Sample ID: 280-164184-1 DU

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Total/NA

Analyte	Sample		Spike	DU DU		Unit	D	%Rec	Limits	RPD
	Result	Qualifier		Result	Qualifier					
Chromium, hexavalent	ND	F1 ^1+								

Lab Sample ID: MB 280-580378/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:17	1

Lab Sample ID: LCS 280-580378/1-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chromium, hexavalent									

Lab Sample ID: LCSD 280-580378/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chromium, hexavalent									

Lab Sample ID: 280-164184-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

Analyte	Sample		Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Chromium, hexavalent	ND	F1 F2 ^1+	0.100	0.125	^1+ F1	mg/L		125	91 - 112

Lab Sample ID: 280-164184-1 MSD

Client Sample ID: OUTFALL-001

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

1  
2

**Matrix: Water**  
**Analysis Batch: 580379**

**Prep Type: Dissolved**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier			%Rec		RPD	
Chromium, hexavalent	ND	F1 F2 ^1+	0.100	0.101	^1+ F2	mg/L		101	91 - 112	21	20

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: 280-164184-1 DU

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU	DU	RPD
Chromium, hexavalent	ND	F1 F2 ^1+			

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-580653/4

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580653

Prep Type: Total/NA

Analyte  
 pH adj. to 25 deg C

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-580763/11

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			07/13/22 19:52	1

Lab Sample ID: LCS 280-580763/9

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte  
 Sulfide

Lab Sample ID: LCSD 280-580763/10

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte  
 Sulfide

Lab Sample ID: 280-164184-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	ND		0.499	0.580		mg/L		116	81 - 122

Lab Sample ID: 280-164184-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

1

2

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	RPD	Limit	
	Result	Qualifier	Added	Result	Qualifier			Limits	RPD		
Sulfide	ND		0.499	0.567		mg/L		114	81 - 122	2	10

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-581224/1

Client Sample ID: Method Blank

Matrix: Water  
Analysis Batch: 581224

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			07/19/22 09:50	1
Field pH	ND		1.0	1.0	SU			07/19/22 09:50	1
Field Temperature	ND		1.0	1.0	Celsius			07/19/22 09:50	1
Specific Conductance	ND		2.0	2.0	umhos/cm			07/19/22 09:50	1
Sulfide	ND		4.0	4.0	mg/L			07/19/22 09:50	1

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Metals

### Filtration Batch: 580415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-580415/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-580415/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

### Filtration Batch: 580484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 580546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total Recoverable	Water	200.7	
MB 280-580546/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-580546/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Prep Batch: 580616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	245.1	
MB 280-580616/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-580616/2-A	Lab Control Sample	Total/NA	Water	245.1	
280-164184-1 MS	OUTFALL-001	Total/NA	Water	245.1	
280-164184-1 MSD	OUTFALL-001	Total/NA	Water	245.1	

### Prep Batch: 580705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Potentially Dissolved	Water	200.8	580484
MB 280-580415/1-B	Method Blank	Potentially Dissolved	Water	200.8	580415
LCS 280-580415/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	580415

### Analysis Batch: 580726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	245.1	580616
MB 280-580616/1-A	Method Blank	Total/NA	Water	245.1	580616
LCS 280-580616/2-A	Lab Control Sample	Total/NA	Water	245.1	580616
280-164184-1 MS	OUTFALL-001	Total/NA	Water	245.1	580616
280-164184-1 MSD	OUTFALL-001	Total/NA	Water	245.1	580616

### Analysis Batch: 580778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	580546
MB 280-580546/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	580546
LCS 280-580546/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	580546

### Prep Batch: 580934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-580934/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-580934/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
280-164184-1 MS	OUTFALL-001	Total Recoverable	Water	200.8	
280-164184-1 MSD	OUTFALL-001	Total Recoverable	Water	200.8	

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Metals

### Analysis Batch: 581062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Potentially Dissolved	Water	200.8	580705
280-164184-1	OUTFALL-001	Total Recoverable	Water	200.8	580934
MB 280-580415/1-B	Method Blank	Potentially Dissolved	Water	200.8	580705
MB 280-580934/1-A	Method Blank	Total Recoverable	Water	200.8	580934
LCS 280-580415/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	580705
LCS 280-580934/2-A	Lab Control Sample	Total Recoverable	Water	200.8	580934
280-164184-1 MS	OUTFALL-001	Total Recoverable	Water	200.8	580934
280-164184-1 MSD	OUTFALL-001	Total Recoverable	Water	200.8	580934

### Prep Batch: 584528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	1631E	
MB 400-584528/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-584528/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-584528/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	

### Analysis Batch: 584671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	1631E	584528
MB 400-584528/3-A	Method Blank	Total/NA	Water	1631E	584528
LCS 400-584528/4-A	Lab Control Sample	Total/NA	Water	1631E	584528
LCSD 400-584528/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	584528

## General Chemistry

### Filtration Batch: 580378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Dissolved	Water	FILTRATION	
MB 280-580378/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-580378/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-580378/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-164184-1 MS	OUTFALL-001	Dissolved	Water	FILTRATION	
280-164184-1 MSD	OUTFALL-001	Dissolved	Water	FILTRATION	
280-164184-1 DU	OUTFALL-001	Dissolved	Water	FILTRATION	

### Analysis Batch: 580379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Dissolved	Water	SM 3500 CR B	580378
280-164184-1	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
MB 280-580378/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	580378
MB 280-580379/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-580378/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	580378
LCS 280-580379/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-580378/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	580378
LCSD 280-580379/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-164184-1 MS	OUTFALL-001	Dissolved	Water	SM 3500 CR B	580378
280-164184-1 MS	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-164184-1 MSD	OUTFALL-001	Dissolved	Water	SM 3500 CR B	580378
280-164184-1 MSD	OUTFALL-001	Total/NA	Water	SM 3500 CR B	

Eurofins Denver

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

1

2

280-164184-1 DU	OUTFALL-001	Dissolved	Water	SM 3500 CR B	580378
280-164184-1 DU	OUTFALL-001	Total/NA	Water	SM 3500 CR B	

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## General Chemistry

### Analysis Batch: 580653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	SM 4500 H+ B	
LCS 280-580653/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 580679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	SM 2510B	
MB 280-580679/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-580679/4	Lab Control Sample	Total/NA	Water	SM 2510B	
280-164184-1 DU	OUTFALL-001	Total/NA	Water	SM 2510B	

### Analysis Batch: 580763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
MB 280-580763/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-580763/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-580763/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
280-164184-1 MS	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
280-164184-1 MSD	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	

### Analysis Batch: 580852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	SM 2540D	
MB 280-580852/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-580852/1	Lab Control Sample	Total/NA	Water	SM 2540D	

### Analysis Batch: 581224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total/NA	Water	SM4500 S2 H	
MB 280-581224/1	Method Blank	Total/NA	Water	SM4500 S2 H	

### Analysis Batch: 581353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 581354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164184-1	OUTFALL-001	Potentially Dissolved	Water	SM3500 CR B	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-164184-1**

**Date Collected: 07/08/22 12:45**

**Matrix: Water**

**Date Received: 07/08/22 14:23**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	584528	07/12/22 15:55	VLC	TAL PEN
Total/NA	Analysis	1631E		1			584671	07/13/22 13:46	VLC	TAL PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	580546	07/12/22 16:32	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			580778	07/13/22 20:42	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	580484	07/11/22 11:51	PFM	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	580705	07/15/22 08:51	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			581062	07/15/22 19:40	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	580934	07/15/22 08:51	KMS	TAL DEN
Total Recoverable	Analysis	200.8		1			581062	07/15/22 18:02	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	580616	07/12/22 16:45	CEH	TAL DEN
Total/NA	Analysis	245.1		1			580726	07/12/22 20:45	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			580679	07/13/22 10:32	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	580852	07/14/22 13:03	ASP	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	580378	07/08/22 18:52	LRB	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	580379	07/08/22 19:17	LRB	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	580379	07/08/22 19:12	LRB	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			580653	07/12/22 13:34	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	580763	07/13/22 19:53	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			581354	07/20/22 10:29	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			581353	07/20/22 10:28	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			581224	07/19/22 10:15	SAH	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
 TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22 *
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164184-1

## Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	07-13-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23



# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Lab P#: Bieniliulis, Dylan T	Carrier Tracking No(s):	COC No: 280-621539-1
Shipping/Receiving		E-Mail: Dylan.Bieniliulis@et.eurofins.com	State of Origin: Colorado	Page: Page 1 of 1
Eurofins Environment Testing Southeast		Accreditations Required (See note):		
Address: 3355 McLemore Drive		Due Date Requested: 7/21/2022		
City: Pensacola		TAT Requested (days):		
State, Zip: FL, 32514		PO #:		
Phone: 850-474-1001 (Tel) 850-478-2671 (Fax)		WO #:		
Email:		Project #: 28022821		
Project Name: Wastewater Discharge - Nederland, CO		SSOW#:		
Site:		Sample Date: 7/8/22		
Sample Identification - Client ID (Lab ID)		Sample Time: 12:45 Mountain		
OUTFALL-001 (280-164184-1)		Sample Date: 7/8/22		
Matrix (If water, specify, otherwise, O-notation)		Sample Type (C=comp, G=grab)		
Water		Preservation Code:		
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		
X		1631E/1631E_Prep		
Total Number of Containers		Special Instructions/Note:		
1				

**Analysis Requested**

M - Hexane	<input type="checkbox"/>
N - None	<input type="checkbox"/>
O - AsNaO2	<input type="checkbox"/>
P - Na2O4S	<input type="checkbox"/>
Q - Na2SO3	<input type="checkbox"/>
R - Na2SO4	<input type="checkbox"/>
S - H2SO4	<input type="checkbox"/>
T - TSP Dodecahydrate	<input type="checkbox"/>
U - Acetone	<input type="checkbox"/>
V - MCAA	<input type="checkbox"/>
W - pH 4-5	<input type="checkbox"/>
Y - Trizma	<input type="checkbox"/>
Z - other (specify)	<input type="checkbox"/>

Other:

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: *Madeline Jones* Date: 7/14/22 1545 Company: *EDADEN*

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Δ  No  No

Custody Seal No.: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: 7/20/2022 09:08 Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: *AK H-O-2-48*

# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-164184-1

**Login Number: 164184**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Rystrom, Joshua R**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-164184-1

**Login Number: 164184**

**List Number: 2**

**Creator: Roberts, Alexis J**

**List Source: Eurofins Pensacola**

**List Creation: 07/12/22 11:56 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	6.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

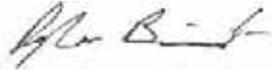
Laboratory Job ID: 280-164716-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
8/2/2022 8:45:37 AM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	5
Method Summary .....	6
Sample Summary .....	7
Client Sample Results .....	8
QC Sample Results .....	9
QC Association .....	10
Chronicle .....	11
Certification Summary .....	12
Chain of Custody .....	13
Receipt Checklists .....	14



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-164716-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
♠	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

**Job ID: 280-164716-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-164716-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### RECEIPT

The samples were received on 07/22/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 11.8 C.

There was no sample ID or collection date/time recorded on the container labels of sample volume received for OUTFALL-001 (280-164716-1). As there was only one sample ID recorded on the chain of custody the laboratory logged the containers with a sample ID and collection date/time per the information on the chain of custody. The client was notified on 7/25/2022.

### POTENTIALLY DISSOLVED METALS (ICPMS)

Sample OUTFALL-001 (280-164716-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 07/28/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL RECOVERABLE METALS (ICPMS)

Sample OUTFALL-001 (280-164716-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 07/26/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-164716-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Copper	0.76	J	2.0	0.71	ug/L	1			200.8	Total Recoverable
Lead	0.97	J	1.0	0.23	ug/L	1			200.8	Total Recoverable
Lead	0.90	J	1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Zinc	7.8	J	10	2.0	ug/L	1			200.8	Potentially Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Denver



# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

#### Protocol References:

EPA = US Environmental Protection Agency

#### Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



# Sample Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-164716-1	OUTFALL-001	Water	07/22/22 12:00	07/22/22 13:42

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001  
Date Collected: 07/22/22 12:00  
Date Received: 07/22/22 13:42

Lab Sample ID: 280-164716-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.76	J	2.0	0.71	ug/L		07/26/22 08:38	07/26/22 18:06	1
Lead	0.97	J	1.0	0.23	ug/L		07/26/22 08:38	07/26/22 18:06	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-164716-1

Date Collected: 07/22/22 12:00

Matrix: Water

Date Received: 07/22/22 13:42

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.088	ug/L		07/28/22 08:50	07/28/22 18:33	1
Copper	ND		2.0	0.71	ug/L		07/28/22 08:50	07/28/22 18:33	1
Lead	0.90	J	1.0	0.23	ug/L		07/28/22 08:50	07/28/22 18:33	1
Silver	ND		0.50	0.045	ug/L		07/28/22 08:50	07/28/22 18:33	1
Zinc	7.8	J	10	2.0	ug/L		07/28/22 08:50	07/28/22 18:33	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 280-581887/1-A**  
**Matrix: Water**  
**Analysis Batch: 582041**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 581887**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		2.0	0.71	ug/L		07/26/22 08:38	07/26/22 16:58	1
Lead	ND		1.0	0.23	ug/L		07/26/22 08:38	07/26/22 16:58	1

**Lab Sample ID: LCS 280-581887/2-A**  
**Matrix: Water**  
**Analysis Batch: 582041**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper									
Lead									

**Lab Sample ID: MB 280-581713/1-B**  
**Matrix: Water**  
**Analysis Batch: 582365**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 582026**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		1.0	0.088	ug/L		07/28/22 08:50	07/28/22 18:03	1
Copper	ND		2.0	0.71	ug/L		07/28/22 08:50	07/28/22 18:03	1
Lead	ND		1.0	0.23	ug/L		07/28/22 08:50	07/28/22 18:03	1
Silver	ND		0.50	0.045	ug/L		07/28/22 08:50	07/28/22 18:03	1
Zinc	ND		10	2.0	ug/L		07/28/22 08:50	07/28/22 18:03	1

**Lab Sample ID: LCS 280-581713/2-B**  
**Matrix: Water**  
**Analysis Batch: 582365**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 582026**

Analyte	Spike	LCS	LCS	D	Prepared	Analyzed	Dil Fac	%Rec
Cadmium								
Copper								
Lead								
Silver								
Zinc								

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

## Metals

### Filtration Batch: 581713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-581713/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-581713/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

### Filtration Batch: 581855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164716-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 581887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164716-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-581887/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-581887/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

### Prep Batch: 582026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164716-1	OUTFALL-001	Potentially Dissolved	Water	200.8	581855
MB 280-581713/1-B	Method Blank	Potentially Dissolved	Water	200.8	581713
LCS 280-581713/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	581713

### Analysis Batch: 582041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164716-1	OUTFALL-001	Total Recoverable	Water	200.8	581887
MB 280-581887/1-A	Method Blank	Total Recoverable	Water	200.8	581887
LCS 280-581887/2-A	Lab Control Sample	Total Recoverable	Water	200.8	581887

### Analysis Batch: 582365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164716-1	OUTFALL-001	Potentially Dissolved	Water	200.8	582026
MB 280-581713/1-B	Method Blank	Potentially Dissolved	Water	200.8	582026
LCS 280-581713/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	582026

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

**Client Sample ID: OUTFALL-001**  
**Date Collected: 07/22/22 12:00**  
**Date Received: 07/22/22 13:42**

**Lab Sample ID: 280-164716-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	581855	07/25/22 15:37	MCR	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	582026	07/28/22 08:50	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			582365	07/28/22 18:33	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	581887	07/26/22 08:38	KMS	TAL DEN
Total Recoverable	Analysis	200.8		1			582041	07/26/22 18:06	LMT	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164716-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22 *
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Chain of Custody Record**

<b>Client Information</b>		Lab PM: Blentulis, Dylan T		Carrier Tracking No(s):		GOC No:	
Client Contact: Patrick Delaney		E-Mail: Dylan.Blentulis@Eurofinset.com		State of Origin:		Page:	
Company: Grand Island Resources		PWSID:		Analysis Requested		Job #:	
Address: 12567 West Cedar Road Suite 250		Due Date Requested:		Perform MS/MSD (Yes or No)		Preservation Codes:	
City: Lakewood		TAT Requested (days):		200.8 - Potentially Dissolved Metals (Second half of the month permit list)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
State, Zip: CO-80466 80228		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		200.8 - Total Recoverable Metals (Second half of the month permit list)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Phone: 312-342-6145		Advance Payment Required		Field Filtered Sample (Yes or No)		Special Instructions/Note:	
Email: pdelaney@blackfoxmining.com		WO #:		D D		*Second half of the month potentially dissolved metals permit list = 200.8 (Cd, Cu, Pb, Ag, Zn)	
Project Name: Wastewater Discharge - Nederland, CO		Project #: 28022821		D D		*Second half of the month total recoverable metals permit list = 200.8 (Cu, Pb)	
Site: Second half of the month event		SSON#:		XX XX		temp = 8.1 pH = 9.6°C	
<b>Sample Identification</b>		Sample Date		Field Filtered Sample (Yes or No)		Total Number of Containers	
OUTFALL-001		7/22/22 12pm		N		X	
Sample Type (C=Comp, G=grab)		Sample Time		Matrix (W=water, S=solid, O=wastoil, BT=Trisub, A=Air)		Barcode: 280-164716 Chain of Custody	
W		6		W			
Preservation Code:		Sample Date		Sample Time		Sample Date	
W		7/22/22 12pm		6		7/22/22 12pm	
<b>Possible Hazard Identification</b>		Sample Date		Sample Time		Sample Date	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		7/22/22 12pm		6		7/22/22 12pm	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Date		Sample Time		Sample Date	
Empty Kit Relinquished by:		Sample Date		Sample Time		Sample Date	
Relinquished by: Brooke Moran		7/22/22		6:43		7/22/22	
Relinquished by:		Sample Date		Sample Time		Sample Date	
Relinquished by:		Sample Date		Sample Time		Sample Date	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.: N/A		Cooler Temperature(s) °C and Other Remarks: 11.7 ER# 12 CF(+0.1)		Company: FE TA-DEN	
Special Instructions/QC Requirements:		Sample Date		Sample Time		Sample Date	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Sample Date		Sample Time		Sample Date	
<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months		Sample Date		Sample Time		Sample Date	
Method of Shipment:		Sample Date		Sample Time		Sample Date	
Received by: Jeff Long		Sample Date		Sample Time		Sample Date	
Received by:		Sample Date		Sample Time		Sample Date	
Received by:		Sample Date		Sample Time		Sample Date	



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-164716-1

**Login Number: 164716**

**List Number: 1**

**Creator: Rystrom, Joshua R**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	<b>Eurofins Denver</b>	True
The cooler's custody seal, if present, is intact.		N/A True True
Sample custody seals, if present, are intact.		False True True True True True True False True
The cooler or samples do not appear to have been compromised or tampered with.		True True True True True N/A True
Samples were received on ice.		True
Cooler Temperature is acceptable.		True
Cooler Temperature is recorded.		True True N/A
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Thermal preservation not required.

Refer to Job Narrative for details.

14

APPENDIX B.2 AUGUST 2022 OUTFALL-001 ANALYTICAL RESULTS

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

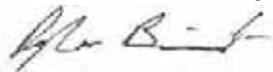
Laboratory Job ID: 280-165253-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
8/19/2022 11:03:08 AM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	7
Method Summary .....	8
Sample Summary .....	9
Client Sample Results .....	10
QC Sample Results .....	12
QC Association .....	18
Chronicle .....	21
Certification Summary .....	22
Chain of Custody .....	23
Receipt Checklists .....	24



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-165253-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

**Job ID: 280-165253-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-165253-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 08/08/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 8.5 C.

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

### **TOTAL RECOVERABLE METALS (ICP)**

Sample OUTFALL-001 (280-165253-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 08/09/2022 and analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL-001 (280-165253-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/15/2022 and 08/18/2022 and analyzed on 08/16/2022 and 08/18/2022.

Lead and Silver were detected in method blank MB 280-583640/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Sample OUTFALL-001 (280-165253-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/09/2022 and analyzed on 08/10/2022.

The continuing calibration verification (CCV) associated with batch 280-583683 recovered (119%) above the upper control limit (110%) for Zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: OUTFALL-001 (280-165253-1), (CCV 280-583683/81), (CCV 280-583683/89), (LCS 280-583382/2-A), and (MB 280-583382/1-A).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

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## Job ID: 280-165253-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

#### **TOTAL MERCURY (CVAA)**

Sample OUTFALL-001 (280-165253-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 08/09/2022 and analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED**

Sample OUTFALL-001 (280-165253-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 08/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TRIVALENT CHROMIUM - TOTAL RECOVERABLE**

Sample OUTFALL-001 (280-165253-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 08/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SPECIFIC CONDUCTIVITY**

Sample OUTFALL-001 (280-165253-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL SUSPENDED SOLIDS**

Sample OUTFALL-001 (280-165253-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HEXAVALENT CHROMIUM**

Sample OUTFALL-001 (280-165253-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 08/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HEXAVALENT CHROMIUM**

Sample OUTFALL-001 (280-165253-1) was analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 08/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CORROSIVITY (PH)**

Sample OUTFALL-001 (280-165253-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 08/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SULFIDE**

Sample OUTFALL-001 (280-165253-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 08/09/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

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## Job ID: 280-165253-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

#### HYDROGEN SULFIDE

Sample OUTFALL-001 (280-165253-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 08/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-165253-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	12	J	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Lead	0.37	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Copper	2.7	B	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.42	J B	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Silver	0.24	J B	0.50	0.045	ug/L	1		200.8	Potentially Dissolved
Zinc	13		10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	200		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
pH adj. to 25 deg C	8.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.8	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	8.1		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	200		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA
Chromium, hexavalent	0.010	J	0.020	0.0040	mg/L	1		SM 3500 CR B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.8	Metals (ICP/MS)	EPA	EET DEN
245.1	Mercury (CVAA)	EPA	EET DEN
SM 2510B	Conductivity, Specific Conductance	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 3500 CR B	Chromium, Hexavalent	SM	EET DEN
SM 4500 H+ B	pH	SM	EET DEN
SM 4500 S2 D	Sulfide, Total	SM	EET DEN
SM3500 CR B	Chromium, Trivalent	SM	EET DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET DEN
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
245.1	Preparation, Mercury	EPA	EET DEN
FILTRATION	Sample Filtration	None	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

#### Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

- EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-165253-1

Project/Site: Wastewater Discharge - Nederland, CO

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-165253-1	OUTFALL-001	Water	08/08/22 12:40	08/08/22 15:52

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	12	J	100	9.1	ug/L		08/09/22 14:55	08/10/22 17:17	1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/09/22 14:30	08/10/22 23:51	1
Cadmium	ND		1.0	0.088	ug/L		08/09/22 14:30	08/10/22 23:51	1
Chromium	ND		3.0	0.88	ug/L		08/09/22 14:30	08/10/22 23:51	1
Copper	ND		2.0	0.71	ug/L		08/09/22 14:30	08/10/22 23:51	1
Lead	0.37	J	1.0	0.23	ug/L		08/09/22 14:30	08/10/22 23:51	1
Zinc	ND	^+	10	2.0	ug/L		08/09/22 14:30	08/10/22 23:51	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/15/22 15:02	08/16/22 19:49	1
Cadmium	ND		1.0	0.088	ug/L		08/15/22 15:02	08/16/22 19:49	1
Chromium	ND		3.0	0.88	ug/L		08/15/22 15:02	08/16/22 19:49	1
Copper	2.7	B	2.0	0.71	ug/L		08/15/22 15:02	08/16/22 19:49	1
Lead	0.42	J B	1.0	0.23	ug/L		08/15/22 15:02	08/16/22 19:49	1
Manganese	ND		2.0	0.51	ug/L		08/15/22 15:02	08/16/22 19:49	1
Nickel	ND		2.0	0.28	ug/L		08/15/22 15:02	08/16/22 19:49	1
Selenium	ND		5.0	1.0	ug/L		08/15/22 15:02	08/16/22 19:49	1
Silver	0.24	J B	0.50	0.045	ug/L		08/15/22 15:02	08/16/22 19:49	1
Zinc	13		10	2.0	ug/L		08/18/22 08:57	08/18/22 17:12	1

## Method: 245.1 - Mercury (CVAA)

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/09/22 17:35	08/10/22 17:25	1

## General Chemistry

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	200		2.0	2.0	umhos/cm			08/10/22 09:11	1
Total Suspended Solids	ND		4.0	1.1	mg/L			08/10/22 10:17	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/08/22 19:26	1
pH adj. to 25 deg C	8.1	HF	0.1	0.1	SU			08/10/22 09:49	1
Temperature	19.8	HF	1.0	1.0	Degrees C			08/10/22 09:49	1

Eurofins Denver

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## General Chemistry (Continued)

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			08/09/22 20:33	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			08/17/22 08:03	1
<b>Field pH</b>	<b>8.1</b>		1.0	1.0	SU			08/17/22 08:03	1
<b>Field Temperature</b>	<b>20</b>		1.0	1.0	Celsius			08/17/22 08:03	1
<b>Specific Conductance</b>	<b>200</b>		2.0	2.0	umhos/cm			08/17/22 08:03	1
Sulfide	ND		4.0	4.0	mg/L			08/17/22 08:03	1

## General Chemistry - Total Recoverable

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			08/17/22 09:38	1

## General Chemistry - Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.010	J	0.020	0.0040	mg/L			08/08/22 19:31	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/08/22 12:40**  
**Date Received: 08/08/22 15:52**

**Lab Sample ID: 280-165253-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			08/17/22 09:39	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-583419/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583687

Prep Type: Total Recoverable  
 Prep Batch: 583419

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	ND		100	9.1	ug/L		08/09/22 14:55	08/10/22 13:34	1

Lab Sample ID: LCS 280-583419/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583687

Prep Type: Total Recoverable  
 Prep Batch: 583419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

Lab Sample ID: LCSD 280-583419/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 583687

Prep Type: Total Recoverable  
 Prep Batch: 583419

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-583382/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583683

Prep Type: Total Recoverable  
 Prep Batch: 583382

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		08/09/22 14:30	08/10/22 23:22	1
Cadmium	ND		1.0	0.088	ug/L		08/09/22 14:30	08/10/22 23:22	1
Chromium	ND		3.0	0.88	ug/L		08/09/22 14:30	08/10/22 23:22	1
Copper	ND		2.0	0.71	ug/L		08/09/22 14:30	08/10/22 23:22	1
Lead	ND		1.0	0.23	ug/L		08/09/22 14:30	08/10/22 23:22	1
Zinc	ND	^+	10	2.0	ug/L		08/09/22 14:30	08/10/22 23:22	1

Lab Sample ID: LCS 280-583382/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583683

Prep Type: Total Recoverable  
 Prep Batch: 583382

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	RPD	Limit
Cadmium									
Chromium									
Copper									
Lead									
Zinc									

Lab Sample ID: MB 280-583640/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 584178

Prep Type: Potentially Dissolved  
 Prep Batch: 583979

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

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Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		08/15/22 15:02	08/16/22 19:42	1
Cadmium	ND		1.0	0.088	ug/L		08/15/22 15:02	08/16/22 19:42	1
Chromium	ND		3.0	0.88	ug/L		08/15/22 15:02	08/16/22 19:42	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

**Lab Sample ID: MB 280-583640/1-B**  
**Matrix: Water**  
**Analysis Batch: 584178**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 583979**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		2.0	0.71	ug/L		08/15/22 15:02	08/16/22 19:42	1
Lead	0.551	J	1.0	0.23	ug/L		08/15/22 15:02	08/16/22 19:42	1
Manganese	ND		2.0	0.51	ug/L		08/15/22 15:02	08/16/22 19:42	1
Nickel	ND		2.0	0.28	ug/L		08/15/22 15:02	08/16/22 19:42	1
Selenium	ND		5.0	1.0	ug/L		08/15/22 15:02	08/16/22 19:42	1
Silver	0.0620	J	0.50	0.045	ug/L		08/15/22 15:02	08/16/22 19:42	1

**Lab Sample ID: LCS 280-583640/2-B**  
**Matrix: Water**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Potentially Dissolved**

**Analysis Batch: 584178**

**Prep Batch: 583979**

Analyte	Spike	LCS	LCS	%Rec
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Manganese				
Nickel				
Selenium				
Silver				

**Lab Sample ID: 280-165253-1 MS**  
**Matrix: Water**  
**Analysis Batch: 584178**

**Client Sample ID: OUTFALL-001**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 583979**

Analyte	Sample Sample		Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Arsenic	ND		40.0	42.3		ug/L		106	79 - 120
Cadmium	ND		40.0	41.5		ug/L		104	89 - 111
Chromium	ND		40.0	41.2		ug/L		103	86 - 115
Copper	2.7	B	40.0	44.0		ug/L		103	90 - 115
Lead	0.42	J B	40.0	39.3		ug/L		97	88 - 115
Manganese	ND		40.0	40.9		ug/L		102	87 - 115
Nickel	ND		40.0	40.9		ug/L		102	86 - 115
Selenium	ND		40.0	42.2		ug/L		106	85 - 114
Silver	0.24	J B	40.0	40.3		ug/L		100	70 - 130

**Lab Sample ID: 280-165253-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 584178**

**Client Sample ID: OUTFALL-001**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 583979**

Analyte	Sample Sample		Spike	MSD MSD		Unit	D	%Rec	Limits	RPD	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Arsenic	ND		40.0	43.4		ug/L		108	79 - 120	2	20	
Cadmium	ND		40.0	41.6		ug/L		104	89 - 111	0	20	
Chromium	ND		40.0	41.8		ug/L		105	86 - 115	2	20	
Copper	2.7	B	40.0	42.1		ug/L		98	90 - 115	5	20	
Lead	0.42	J B	40.0	39.8		ug/L		98	88 - 115	1	20	

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

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Manganese	ND	40.0	42.1	ug/L	105	87 - 115	3	20
Nickel	ND	40.0	39.7	ug/L	99	86 - 115	3	20

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-165253-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 584178

Prep Type: Potentially Dissolved  
 Prep Batch: 583979

Analyte	Sample		Spike	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Selenium	ND		40.0	42.4		ug/L		106	85 - 114	0	20
Silver	0.24	J B	40.0	39.8		ug/L		99	70 - 130	1	20

Lab Sample ID: MB 280-583640/1-C

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 584432

Prep Type: Potentially Dissolved

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	ND		1.0	0.23	ug/L			08/18/22 17:01	1
Zinc	ND		10	2.0	ug/L			08/18/22 17:01	1

Lab Sample ID: LCS 280-583640/2-C

Matrix: Water  
 Analysis Batch: 584432

Analyte

Lead									
Zinc									

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-583449/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583661

Prep Type: Total/NA  
 Prep Batch: 583449

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.061	ug/L		08/09/22 17:35	08/10/22 17:07	1

Lab Sample ID: LCS 280-583449/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583661

Prep Type: Total/NA  
 Prep Batch: 583449

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Mercury	5.00	4.85		ug/L		97	90 - 110

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-583549/5

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583549

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Specific Conductance	ND		2.0	2.0	umhos/cm			08/10/22 09:11	1

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

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Lab Sample ID: LCS 280-583549/4  
Matrix: Water  
Analysis Batch: 583549

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Specific Conductance	1410	1400		umhos/cm		99	90 - 110

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: 280-165253-1 DU

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 583549

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	RPD
Specific Conductance		200			

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-583568/3

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583568

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			08/10/22 10:17	1

Lab Sample ID: LCS 280-583568/1

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583568

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids									

Lab Sample ID: LCSD 280-583568/2

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 583568

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids									

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-583373/10

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/08/22 19:26	1

Lab Sample ID: LCS 280-583373/8

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.100	0.102		mg/L		102	91 - 112

Lab Sample ID: LCSD 280-583373/9

Client Sample ID: Lab Control Sample Dup

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

1

2

**Matrix: Water**  
**Analysis Batch: 583373**

**Prep Type: Total/NA**

**Analyte**

Chromium, hexavalent

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-165253-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	ND		0.100	0.104		mg/L		104	91 - 112

Lab Sample ID: 280-165253-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier					RPD	
Chromium, hexavalent	ND		0.100	0.112		mg/L		112	91 - 112	7	20

Lab Sample ID: 280-165253-1 DU

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Total/NA

Analyte	Sample	Sample	DU		Unit	D	%Rec	Limits	RPD
	Result	Qualifier	Result	Qualifier					RPD
Chromium, hexavalent	ND								

Lab Sample ID: MB 280-583368/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Dissolved

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/08/22 19:30	1

Lab Sample ID: LCS 280-583368/1-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Dissolved

Chromium, hexavalent									
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Lab Sample ID: LCSD 280-583368/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Dissolved

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier					RPD	
Chromium, hexavalent	0.100	0.102		mg/L		102	91 - 112	0	20

Lab Sample ID: 280-165253-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Dissolved

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	0.010	J	0.100	0.104		mg/L		94	91 - 112

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

1

2

Lab Sample ID: 280-165253-1 MSD  
Matrix: Water  
Analysis Batch: 583373

Client Sample ID: OUTFALL-001  
Prep Type: Dissolved

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Chromium, hexavalent	0.010	J	0.100	0.109		mg/L		98	91 - 112	4	20

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: 280-165253-1 DU

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 583373

Prep Type: Dissolved

Analyte	Sample	Sample	DU	DU	RPD
Chromium, hexavalent		0.010	J		

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-583571/4

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583571

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
pH adj. to 25 deg C	7.00	7.0		SU		100	99 - 101

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-583518/37

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 583518

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			08/09/22 20:27	1

Lab Sample ID: LCS 280-583518/35

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 583518

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sulfide	0.500	0.482		mg/L		96	81 - 122

Lab Sample ID: LCSD 280-583518/36

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 583518

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide									

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-584181/1

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 584181

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			08/17/22 08:03	1

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

1

2

Field pH	ND	1.0	1.0	SU	08/17/22 08:03	1
Field Temperature	ND	1.0	1.0	Celsius	08/17/22 08:03	1
Specific Conductance	ND	2.0	2.0	umhos/cm	08/17/22 08:03	1
Sulfide	ND	4.0	4.0	mg/L	08/17/22 08:03	1

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Metals

### Prep Batch: 583382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-583382/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-583382/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

### Prep Batch: 583419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.7	
MB 280-583419/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-583419/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-583419/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

### Prep Batch: 583449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	245.1	
MB 280-583449/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-583449/2-A	Lab Control Sample	Total/NA	Water	245.1	

### Filtration Batch: 583640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-583640/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-583640/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	
280-165253-1 MS	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
280-165253-1 MSD	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

### Analysis Batch: 583661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	245.1	583449
MB 280-583449/1-A	Method Blank	Total/NA	Water	245.1	583449
LCS 280-583449/2-A	Lab Control Sample	Total/NA	Water	245.1	583449

### Analysis Batch: 583683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.8	583382
MB 280-583382/1-A	Method Blank	Total Recoverable	Water	200.8	583382
LCS 280-583382/2-A	Lab Control Sample	Total Recoverable	Water	200.8	583382

### Analysis Batch: 583687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	583419
MB 280-583419/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	583419
LCS 280-583419/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	583419
LCSD 280-583419/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	583419

### Prep Batch: 583979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolved	Water	200.8	583640
MB 280-583640/1-B	Method Blank	Potentially Dissolved	Water	200.8	583640
LCS 280-583640/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	583640
280-165253-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	583640
280-165253-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	583640

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# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Metals

### Analysis Batch: 584178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolved	Water	200.8	583979
MB 280-583640/1-B	Method Blank	Potentially Dissolved	Water	200.8	583979
LCS 280-583640/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	583979
280-165253-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	583979
280-165253-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	583979

### Prep Batch: 584309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolved	Water	200.8	583640

### Analysis Batch: 584432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolved	Water	200.8	584309
MB 280-583640/1-C	Method Blank	Potentially Dissolved	Water	200.8	
LCS 280-583640/2-C	Lab Control Sample	Potentially Dissolved	Water	200.8	

## General Chemistry

### Filtration Batch: 583368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Dissolved	Water	FILTRATION	
MB 280-583368/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-583368/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-583368/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-165253-1 MS	OUTFALL-001	Dissolved	Water	FILTRATION	
280-165253-1 MSD	OUTFALL-001	Dissolved	Water	FILTRATION	
280-165253-1 DU	OUTFALL-001	Dissolved	Water	FILTRATION	

### Analysis Batch: 583373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
MB 280-583368/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	583368
MB 280-583373/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-583368/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	583368
LCS 280-583373/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-583368/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	583368
LCSD 280-583373/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-165253-1 MS	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1 MS	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-165253-1 MSD	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1 MSD	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-165253-1 DU	OUTFALL-001	Dissolved	Water	SM 3500 CR B	583368
280-165253-1 DU	OUTFALL-001	Total/NA	Water	SM 3500 CR B	

### Analysis Batch: 583518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
MB 280-583518/37	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-583518/35	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-583518/36	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

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# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## General Chemistry

### Analysis Batch: 583549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 2510B	
MB 280-583549/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-583549/4	Lab Control Sample	Total/NA	Water	SM 2510B	
280-165253-1 DU	OUTFALL-001	Total/NA	Water	SM 2510B	

### Analysis Batch: 583568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 2540D	
MB 280-583568/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-583568/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-583568/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

### Analysis Batch: 583571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM 4500 H+ B	
LCS 280-583571/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 584181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total/NA	Water	SM4500 S2 H	
MB 280-584181/1	Method Blank	Total/NA	Water	SM4500 S2 H	

### Analysis Batch: 584198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 584199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165253-1	OUTFALL-001	Potentially Dissolved	Water	SM3500 CR B	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-165253-1**

**Date Collected: 08/08/22 12:40**

**Matrix: Water**

**Date Received: 08/08/22 15:52**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	583419	08/09/22 14:55	MCR	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			583687	08/10/22 17:17	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	583640	08/10/22 16:21	KMS	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	583979	08/15/22 15:02	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			584178	08/16/22 19:49	LMT	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	583640	08/10/22 16:21	KMS	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	584309	08/18/22 08:57	PFM	EET DEN
Potentially Dissolved	Analysis	200.8		1			584432	08/18/22 17:12	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	583382	08/09/22 14:30	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			583683	08/10/22 23:51	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	583449	08/09/22 17:35	CEH	EET DEN
Total/NA	Analysis	245.1		1			583661	08/10/22 17:25	CEH	EET DEN
Total/NA	Analysis	SM 2510B		1			583549	08/10/22 09:11	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	583568	08/10/22 10:17	ASP	EET DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	583368	08/08/22 18:51	LRB	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	583373	08/08/22 19:31	LRB	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	583373	08/08/22 19:26	LRB	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			583571	08/10/22 09:49	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	583518	08/09/22 20:33	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			584199	08/17/22 09:39	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			584198	08/17/22 09:38	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			584181	08/17/22 08:03	SAH	EET DEN

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165253-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22 *
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22 *
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22 *
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Chain of Custody Record**

<b>Client Information</b> Client Contact: <u>Tracey Cocherl</u> Phone: _____ Company: <u>Grand Island Resources</u> Address: <u>12567 West Cedar Road Suite 250</u> City: <u>Lakewood</u> State, Zip: <u>CO, 80466</u> Phone: <u>315-414-6986</u> Email: <u>pdelaney@blackfoxmining.com</u> Project Name: <u>Wastewater Discharge - Nederland, CO</u> Site: <u>First half of the month event</u> <u>Temp - 11°C</u> <u>PH - 8.4</u>		Lab PM: <u>Bieniliulis, Dylan T</u> E-Mail: <u>Dylan.Bieniliulis@Eurofinset.com</u> PWSID: _____ Due Date Requested: _____ TAT Requested (days): _____ Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No Advance Payment Required: _____ PO #: _____ WO #: _____ Project #: <u>28022821</u> SSOW#: _____		Carrier Tracking No(s): _____ State of Origin: _____ Job #: _____ Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2510B - Specific Conductance, 2540D - TSS, SM4500_H+ - pH / Temp 3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc) 3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc) SM4500_S2_D - Sulfide and SM3500_S2_H - Un-ionized Hydrogen Sulfide (calc) 200.8 - Potentially Dissolved Metals (First half of the month permit list) 200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list)		Analysis Requested Total Number of Containers: <u>8</u> Special Instructions/Note: *First half of the month potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn) *First half of the month total recoverable metals permit list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg) <u>PH =</u> <u>temp =</u>			
Sample Date: <u>8/8/22 12:40pm</u> Sample Time: _____ Sample Type (C=Comp, G=grab): <u>G</u> Matrix (W=water, S=solid, O=soil/sediment, A=air): <u>W</u> Preservation Code: _____ Barcode:  280-165253 Chain of Custody		Special Instructions/QC Requirements: <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <u>1</u> Months Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: _____ Date: _____ Relinquished by: <u>[Signature]</u> Date/Time: <u>8/8/22 3:52pm</u> Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks: <u>84 (for) IR @</u>		Method of Shipment: _____ Date/Time: _____ Company: _____ Date/Time: _____ Company: _____ Date/Time: _____ Company: _____			

# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-165253-1

**Login Number: 165253**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Davis, Madison T**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	<b>Eurofins Denver</b>	True
The cooler's custody seal, if present, is intact.		N/A N/A True
Sample custody seals, if present, are intact.		True True
The cooler or samples do not appear to have been compromised or tampered with.		True True True True True True True True
Samples were received on ice.		True True True True True N/A True
Cooler Temperature is acceptable.		True
Cooler Temperature is recorded.		True True N/A
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Received same day of collection; chilling process has begun.

14

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

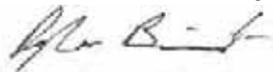
Laboratory Job ID: 280-165744-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
9/7/2022 3:30:20 PM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	5
Method Summary .....	6
Sample Summary .....	7
Client Sample Results .....	8
QC Sample Results .....	9
QC Association .....	10
Chronicle .....	11
Certification Summary .....	12
Chain of Custody .....	13
Receipt Checklists .....	14



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-165744-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

**Job ID: 280-165744-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-165744-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 08/22/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.5 C.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL-001 (280-165744-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/30/2022 and analyzed on 08/31/2022.

This report includes Reporting Limits (RLs) for 200.8 Potentially Dissolved Silver that are less than Eurofins TestAmerica Denver's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Due to laboratory error the following sample was filtered 106 hours after collection, which is outside of recommended 8-96 hours following preservation for the requested potentially dissolved metals: OUTFALL-001 (280-165744-1). The client was notified on 9/7/2022 and instructed the labroatory to report the qualified data.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Sample OUTFALL-001 (280-165744-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/23/2022 and analyzed on 08/24/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-165744-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	1.1	J	2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	0.85	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Copper	2.5	H	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.46	J H	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Zinc	9.2	J H	10	2.0	ug/L	1		200.8	Potentially Dissolved

This Detection Summary does not include radiochemical test results.



# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

#### Protocol References:

EPA = US Environmental Protection Agency

#### Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-165744-1

Project/Site: Wastewater Discharge - Nederland, CO

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-165744-1	OUTFALL-001	Water	08/22/22 08:00	08/22/22 16:55

1

2

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001  
 Date Collected: 08/22/22 08:00  
 Date Received: 08/22/22 16:55

Lab Sample ID: 280-165744-1  
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	1.1	J	2.0	0.71	ug/L		08/23/22 14:45	08/24/22 09:58	1
Lead	0.85	J	1.0	0.23	ug/L		08/23/22 14:45	08/24/22 09:58	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-165744-1

Date Collected: 08/22/22 08:00

Matrix: Water

Date Received: 08/22/22 16:55

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	H	1.0	0.088	ug/L		08/30/22 11:40	08/31/22 18:16	1
Copper	2.5	H	2.0	0.71	ug/L		08/30/22 11:40	08/31/22 18:16	1
Lead	0.46	J H	1.0	0.23	ug/L		08/30/22 11:40	08/31/22 18:16	1
Silver	ND	H	0.50	0.045	ug/L		08/30/22 11:40	08/31/22 18:16	1
Zinc	9.2	J H	10	2.0	ug/L		08/30/22 11:40	08/31/22 18:16	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 280-584768/1-A**  
**Matrix: Water**  
**Analysis Batch: 584927**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 584768**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		2.0	0.71	ug/L		08/23/22 14:45	08/24/22 09:23	1
Lead	ND		1.0	0.23	ug/L		08/23/22 14:45	08/24/22 09:23	1

**Lab Sample ID: LCS 280-584768/2-A**  
**Matrix: Water**  
**Analysis Batch: 584927**

**Analyte**

Copper  
 Lead

**Lab Sample ID: MB 280-585277/1-B**  
**Matrix: Water**  
**Analysis Batch: 585798**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 585492**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		1.0	0.088	ug/L		08/30/22 11:40	09/01/22 11:28	1
Copper	ND		2.0	0.71	ug/L		08/30/22 11:40	09/01/22 11:28	1
Lead	ND		1.0	0.23	ug/L		08/30/22 11:40	09/01/22 11:28	1
Silver	ND		0.50	0.045	ug/L		08/30/22 11:40	09/01/22 11:28	1
Zinc	ND		10	2.0	ug/L		08/30/22 11:40	09/01/22 11:28	1

**Lab Sample ID: LCS 280-585277/2-B**  
**Matrix: Water**  
**Analysis Batch: 585719**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 585492**

Analyte	Spike	LCS	LCS	%Rec
Copper				
Lead				
Silver				
Zinc				

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

## Metals

### Prep Batch: 584768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-584768/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-584768/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

### Analysis Batch: 584927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Total Recoverable	Water	200.8	584768
MB 280-584768/1-A	Method Blank	Total Recoverable	Water	200.8	584768
LCS 280-584768/2-A	Lab Control Sample	Total Recoverable	Water	200.8	584768

### Filtration Batch: 585277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-585277/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 585492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Potentially Dissolved	Water	200.8	585277
MB 280-585277/1-B	Method Blank	Potentially Dissolved	Water	200.8	585277
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	585277

### Analysis Batch: 585719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165744-1	OUTFALL-001	Potentially Dissolved	Water	200.8	585492
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	585492

### Analysis Batch: 585798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-585277/1-B	Method Blank	Potentially Dissolved	Water	200.8	585492

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

**Client Sample ID: OUTFALL-001**  
**Date Collected: 08/22/22 08:00**  
**Date Received: 08/22/22 16:55**

**Lab Sample ID: 280-165744-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	585277	08/26/22 17:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	585492	08/30/22 11:40	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			585719	08/31/22 18:16	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	584768	08/23/22 14:45	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			584927	08/24/22 09:58	LMT	EET DEN

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165744-1

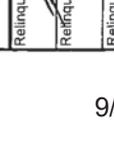
## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22 *
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22 *
West Virginia DEP	State	354	11-30-22
Wyoming (UST)	A2LA	2907.01	10-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Chain of Custody Record

<b>Client Information</b>		Lab PM: <b>Bieniliulis, Dylan T</b>	Carrier Tracking No(s):	COC No:
Client Contact: <b>Patrick Delaney</b>		E-Mail: <b>Dylan.Bieniliulis@Eurofins.com</b>	State of Origin:	Page:
Company: <b>Grand Island Resources</b>		Phone: <b>303-506-1618</b>	Job #:	
Address: <b>12567 West Cedar Road Suite 250</b>		<b>Analysis Requested</b>		
City: <b>Lakewood</b>				
State, Zip: <b>CO, 80466</b>				
Phone: <b>315-414-6986</b>				
Email: <b>pdelaney@blackfoxmining.com</b>		Preservation Codes:		
Project Name: <b>Wastewater Discharge - Nederland, CO</b>		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		
Site: <b>second half of the month event</b>		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Due Date Requested:		Special Instructions/Note:		
TAT Requested (days):		*Second half of the month potentially dissolved metals permit list = 200.8 (Cd, Cu, Pb, Ag, Zn) *Second half of the month total recoverable metals permit list = 200.8 (Cu, Pb)		
Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Total Number of containers: <input checked="" type="checkbox"/>		
PO #: <b>28022821</b>		200.8 - Potentially Dissolved Metals (Second half of the month permit list): <b>XX</b>		
WO #: <b>28022821</b>		200.8 - Total Recoverable Metals (Second half of the month permit list): <b>XX</b>		
Email: <b>pdelaney@blackfoxmining.com</b>		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/>		
Project #: <b>28022821</b>		Form MSD (Yes or No): <input checked="" type="checkbox"/>		
SSOW#:		Matrix (W=water, S=solid, O=wastewater, BT=titrate, A=air) <b>W</b>		
Sample Identification		Sample Type (C=Comp, G=grab) <b>G</b>		
<b>OUTFALL-001</b>		Sample Date <b>8/22/22</b>		
		Sample Time <b>8am</b>		
		Preservation Code: <b>W</b>		
		Special Instructions/Note: <b>temp = 8.0C pH = 8.8</b>		
		Barcode: 		
		280-165744 Chain of Custody		
<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				
<b>Deliverable Requested:</b> I, II, III, IV, Other (specify)				
<b>Empty Kit Relinquished by:</b>				
Relinquished by: 		Date: <b>8/24/22 4:55 pm</b>		
Relinquished by: 		Date/Time: <b>8/22/2022 16:55</b>		
Relinquished by: 		Date/Time: <b>8/22/2022 16:55</b>		
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: <b>5.5 CF-10.0 12#12</b>		



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-165744-1

**Login Number: 165744**

**List Number: 1**

**Creator: Kazenga, Oliver M**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.		<b>Eurofins Denver</b>
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		



True  
N/A True True  
True True  
True True  
True True  
True True  
True  
True True  
True True  
True True  
True  
N/A  
True True  
N/A

14



APPENDIX B.3 SEPTEMBER 2022 OUTFALL-001 ANALYTICAL RESULTS

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

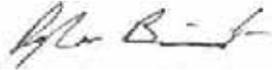
Laboratory Job ID: 280-166150-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
9/19/2022 10:43:57 AM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	7
Method Summary .....	8
Sample Summary .....	9
Client Sample Results .....	10
QC Sample Results .....	12
QC Association .....	18
Chronicle .....	21
Certification Summary .....	22
Chain of Custody .....	23
Receipt Checklists .....	24



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-166150-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

**Job ID: 280-166150-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-166150-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 09/06/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 12.4 C.

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

### **TOTAL RECOVERABLE METALS (ICP)**

Sample OUTFALL - 001 (280-166150-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 09/07/2022 and analyzed on 09/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL - 001 (280-166150-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 09/12/2022 and analyzed on 09/13/2022 and 09/14/2022.

This report includes Reporting Limits (RLs) for 200.8 Potentially Dissolved Silver that are less than Eurofins TestAmerica Denver standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the need of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Manganese and Nickel were detected in method blank MB 280-586297/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Sample OUTFALL - 001 (280-166150-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 09/08/2022 and analyzed on 09/09/2022.

An instrument blank for analytical batch 280-586337 contained about 1.6 ug/L Cr which is greater than one-half the reporting limit

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Job ID: 280-166150-1 (Continued)

### Laboratory: Eurofins Denver (Continued)

(RL) of 3 ug/L, and associated samples were not re-analyzed because they were less than the reporting limit for Chromium. The data have been qualified and reported.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL MERCURY (CVAA)

Sample UTFALL - 001 (280-166150-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared and analyzed on 09/07/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Sample UTFALL - 001 (280-166150-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 09/19/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Sample UTFALL - 001 (280-166150-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 09/19/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SPECIFIC CONDUCTIVITY

Sample UTFALL - 001 (280-166150-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 09/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL SUSPENDED SOLIDS

Sample UTFALL - 001 (280-166150-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 09/08/2022.

Total Suspended Solids was detected in method blank MB 280-586233/2 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### HEXAVALENT CHROMIUM

Sample UTFALL - 001 (280-166150-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 09/06/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### DISSOLVED HEXAVALENT CHROMIUM

Sample UTFALL - 001 (280-166150-1) was analyzed for dissolved hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 09/06/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### CORROSIVITY (PH)

Sample UTFALL - 001 (280-166150-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 09/08/2022.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

---

## Job ID: 280-166150-1 (Continued)

---

### Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SULFIDE**

Sample OUTFALL - 001 (280-166150-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 09/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HYDROGEN SULFIDE**

Sample OUTFALL - 001 (280-166150-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 09/15/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

**Client Sample ID: OUTFALL - 001**

**Lab Sample ID: 280-166150-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	15	J	100	9.1	ug/L	1			200.7 Rev 4.4	Total Recoverable
Lead	0.35	J	1.0	0.23	ug/L	1			200.8	Total Recoverable
Lead	0.38	J	1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Manganese	1.2	J B	2.0	0.51	ug/L	1			200.8	Potentially Dissolved
Zinc	8.0	J	10	2.0	ug/L	1			200.8	Potentially Dissolved
Specific Conductance	230		2.0	2.0	umhos/cm	1			SM 2510B	Total/NA
Total Suspended Solids	1.2	J B	4.0	1.1	mg/L	1			SM 2540D	Total/NA
pH adj. to 25 deg C	8.3	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA
Temperature	21.3	HF	1.0	1.0	Degrees C	1			SM 4500 H+ B	Total/NA
Field pH	8.3		1.0	1.0	SU	1			SM4500 S2 H	Total/NA
Field Temperature	21		1.0	1.0	Celsius	1			SM4500 S2 H	Total/NA
Specific Conductance	230		2.0	2.0	umhos/cm	1			SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.8	Metals (ICP/MS)	EPA	EET DEN
245.1	Mercury (CVAA)	EPA	EET DEN
SM 2510B	Conductivity, Specific Conductance	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 3500 CR B	Chromium, Hexavalent	SM	EET DEN
SM 4500 H+ B	pH	SM	EET DEN
SM 4500 S2 D	Sulfide, Total	SM	EET DEN
SM3500 CR B	Chromium, Trivalent	SM	EET DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET DEN
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
245.1	Preparation, Mercury	EPA	EET DEN
FILTRATION	Sample Filtration	None	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

#### Protocol References:

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

- EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-166150-1

Project/Site: Wastewater Discharge - Nederland, CO

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-166150-1	OUTFALL - 001	Water	09/06/22 12:00	09/06/22 14:03

1

2

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	15	J	100	9.1	ug/L		09/07/22 17:03	09/08/22 20:10	1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/08/22 08:53	09/09/22 00:38	1
Cadmium	ND		1.0	0.088	ug/L		09/08/22 08:53	09/09/22 00:38	1
Chromium	ND		3.0	0.88	ug/L		09/08/22 08:53	09/09/22 00:38	1
Copper	ND		2.0	0.71	ug/L		09/08/22 08:53	09/09/22 00:38	1
Lead	0.35	J	1.0	0.23	ug/L		09/08/22 08:53	09/09/22 00:38	1
Zinc	ND		10	2.0	ug/L		09/08/22 08:53	09/09/22 00:38	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/12/22 15:03	09/13/22 17:57	1
Cadmium	ND		1.0	0.088	ug/L		09/12/22 15:03	09/13/22 17:57	1
Chromium	ND		3.0	0.88	ug/L		09/12/22 15:03	09/13/22 17:57	1
Copper	ND		2.0	0.71	ug/L		09/12/22 15:03	09/14/22 12:00	1
Lead	0.38	J	1.0	0.23	ug/L		09/12/22 15:03	09/13/22 17:57	1
Manganese	1.2	J B	2.0	0.51	ug/L		09/12/22 15:03	09/13/22 17:57	1
Nickel	ND		2.0	0.28	ug/L		09/12/22 15:03	09/14/22 12:00	1
Selenium	ND		5.0	1.0	ug/L		09/12/22 15:03	09/13/22 17:57	1
Silver	ND		0.50	0.045	ug/L		09/12/22 15:03	09/13/22 17:57	1
Zinc	8.0	J	10	2.0	ug/L		09/12/22 15:03	09/13/22 17:57	1

## Method: 245.1 - Mercury (CVAA)

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		09/07/22 15:00	09/07/22 22:18	1

## General Chemistry

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	230		2.0	2.0	umhos/cm			09/08/22 10:22	1
Total Suspended Solids	1.2	J B	4.0	1.1	mg/L			09/08/22 10:58	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			09/06/22 15:05	1
pH adj. to 25 deg C	8.3	HF	0.1	0.1	SU			09/08/22 17:13	1
Temperature	21.3	HF	1.0	1.0	Degrees C			09/08/22 17:13	1

Eurofins Denver

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## General Chemistry (Continued)

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			09/12/22 17:03	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			09/15/22 15:38	1
<b>Field pH</b>	<b>8.3</b>		1.0	1.0	SU			09/15/22 15:38	1
<b>Field Temperature</b>	<b>21</b>		1.0	1.0	Celsius			09/15/22 15:38	1
<b>Specific Conductance</b>	<b>230</b>		2.0	2.0	umhos/cm			09/15/22 15:38	1
Sulfide	ND		4.0	4.0	mg/L			09/15/22 15:38	1

## General Chemistry - Total Recoverable

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			09/19/22 10:15	1

## General Chemistry - Dissolved

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			09/06/22 15:20	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: OUTFALL - 001**  
**Date Collected: 09/06/22 12:00**  
**Date Received: 09/06/22 14:03**

**Lab Sample ID: 280-166150-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			09/19/22 10:23	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-586117/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586323

Prep Type: Total Recoverable  
 Prep Batch: 586117

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	ND		100	9.1	ug/L		09/07/22 17:03	09/08/22 19:54	1

Lab Sample ID: LCS 280-586117/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586323

Prep Type: Total Recoverable  
 Prep Batch: 586117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

Lab Sample ID: LCSD 280-586117/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 586323

Prep Type: Total Recoverable  
 Prep Batch: 586117

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-586118/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586337

Prep Type: Total Recoverable  
 Prep Batch: 586118

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		09/08/22 08:53	09/09/22 00:19	1
Cadmium	ND		1.0	0.088	ug/L		09/08/22 08:53	09/09/22 00:19	1
Chromium	ND		3.0	0.88	ug/L		09/08/22 08:53	09/09/22 00:19	1
Copper	ND		2.0	0.71	ug/L		09/08/22 08:53	09/09/22 00:19	1
Lead	ND		1.0	0.23	ug/L		09/08/22 08:53	09/09/22 00:19	1
Zinc	ND		10	2.0	ug/L		09/08/22 08:53	09/09/22 00:19	1

Lab Sample ID: LCS 280-586118/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586337

Prep Type: Total Recoverable  
 Prep Batch: 586118

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	RPD	Limit
Cadmium									
Chromium									
Copper									
Lead									
Zinc									

Lab Sample ID: LCSD 280-586118/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 586337

Prep Type: Total Recoverable  
 Prep Batch: 586118

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

1

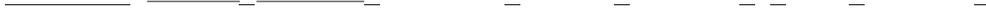
2

**Analyte**

Arsenic

Cadmium

Chromium



# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 280-586118/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 586337

Prep Type: Total Recoverable  
 Prep Batch: 586118

**Analyte**

Copper  
 Lead  
 Zinc

Lab Sample ID: MB 280-586297/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586712

Prep Type: Potentially Dissolved  
 Prep Batch: 586489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/12/22 15:03	09/13/22 17:46	1
Cadmium	ND		1.0	0.088	ug/L		09/12/22 15:03	09/13/22 17:46	1
Chromium	ND		3.0	0.88	ug/L		09/12/22 15:03	09/13/22 17:46	1
Lead	ND		1.0	0.23	ug/L		09/12/22 15:03	09/13/22 17:46	1
Manganese	0.818	J	2.0	0.51	ug/L		09/12/22 15:03	09/13/22 17:46	1
Selenium	ND		5.0	1.0	ug/L		09/12/22 15:03	09/13/22 17:46	1
Silver	ND		0.50	0.045	ug/L		09/12/22 15:03	09/13/22 17:46	1
Zinc	ND		10	2.0	ug/L		09/12/22 15:03	09/13/22 17:46	1

Lab Sample ID: MB 280-586297/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586807

Prep Type: Potentially Dissolved  
 Prep Batch: 586489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		09/12/22 15:03	09/14/22 11:47	1
Nickel	0.335	J	2.0	0.28	ug/L		09/12/22 15:03	09/14/22 11:47	1

Lab Sample ID: LCS 280-586297/2-B

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586712

Prep Type: Potentially Dissolved  
 Prep Batch: 586489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	42.0		ug/L		105	89 - 111
Cadmium	40.0	42.4		ug/L		106	89 - 111
Chromium	40.0	42.8		ug/L		107	86 - 115
Lead	40.0	41.7		ug/L		104	88 - 115
Manganese	40.0	41.6		ug/L		104	87 - 115
Selenium	40.0	42.1		ug/L		105	85 - 114
Silver	40.0	42.1		ug/L		105	90 - 114
Zinc	40.0	40.3		ug/L		101	88 - 115

Lab Sample ID: LCS 280-586297/2-B

Matrix: Water  
 Analysis Batch: 586807

**Analyte**

Copper  
 Nickel

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-586079/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586254

Prep Type: Total/NA  
 Prep Batch: 586079

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.061	ug/L		09/07/22 15:00	09/07/22 21:43	1

Lab Sample ID: LCS 280-586079/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586254

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury									

Lab Sample ID: LCSD 280-586079/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 586254

Prep Type: Total/NA  
 Prep Batch: 586079

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-586218/31

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586218

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Specific Conductance	ND		2.0	2.0	umhos/cm			09/08/22 09:56	1

Lab Sample ID: LCS 280-586218/30

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586218

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-586233/2

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586233

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Suspended Solids	2.00	J	4.0	1.1	mg/L			09/08/22 10:58	1

Lab Sample ID: LCS 280-586233/1

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586233

Prep Type: Total/NA

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

1

2

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	201	188		mg/L		94	79 - 114

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 280-166150-1 DU

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586233

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	RPD
Total Suspended Solids	1.2	J B			

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-586054/8

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			09/06/22 15:03	1

Lab Sample ID: LCS 280-586054/9

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Total/NA

Analyte	Result	Qualifier	Unit
Chromium, hexavalent			

Lab Sample ID: LCSD 280-586054/10

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Total/NA

Analyte	Result	Qualifier	Unit
Chromium, hexavalent			

Lab Sample ID: 280-166150-1 MS

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
Chromium, hexavalent	ND		0.100	0.0970		mg/L		97	91 - 112

Lab Sample ID: 280-166150-1 MSD

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
Chromium, hexavalent	ND		0.100	0.0988		mg/L		99	91 - 112	2	20

Lab Sample ID: 280-166150-1 DU

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	RPD

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

1

2

**Analyte**

Chromium, hexavalent

**Result** **Qualifier**

ND

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: MB 280-586047/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			09/06/22 15:20	1

Lab Sample ID: LCS 280-586047/1-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent									

Lab Sample ID: LCSD 280-586047/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.0974		mg/L		97	91 - 112	0	20

Lab Sample ID: 280-166150-1 MS

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.100	0.0974		mg/L		97	91 - 112

Lab Sample ID: 280-166150-1 MSD

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.0976		mg/L		98	91 - 112	0	20

Lab Sample ID: 280-166150-1 DU

Client Sample ID: OUTFALL - 001

Matrix: Water  
 Analysis Batch: 586054

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND			ND		mg/L		NC	20

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-586329/27

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586329

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH adj. to 25 deg C	7.00	7.0		SU		100	99 - 101

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-586571/10

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586571

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			09/12/22 16:59	1

Lab Sample ID: LCS 280-586571/9

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 586571

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide									

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-586948/1

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 586948

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			09/15/22 15:38	1
Field pH	ND		1.0	1.0	SU			09/15/22 15:38	1
Field Temperature	ND		1.0	1.0	Celsius			09/15/22 15:38	1
Specific Conductance	ND		2.0	2.0	umhos/cm			09/15/22 15:38	1
Sulfide	ND		4.0	4.0	mg/L			09/15/22 15:38	1

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Metals

### Prep Batch: 586079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	Water	245.1	
MB 280-586079/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-586079/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 280-586079/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

### Prep Batch: 586117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total Recoverable	Water	200.7	
MB 280-586117/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-586117/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-586117/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

### Prep Batch: 586118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total Recoverable	Water	200.8	
MB 280-586118/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-586118/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 280-586118/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

### Analysis Batch: 586254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	Water	245.1	586079
MB 280-586079/1-A	Method Blank	Total/NA	Water	245.1	586079
LCS 280-586079/2-A	Lab Control Sample	Total/NA	Water	245.1	586079
LCSD 280-586079/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	586079

### Filtration Batch: 586297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-586297/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-586297/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

### Analysis Batch: 586323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total Recoverable	Water	200.7 Rev 4.4	586117
MB 280-586117/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	586117
LCS 280-586117/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	586117
LCSD 280-586117/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	586117

### Analysis Batch: 586337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total Recoverable	Water	200.8	586118
MB 280-586118/1-A	Method Blank	Total Recoverable	Water	200.8	586118
LCS 280-586118/2-A	Lab Control Sample	Total Recoverable	Water	200.8	586118
LCSD 280-586118/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	586118

### Prep Batch: 586489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Potentially Dissolved	Water	200.8	586297
MB 280-586297/1-B	Method Blank	Potentially Dissolved	Water	200.8	586297
LCS 280-586297/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	586297

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# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Metals

### Analysis Batch: 586712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Potentially Dissolved	Water	200.8	586489
MB 280-586297/1-B	Method Blank	Potentially Dissolved	Water	200.8	586489
LCS 280-586297/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	586489

### Analysis Batch: 586807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Potentially Dissolved	Water	200.8	586489
MB 280-586297/1-B	Method Blank	Potentially Dissolved	Water	200.8	586489
LCS 280-586297/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	586489

## General Chemistry

### Filtration Batch: 586047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Dissolved	Water	FILTRATION	
MB 280-586047/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-586047/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-586047/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-166150-1 MS	OUTFALL - 001	Dissolved	Water	FILTRATION	
280-166150-1 MSD	OUTFALL - 001	Dissolved	Water	FILTRATION	
280-166150-1 DU	OUTFALL - 001	Dissolved	Water	FILTRATION	

### Analysis Batch: 586054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Dissolved	Water	SM 3500 CR B	586047
280-166150-1	OUTFALL - 001	Total/NA	Water	SM 3500 CR B	
MB 280-586047/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	586047
MB 280-586054/8	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-586047/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	586047
LCS 280-586054/9	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-586047/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	586047
LCSD 280-586054/10	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-166150-1 MS	OUTFALL - 001	Dissolved	Water	SM 3500 CR B	586047
280-166150-1 MS	OUTFALL - 001	Total/NA	Water	SM 3500 CR B	
280-166150-1 MSD	OUTFALL - 001	Dissolved	Water	SM 3500 CR B	586047
280-166150-1 MSD	OUTFALL - 001	Total/NA	Water	SM 3500 CR B	
280-166150-1 DU	OUTFALL - 001	Dissolved	Water	SM 3500 CR B	586047
280-166150-1 DU	OUTFALL - 001	Total/NA	Water	SM 3500 CR B	

### Analysis Batch: 586218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	Water	SM 2510B	
MB 280-586218/31	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-586218/30	Lab Control Sample	Total/NA	Water	SM 2510B	

### Analysis Batch: 586233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	280-166150-1 DU	OUTFALL - 001	
MB 280-586233/2	Method Blank	Total/NA		Total/NA	
LCS 280-586233/1	Lab Control Sample	Total/NA			

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# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

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2

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Water	SM 2540D

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## General Chemistry

### Analysis Batch: 586329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	Water	SM 4500 H+ B	
LCS 280-586329/27	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 586571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	Water	SM 4500 S2 D	
MB 280-586571/10	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-586571/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	

### Analysis Batch: 586948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total/NA	Water	SM4500 S2 H	
MB 280-586948/1	Method Blank	Total/NA	Water	SM4500 S2 H	

### Analysis Batch: 587175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 587182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166150-1	OUTFALL - 001	Potentially Dissolved	Water	SM3500 CR B	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

**Client Sample ID: OUTFALL - 001**

**Lab Sample ID: 280-166150-1**

**Date Collected: 09/06/22 12:00**

**Matrix: Water**

**Date Received: 09/06/22 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.7			50 mL	50 mL	586117	09/07/22 17:03	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			586323	09/08/22 20:10	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	586297	09/08/22 16:15	PFM	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	586489	09/12/22 15:03	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			586712	09/13/22 17:57	LMT	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	586297	09/08/22 16:15	PFM	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	586489	09/12/22 15:03	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			586807	09/14/22 12:00	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	586118	09/08/22 08:53	PFM	EET DEN
Total Recoverable	Analysis	200.8		1			586337	09/09/22 00:38	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	586079	09/07/22 15:00	CEH	EET DEN
Total/NA	Analysis	245.1		1			586254	09/07/22 22:18	CEH	EET DEN
Total/NA	Analysis	SM 2510B		1			586218	09/08/22 10:22	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	586233	09/08/22 10:58	ASP	EET DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	586047	09/06/22 14:43	LRB	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	586054	09/06/22 15:20	BCR	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	586054	09/06/22 15:05	BCR	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			586329	09/08/22 17:13	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	586571	09/12/22 17:03	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			587182	09/19/22 10:23	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			587175	09/19/22 10:15	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			586948	09/15/22 15:38	ZPM	EET DEN

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166150-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-23
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22 *
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-23
Wyoming (UST)	A2LA	2907.01	10-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Chain of Custody Record

<b>Client Information</b> Client Contact: Patrick Delaney Company: Grand Island Resources Address: 12567 West Cedar Road Suite 250 City: Lakewood State, Zip: CO, 80466 Phone: 315-414-6986 Email: pdelaney@blackfoxmining.com Project Name: Wastewater Discharge - Nederland, CO Site: First half of the month event		Lab P/N: Bieniliulis, Dylan T E-Mail: Dylan.Bieniliulis@Eurofinset.com PWSID: 303-506-1618 Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: Advance Payment Required WO #: 28022821 Project #: 28022821 SSOW#:		Carrier Tracking No(s): State of Origin: Job #:		COC No.: Page: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:							
<b>Analysis Requested</b> 2510B - Specific Conductance, 2540D - TSS, SM4500 H+ - pH / Temp 3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc) 3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc) SM4500_S2_D - Sulfide and SM3500_S2_H - Un-ionized Hydrogen Sulfide (calc) 200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (permit list) 200.8 - Potentially Dissolved Metals (First half of the month (First half of the month permit list))		Field Filtered Sample (Yes or No)		Total Number of Containers		Special Instructions/Note: *First half of the month potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn) *First half of the month total recoverable metals permit list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg) pH = 8.6 Temp = 13°C							
Sample Identification OUTFALL-001		Sample Date 9/16/22 12 pm		Sample Time 12 pm		Sample Type G=grab		Matrix (Water, Solid, Other)		Preservation Code: W		280-166150 Chain of Custody	
<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date/Time: 9/16/22 2:03pm Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:		Date/Time:	
Empty Kit Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 12.4 CF + 0.0 12# 12		Received by:		Received by:		Received by:		Received by:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:		Method of Shipment:		Date/Time: 09/16/2012 1403 Date/Time:		Date/Time:		Date/Time:		Date/Time:	



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-166150-1

**Login Number: 166150**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Kazenga, Oliver M**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	<b>Eurofins Denver</b>	True
The cooler's custody seal, if present, is intact.		True True True
Sample custody seals, if present, are intact.		True True
The cooler or samples do not appear to have been compromised or tampered with.		True True True True True True True True
Samples were received on ice.		True True True True True True True True
Cooler Temperature is acceptable.		True True True True True N/A True
Cooler Temperature is recorded.		N/A
COC is present.		True True N/A
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Received same day of collection; chilling process has begun.

14

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

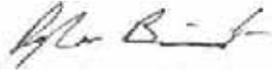
Laboratory Job ID: 280-166709-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
10/3/2022 2:40:54 PM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

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results through



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	5
Method Summary .....	6
Sample Summary .....	7
Client Sample Results .....	8
QC Sample Results .....	9
QC Association .....	11
Chronicle .....	12
Certification Summary .....	13
Chain of Custody .....	14
Receipt Checklists .....	15



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-166709-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

**Job ID: 280-166709-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-166709-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 09/20/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 8.5 C.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL-001 (280-166709-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 09/22/2022 and analyzed on 09/23/2022 and 09/29/2022.

Zinc was detected in method blank MB 280-587577/1-B at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) associated with batch 280-588395 recovered (113%) above the upper control limit (110%) for Zinc. The samples associated with this CCV were <RL for the affected analytes; therefore, the data have been qualified and reported. The associated samples are impacted: OUTFALL-001 (280-166709-1), (CCV 280-588395/66), (280-166709-B-1-MS) and (280-166709-B-1-D MSD).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Sample OUTFALL-001 (280-166709-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 09/26/2022 and analyzed on 09/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-166709-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.30	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Copper	1.6	J	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.30	J	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Silver	0.053	J	0.50	0.045	ug/L	1		200.8	Potentially Dissolved
Zinc	2.1	J B ^+	10	2.0	ug/L	1		200.8	Potentially Dissolved

This Detection Summary does not include radiochemical test results.



# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

#### Protocol References:

EPA = US Environmental Protection Agency

#### Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-166709-1

Project/Site: Wastewater Discharge - Nederland, CO

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-166709-1	OUTFALL-001	Water	09/20/22 12:00	09/20/22 16:18

1

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# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001  
Date Collected: 09/20/22 12:00  
Date Received: 09/20/22 16:18

Lab Sample ID: 280-166709-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		09/26/22 08:55	09/29/22 19:45	1
Lead	0.30	J	1.0	0.23	ug/L		09/26/22 08:55	09/29/22 19:45	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-166709-1

Date Collected: 09/20/22 12:00

Matrix: Water

Date Received: 09/20/22 16:18

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.088	ug/L		09/22/22 15:30	09/23/22 23:56	1
Copper	1.6	J	2.0	0.71	ug/L		09/22/22 15:30	09/23/22 23:56	1
Lead	0.30	J	1.0	0.23	ug/L		09/22/22 15:30	09/23/22 23:56	1
Silver	0.053	J	0.50	0.045	ug/L		09/22/22 15:30	09/23/22 23:56	1
Zinc	2.1	J B ^+	10	2.0	ug/L		09/22/22 15:30	09/29/22 12:36	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 280-587845/1-A**  
**Matrix: Water**  
**Analysis Batch: 588458**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 587845**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		2.0	0.71	ug/L		09/26/22 08:55	09/29/22 19:17	1
Lead	ND		1.0	0.23	ug/L		09/26/22 08:55	09/29/22 19:17	1

**Lab Sample ID: LCS 280-587845/2-A**  
**Matrix: Water**  
**Analysis Batch: 588458**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper									
Lead									

**Lab Sample ID: LCSD 280-587845/3-A**  
**Matrix: Water**  
**Analysis Batch: 588458**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 587845**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper									
Lead									

**Lab Sample ID: MB 280-587577/1-B**  
**Matrix: Water**  
**Analysis Batch: 587902**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 587642**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		1.0	0.088	ug/L		09/22/22 15:30	09/23/22 22:48	1
Copper	ND		2.0	0.71	ug/L		09/22/22 15:30	09/23/22 22:48	1
Lead	ND		1.0	0.23	ug/L		09/22/22 15:30	09/23/22 22:48	1
Silver	ND		0.50	0.045	ug/L		09/22/22 15:30	09/23/22 22:48	1
Zinc	3.80	J	10	2.0	ug/L		09/22/22 15:30	09/23/22 22:48	1

**Lab Sample ID: LCS 280-587577/2-B**  
**Matrix: Water**  
**Analysis Batch: 587902**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 587642**

Analyte	Result	Qualifier	Spike	LCS LCS		D	Prepared	Analyzed	Dil Fac
				%Rec	Limits				
Cadmium									
Copper									
Lead									
Silver									
Zinc									

**Lab Sample ID: 280-166709-1 MS**  
**Matrix: Water**  
**Analysis Batch: 587902**

**Client Sample ID: OUTFALL-001**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 587642**

Analyte	Sample Sample		Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Cadmium	ND		40.0	41.4		ug/L		104	89 - 111
Copper	1.6	J	40.0	39.7		ug/L		95	90 - 115

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

1

2

Lead	0.30 J	40.0	40.7	ug/L	101	88 - 115
Silver	0.053 J	40.0	41.2	ug/L	103	70 - 130

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: 280-166709-1 MS

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 588395

Prep Type: Potentially Dissolved  
 Prep Batch: 587642

Analyte	Sample		Spike	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Zinc	2.1	J B ^+	40.0	44.6	^+	ug/L		106	88 - 115

Lab Sample ID: 280-166709-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 587902

Prep Type: Potentially Dissolved  
 Prep Batch: 587642

Analyte	Sample		Spike	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Cadmium	ND		40.0	40.9		ug/L		102	89 - 111	1	20
Copper	1.6	J	40.0	38.8		ug/L		93	90 - 115	2	20
Lead	0.30	J	40.0	40.3		ug/L		100	88 - 115	1	20
Silver	0.053	J	40.0	40.0		ug/L		100	70 - 130	3	20

Lab Sample ID: 280-166709-1 MSD

Client Sample ID: OUTFALL-001

Matrix: Water  
 Analysis Batch: 588395

Prep Type: Potentially Dissolved  
 Prep Batch: 587642

Analyte	Sample		Spike	MSD MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Zinc	2.1	J B ^+	40.0	41.5	^+	ug/L		99	88 - 115	7	20

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

## Metals

### Filtration Batch: 587577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166709-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-587577/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-587577/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	
280-166709-1 MS	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
280-166709-1 MSD	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 587642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166709-1	OUTFALL-001	Potentially Dissolved	Water	200.8	587577
MB 280-587577/1-B	Method Blank	Potentially Dissolved	Water	200.8	587577
LCS 280-587577/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	587577
280-166709-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	587577
280-166709-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	587577

### Prep Batch: 587845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166709-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-587845/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-587845/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 280-587845/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

### Analysis Batch: 587902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166709-1	OUTFALL-001	Potentially Dissolved	Water	200.8	587642
MB 280-587577/1-B	Method Blank	Potentially Dissolved	Water	200.8	587642
LCS 280-587577/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	587642
280-166709-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	587642
280-166709-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	587642

### Analysis Batch: 588395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166709-1	OUTFALL-001	Potentially Dissolved	Water	200.8	587642
280-166709-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	587642
280-166709-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	587642

### Analysis Batch: 588458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166709-1	OUTFALL-001	Total Recoverable	Water	200.8	587845
MB 280-587845/1-A	Method Blank	Total Recoverable	Water	200.8	587845
LCS 280-587845/2-A	Lab Control Sample	Total Recoverable	Water	200.8	587845
LCSD 280-587845/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	587845

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

**Client Sample ID: OUTFALL-001**  
**Date Collected: 09/20/22 12:00**  
**Date Received: 09/20/22 16:18**

**Lab Sample ID: 280-166709-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Potentially Dissolved	Filtration	Poten_Diss_Met			150 mL	150 mL	587577	09/21/22 16:54	PFM	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	587642	09/22/22 15:30	CEH	EET DEN
Potentially Dissolved	Analysis	200.8		1			587902	09/23/22 23:56	LRD	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			150 mL	150 mL	587577	09/21/22 16:54	PFM	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	587642	09/22/22 15:30	CEH	EET DEN
Potentially Dissolved	Analysis	200.8		1			588395	09/29/22 12:36	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	587845	09/26/22 08:55	KMS	EET DEN
Total Recoverable	Analysis	200.8		1			588458	09/29/22 19:45	LMT	EET DEN

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100



# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166709-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-23
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-23
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-23
Wyoming (UST)	A2LA	2907.01	10-31-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Chain of Custody Record



Development Testing  
 08/27/21

<b>Client Information</b>		Sampler: <b>BM</b>	Lab PM: <b>Bienliulis, Dylan T</b>	Carrier Tracking No(s):	COC No:
Client Contact: <b>Patrick Delaney</b>		Phone: <b>303 506 1618</b>	E-Mail: <b>Dylan.Bienliulis@Eurofinset.com</b>	State of Origin:	Page:
Company: <b>Grand Island Resources</b>		PWSID:		Job #:	
Address: <b>12567 West Cedar Road Suite 250</b>		Analysis Requested			
City: <b>Lakewood</b>		Due Date Requested:			
State, Zip: <b>CO, 80466</b>		TAT Requested (days):			
Phone: <b>303 506 1618</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Email: <b>pdelaney@blackfoxmining.com</b>		PO #: <b>Advance Payment Required</b>			
Project Name: <b>Wastewater Discharge - Nederland, CO</b>		WO #: <b>second half of the month event</b>			
Site: <b>second half of the month event</b>		Project #: <b>28022821</b>			
SSOW#: <b>second half of the month event</b>		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)			
Sample Identification: <b>OUTFALL-001</b>		Sample Date: <b>9/20/22 12pm</b>		Sample Type (C=comp, G=grab): <b>G</b>	
Special Instructions/Note: <b>temp = 9°C PH = 8.5</b>		Sample Time: <b>12pm</b>		Preservation Code: <b>W</b>	
Total Number of Containers: <b>2</b>		Field Filtered Sample (Yes or No): <b>N</b>		Perform MS/MSD (Yes or No): <b>X</b>	
Special Instructions/Note: <b>*Second half of the month potentially dissolved metals permit list = 200.8 (Cd, Cu, Pb, Ag, Zn) *Second half of the month total recoverable metals permit list = 200.8 (Cu, Pb)</b>		200.8 - Potentially Dissolved Metals (Second half of the month permit list): <b>D X X</b>		200.8 - Total Recoverable Metals (Second half of the month permit list): <b>D X X</b>	
Barcode:		280-166709 Chain of Custody			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <input type="checkbox"/> Months					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by: <b>[Signature]</b>		Date: <b>9/20/22 4:18pm</b>		Time: <b>4:18pm</b>	
Relinquished by: <b>[Signature]</b>		Date: <b>9/20/22 4:18pm</b>		Company: <b>[Signature]</b>	
Relinquished by: <b>[Signature]</b>		Date: <b>9/20/22 4:18pm</b>		Company: <b>[Signature]</b>	
Relinquished by: <b>[Signature]</b>		Date: <b>9/20/22 4:18pm</b>		Company: <b>[Signature]</b>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <b>85 IR 12 C-J-0.0</b>	

# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-166709-1

**Login Number: 166709**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Roehsner, Karen P**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	<b>Eurofins Denver</b>	True
The cooler's custody seal, if present, is intact.		True True True
Sample custody seals, if present, are intact.		False True True True True True True True True
The cooler or samples do not appear to have been compromised or tampered with.		True True True True True N/A True
Samples were received on ice.		N/A
Cooler Temperature is acceptable.		True True N/A
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Thermal preservation not required.

14

## APPENDIX C SURFACE WATER ANALYTICAL RESULTS

APPENDIX C.1 JULY 2022 SURFACE WATER ANALYTICAL RESULTS

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

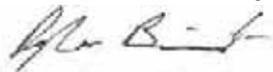
Laboratory Job ID: 280-164183-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
7/25/2022 12:08:51 PM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	7
Method Summary .....	9
Sample Summary .....	10
Client Sample Results .....	11
QC Sample Results .....	16
QC Association .....	23
Chronicle .....	27
Certification Summary .....	29
Chain of Custody .....	31
Receipt Checklists .....	33

# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-164183-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

**Job ID: 280-164183-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-164183-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 7/8/2022 2:23 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 8.8° C, 11.4° C and 11.5

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

### **TOTAL RECOVERABLE METALS (ICP)**

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 07/12/2022 and analyzed on 07/13/2022.

Iron was detected in method blank MB 280-580546/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 07/15/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 07/18/2022 and analyzed on 07/19/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL MERCURY (CVAA)**

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 07/11/2022 and analyzed on 07/12/2022.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

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## Job ID: 280-164183-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 07/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 07/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SPECIFIC CONDUCTIVITY

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 07/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL SUSPENDED SOLIDS

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 07/14/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### DISSOLVED HEXAVALENT CHROMIUM

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for dissolved hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 07/08/2022 and 07/11/2022.

Chromium, hexavalent failed the recovery criteria high for the MS of sample 2022-B (280-164183-2) in batch 280-580530. Sample matrix interference is suspected because the associated laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries were within acceptance limits. Refer to the QC report for details.

The initial calibration verification (ICV) result for batch 280-580379 was above the upper control limit. Associated sample results were non-detects with the exception of client sample 2022-B (280-164183-2). Data have been reported as qualified data.

Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameter in the initial analysis. The initial calibration verification (ICV) sample associated with client sample 2022-B (280-164183-2) recovered above control limits of 90-110% at 116%. The associated client sample, sample 2022-B (280-164183-2), had a detection above the RL of 0.020 mg/L at 0.030 mg/L. The client was notified on 7/21/2022 and instructed the laboratory to report the qualified data from the out-of-hold analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL HEXAVALENT CHROMIUM

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for total hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 07/08/2022 and 07/11/2022.

Chromium, hexavalent was detected in method blank MB 280-580530/9 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

The initial calibration verification (ICV) result for batch 280-580379 was above the upper control limit. Associated sample results

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

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## Job ID: 280-164183-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

were non-detects with the exception of client sample 2022-B (280-164183-2). Data have been reported as qualified data.

Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameter in the initial analysis. The initial calibration verification (ICV) sample associated with client sample 2022-B (280-164183-2) recovered above control limits of 90-110% at 116%. The associated client sample, sample 2022-B (280-164183-2), had a detection above the RL of 0.020 mg/L at 0.021 mg/L. The client was notified on 7/21/2022 and instructed the laboratory to report the qualified data from the out-of-hold analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### CORROSIVITY (PH)

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 07/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SULFIDE

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 07/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### HYDROGEN SULFIDE

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 07/21/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### LOW LEVEL MERCURY

Samples 2022-A (280-164183-1), 2022-B (280-164183-2) and 2022-C (280-164183-3) were analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 07/12/2022 and analyzed on 07/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Client Sample ID: 2022-A

## Lab Sample ID: 280-164183-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	5.0		0.50	0.20	ng/L	1			1631E	Total/NA
Iron	380	B	100	9.1	ug/L	1			200.7 Rev 4.4	Total Recoverable
Copper	3.0		2.0	0.71	ug/L	1			200.8	Total Recoverable
Lead	0.91	J	1.0	0.23	ug/L	1			200.8	Total Recoverable
Zinc	3.7	J	10	2.0	ug/L	1			200.8	Total Recoverable
Copper	3.2		2.0	0.71	ug/L	1			200.8	Potentially Dissolved
Lead	0.85	J	1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Manganese	17		2.0	0.51	ug/L	1			200.8	Potentially Dissolved
Nickel	0.49	J	2.0	0.28	ug/L	1			200.8	Potentially Dissolved
Silver	0.12	J	0.50	0.045	ug/L	1			200.8	Potentially Dissolved
Zinc	3.2	J	10	2.0	ug/L	1			200.8	Potentially Dissolved
Specific Conductance	58		2.0	2.0	umhos/cm	1			SM 2510B	Total/NA
Total Suspended Solids	2.8	J	4.0	1.1	mg/L	1			SM 2540D	Total/NA
pH adj. to 25 deg C	7.6	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA
Temperature	20.4	HF	1.0	1.0	Degrees C	1			SM 4500 H+ B	Total/NA
Field pH	7.6		1.0	1.0	SU	1			SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1			SM4500 S2 H	Total/NA
Specific Conductance	58		2.0	2.0	umhos/cm	1			SM4500 S2 H	Total/NA

## Client Sample ID: 2022-B

## Lab Sample ID: 280-164183-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	5.1		0.50	0.20	ng/L	1			1631E	Total/NA
Iron	660	B	100	9.1	ug/L	1			200.7 Rev 4.4	Total Recoverable
Copper	3.5		2.0	0.71	ug/L	1			200.8	Total Recoverable
Lead	3.0		1.0	0.23	ug/L	1			200.8	Total Recoverable
Zinc	6.0	J	10	2.0	ug/L	1			200.8	Total Recoverable
Copper	4.1		2.0	0.71	ug/L	1			200.8	Potentially Dissolved
Lead	4.9		1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Manganese	20		2.0	0.51	ug/L	1			200.8	Potentially Dissolved
Nickel	0.64	J	2.0	0.28	ug/L	1			200.8	Potentially Dissolved
Silver	0.29	J	0.50	0.045	ug/L	1			200.8	Potentially Dissolved
Zinc	12		10	2.0	ug/L	1			200.8	Potentially Dissolved
Specific Conductance	67		2.0	2.0	umhos/cm	1			SM 2510B	Total/NA
Total Suspended Solids	5.2		4.0	1.1	mg/L	1			SM 2540D	Total/NA
pH adj. to 25 deg C	7.6	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Client Sample ID: 2022-B (Continued)

## Lab Sample ID: 280-164183-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	20.6	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.6		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	21		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	67		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

## Client Sample ID: 2022-C

## Lab Sample ID: 280-164183-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	4.8		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	320	B	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cadmium	0.11	J	1.0	0.088	ug/L	1		200.8	Total Recoverable
Copper	2.4		2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	3.7		1.0	0.23	ug/L	1		200.8	Total Recoverable
Zinc	17		10	2.0	ug/L	1		200.8	Total Recoverable
Copper	2.8		2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	3.6		1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	13		2.0	0.51	ug/L	1		200.8	Potentially Dissolved
Nickel	0.46	J	2.0	0.28	ug/L	1		200.8	Potentially Dissolved
Silver	0.17	J	0.50	0.045	ug/L	1		200.8	Potentially Dissolved
Zinc	82		10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	110		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
Total Suspended Solids	3.6	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.7	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.9		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	21		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	110		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL PEN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 3500 CR B	Chromium, Hexavalent	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM 4500 S2 D	Sulfide, Total	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	TAL DEN
1631E	Preparation, Mercury, Low Level	EPA	TAL PEN
200.7	Preparation, Total Recoverable Metals	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
245.1	Preparation, Mercury	EPA	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

**Protocol References:**

- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

- TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
- TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-164183-1

Project/Site: Wastewater Discharge - Nederland, CO

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-164183-1	2022-A	Water	07/08/22 10:00	07/08/22 14:23
280-164183-2	2022-B	Water	07/08/22 10:30	07/08/22 14:23
280-164183-3	2022-C	Water	07/08/22 11:00	07/08/22 14:23

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 1631E - Mercury, Low Level (CVAFS)

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.0		0.50	0.20	ng/L		07/12/22 15:55	07/13/22 13:53	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.1		0.50	0.20	ng/L		07/12/22 15:55	07/13/22 14:01	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.8		0.50	0.20	ng/L		07/12/22 15:55	07/13/22 14:09	1

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

**Client Sample ID: 2022-A**

**Lab Sample ID: 280-164183-1**

**Date Received: 07/08/22 14:23**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	380	B	100	9.1	ug/L		07/12/22 16:32	07/13/22 20:51	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	660	B	100	9.1	ug/L		07/12/22 16:32	07/13/22 20:55	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	320	B	100	9.1	ug/L		07/12/22 16:32	07/13/22 20:59	1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/18/22 15:00	07/19/22 21:36	1
Cadmium	ND		1.0	0.088	ug/L		07/18/22 15:00	07/19/22 21:36	1
Chromium	ND		3.0	0.88	ug/L		07/18/22 15:00	07/19/22 21:36	1
Copper	3.0		2.0	0.71	ug/L		07/18/22 15:00	07/19/22 21:36	1
Lead	0.91	J	1.0	0.23	ug/L		07/18/22 15:00	07/19/22 21:36	1
Zinc	3.7	J	10	2.0	ug/L		07/18/22 15:00	07/19/22 21:36	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/18/22 15:00	07/19/22 21:48	1

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable (Continued)

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.088	ug/L		07/18/22 15:00	07/19/22 21:48	1
Chromium	ND		3.0	0.88	ug/L		07/18/22 15:00	07/19/22 21:48	1
<b>Copper</b>	<b>3.5</b>		2.0	0.71	ug/L		07/18/22 15:00	07/19/22 21:48	1
<b>Lead</b>	<b>3.0</b>		1.0	0.23	ug/L		07/18/22 15:00	07/19/22 21:48	1
<b>Zinc</b>	<b>6.0</b>	<b>J</b>	10	2.0	ug/L		07/18/22 15:00	07/19/22 21:48	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/18/22 15:00	07/19/22 21:51	1
<b>Cadmium</b>	<b>0.11</b>	<b>J</b>	1.0	0.088	ug/L		07/18/22 15:00	07/19/22 21:51	1
Chromium	ND		3.0	0.88	ug/L		07/18/22 15:00	07/19/22 21:51	1
<b>Copper</b>	<b>2.4</b>		2.0	0.71	ug/L		07/18/22 15:00	07/19/22 21:51	1
<b>Lead</b>	<b>3.7</b>		1.0	0.23	ug/L		07/18/22 15:00	07/19/22 21:51	1
<b>Zinc</b>	<b>17</b>		10	2.0	ug/L		07/18/22 15:00	07/19/22 21:51	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 19:51	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 19:51	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 19:51	1
<b>Copper</b>	<b>3.2</b>		2.0	0.71	ug/L		07/15/22 08:51	07/15/22 19:51	1
<b>Lead</b>	<b>0.85</b>	<b>J</b>	1.0	0.23	ug/L		07/15/22 08:51	07/15/22 19:51	1
<b>Manganese</b>	<b>17</b>		2.0	0.51	ug/L		07/15/22 08:51	07/15/22 19:51	1
<b>Nickel</b>	<b>0.49</b>	<b>J</b>	2.0	0.28	ug/L		07/15/22 08:51	07/15/22 19:51	1
Selenium	ND		5.0	1.0	ug/L		07/15/22 08:51	07/15/22 19:51	1
<b>Silver</b>	<b>0.12</b>	<b>J</b>	0.50	0.045	ug/L		07/15/22 08:51	07/15/22 19:51	1
<b>Zinc</b>	<b>3.2</b>	<b>J</b>	10	2.0	ug/L		07/15/22 08:51	07/15/22 19:51	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 20:02	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 20:02	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 20:02	1
<b>Copper</b>	<b>4.1</b>		2.0	0.71	ug/L		07/15/22 08:51	07/15/22 20:02	1
<b>Lead</b>	<b>4.9</b>		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 20:02	1
<b>Manganese</b>	<b>20</b>		2.0	0.51	ug/L		07/15/22 08:51	07/15/22 20:02	1
<b>Nickel</b>	<b>0.64</b>	<b>J</b>	2.0	0.28	ug/L		07/15/22 08:51	07/15/22 20:02	1
Selenium	ND		5.0	1.0	ug/L		07/15/22 08:51	07/15/22 20:02	1
<b>Silver</b>	<b>0.29</b>	<b>J</b>	0.50	0.045	ug/L		07/15/22 08:51	07/15/22 20:02	1
<b>Zinc</b>	<b>12</b>		10	2.0	ug/L		07/15/22 08:51	07/15/22 20:02	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

**Date Received: 07/08/22 14:23**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 20:06	1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 20:06	1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 20:06	1
<b>Copper</b>	<b>2.8</b>		2.0	0.71	ug/L		07/15/22 08:51	07/15/22 20:06	1
<b>Lead</b>	<b>3.6</b>		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 20:06	1
<b>Manganese</b>	<b>13</b>		2.0	0.51	ug/L		07/15/22 08:51	07/15/22 20:06	1
<b>Nickel</b>	<b>0.46</b>	<b>J</b>	2.0	0.28	ug/L		07/15/22 08:51	07/15/22 20:06	1
Selenium	ND		5.0	1.0	ug/L		07/15/22 08:51	07/15/22 20:06	1
<b>Silver</b>	<b>0.17</b>	<b>J</b>	0.50	0.045	ug/L		07/15/22 08:51	07/15/22 20:06	1
Zinc	<b>82</b>		10	2.0	ug/L		07/15/22 08:51	07/15/22 20:06	1

## Method: 245.1 - Mercury (CVAA)

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		07/11/22 20:10	07/12/22 03:04	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		07/11/22 20:10	07/12/22 03:07	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		07/11/22 20:10	07/12/22 03:09	1

## General Chemistry

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Specific Conductance</b>	<b>58</b>		2.0	2.0	umhos/cm			07/12/22 10:05	1
<b>Total Suspended Solids</b>	<b>2.8</b>	<b>J</b>	4.0	1.1	mg/L			07/14/22 13:03	1
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:14	1
<b>pH adj. to 25 deg C</b>	<b>7.6</b>	<b>HF</b>	0.1	0.1	SU			07/12/22 14:31	1
<b>Temperature</b>	<b>20.4</b>	<b>HF</b>	1.0	1.0	Degrees C			07/12/22 14:31	1
Sulfide	ND		0.050	0.022	mg/L			07/13/22 19:55	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			07/21/22 09:42	1
<b>Field pH</b>	<b>7.6</b>		1.0	1.0	SU			07/21/22 09:42	1
<b>Field Temperature</b>	<b>20</b>		1.0	1.0	Celsius			07/21/22 09:42	1
<b>Specific Conductance</b>	<b>58</b>		2.0	2.0	umhos/cm			07/21/22 09:42	1
Sulfide	ND		4.0	4.0	mg/L			07/21/22 09:42	1

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## General Chemistry

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	67		2.0	2.0	umhos/cm			07/12/22 10:05	1
Total Suspended Solids	5.2		4.0	1.1	mg/L			07/14/22 13:03	1
Chromium, hexavalent	ND	H	0.020	0.0040	mg/L			07/11/22 21:53	1
pH adj. to 25 deg C	7.6	HF	0.1	0.1	SU			07/12/22 14:35	1
Temperature	20.6	HF	1.0	1.0	Degrees C			07/12/22 14:35	1
Sulfide	ND		0.050	0.022	mg/L			07/13/22 19:56	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			07/21/22 09:42	1
Field pH	7.6		1.0	1.0	SU			07/21/22 09:42	1
Field Temperature	21		1.0	1.0	Celsius			07/21/22 09:42	1
Specific Conductance	67		2.0	2.0	umhos/cm			07/21/22 09:42	1
Sulfide	ND		4.0	4.0	mg/L			07/21/22 09:42	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	110		2.0	2.0	umhos/cm			07/12/22 10:05	1
Total Suspended Solids	3.6	J	4.0	1.1	mg/L			07/14/22 13:03	1
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:15	1
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU			07/12/22 14:39	1
Temperature	20.7	HF	1.0	1.0	Degrees C			07/12/22 14:39	1
Sulfide	ND		0.050	0.022	mg/L			07/13/22 19:55	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			07/21/22 09:42	1
Field pH	7.9		1.0	1.0	SU			07/21/22 09:42	1
Field Temperature	21		1.0	1.0	Celsius			07/21/22 09:42	1
Specific Conductance	110		2.0	2.0	umhos/cm			07/21/22 09:42	1
Sulfide	ND		4.0	4.0	mg/L			07/21/22 09:42	1

## General Chemistry - Total Recoverable

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			07/20/22 10:35	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			07/20/22 10:35	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			07/20/22 10:35	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## General Chemistry - Dissolved

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:19	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	H F1	0.020	0.0040	mg/L			07/11/22 21:55	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:20	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			07/20/22 10:36	1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			07/20/22 10:36	1

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			07/20/22 10:36	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-584528/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 584671

Prep Type: Total/NA  
 Prep Batch: 584528

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.50	0.20	ng/L		07/12/22 16:40	07/13/22 10:00	1

Lab Sample ID: LCS 400-584528/4-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 584671

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury									

Lab Sample ID: LCSD 400-584528/5-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 584671

Prep Type: Total/NA  
 Prep Batch: 584528

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-580546/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580778

Prep Type: Total Recoverable  
 Prep Batch: 580546

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	12.7	J	100	9.1	ug/L		07/12/22 16:32	07/13/22 18:36	1

Lab Sample ID: LCS 280-580546/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580778

Prep Type: Total Recoverable  
 Prep Batch: 580546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-580884/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 581328

Prep Type: Total Recoverable  
 Prep Batch: 580884

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		07/18/22 15:00	07/19/22 21:29	1
Cadmium	ND		1.0	0.088	ug/L		07/18/22 15:00	07/19/22 21:29	1
Chromium	ND		3.0	0.88	ug/L		07/18/22 15:00	07/19/22 21:29	1
Copper	ND		2.0	0.71	ug/L		07/18/22 15:00	07/19/22 21:29	1
Lead	ND		1.0	0.23	ug/L		07/18/22 15:00	07/19/22 21:29	1
Zinc	ND		10	2.0	ug/L		07/18/22 15:00	07/19/22 21:29	1

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-580884/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 581328

Prep Type: Total Recoverable  
 Prep Batch: 580884  
 %Rec

Analyte	Spike	LCS	LCS	%Rec
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Zinc				

Lab Sample ID: 280-164183-1 MS

Client Sample ID: 2022-A

Matrix: Water  
 Analysis Batch: 581328

Prep Type: Total Recoverable  
 Prep Batch: 580884  
 %Rec

Analyte	Sample		Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Arsenic	ND		40.0	40.7		ug/L		102	79 - 120
Cadmium	ND		40.0	40.9		ug/L		102	89 - 111
Chromium	ND		40.0	39.2		ug/L		98	86 - 115
Copper	3.0		40.0	43.2		ug/L		101	90 - 115
Lead	0.91	J	40.0	42.0		ug/L		103	88 - 115
Zinc	3.7	J	40.0	43.0		ug/L		98	88 - 115

Lab Sample ID: 280-164183-1 MSD

Client Sample ID: 2022-A

Matrix: Water  
 Analysis Batch: 581328

Prep Type: Total Recoverable  
 Prep Batch: 580884  
 %Rec

Analyte	Sample		Spike	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Arsenic	ND		40.0	40.4		ug/L		101	79 - 120	1	20
Cadmium	ND		40.0	39.4		ug/L		99	89 - 111	4	20
Chromium	ND		40.0	39.1		ug/L		98	86 - 115	0	20
Copper	3.0		40.0	42.7		ug/L		99	90 - 115	1	20
Lead	0.91	J	40.0	40.8		ug/L		100	88 - 115	3	20
Zinc	3.7	J	40.0	42.8		ug/L		98	88 - 115	0	20

Lab Sample ID: MB 280-580415/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Potentially Dissolved  
 Prep Batch: 580705

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	ND		5.0	0.50	ug/L		07/15/22 08:51	07/15/22 19:17		1
Cadmium	ND		1.0	0.088	ug/L		07/15/22 08:51	07/15/22 19:17		1
Chromium	ND		3.0	0.88	ug/L		07/15/22 08:51	07/15/22 19:17		1
Copper	ND		2.0	0.71	ug/L		07/15/22 08:51	07/15/22 19:17		1
Lead	ND		1.0	0.23	ug/L		07/15/22 08:51	07/15/22 19:17		1
Manganese	ND		2.0	0.51	ug/L		07/15/22 08:51	07/15/22 19:17		1
Nickel	ND		2.0	0.28	ug/L		07/15/22 08:51	07/15/22 19:17		1
Selenium	ND		5.0	1.0	ug/L		07/15/22 08:51	07/15/22 19:17		1
Silver	ND		0.50	0.045	ug/L		07/15/22 08:51	07/15/22 19:17		1

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

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Zinc	ND	10	2.0 ug/L	07/15/22 08:51	07/15/22 19:17	1
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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-580415/2-B

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Potentially Dissolved  
 Prep Batch: 580705

Analyte	Spike	LCS	LCS	%Rec
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Manganese				
Nickel				
Selenium				
Silver				
Zinc				

Lab Sample ID: 280-164183-1 MS

Client Sample ID: 2022-A

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Potentially Dissolved  
 Prep Batch: 580705

Analyte	Sample		Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
Arsenic	ND		40.0	41.1		ug/L		103	79 - 120
Cadmium	ND		40.0	39.9		ug/L		100	89 - 111
Chromium	ND		40.0	41.6		ug/L		104	86 - 115
Copper	3.2		40.0	44.7		ug/L		104	90 - 115
Lead	0.85	J	40.0	41.3		ug/L		101	88 - 115
Manganese	17		40.0	56.9		ug/L		99	87 - 115
Nickel	0.49	J	40.0	40.5		ug/L		100	86 - 115
Selenium	ND		40.0	41.2		ug/L		103	85 - 114
Silver	0.12	J	40.0	41.9		ug/L		104	70 - 130
Zinc	3.2	J	40.0	44.8		ug/L		104	88 - 115

Lab Sample ID: 280-164183-1 MSD

Client Sample ID: 2022-A

Matrix: Water  
 Analysis Batch: 581062

Prep Type: Potentially Dissolved  
 Prep Batch: 580705

Analyte	Sample		Spike	MSD		Unit	D	%Rec	Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
Arsenic	ND		40.0	42.8		ug/L		107	79 - 120	4	20
Cadmium	ND		40.0	42.8		ug/L		107	89 - 111	7	20
Chromium	ND		40.0	42.0		ug/L		105	86 - 115	1	20
Copper	3.2		40.0	46.1		ug/L		107	90 - 115	3	20
Lead	0.85	J	40.0	43.1		ug/L		106	88 - 115	4	20
Manganese	17		40.0	58.0		ug/L		102	87 - 115	2	20
Nickel	0.49	J	40.0	42.1		ug/L		104	86 - 115	4	20
Selenium	ND		40.0	43.3		ug/L		108	85 - 114	5	20
Silver	0.12	J	40.0	43.2		ug/L		108	70 - 130	3	20
Zinc	3.2	J	40.0	45.9		ug/L		107	88 - 115	3	20

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-580510/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580610

Prep Type: Total/NA  
 Prep Batch: 580510

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.061	ug/L		07/11/22 20:10	07/12/22 02:03	1

Lab Sample ID: LCS 280-580510/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580610

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury									

Lab Sample ID: LCSD 280-580510/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 580610

Prep Type: Total/NA  
 Prep Batch: 580510

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-580554/5

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580554

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Specific Conductance	ND		2.0	2.0	umhos/cm			07/12/22 10:05	1

Lab Sample ID: LCS 280-580554/4

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580554

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-580852/2

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580852

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Suspended Solids	ND		4.0	1.1	mg/L			07/14/22 13:02	1

Lab Sample ID: LCS 280-580852/1

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580852

Prep Type: Total/NA

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

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2

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	79.6		mg/L		80	79 - 114

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-580379/10

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:11	1

Lab Sample ID: LCS 280-580379/8

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent									

Lab Sample ID: LCSD 280-580379/9

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent									

Lab Sample ID: MB 280-580530/9

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580530

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.0192	J	0.020	0.0040	mg/L			07/11/22 21:50	1

Lab Sample ID: LCS 280-580530/8

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580530

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent									

Lab Sample ID: LCSD 280-580530/14

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 580530

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.100		mg/L		100	91 - 112	8	20

Lab Sample ID: MB 280-580378/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	^1+	0.020	0.0040	mg/L			07/08/22 19:17	1

Lab Sample ID: LCS 280-580378/1-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580379

Prep Type: Dissolved

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

1

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**Analyte**

Chromium, hexavalent

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: LCSD 280-580378/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580379

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.100	^1+	mg/L		100	91 - 112	0	20

Lab Sample ID: MB 280-580523/3-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580530

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			07/11/22 21:55	1

Lab Sample ID: LCS 280-580523/1-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580530

Analyte

Chromium, hexavalent

Lab Sample ID: LCSD 280-580523/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580530

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.101		mg/L		101	91 - 112	0	20

Lab Sample ID: 280-164183-2 MS

Client Sample ID: 2022-B

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580530

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND	H F1	0.100	0.115	F1	mg/L		115	91 - 112

Lab Sample ID: 280-164183-2 MSD

Client Sample ID: 2022-B

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580530

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	H F1	0.100	0.0994		mg/L		99	91 - 112	15	20

Lab Sample ID: 280-164183-2 DU

Client Sample ID: 2022-B

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 580530

Analyte	Sample Result	Sample Qualifier	Spike Added	DU	DU	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND	H F1									

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-580653/27

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580653

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH adj. to 25 deg C	7.00	7.0		SU		101	99 - 101

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-580763/11

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			07/13/22 19:52	1

Lab Sample ID: LCS 280-580763/9

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide									

Lab Sample ID: LCSD 280-580763/10

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 580763

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide									

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-581480/1

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 581480

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			07/21/22 09:42	1
Field pH	ND		1.0	1.0	SU			07/21/22 09:42	1
Field Temperature	ND		1.0	1.0	Celsius			07/21/22 09:42	1
Specific Conductance	ND		2.0	2.0	umhos/cm			07/21/22 09:42	1
Sulfide	ND		4.0	4.0	mg/L			07/21/22 09:42	1

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Metals

### Filtration Batch: 580415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-580415/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-580415/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

### Filtration Batch: 580484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Potentially Dissolved	Water	Poten_Diss_Met	
280-164183-2	2022-B	Potentially Dissolved	Water	Poten_Diss_Met	
280-164183-3	2022-C	Potentially Dissolved	Water	Poten_Diss_Met	
280-164183-1 MS	2022-A	Potentially Dissolved	Water	Poten_Diss_Met	
280-164183-1 MSD	2022-A	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 580510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	245.1	
280-164183-2	2022-B	Total/NA	Water	245.1	
280-164183-3	2022-C	Total/NA	Water	245.1	
MB 280-580510/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-580510/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 280-580510/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

### Prep Batch: 580546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total Recoverable	Water	200.7	
280-164183-2	2022-B	Total Recoverable	Water	200.7	
280-164183-3	2022-C	Total Recoverable	Water	200.7	
MB 280-580546/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-580546/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Analysis Batch: 580610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	245.1	580510
280-164183-2	2022-B	Total/NA	Water	245.1	580510
280-164183-3	2022-C	Total/NA	Water	245.1	580510
MB 280-580510/1-A	Method Blank	Total/NA	Water	245.1	580510
LCS 280-580510/2-A	Lab Control Sample	Total/NA	Water	245.1	580510
LCSD 280-580510/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	580510

### Prep Batch: 580705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Potentially Dissolved	Water	200.8	580484
280-164183-2	2022-B	Potentially Dissolved	Water	200.8	580484
280-164183-3	2022-C	Potentially Dissolved	Water	200.8	580484
MB 280-580415/1-B	Method Blank	Potentially Dissolved	Water	200.8	580415
LCS 280-580415/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	580415
280-164183-1 MS	2022-A	Potentially Dissolved	Water	200.8	580484
280-164183-1 MSD	2022-A	Potentially Dissolved	Water	200.8	580484

### Analysis Batch: 580778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total Recoverable	Water	200.7 Rev 4.4	580546
280-164183-2	2022-B	Total Recoverable	Water	200.7 Rev 4.4	580546

Eurofins Denver

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Metals (Continued)

### Analysis Batch: 580778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-3	2022-C	Total Recoverable	Water	200.7 Rev 4.4	580546
MB 280-580546/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	580546
LCS 280-580546/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	580546

### Prep Batch: 580884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total Recoverable	Water	200.8	
280-164183-2	2022-B	Total Recoverable	Water	200.8	
280-164183-3	2022-C	Total Recoverable	Water	200.8	
MB 280-580884/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-580884/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
280-164183-1 MS	2022-A	Total Recoverable	Water	200.8	
280-164183-1 MSD	2022-A	Total Recoverable	Water	200.8	

### Analysis Batch: 581062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Potentially Dissolved	Water	200.8	580705
280-164183-2	2022-B	Potentially Dissolved	Water	200.8	580705
280-164183-3	2022-C	Potentially Dissolved	Water	200.8	580705
MB 280-580415/1-B	Method Blank	Potentially Dissolved	Water	200.8	580705
LCS 280-580415/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	580705
280-164183-1 MS	2022-A	Potentially Dissolved	Water	200.8	580705
280-164183-1 MSD	2022-A	Potentially Dissolved	Water	200.8	580705

### Analysis Batch: 581328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total Recoverable	Water	200.8	580884
280-164183-2	2022-B	Total Recoverable	Water	200.8	580884
280-164183-3	2022-C	Total Recoverable	Water	200.8	580884
MB 280-580884/1-A	Method Blank	Total Recoverable	Water	200.8	580884
LCS 280-580884/2-A	Lab Control Sample	Total Recoverable	Water	200.8	580884
280-164183-1 MS	2022-A	Total Recoverable	Water	200.8	580884
280-164183-1 MSD	2022-A	Total Recoverable	Water	200.8	580884

### Prep Batch: 584528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	1631E	
280-164183-2	2022-B	Total/NA	Water	1631E	
280-164183-3	2022-C	Total/NA	Water	1631E	
MB 400-584528/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-584528/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-584528/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	

### Analysis Batch: 584671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	1631E	584528
280-164183-2	2022-B	Total/NA	Water	1631E	584528
280-164183-3	2022-C	Total/NA	Water	1631E	584528
MB 400-584528/3-A	Method Blank	Total/NA	Water	1631E	584528
LCS 400-584528/4-A	Lab Control Sample	Total/NA	Water	1631E	584528
LCSD 400-584528/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	584528

Eurofins Denver

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## General Chemistry

### Filtration Batch: 580378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Dissolved	Water	FILTRATION	
280-164183-3	2022-C	Dissolved	Water	FILTRATION	
MB 280-580378/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-580378/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-580378/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	

### Analysis Batch: 580379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Dissolved	Water	SM 3500 CR B	580378
280-164183-1	2022-A	Total/NA	Water	SM 3500 CR B	
280-164183-3	2022-C	Dissolved	Water	SM 3500 CR B	580378
280-164183-3	2022-C	Total/NA	Water	SM 3500 CR B	
MB 280-580378/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	580378
MB 280-580379/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-580378/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	580378
LCS 280-580379/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-580378/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	580378
LCSD 280-580379/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	

### Filtration Batch: 580523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-2	2022-B	Dissolved	Water	FILTRATION	
MB 280-580523/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-580523/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-580523/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-164183-2 MS	2022-B	Dissolved	Water	FILTRATION	
280-164183-2 MSD	2022-B	Dissolved	Water	FILTRATION	
280-164183-2 DU	2022-B	Dissolved	Water	FILTRATION	

### Analysis Batch: 580530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-2	2022-B	Dissolved	Water	SM 3500 CR B	580523
280-164183-2	2022-B	Total/NA	Water	SM 3500 CR B	
MB 280-580523/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	580523
MB 280-580530/9	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-580523/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	580523
LCS 280-580530/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-580523/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	580523
LCSD 280-580530/14	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-164183-2 MS	2022-B	Dissolved	Water	SM 3500 CR B	580523
280-164183-2 MSD	2022-B	Dissolved	Water	SM 3500 CR B	580523
280-164183-2 DU	2022-B	Dissolved	Water	SM 3500 CR B	580523

### Analysis Batch: 580554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	SM 2510B	
280-164183-2	2022-B	Total/NA	Water	SM 2510B	
280-164183-3	2022-C	Total/NA	Water	SM 2510B	
MB 280-580554/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-580554/4	Lab Control Sample	Total/NA	Water	SM 2510B	

Eurofins Denver

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## General Chemistry

### Analysis Batch: 580653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	SM 4500 H+ B	
280-164183-2	2022-B	Total/NA	Water	SM 4500 H+ B	
280-164183-3	2022-C	Total/NA	Water	SM 4500 H+ B	
LCS 280-580653/27	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 580763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	SM 4500 S2 D	
280-164183-2	2022-B	Total/NA	Water	SM 4500 S2 D	
280-164183-3	2022-C	Total/NA	Water	SM 4500 S2 D	
MB 280-580763/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-580763/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-580763/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

### Analysis Batch: 580852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	SM 2540D	
280-164183-2	2022-B	Total/NA	Water	SM 2540D	
280-164183-3	2022-C	Total/NA	Water	SM 2540D	
MB 280-580852/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-580852/1	Lab Control Sample	Total/NA	Water	SM 2540D	

### Analysis Batch: 581356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total Recoverable	Water	SM3500 CR B	
280-164183-2	2022-B	Total Recoverable	Water	SM3500 CR B	
280-164183-3	2022-C	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 581357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Potentially Dissolved	Water	SM3500 CR B	
280-164183-2	2022-B	Potentially Dissolved	Water	SM3500 CR B	
280-164183-3	2022-C	Potentially Dissolved	Water	SM3500 CR B	

### Analysis Batch: 581480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-164183-1	2022-A	Total/NA	Water	SM4500 S2 H	
280-164183-2	2022-B	Total/NA	Water	SM4500 S2 H	
280-164183-3	2022-C	Total/NA	Water	SM4500 S2 H	
MB 280-581480/1	Method Blank	Total/NA	Water	SM4500 S2 H	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

**Client Sample ID: 2022-A**  
**Date Collected: 07/08/22 10:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	584528	07/12/22 15:55	VLC	TAL PEN
Total/NA	Analysis	1631E		1			584671	07/13/22 13:53	VLC	TAL PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	580546	07/12/22 16:32	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			580778	07/13/22 20:51	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	580484	07/11/22 11:51	PFM	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	580705	07/15/22 08:51	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			581062	07/15/22 19:51	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	580884	07/18/22 15:00	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			581328	07/19/22 21:36	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	580510	07/11/22 20:10	CEH	TAL DEN
Total/NA	Analysis	245.1		1			580610	07/12/22 03:04	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			580554	07/12/22 10:05	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	580852	07/14/22 13:03	ASP	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	580378	07/08/22 18:52	LRB	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	580379	07/08/22 19:19	LRB	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	580379	07/08/22 19:14	LRB	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			580653	07/12/22 14:31	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	580763	07/13/22 19:55	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			581357	07/20/22 10:36	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			581356	07/20/22 10:35	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			581480	07/21/22 09:42	SAH	TAL DEN

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	584528	07/12/22 15:55	VLC	TAL PEN
Total/NA	Analysis	1631E		1			584671	07/13/22 14:01	VLC	TAL PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	580546	07/12/22 16:32	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			580778	07/13/22 20:55	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	580484	07/11/22 11:51	PFM	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	580705	07/15/22 08:51	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			581062	07/15/22 20:02	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	580884	07/18/22 15:00	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			581328	07/19/22 21:48	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	580510	07/11/22 20:10	CEH	TAL DEN
Total/NA	Analysis	245.1		1			580610	07/12/22 03:07	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			580554	07/12/22 10:05	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	580852	07/14/22 13:03	ASP	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	580523	07/11/22 20:04	LRB	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	580530	07/11/22 21:55	LRB	TAL DEN

Eurofins Denver

# Lab Chronicle

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

1

2

Total/NA	Analysis	SM 3500 CR B	1	2 mL	2 mL	580530	07/11/22 21:53	LRB	TAL DEN
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4

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

**Client Sample ID: 2022-B**  
**Date Collected: 07/08/22 10:30**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-2**  
**Matrix: Water**

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared	Analyst	Lab
	Type	Method		Factor	Amount	Amount	Number	or Analyzed		
Total/NA	Analysis	SM 4500 H+ B		1			580653	07/12/22 14:35	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	580763	07/13/22 19:56	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			581357	07/20/22 10:36	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			581356	07/20/22 10:35	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			581480	07/21/22 09:42	SAH	TAL DEN

**Client Sample ID: 2022-C**  
**Date Collected: 07/08/22 11:00**  
**Date Received: 07/08/22 14:23**

**Lab Sample ID: 280-164183-3**  
**Matrix: Water**

Prep Type	Batch	Batch	Run	Dil	Initial	Final	Batch	Prepared	Analyst	Lab
	Type	Method		Factor	Amount	Amount	Number	or Analyzed		
Total/NA	Prep	1631E			40 mL	40 mL	584528	07/12/22 15:55	VLC	TAL PEN
Total/NA	Analysis	1631E		1			584671	07/13/22 14:09	VLC	TAL PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	580546	07/12/22 16:32	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			580778	07/13/22 20:59	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			200 mL	200 mL	580484	07/11/22 11:51	PFM	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	580705	07/15/22 08:51	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			581062	07/15/22 20:06	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	580884	07/18/22 15:00	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			581328	07/19/22 21:51	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	580510	07/11/22 20:10	CEH	TAL DEN
Total/NA	Analysis	245.1		1			580610	07/12/22 03:09	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			580554	07/12/22 10:05	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	580852	07/14/22 13:03	ASP	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	580378	07/08/22 18:52	LRB	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	580379	07/08/22 19:20	LRB	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	580379	07/08/22 19:15	LRB	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			580653	07/12/22 14:39	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	580763	07/13/22 19:55	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			581357	07/20/22 10:36	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			581356	07/20/22 10:35	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			581480	07/21/22 09:42	SAH	TAL DEN

**Laboratory References:**

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
 TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22 *
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-164183-1

## Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	07-13-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

# Chain of Custody Record

<b>Client Information</b> Client Contact: Patrick Delaney Company: Grand Island Resources Address: 12567 West Cedar Road Suite 250 City: Lakewood State, Zip: CO, 80228 Phone: 315-414-6986 Email: pdelaney@blackfoxmining.com Project Name: Wastewater Discharge - Nederland, CO Site: Surface Water Sampling		Lab PI#: Bieniulis, Dylan T E-Mail: Dylan.Bieniulis@Eurofinset.com PWSID:		Sampler: BM Phone: 303-506-1618		Carrier Tracking No(s): State of Origin:		COC No: Page: Job #:											
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: Advance Payment Required WO #:		Analysis Requested 2510B - Specific Conductance, 2540D - TSS, SM4500_H+ - pH / Temp 3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc) 3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc) SM4500_S2_D - Sulfide and SM3500_S2_H - Un-ionized Hydrogen Sulfide (calc) 1631E - Low Level Mercury (ETA Pensacola)		Total Number of Containers:		Special Instructions/Note: *Surface water potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn) *Surface water total recoverable metals list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:											
Sample Identification 2022-A (PH=7.0 temp=10°C) 2022-B (PH=7.3 temp=15°C) 2022-C (PH=7.7 temp=14°C)		Sample Date 7/8/22 7/8/22 7/8/22		Sample Time 10:00am 10:30am 11:00am		Sample Type (C=Comp, G=grab) G G G		Matrix (W=water, S=solid, O=metaloid, BT=Tissue, A=air) W W W		Field Filtered Sample (Yes or No) X X X		280-164183 Chain of Custody 							
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested: <input type="checkbox"/> I, <input type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)										Special Instructions/QC Requirements:									
Empty Kit Relinquished by:										Method of Shipment:									
Relinquished by: <i>Patrick Delaney</i>					Received by: <i>[Signature]</i>					Date/Time: 7/8/22 14:43					Date/Time: 7/8/22 14:23				
Relinquished by:					Received by:					Date/Time:					Date/Time:				
Relinquished by:					Received by:					Date/Time:					Date/Time:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No										Cooler Temperature(s) °C and Other Remarks: 14, 13, 8.7 (ED CF10)									

# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Sampler:	Lab PM:		Carrier Tracking No(s):	COC No:																																				
Client Contact: Shipping/Receiving		Phone:	Bieniulis, Dylan T		State of Origin:	280-621538-1																																				
Company: Eurofins Environment Testing Southeast,			E-Mail: Dylan.Bieniulis@et.eurofins.com		Colorado	Page: 1 of 1																																				
Address: 3355 McLemore Drive,		Due Date Requested: 7/25/2022	Accreditations Required (See note):		Job #:	280-164183-1																																				
City: Pensacola	TAT Requested (days):	<b>Analysis Requested</b> <table border="1"> <tr> <th>Sample ID (Lab ID)</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (Water, Solid, Sewage, etc)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> <tr> <td>2022-A (280-164183-1)</td> <td>7/8/22</td> <td>10:00 Mountain</td> <td>Water</td> <td>Water</td> <td>X</td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>2022-B (280-164183-2)</td> <td>7/8/22</td> <td>10:30 Mountain</td> <td>Water</td> <td>Water</td> <td>X</td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>2022-C (280-164183-3)</td> <td>7/8/22</td> <td>11:00 Mountain</td> <td>Water</td> <td>Water</td> <td>X</td> <td>X</td> <td>1</td> <td>6</td> </tr> </table>					Sample ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Sewage, etc)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:	2022-A (280-164183-1)	7/8/22	10:00 Mountain	Water	Water	X	X	1		2022-B (280-164183-2)	7/8/22	10:30 Mountain	Water	Water	X	X	1		2022-C (280-164183-3)	7/8/22	11:00 Mountain	Water	Water	X	X	1	6
Sample ID (Lab ID)	Sample Date						Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Sewage, etc)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:																													
2022-A (280-164183-1)	7/8/22						10:00 Mountain	Water	Water	X	X	1																														
2022-B (280-164183-2)	7/8/22						10:30 Mountain	Water	Water	X	X	1																														
2022-C (280-164183-3)	7/8/22	11:00 Mountain	Water	Water	X	X	1	6																																		
State, Zip: FL, 32514	PO #:	Project #: 28022821	Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify) Other:																																							
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	WO #:	Site: Wastewater Discharge - Nederland, CO																																								
Email:	SSOW#:																																									

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

**Possible Hazard Identification**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: *Wade Dew* Date/Time: 7/22/22 1545 Company: ETADEN

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No Custody Seal No.: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: *AF 1631 IRB*



## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-164183-1

**Login Number: 164183**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Rystrom, Joshua R**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-164183-1

**Login Number: 164183**

**List Number: 2**

**Creator: Roberts, Alexis J**

**List Source: Eurofins Pensacola**

**List Creation: 07/12/22 11:56 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	6.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C.2 AUGUST 2022 SURFACE WATER ANALYTICAL RESULTS

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

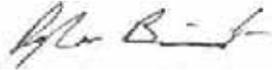
Laboratory Job ID: 280-165851-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
9/8/2022 9:52:41 AM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	7
Method Summary .....	9
Sample Summary .....	10
Client Sample Results .....	11
QC Sample Results .....	16
QC Association .....	22
Chronicle .....	26
Certification Summary .....	28
Chain of Custody .....	30
Receipt Checklists .....	32



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-165851-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
-----------	-----------------------

J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
---	--

### General Chemistry

Qualifier	Qualifier Description
-----------	-----------------------

F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
--------------	---

α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

**Job ID: 280-165851-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-165851-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 8/25/2022 4:47 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 7.8° C, 7.9° C and 10.3°

Receipt temperatures are considered acceptable as the samples were collected and submitted to the laboratory on the same date.

### **TOTAL RECOVERABLE METALS (ICP)**

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 08/28/2022 and analyzed on 08/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/30/2022 and analyzed on 08/31/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL RECOVERABLE METALS (ICPMS)**

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 08/28/2022 and analyzed on 08/29/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TOTAL MERCURY (CVAA)**

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 08/29/2022 and analyzed on 08/29/2022 and 08/30/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### **TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED**

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Job ID: 280-165851-1 (Continued)

### Laboratory: Eurofins Denver (Continued)

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 09/07/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 09/07/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SPECIFIC CONDUCTIVITY

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 08/30/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL SUSPENDED SOLIDS

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 08/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### DISSOLVED HEXAVALENT CHROMIUM

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for dissolved hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 08/25/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### HEXAVALENT CHROMIUM

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 08/25/2022.

Chromium, hexavalent failed the recovery criteria low for the MS of sample 2022-01 (280-165851-1) in batch 280-585157. Sample non-homogeneity is suspected because the associated laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recovery was within acceptance limits. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### CORROSIVITY (PH)

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 08/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### SULFIDE

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 08/26/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### HYDROGEN SULFIDE

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 09/01/2022.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

---

## Job ID: 280-165851-1 (Continued)

---

### Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### LOW LEVEL MERCURY

Samples 2022-01 (280-165851-1), 2022-B (280-165851-2) and 2022-02 (280-165851-3) were analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 08/29/2022 and analyzed on 09/02/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
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- 6
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- 8
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- 10
- 11
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- 13
- 14

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Client Sample ID: 2022-01

## Lab Sample ID: 280-165851-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	5.6		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	450		100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Copper	2.5		2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	0.39	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Zinc	2.0	J	10	2.0	ug/L	1		200.8	Total Recoverable
Copper	2.4		2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.24	J	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	11		2.0	0.51	ug/L	1		200.8	Potentially Dissolved
Nickel	0.70	J	2.0	0.28	ug/L	1		200.8	Potentially Dissolved
Zinc	9.5	J	10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	56		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
Chromium, hexavalent	0.0058	J F1	0.020	0.0040	mg/L	1		SM 3500 CR B	Total/NA
pH adj. to 25 deg C	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.1	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.5		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	19		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	56		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

## Client Sample ID: 2022-B

## Lab Sample ID: 280-165851-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	6.5		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	410		100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Copper	3.0		2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	2.4		1.0	0.23	ug/L	1		200.8	Total Recoverable
Zinc	6.9	J	10	2.0	ug/L	1		200.8	Total Recoverable
Copper	2.7		2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	2.1		1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	9.8		2.0	0.51	ug/L	1		200.8	Potentially Dissolved
Nickel	0.70	J	2.0	0.28	ug/L	1		200.8	Potentially Dissolved
Zinc	13		10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	68		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
Total Suspended Solids	2.4	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA
pH adj. to 25 deg C	7.7	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.6	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.7		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	68		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

**Client Sample ID: 2022-02**

**Lab Sample ID: 280-165851-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	5.2		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	320		100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Copper	3.0		2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	4.0		1.0	0.23	ug/L	1		200.8	Total Recoverable
Zinc	12		10	2.0	ug/L	1		200.8	Total Recoverable
Cadmium	0.14	J	1.0	0.088	ug/L	1		200.8	Potentially Dissolved
Copper	3.0		2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	3.3		1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	9.5		2.0	0.51	ug/L	1		200.8	Potentially Dissolved
Nickel	0.53	J	2.0	0.28	ug/L	1		200.8	Potentially Dissolved
Zinc	15		10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	110		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
Total Suspended Solids	2.0	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.0	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.9		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	110		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	EET PEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.8	Metals (ICP/MS)	EPA	EET DEN
245.1	Mercury (CVAA)	EPA	EET DEN
SM 2510B	Conductivity, Specific Conductance	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 3500 CR B	Chromium, Hexavalent	SM	EET DEN
SM 4500 H+ B	pH	SM	EET DEN
SM 4500 S2 D	Sulfide, Total	SM	EET DEN
SM3500 CR B	Chromium, Trivalent	SM	EET DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET DEN
1631E	Preparation, Mercury, Low Level	EPA	EET PEN
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
245.1	Preparation, Mercury	EPA	EET DEN
FILTRATION	Sample Filtration	None	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

#### Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-165851-1

Project/Site: Wastewater Discharge - Nederland, CO

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-165851-1	2022-01	Water	08/25/22 08:00	08/25/22 16:47
280-165851-2	2022-B	Water	08/25/22 08:30	08/25/22 16:47
280-165851-3	2022-02	Water	08/25/22 09:00	08/25/22 16:47

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: 1631E - Mercury, Low Level (CVAFS)

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.6		0.50	0.20	ng/L		08/29/22 15:50	09/02/22 11:25	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.5		0.50	0.20	ng/L		08/29/22 15:50	09/02/22 11:33	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.2		0.50	0.20	ng/L		08/29/22 15:50	09/02/22 11:41	1

## Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

**Client Sample ID: 2022-01**

**Lab Sample ID: 280-165851-1**

**Date Received: 08/25/22 16:47**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	450		100	9.1	ug/L		08/28/22 23:40	08/29/22 21:18	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	410		100	9.1	ug/L		08/28/22 23:40	08/29/22 21:22	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	320		100	9.1	ug/L		08/28/22 23:40	08/29/22 21:26	1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/28/22 14:43	08/29/22 19:25	1
Cadmium	ND		1.0	0.088	ug/L		08/28/22 14:43	08/29/22 19:25	1
Chromium	ND		3.0	0.88	ug/L		08/28/22 14:43	08/29/22 19:25	1
Copper	2.5		2.0	0.71	ug/L		08/28/22 14:43	08/29/22 19:25	1
Lead	0.39	J	1.0	0.23	ug/L		08/28/22 14:43	08/29/22 19:25	1
Zinc	2.0	J	10	2.0	ug/L		08/28/22 14:43	08/29/22 19:25	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/28/22 14:43	08/29/22 19:29	1

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: 200.8 - Metals (ICP/MS) - Total Recoverable (Continued)

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.088	ug/L		08/28/22 14:43	08/29/22 19:29	1
Chromium	ND		3.0	0.88	ug/L		08/28/22 14:43	08/29/22 19:29	1
<b>Copper</b>	<b>3.0</b>		2.0	0.71	ug/L		08/28/22 14:43	08/29/22 19:29	1
<b>Lead</b>	<b>2.4</b>		1.0	0.23	ug/L		08/28/22 14:43	08/29/22 19:29	1
<b>Zinc</b>	<b>6.9</b>	<b>J</b>	10	2.0	ug/L		08/28/22 14:43	08/29/22 19:29	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/28/22 14:43	08/29/22 19:33	1
Cadmium	ND		1.0	0.088	ug/L		08/28/22 14:43	08/29/22 19:33	1
Chromium	ND		3.0	0.88	ug/L		08/28/22 14:43	08/29/22 19:33	1
<b>Copper</b>	<b>3.0</b>		2.0	0.71	ug/L		08/28/22 14:43	08/29/22 19:33	1
<b>Lead</b>	<b>4.0</b>		1.0	0.23	ug/L		08/28/22 14:43	08/29/22 19:33	1
<b>Zinc</b>	<b>12</b>		10	2.0	ug/L		08/28/22 14:43	08/29/22 19:33	1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/30/22 11:40	08/31/22 18:23	1
Cadmium	ND		1.0	0.088	ug/L		08/30/22 11:40	08/31/22 18:23	1
Chromium	ND		3.0	0.88	ug/L		08/30/22 11:40	08/31/22 18:23	1
<b>Copper</b>	<b>2.4</b>		2.0	0.71	ug/L		08/30/22 11:40	08/31/22 18:23	1
<b>Lead</b>	<b>0.24</b>	<b>J</b>	1.0	0.23	ug/L		08/30/22 11:40	08/31/22 18:23	1
<b>Manganese</b>	<b>11</b>		2.0	0.51	ug/L		08/30/22 11:40	08/31/22 18:23	1
<b>Nickel</b>	<b>0.70</b>	<b>J</b>	2.0	0.28	ug/L		08/30/22 11:40	08/31/22 18:23	1
Selenium	ND		5.0	1.0	ug/L		08/30/22 11:40	08/31/22 18:23	1
Silver	ND		0.50	0.045	ug/L		08/30/22 11:40	08/31/22 18:23	1
<b>Zinc</b>	<b>9.5</b>	<b>J</b>	10	2.0	ug/L		08/30/22 11:40	08/31/22 18:23	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/30/22 11:40	08/31/22 18:27	1
Cadmium	ND		1.0	0.088	ug/L		08/30/22 11:40	08/31/22 18:27	1
Chromium	ND		3.0	0.88	ug/L		08/30/22 11:40	08/31/22 18:27	1
<b>Copper</b>	<b>2.7</b>		2.0	0.71	ug/L		08/30/22 11:40	08/31/22 18:27	1
<b>Lead</b>	<b>2.1</b>		1.0	0.23	ug/L		08/30/22 11:40	08/31/22 18:27	1
<b>Manganese</b>	<b>9.8</b>		2.0	0.51	ug/L		08/30/22 11:40	08/31/22 18:27	1
<b>Nickel</b>	<b>0.70</b>	<b>J</b>	2.0	0.28	ug/L		08/30/22 11:40	08/31/22 18:27	1
Selenium	ND		5.0	1.0	ug/L		08/30/22 11:40	08/31/22 18:27	1
Silver	ND		0.50	0.045	ug/L		08/30/22 11:40	08/31/22 18:27	1
<b>Zinc</b>	<b>13</b>		10	2.0	ug/L		08/30/22 11:40	08/31/22 18:27	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

**Date Received: 08/25/22 16:47**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		08/30/22 11:40	08/31/22 18:31	1
<b>Cadmium</b>	<b>0.14</b>	<b>J</b>	1.0	0.088	ug/L		08/30/22 11:40	08/31/22 18:31	1
Chromium	ND		3.0	0.88	ug/L		08/30/22 11:40	08/31/22 18:31	1
<b>Copper</b>	<b>3.0</b>		2.0	0.71	ug/L		08/30/22 11:40	08/31/22 18:31	1
<b>Lead</b>	<b>3.3</b>		1.0	0.23	ug/L		08/30/22 11:40	08/31/22 18:31	1
<b>Manganese</b>	<b>9.5</b>		2.0	0.51	ug/L		08/30/22 11:40	08/31/22 18:31	1
<b>Nickel</b>	<b>0.53</b>	<b>J</b>	2.0	0.28	ug/L		08/30/22 11:40	08/31/22 18:31	1
Selenium	ND		5.0	1.0	ug/L		08/30/22 11:40	08/31/22 18:31	1
Silver	ND		0.50	0.045	ug/L		08/30/22 11:40	08/31/22 18:31	1
<b>Zinc</b>	<b>15</b>		10	2.0	ug/L		08/30/22 11:40	08/31/22 18:31	1

## Method: 245.1 - Mercury (CVAA)

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/29/22 10:29	08/30/22 07:55	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/29/22 10:29	08/30/22 08:03	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/29/22 10:29	08/29/22 19:45	1

## General Chemistry

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Specific Conductance</b>	<b>56</b>		2.0	2.0	umhos/cm			08/30/22 10:45	1
Total Suspended Solids	ND		4.0	1.1	mg/L			08/29/22 10:45	1
<b>Chromium, hexavalent</b>	<b>0.0058</b>	<b>J F1</b>	0.020	0.0040	mg/L			08/25/22 18:29	1
<b>pH adj. to 25 deg C</b>	<b>7.5</b>	<b>HF</b>	0.1	0.1	SU			08/29/22 13:25	1
<b>Temperature</b>	<b>19.1</b>	<b>HF</b>	1.0	1.0	Degrees C			08/29/22 13:25	1
Sulfide	ND		0.050	0.022	mg/L			08/26/22 10:01	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			09/01/22 11:48	1
<b>Field pH</b>	<b>7.5</b>		1.0	1.0	SU			09/01/22 11:48	1
<b>Field Temperature</b>	<b>19</b>		1.0	1.0	Celsius			09/01/22 11:48	1
<b>Specific Conductance</b>	<b>56</b>		2.0	2.0	umhos/cm			09/01/22 11:48	1
Sulfide	ND		4.0	4.0	mg/L			09/01/22 11:48	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## General Chemistry

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	68		2.0	2.0	umhos/cm			08/30/22 10:45	1
Total Suspended Solids	2.4	J	4.0	1.1	mg/L			08/29/22 10:45	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:22	1
pH adj. to 25 deg C	7.7	HF	0.1	0.1	SU			08/29/22 13:21	1
Temperature	19.6	HF	1.0	1.0	Degrees C			08/29/22 13:21	1
Sulfide	ND		0.050	0.022	mg/L			08/26/22 10:01	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			09/01/22 11:48	1
Field pH	7.7		1.0	1.0	SU			09/01/22 11:48	1
Field Temperature	20		1.0	1.0	Celsius			09/01/22 11:48	1
Specific Conductance	68		2.0	2.0	umhos/cm			09/01/22 11:48	1
Sulfide	ND		4.0	4.0	mg/L			09/01/22 11:48	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	110		2.0	2.0	umhos/cm			08/30/22 10:45	1
Total Suspended Solids	2.0	J	4.0	1.1	mg/L			08/29/22 10:45	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:22	1
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU			08/29/22 13:17	1
Temperature	20.0	HF	1.0	1.0	Degrees C			08/29/22 13:17	1
Sulfide	ND		0.050	0.022	mg/L			08/26/22 10:02	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			09/01/22 11:48	1
Field pH	7.9		1.0	1.0	SU			09/01/22 11:48	1
Field Temperature	20		1.0	1.0	Celsius			09/01/22 11:48	1
Specific Conductance	110		2.0	2.0	umhos/cm			09/01/22 11:48	1
Sulfide	ND		4.0	4.0	mg/L			09/01/22 11:48	1

## General Chemistry - Total Recoverable

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			09/07/22 17:05	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			09/07/22 17:05	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			09/07/22 17:05	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## General Chemistry - Dissolved

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:15	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:17	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:17	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			09/07/22 17:12	1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			09/07/22 17:12	1

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			09/07/22 17:12	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-591159/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 591243

Prep Type: Total/NA  
 Prep Batch: 591159

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.50	0.20	ng/L		09/01/22 16:01	09/02/22 09:54	1

Lab Sample ID: LCS 400-591159/4-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 591243

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury									

Lab Sample ID: LCSD 400-591159/5-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 591243

Prep Type: Total/NA  
 Prep Batch: 591159

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-585160/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585437

Prep Type: Total Recoverable  
 Prep Batch: 585160

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	ND		100	9.1	ug/L		08/28/22 23:40	08/29/22 21:10	1

Lab Sample ID: LCS 280-585160/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585437

Prep Type: Total Recoverable  
 Prep Batch: 585160

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-585165/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585452

Prep Type: Total Recoverable  
 Prep Batch: 585165

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		08/28/22 14:43	08/29/22 19:07	1
Cadmium	ND		1.0	0.088	ug/L		08/28/22 14:43	08/29/22 19:07	1
Chromium	ND		3.0	0.88	ug/L		08/28/22 14:43	08/29/22 19:07	1
Copper	ND		2.0	0.71	ug/L		08/28/22 14:43	08/29/22 19:07	1
Lead	ND		1.0	0.23	ug/L		08/28/22 14:43	08/29/22 19:07	1
Zinc	ND		10	2.0	ug/L		08/28/22 14:43	08/29/22 19:07	1

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-585165/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585452

Prep Type: Total Recoverable  
 Prep Batch: 585165

Analyte	Spike	LCS	LCS	%Rec
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Zinc				

Lab Sample ID: MB 280-585277/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585798

Prep Type: Potentially Dissolved  
 Prep Batch: 585492

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		08/30/22 11:40	09/01/22 11:28	1
Cadmium	ND		1.0	0.088	ug/L		08/30/22 11:40	09/01/22 11:28	1
Chromium	ND		3.0	0.88	ug/L		08/30/22 11:40	09/01/22 11:28	1
Copper	ND		2.0	0.71	ug/L		08/30/22 11:40	09/01/22 11:28	1
Lead	ND		1.0	0.23	ug/L		08/30/22 11:40	09/01/22 11:28	1
Manganese	ND		2.0	0.51	ug/L		08/30/22 11:40	09/01/22 11:28	1
Nickel	ND		2.0	0.28	ug/L		08/30/22 11:40	09/01/22 11:28	1
Selenium	ND		5.0	1.0	ug/L		08/30/22 11:40	09/01/22 11:28	1
Silver	ND		0.50	0.045	ug/L		08/30/22 11:40	09/01/22 11:28	1
Zinc	ND		10	2.0	ug/L		08/30/22 11:40	09/01/22 11:28	1

Lab Sample ID: LCS 280-585277/2-B

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585719

Prep Type: Potentially Dissolved  
 Prep Batch: 585492

Analyte	Spike	LCS	LCS	%Rec
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Manganese				
Nickel				
Selenium				
Silver				
Zinc				

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-585268/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585451

Prep Type: Total/NA  
 Prep Batch: 585268

Analyte	MB	MB
Arsenic		
Cadmium		
Chromium		
Copper		
Lead		
Manganese		
Nickel		
Selenium		
Silver		
Zinc		

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

1

2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		08/29/22 10:29	08/30/22 07:48	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 280-585268/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585451

Prep Type: Total/NA  
 Prep Batch: 585268  
 %Rec

Spike LCS LCS

Analyte  
 Mercury

Lab Sample ID: LCSD 280-585268/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 585451

Prep Type: Total/NA  
 Prep Batch: 585268

Analyte  
 Mercury

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-585475/5

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585475

Prep Type: Total/NA

MB MB

Analyte

Specific Conductance

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND		2.0	2.0	umhos/cm			08/30/22 10:45	1

Lab Sample ID: LCS 280-585475/4

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585475

Prep Type: Total/NA

Spike Added LCS Result LCS Qualifier Unit D %Rec %Rec Limits

Analyte

Specific Conductance

1410		1410		umhos/cm		100	90 - 110	
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## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-585351/3

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585351

Prep Type: Total/NA

MB MB

Analyte

Total Suspended Solids

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND		4.0	1.1	mg/L			08/29/22 10:45	1

Lab Sample ID: LCS 280-585351/1

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585351

Prep Type: Total/NA

Spike Added LCS Result LCS Qualifier Unit D %Rec %Rec Limits

Analyte

Total Suspended Solids

501		484		mg/L		97	79 - 114	
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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

1

2

**Lab Sample ID: LCSD 280-585351/2**

**Matrix: Water**

**Analysis Batch: 585351**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Analyte**

Total Suspended Solids

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-585157/21

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:19	1

Lab Sample ID: LCS 280-585157/19

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent									

Lab Sample ID: LCSD 280-585157/20

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent									

Lab Sample ID: 280-165851-1 MS

Client Sample ID: 2022-01

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Total/NA

Analyte	Sample			Spike		MS MS		D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier	Unit				
Chromium, hexavalent	0.0058	J F1	0.100	0.0953	F1	mg/L		89	91 - 112	

Lab Sample ID: 280-165851-1 MSD

Client Sample ID: 2022-01

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Total/NA

Analyte	Sample			Spike		MSD MSD		D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier	Unit						
Chromium, hexavalent	0.0058	J F1	0.100	0.0973		mg/L		91	91 - 112	2	20	

Lab Sample ID: 280-165851-1 DU

Client Sample ID: 2022-01

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Total/NA

Analyte	Sample			DU DU		D	%Rec	Limits	RPD
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	0.0058	J F1							

Lab Sample ID: MB 280-585153/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585157

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			08/25/22 18:14	1

Lab Sample ID: LCS 280-585153/1-A

Client Sample ID: Lab Control Sample

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

1

2

**Matrix: Water**  
**Analysis Batch: 585157**

**Prep Type: Dissolved**

**Analyte**

Chromium, hexavalent

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: LCSD 280-585153/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 585157

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.0993		mg/L		99	91 - 112	0	20

Lab Sample ID: 280-165851-1 MS

Client Sample ID: 2022-01

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 585157

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chromium, hexavalent	ND		0.100	0.0963		mg/L		96	91 - 112

Lab Sample ID: 280-165851-1 MSD

Client Sample ID: 2022-01

Matrix: Water

Prep Type: Dissolved

Analysis Batch: 585157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.0968		mg/L		97	91 - 112	0	20

Lab Sample ID: 280-165851-1 DU

Matrix: Water

Analysis Batch: 585157

Analyte	Sample Result	Sample Qualifier
Chromium, hexavalent	ND	

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-585450/4

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 585450

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH adj. to 25 deg C	7.00	7.1		SU		101	99 - 101

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-585225/11

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 585225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			08/26/22 09:50	1

Lab Sample ID: LCS 280-585225/9

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 585225

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

1

2

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.499	0.566		mg/L		113	81 - 122

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: LCSD 280-585225/10

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 585225

Prep Type: Total/NA

Analyte  
 Sulfide

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-585782/1

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 585782

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			09/01/22 11:48	1
Field pH	ND		1.0	1.0	SU			09/01/22 11:48	1
Field Temperature	ND		1.0	1.0	Celsius			09/01/22 11:48	1
Specific Conductance	ND		2.0	2.0	umhos/cm			09/01/22 11:48	1
Sulfide	ND		4.0	4.0	mg/L			09/01/22 11:48	1

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Metals

### Prep Batch: 585160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total Recoverable	Water	200.7	
280-165851-2	2022-B	Total Recoverable	Water	200.7	
280-165851-3	2022-02	Total Recoverable	Water	200.7	
MB 280-585160/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-585160/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Prep Batch: 585165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total Recoverable	Water	200.8	
280-165851-2	2022-B	Total Recoverable	Water	200.8	
280-165851-3	2022-02	Total Recoverable	Water	200.8	
MB 280-585165/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-585165/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

### Prep Batch: 585268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	245.1	
280-165851-2	2022-B	Total/NA	Water	245.1	
280-165851-3	2022-02	Total/NA	Water	245.1	
MB 280-585268/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-585268/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 280-585268/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

### Filtration Batch: 585277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Potentially Dissolved	Water	Poten_Diss_Met	
280-165851-2	2022-B	Potentially Dissolved	Water	Poten_Diss_Met	
280-165851-3	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-585277/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

### Analysis Batch: 585437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total Recoverable	Water	200.7 Rev 4.4	585160
280-165851-2	2022-B	Total Recoverable	Water	200.7 Rev 4.4	585160
280-165851-3	2022-02	Total Recoverable	Water	200.7 Rev 4.4	585160
MB 280-585160/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	585160
LCS 280-585160/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	585160

### Analysis Batch: 585451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	245.1	585268
280-165851-2	2022-B	Total/NA	Water	245.1	585268
280-165851-3	2022-02	Total/NA	Water	245.1	585268
MB 280-585268/1-A	Method Blank	Total/NA	Water	245.1	585268
LCS 280-585268/2-A	Lab Control Sample	Total/NA	Water	245.1	585268
LCSD 280-585268/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	585268

### Analysis Batch: 585452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total Recoverable	Water	200.8	585165

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# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Metals (Continued)

### Analysis Batch: 585452 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-2	2022-B	Total Recoverable	Water	200.8	585165
280-165851-3	2022-02	Total Recoverable	Water	200.8	585165
MB 280-585165/1-A	Method Blank	Total Recoverable	Water	200.8	585165
LCS 280-585165/2-A	Lab Control Sample	Total Recoverable	Water	200.8	585165

### Prep Batch: 585492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Potentially Dissolved	Water	200.8	585277
280-165851-2	2022-B	Potentially Dissolved	Water	200.8	585277
280-165851-3	2022-02	Potentially Dissolved	Water	200.8	585277
MB 280-585277/1-B	Method Blank	Potentially Dissolved	Water	200.8	585277
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	585277

### Analysis Batch: 585719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Potentially Dissolved	Water	200.8	585492
280-165851-2	2022-B	Potentially Dissolved	Water	200.8	585492
280-165851-3	2022-02	Potentially Dissolved	Water	200.8	585492
LCS 280-585277/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	585492

### Analysis Batch: 585798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-585277/1-B	Method Blank	Potentially Dissolved	Water	200.8	585492

### Prep Batch: 591159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	1631E	
280-165851-2	2022-B	Total/NA	Water	1631E	
280-165851-3	2022-02	Total/NA	Water	1631E	
MB 400-591159/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-591159/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-591159/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	

### Analysis Batch: 591243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	1631E	591159
280-165851-2	2022-B	Total/NA	Water	1631E	591159
280-165851-3	2022-02	Total/NA	Water	1631E	591159
MB 400-591159/3-A	Method Blank	Total/NA	Water	1631E	591159
LCS 400-591159/4-A	Lab Control Sample	Total/NA	Water	1631E	591159
LCSD 400-591159/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	591159

## General Chemistry

### Filtration Batch: 585153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Dissolved	Water	FILTRATION	
280-165851-2	2022-B	Dissolved	Water	FILTRATION	
280-165851-3	2022-02	Dissolved	Water	FILTRATION	
MB 280-585153/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-585153/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	

Eurofins Denver

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## General Chemistry (Continued)

### Filtration Batch: 585153 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-585153/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-165851-1 MS	2022-01	Dissolved	Water	FILTRATION	
280-165851-1 MSD	2022-01	Dissolved	Water	FILTRATION	
280-165851-1 DU	2022-01	Dissolved	Water	FILTRATION	

### Analysis Batch: 585157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Dissolved	Water	SM 3500 CR B	585153
280-165851-1	2022-01	Total/NA	Water	SM 3500 CR B	
280-165851-2	2022-B	Dissolved	Water	SM 3500 CR B	585153
280-165851-2	2022-B	Total/NA	Water	SM 3500 CR B	
280-165851-3	2022-02	Dissolved	Water	SM 3500 CR B	585153
280-165851-3	2022-02	Total/NA	Water	SM 3500 CR B	
MB 280-585153/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	585153
MB 280-585157/21	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-585153/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	585153
LCS 280-585157/19	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-585153/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	585153
LCSD 280-585157/20	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-165851-1 MS	2022-01	Dissolved	Water	SM 3500 CR B	585153
280-165851-1 MS	2022-01	Total/NA	Water	SM 3500 CR B	
280-165851-1 MSD	2022-01	Dissolved	Water	SM 3500 CR B	585153
280-165851-1 MSD	2022-01	Total/NA	Water	SM 3500 CR B	
280-165851-1 DU	2022-01	Dissolved	Water	SM 3500 CR B	585153
280-165851-1 DU	2022-01	Total/NA	Water	SM 3500 CR B	

### Analysis Batch: 585225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	SM 4500 S2 D	
280-165851-2	2022-B	Total/NA	Water	SM 4500 S2 D	
280-165851-3	2022-02	Total/NA	Water	SM 4500 S2 D	
MB 280-585225/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-585225/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-585225/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

### Analysis Batch: 585351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	SM 2540D	
280-165851-2	2022-B	Total/NA	Water	SM 2540D	
280-165851-3	2022-02	Total/NA	Water	SM 2540D	
MB 280-585351/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-585351/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-585351/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

### Analysis Batch: 585450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	SM 4500 H+ B	
280-165851-2	2022-B	Total/NA	Water	SM 4500 H+ B	
280-165851-3	2022-02	Total/NA	Water	SM 4500 H+ B	
LCS 280-585450/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Eurofins Denver

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## General Chemistry

### Analysis Batch: 585475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	SM 2510B	
280-165851-2	2022-B	Total/NA	Water	SM 2510B	
280-165851-3	2022-02	Total/NA	Water	SM 2510B	
MB 280-585475/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-585475/4	Lab Control Sample	Total/NA	Water	SM 2510B	

### Analysis Batch: 585782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total/NA	Water	SM4500 S2 H	
280-165851-2	2022-B	Total/NA	Water	SM4500 S2 H	
280-165851-3	2022-02	Total/NA	Water	SM4500 S2 H	
MB 280-585782/1	Method Blank	Total/NA	Water	SM4500 S2 H	

### Analysis Batch: 586176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Total Recoverable	Water	SM3500 CR B	
280-165851-2	2022-B	Total Recoverable	Water	SM3500 CR B	
280-165851-3	2022-02	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 586177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-165851-1	2022-01	Potentially Dissolved	Water	SM3500 CR B	
280-165851-2	2022-B	Potentially Dissolved	Water	SM3500 CR B	
280-165851-3	2022-02	Potentially Dissolved	Water	SM3500 CR B	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

**Client Sample ID: 2022-01**  
**Date Collected: 08/25/22 08:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	591159	08/29/22 15:50	VLC	EET PEN
							Completed:	08/30/22 09:25 <sup>1</sup>		
Total/NA	Analysis	1631E		1			591243	09/02/22 11:25	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	585160	08/28/22 23:40	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			585437	08/29/22 21:18	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	585277	08/26/22 17:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	585492	08/30/22 11:40	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			585719	08/31/22 18:23	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	585165	08/28/22 14:43	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			585452	08/29/22 19:25	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	585268	08/29/22 10:29	PFM	EET DEN
Total/NA	Analysis	245.1		1			585451	08/30/22 07:55	PFM	EET DEN
Total/NA	Analysis	SM 2510B		1			585475	08/30/22 10:45	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	585351	08/29/22 10:45	ASP	EET DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	585153	08/25/22 17:43	SJD	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	585157	08/25/22 18:15	SJD	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	585157	08/25/22 18:29	SJD	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			585450	08/29/22 13:25	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	585225	08/26/22 10:01	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			586177	09/07/22 17:12	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			586176	09/07/22 17:05	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			585782	09/01/22 11:48	ZPM	EET DEN

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	591159	08/29/22 15:50	VLC	EET PEN
							Completed:	08/30/22 09:25 <sup>1</sup>		
Total/NA	Analysis	1631E		1			591243	09/02/22 11:33	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	585160	08/28/22 23:40	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			585437	08/29/22 21:22	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	585277	08/26/22 17:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	585492	08/30/22 11:40	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			585719	08/31/22 18:27	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	585165	08/28/22 14:43	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			585452	08/29/22 19:29	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	585268	08/29/22 10:29	PFM	EET DEN
Total/NA	Analysis	245.1		1			585451	08/30/22 08:03	PFM	EET DEN
Total/NA	Analysis	SM 2510B		1			585475	08/30/22 10:45	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	585351	08/29/22 10:45	ASP	EET DEN

Eurofins Denver

# Lab Chronicle

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

1

2

Dissolved	Filtration	FILTRATION		1.0 mL	1.0 mL	585153	08/25/22 17:43	SJD	EET DEN
Dissolved	Analysis	SM 3500 CR B	1	2 mL	2 mL	585157	08/25/22 18:17	SJD	EET DEN

4

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

**Client Sample ID: 2022-B**  
**Date Collected: 08/25/22 08:30**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	585157	08/25/22 18:22	SJD	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			585450	08/29/22 13:21	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	585225	08/26/22 10:01	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			586177	09/07/22 17:12	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			586176	09/07/22 17:05	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			585782	09/01/22 11:48	ZPM	EET DEN

**Client Sample ID: 2022-02**  
**Date Collected: 08/25/22 09:00**  
**Date Received: 08/25/22 16:47**

**Lab Sample ID: 280-165851-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	591159	08/29/22 15:50	VLC	EET PEN
							Completed:	08/30/22 09:25 <sup>1</sup>		
Total/NA	Analysis	1631E		1			591243	09/02/22 11:41	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	585160	08/28/22 23:40	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			585437	08/29/22 21:26	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	585277	08/26/22 17:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	585492	08/30/22 11:40	MCR	EET DEN
Potentially Dissolved	Analysis	200.8		1			585719	08/31/22 18:31	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	585165	08/28/22 14:43	MCR	EET DEN
Total Recoverable	Analysis	200.8		1			585452	08/29/22 19:33	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	585268	08/29/22 10:29	PFM	EET DEN
Total/NA	Analysis	245.1		1			585451	08/29/22 19:45	PFM	EET DEN
Total/NA	Analysis	SM 2510B		1			585475	08/30/22 10:45	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	585351	08/29/22 10:45	ASP	EET DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	585153	08/25/22 17:43	SJD	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	585157	08/25/22 18:17	SJD	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	585157	08/25/22 18:22	SJD	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			585450	08/29/22 13:17	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	585225	08/26/22 10:02	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			586177	09/07/22 17:12	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			586176	09/07/22 17:05	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			585782	09/01/22 11:48	ZPM	EET DEN

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
 EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22 *
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22 *
West Virginia DEP	State	354	11-30-22
Wyoming (UST)	A2LA	2907.01	10-31-22

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-165851-1

## Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23



# Chain of Custody Record



<b>Client Information (Sub Contract Lab)</b>		Sampler:	Lab PM: Bieniulis, Dylan T		Carrier Tracking No(s):	COC No: 280-626516.1		
Client Contact: Shipping/Receiving		Phone:	E-Mail: Dylan.Bieniulis@et.eurofins.com		State of Origin: Colorado	Page: Page 1 of 1		
Company: Eurofins Environment Testing Southeast,		Accreditations Required (See note):		Job #:		280-165851-1		
Address: 3355 McLemore Drive, Pensacola, FL, 32514		Due Date Requested: 9/12/2022		TAT Requested (days):		Preservation Codes:		
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		PO #:		WO #:		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)		
Email:		Project #: 28022821		SSOW#:		Other:		
Wastewater Discharge - Nederland, CO		Site:		Matrix (Water, Solid, On-site, B-Tissue, A-AH)		Special Instructions/Note:		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers
2022-01 (280-165851-1)	8/25/22	08:00 Mountain	Water	X	X	1		
2022-B (280-165851-2)	8/25/22	08:30 Mountain	Water	X	X	1		
2022-02 (280-165851-3)	8/25/22	09:00 Mountain	Water	X	X	1		

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

**Possible Hazard Identification**  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements:

Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Relinquished by: *[Signature]* Date: 8/25/22  
 Relinquished by: *[Signature]* Date: 8/25/22  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No

Method of Shipment: \_\_\_\_\_  
 Date/Time: 8/27/22 5:00 PM  
 Date/Time: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 14°C (57°F)



## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-165851-1

**Login Number: 165851**

**List Number: 1**

**Creator: Roehsner, Karen P**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-165851-1

**Login Number: 165851**

**List Number: 2**

**Creator: Whitley, Adrian**

**List Source: Eurofins Pensacola**

**List Creation: 08/27/22 09:43 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C.3 SEPTEMBER 2022 SURFACE WATER ANALYTICAL RESULTS

## ANALYTICAL REPORT

Eurofins Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Tel: (303)736-0100

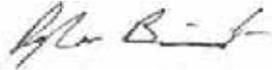
Laboratory Job ID: 280-166931-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Attn: Patrick Delaney



---

Authorized for release by:  
10/12/2022 4:39:31 PM

Dylan Bieniulis, Project Manager I  
(303)736-0138  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)

### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



# Table of Contents

Cover Page .....	1
Table of Contents .....	2
Definitions .....	3
Case Narrative .....	4
Detection Summary .....	7
Method Summary .....	9
Sample Summary .....	10
Client Sample Results .....	11
QC Sample Results .....	16
QC Association .....	24
Chronicle .....	28
Certification Summary .....	30
Chain of Custody .....	32
Receipt Checklists .....	35



# Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-166931-1

Project/Site: Wastewater Discharge - Nederland, CO

## Qualifiers

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

**Job ID: 280-166931-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Wastewater Discharge - Nederland, CO**

**Report Number: 280-166931-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### RECEIPT

The samples were received on 09/26/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 11.3 C.

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

2 x 40ml containers were received for low level mercury kit analysis with each of the following samples. The containers were received improperly packaged for the test requested. These containers were logged for storage but not analysis as a properly packaged mercury sample kit was received for each sample and was used for analysis. 2022-02 (280-166931-1), 2022-02 (280-166931-1[MS]), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3)

### TOTAL RECOVERABLE METALS (ICP)

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 09/28/2022 and analyzed on 09/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### POTENTIALLY DISSOLVED METALS (ICPMS)

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 09/30/2022.

Zinc was detected in method blank MB 280-588283/1-B at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### TOTAL RECOVERABLE METALS (ICPMS)

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 09/29/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

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## Job ID: 280-166931-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

#### TOTAL MERCURY (CVAA)

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 09/29/2022 and analyzed on 09/30/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 10/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 10/12/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SPECIFIC CONDUCTIVITY

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 10/04/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### TOTAL SUSPENDED SOLIDS

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 09/28/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### DISSOLVED HEXAVALENT CHROMIUM

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for dissolved hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 09/26/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### HEXAVALENT CHROMIUM

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 09/26/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### CORROSIVITY (PH)

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 10/03/2022.

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) did not equilibrate to within 0.05 pH units after three measurements. This was observed in a previous analysis thus the samples were not rerun.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### SULFIDE

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 10/03/2022.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

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## Job ID: 280-166931-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### HYDROGEN SULFIDE

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 10/05/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### LOW LEVEL MERCURY

Samples 2022-02 (280-166931-1), 2022-02-FB (280-166931-2) and 2022-02-DUPLICATE (280-166931-3) were analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 09/29/2022 and analyzed on 10/05/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Client Sample ID: 2022-02

## Lab Sample ID: 280-166931-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	2.9		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	66	J	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cadmium	0.13	J	1.0	0.088	ug/L	1		200.8	Total Recoverable
Copper	0.78	J	2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	0.98	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Zinc	6.2	J	10	2.0	ug/L	1		200.8	Total Recoverable
Lead	0.95	J	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	5.6		2.0	0.51	ug/L	1		200.8	Potentially Dissolved
Zinc	11	B	10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	220		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
pH adj. to 25 deg C	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.5	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.4		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	21		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	220		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

## Client Sample ID: 2022-02-FB

## Lab Sample ID: 280-166931-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.22	J	0.50	0.20	ng/L	1		1631E	Total/NA
Iron	29	J	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Copper	1.1	J	2.0	0.71	ug/L	1		200.8	Total Recoverable
Copper	1.2	J	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Zinc	8.8	J B	10	2.0	ug/L	1		200.8	Potentially Dissolved
pH adj. to 25 deg C	8.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.2	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	8.1		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA

## Client Sample ID: 2022-02-DUPLICATE

## Lab Sample ID: 280-166931-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	2.8		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	77	J	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Cadmium	0.097	J	1.0	0.088	ug/L	1		200.8	Total Recoverable
Copper	1.0	J	2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	1.2		1.0	0.23	ug/L	1		200.8	Total Recoverable
Zinc	7.9	J	10	2.0	ug/L	1		200.8	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Denver

# Detection Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

**Client Sample ID: 2022-02-DUPLICATE (Continued)**

**Lab Sample ID: 280-166931-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.73	J	2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.97	J	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	5.5		2.0	0.51	ug/L	1		200.8	Potentially Dissolved
Zinc	14	B	10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	220		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
pH adj. to 25 deg C	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.2	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.4		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	21		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	220		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver



# Method Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	EET PEN
200.7 Rev 4.4	Metals (ICP)	EPA	EET DEN
200.8	Metals (ICP/MS)	EPA	EET DEN
245.1	Mercury (CVAA)	EPA	EET DEN
SM 2510B	Conductivity, Specific Conductance	SM	EET DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	EET DEN
SM 3500 CR B	Chromium, Hexavalent	SM	EET DEN
SM 4500 H+ B	pH	SM	EET DEN
SM 4500 S2 D	Sulfide, Total	SM	EET DEN
SM3500 CR B	Chromium, Trivalent	SM	EET DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	EET DEN
1631E	Preparation, Mercury, Low Level	EPA	EET PEN
200.7	Preparation, Total Recoverable Metals	EPA	EET DEN
200.8	Preparation, Total Recoverable Metals	EPA	EET DEN
245.1	Preparation, Mercury	EPA	EET DEN
FILTRATION	Sample Filtration	None	EET DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	EET DEN

#### Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Sample Summary

Client: GS Mining Company LLC

Job ID: 280-166931-1

Project/Site: Wastewater Discharge - Nederland, CO

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-166931-1	2022-02	Water	09/26/22 12:30	09/26/22 16:52
280-166931-2	2022-02-FB	Water	09/26/22 12:40	09/26/22 16:52
280-166931-3	2022-02-DUPLICATE	Water	09/26/22 12:45	09/26/22 16:52

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: EPA 1631E - Mercury, Low Level (CVAFS)

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.9		0.50	0.20	ng/L		09/29/22 16:30	10/05/22 13:10	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.22	J	0.50	0.20	ng/L		09/29/22 16:30	10/05/22 13:26	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.8		0.50	0.20	ng/L		09/29/22 16:30	10/05/22 13:33	1

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	66	J	100	9.1	ug/L		09/28/22 23:32	09/29/22 14:51	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	29	J	100	9.1	ug/L		09/28/22 23:32	09/29/22 15:08	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	77	J	100	9.1	ug/L		09/28/22 23:32	09/29/22 15:12	1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/29/22 09:13	09/29/22 22:23	1
Cadmium	0.13	J	1.0	0.088	ug/L		09/29/22 09:13	09/29/22 22:23	1
Chromium	ND		3.0	0.88	ug/L		09/29/22 09:13	09/29/22 22:23	1
Copper	0.78	J	2.0	0.71	ug/L		09/29/22 09:13	09/29/22 22:23	1
Lead	0.98	J	1.0	0.23	ug/L		09/29/22 09:13	09/29/22 22:23	1
Zinc	6.2	J	10	2.0	ug/L		09/29/22 09:13	09/29/22 22:23	1

Eurofins Denver

# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/29/22 09:13	09/29/22 22:33	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable (Continued)

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.088	ug/L		09/29/22 09:13	09/29/22 22:33	1
Chromium	ND		3.0	0.88	ug/L		09/29/22 09:13	09/29/22 22:33	1
Copper	1.1	J	2.0	0.71	ug/L		09/29/22 09:13	09/29/22 22:33	1
Lead	ND		1.0	0.23	ug/L		09/29/22 09:13	09/29/22 22:33	1
Zinc	ND		10	2.0	ug/L		09/29/22 09:13	09/29/22 22:33	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/29/22 09:13	09/29/22 22:34	1
Cadmium	0.097	J	1.0	0.088	ug/L		09/29/22 09:13	09/29/22 22:34	1
Chromium	ND		3.0	0.88	ug/L		09/29/22 09:13	09/29/22 22:34	1
Copper	1.0	J	2.0	0.71	ug/L		09/29/22 09:13	09/29/22 22:34	1
Lead	1.2		1.0	0.23	ug/L		09/29/22 09:13	09/29/22 22:34	1
Zinc	7.9	J	10	2.0	ug/L		09/29/22 09:13	09/29/22 22:34	1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/30/22 09:19	09/30/22 20:57	1
Cadmium	ND		1.0	0.088	ug/L		09/30/22 09:19	09/30/22 20:57	1
Chromium	ND		3.0	0.88	ug/L		09/30/22 09:19	09/30/22 20:57	1
Copper	ND		2.0	0.71	ug/L		09/30/22 09:19	09/30/22 20:57	1
Lead	0.95	J	1.0	0.23	ug/L		09/30/22 09:19	09/30/22 20:57	1
Manganese	5.6		2.0	0.51	ug/L		09/30/22 09:19	09/30/22 20:57	1
Nickel	ND		2.0	0.28	ug/L		09/30/22 09:19	09/30/22 20:57	1
Selenium	ND		5.0	1.0	ug/L		09/30/22 09:19	09/30/22 20:57	1
Silver	ND		0.50	0.045	ug/L		09/30/22 09:19	09/30/22 20:57	1
Zinc	11	B	10	2.0	ug/L		09/30/22 09:19	09/30/22 20:57	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/30/22 09:19	09/30/22 21:07	1
Cadmium	ND		1.0	0.088	ug/L		09/30/22 09:19	09/30/22 21:07	1
Chromium	ND		3.0	0.88	ug/L		09/30/22 09:19	09/30/22 21:07	1
Copper	1.2	J	2.0	0.71	ug/L		09/30/22 09:19	09/30/22 21:07	1
Lead	ND		1.0	0.23	ug/L		09/30/22 09:19	09/30/22 21:07	1
Manganese	ND		2.0	0.51	ug/L		09/30/22 09:19	09/30/22 21:07	1
Nickel	ND		2.0	0.28	ug/L		09/30/22 09:19	09/30/22 21:07	1
Selenium	ND		5.0	1.0	ug/L		09/30/22 09:19	09/30/22 21:07	1
Silver	ND		0.50	0.045	ug/L		09/30/22 09:19	09/30/22 21:07	1
Zinc	8.8	J B	10	2.0	ug/L		09/30/22 09:19	09/30/22 21:07	1

# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

**Date Received: 09/26/22 16:52**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		09/30/22 09:19	09/30/22 21:09	1
Cadmium	ND		1.0	0.088	ug/L		09/30/22 09:19	09/30/22 21:09	1
Chromium	ND		3.0	0.88	ug/L		09/30/22 09:19	09/30/22 21:09	1
Copper	0.73	J	2.0	0.71	ug/L		09/30/22 09:19	09/30/22 21:09	1
Lead	0.97	J	1.0	0.23	ug/L		09/30/22 09:19	09/30/22 21:09	1
Manganese	5.5		2.0	0.51	ug/L		09/30/22 09:19	09/30/22 21:09	1
Nickel	ND		2.0	0.28	ug/L		09/30/22 09:19	09/30/22 21:09	1
Selenium	ND		5.0	1.0	ug/L		09/30/22 09:19	09/30/22 21:09	1
Silver	ND		0.50	0.045	ug/L		09/30/22 09:19	09/30/22 21:09	1
Zinc	14	B	10	2.0	ug/L		09/30/22 09:19	09/30/22 21:09	1

## Method: EPA 245.1 - Mercury (CVAA)

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		09/29/22 17:00	09/30/22 16:29	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		09/29/22 17:00	09/30/22 16:37	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		09/29/22 17:00	09/30/22 16:39	1

## General Chemistry

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (SM 2510B)	220		2.0	2.0	umhos/cm			10/04/22 11:33	1
Total Suspended Solids (SM 2540D)	ND		4.0	1.1	mg/L			09/28/22 10:25	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			09/26/22 17:59	1
pH adj. to 25 deg C (SM 4500 H+ B)	7.4	HF	0.1	0.1	SU			10/03/22 13:49	1
Temperature (SM 4500 H+ B)	20.5	HF	1.0	1.0	Degrees C			10/03/22 13:49	1
Sulfide (SM 4500 S2 D)	ND		0.050	0.022	mg/L			10/03/22 18:56	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	ND		1.0	1.0	mg/L			10/05/22 15:27	1
Field pH (SM4500 S2 H)	7.4		1.0	1.0	SU			10/05/22 15:27	1
Field Temperature (SM4500 S2 H)	21		1.0	1.0	Celsius			10/05/22 15:27	1
Specific Conductance (SM4500 S2 H)	220		2.0	2.0	umhos/cm			10/05/22 15:27	1
Sulfide (SM4500 S2 H)	ND		4.0	4.0	mg/L			10/05/22 15:27	1

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## General Chemistry

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (SM 2510B)	ND		2.0	2.0	umhos/cm			10/04/22 11:33	1
Total Suspended Solids (SM 2540D)	ND		4.0	1.1	mg/L			09/28/22 10:25	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			09/26/22 18:01	1
pH adj. to 25 deg C (SM 4500 H+ B)	8.1	HF	0.1	0.1	SU			10/03/22 13:55	1
Temperature (SM 4500 H+ B)	20.2	HF	1.0	1.0	Degrees C			10/03/22 13:55	1
Sulfide (SM 4500 S2 D)	ND		0.050	0.022	mg/L			10/03/22 18:57	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	ND		1.0	1.0	mg/L			10/05/22 15:27	1
Field pH (SM4500 S2 H)	8.1		1.0	1.0	SU			10/05/22 15:27	1
Field Temperature (SM4500 S2 H)	20		1.0	1.0	Celsius			10/05/22 15:27	1
Specific Conductance (SM4500 S2 H)	ND		2.0	2.0	umhos/cm			10/05/22 15:27	1
Sulfide (SM4500 S2 H)	ND		4.0	4.0	mg/L			10/05/22 15:27	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (SM 2510B)	220		2.0	2.0	umhos/cm			10/04/22 11:33	1
Total Suspended Solids (SM 2540D)	ND		4.0	1.1	mg/L			09/28/22 10:25	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			09/26/22 18:01	1
pH adj. to 25 deg C (SM 4500 H+ B)	7.6	HF	0.1	0.1	SU			10/03/22 14:01	1
Temperature (SM 4500 H+ B)	20.2	HF	1.0	1.0	Degrees C			10/03/22 14:01	1
Sulfide (SM 4500 S2 D)	ND		0.050	0.022	mg/L			10/03/22 18:58	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	ND		1.0	1.0	mg/L			10/05/22 15:27	1
Field pH (SM4500 S2 H)	7.4		1.0	1.0	SU			10/05/22 15:27	1
Field Temperature (SM4500 S2 H)	21		1.0	1.0	Celsius			10/05/22 15:27	1
Specific Conductance (SM4500 S2 H)	220		2.0	2.0	umhos/cm			10/05/22 15:27	1
Sulfide (SM4500 S2 H)	ND		4.0	4.0	mg/L			10/05/22 15:27	1

## General Chemistry - Total Recoverable

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (SM3500 CR B)	ND	H	0.020	0.020	mg/L			10/12/22 09:15	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (SM3500 CR B)	ND	H	0.020	0.020	mg/L			10/12/22 09:15	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (SM3500 CR B)	ND	H	0.020	0.020	mg/L			10/12/22 09:15	1

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# Client Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## General Chemistry - Dissolved

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			09/26/22 19:06	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			09/26/22 19:08	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			09/26/22 19:06	1

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

### General Chemistry - Potentially Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved) (SM3500 CR B)	ND		0.020	0.020	mg/L			10/12/22 09:16	1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved) (SM3500 CR B)	ND		0.020	0.020	mg/L			10/12/22 09:16	1

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved) (SM3500 CR B)	ND		0.020	0.020	mg/L			10/12/22 09:16	1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-595040/3-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 595169

Prep Type: Total/NA  
 Prep Batch: 595040

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L		10/04/22 16:00	10/05/22 09:51	1

Lab Sample ID: LCS 400-595040/4-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 595169

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury									

Lab Sample ID: LCSD 400-595040/5-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 595169

Prep Type: Total/NA  
 Prep Batch: 595040

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.24		ng/L		85	79 - 121	1	20

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 595169

Prep Type: Total/NA  
 Prep Batch: 595040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.9		5.00	6.83		ng/L		78	71 - 125

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-588147/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588463

Prep Type: Total Recoverable  
 Prep Batch: 588147

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100	9.1	ug/L		09/28/22 23:32	09/29/22 13:51	1

Lab Sample ID: LCS 280-588147/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588463

Prep Type: Total Recoverable  
 Prep Batch: 588147

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	10400		ug/L		104	85 - 115

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588463

Prep Type: Total Recoverable  
 Prep Batch: 588147

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Iron	66	J	10000	10300		ug/L		102	70 - 130

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588463

Prep Type: Total Recoverable  
 Prep Batch: 588147

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	
Iron	66	J	10000	10100		ug/L		101	70 - 130	1	20

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-588218/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588459

Prep Type: Total Recoverable  
 Prep Batch: 588218

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		09/29/22 09:13	09/29/22 21:57	1
Cadmium	ND		1.0	0.088	ug/L		09/29/22 09:13	09/29/22 21:57	1
Chromium	ND		3.0	0.88	ug/L		09/29/22 09:13	09/29/22 21:57	1
Copper	ND		2.0	0.71	ug/L		09/29/22 09:13	09/29/22 21:57	1
Lead	ND		1.0	0.23	ug/L		09/29/22 09:13	09/29/22 21:57	1
Zinc	ND		10	2.0	ug/L		09/29/22 09:13	09/29/22 21:57	1

Lab Sample ID: LCS 280-588218/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588459

Analyte

Arsenic  
 Cadmium  
 Chromium  
 Copper  
 Lead  
 Zinc

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588459

Prep Type: Total Recoverable  
 Prep Batch: 588218

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				Limits	
Arsenic	ND		40.0	43.3		ug/L		108	79 - 120	
Cadmium	0.13	J	40.0	43.7		ug/L		109	89 - 111	
Chromium	ND		40.0	42.5		ug/L		106	86 - 115	
Copper	0.78	J	40.0	42.5		ug/L		104	90 - 115	
Lead	0.98	J	40.0	44.0		ug/L		108	88 - 115	
Zinc	6.2	J	40.0	47.2		ug/L		103	88 - 115	

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588459

Prep Type: Total Recoverable  
 Prep Batch: 588218

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	
Arsenic	ND		40.0	41.7		ug/L		104	79 - 120	4	20
Cadmium	0.13	J	40.0	40.8		ug/L		102	89 - 111	7	20
Chromium	ND		40.0	40.2		ug/L		100	86 - 115	6	20

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

Copper	0.78	J	40.0	40.6	ug/L	100	90 - 115	5	20
Lead	0.98	J	40.0	42.5	ug/L	104	88 - 115	4	20

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588459

Prep Type: Total Recoverable  
 Prep Batch: 588218

Analyte	Sample		Spike	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Zinc	6.2	J	40.0	46.1		ug/L		100	88 - 115	2	20

Lab Sample ID: MB 280-588283/1-B

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588587

Prep Type: Potentially Dissolved  
 Prep Batch: 588361

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	ND		5.0	0.50	ug/L		09/30/22 09:19	09/30/22 20:24		1
Cadmium	ND		1.0	0.088	ug/L		09/30/22 09:19	09/30/22 20:24		1
Chromium	ND		3.0	0.88	ug/L		09/30/22 09:19	09/30/22 20:24		1
Copper	ND		2.0	0.71	ug/L		09/30/22 09:19	09/30/22 20:24		1
Lead	ND		1.0	0.23	ug/L		09/30/22 09:19	09/30/22 20:24		1
Manganese	ND		2.0	0.51	ug/L		09/30/22 09:19	09/30/22 20:24		1
Nickel	ND		2.0	0.28	ug/L		09/30/22 09:19	09/30/22 20:24		1
Selenium	ND		5.0	1.0	ug/L		09/30/22 09:19	09/30/22 20:24		1
Silver	ND		0.50	0.045	ug/L		09/30/22 09:19	09/30/22 20:24		1
Zinc	2.93	J	10	2.0	ug/L		09/30/22 09:19	09/30/22 20:24		1

Lab Sample ID: LCS 280-588283/2-B

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588587

Prep Type: Potentially Dissolved  
 Prep Batch: 588361

Analyte	Spike		LCS		Unit	D	%Rec	Limits
	Result	Qualifier	Result	Qualifier				
Arsenic								
Cadmium								
Chromium								
Copper								
Lead								
Manganese								
Nickel								
Selenium								
Silver								
Zinc								

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588587

Prep Type: Potentially Dissolved  
 Prep Batch: 588361

Analyte	Sample		Spike	MS		Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Arsenic	ND		40.0	39.9		ug/L		100	79 - 120
Cadmium	ND		40.0	40.2		ug/L		101	89 - 111
Chromium	ND		40.0	41.3		ug/L		103	86 - 115
Copper	ND		40.0	41.6		ug/L		104	90 - 115
Lead	0.95	J	40.0	42.8		ug/L		105	88 - 115
Manganese	5.6		40.0	46.5		ug/L		102	87 - 115
Nickel	ND		40.0	40.3		ug/L		101	86 - 115

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

Selenium	ND	40.0	43.4	ug/L	108	85 - 114
Silver	ND	40.0	40.7	ug/L	102	70 - 130
Zinc	11 B	40.0	54.7	ug/L	109	88 - 115

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588587

Prep Type: Potentially Dissolved  
 Prep Batch: 588361

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Arsenic	ND		40.0	41.3		ug/L		103	79 - 120	4	20
Cadmium	ND		40.0	39.1		ug/L		98	89 - 111	3	20
Chromium	ND		40.0	41.3		ug/L		103	86 - 115	0	20
Copper	ND		40.0	41.5		ug/L		104	90 - 115	0	20
Lead	0.95	J	40.0	41.9		ug/L		102	88 - 115	2	20
Manganese	5.6		40.0	45.2		ug/L		99	87 - 115	3	20
Nickel	ND		40.0	40.7		ug/L		102	86 - 115	1	20
Selenium	ND		40.0	41.3		ug/L		103	85 - 114	5	20
Silver	ND		40.0	39.9		ug/L		100	70 - 130	2	20
Zinc	11	B	40.0	49.2		ug/L		95	88 - 115	11	20

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-588403/1-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588685

Prep Type: Total/NA  
 Prep Batch: 588403

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.061	ug/L		09/29/22 17:00	09/30/22 16:24	1

Lab Sample ID: LCS 280-588403/2-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588685

Prep Type: Total/NA  
 Prep Batch: 588403

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Mercury	5.00	4.81		ug/L		96	90 - 110

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588685

Prep Type: Total/NA  
 Prep Batch: 588403

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	ND		5.00	4.87		ug/L		97	80 - 120

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588685

Prep Type: Total/NA  
 Prep Batch: 588403

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	ND		5.00	4.95		ug/L		99	80 - 120	2	10

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-588770/5

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588770

Prep Type: Total/NA

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Analyte
Specific Conductance

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

<b>MB</b>	<b>MB</b>								
<b>Result</b>	<b>Qualifier</b>	<b>RL</b>	<b>MDL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
ND		2.0	2.0	umhos/cm			10/04/22 11:33		1

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: LCS 280-588770/4  
 Matrix: Water  
 Analysis Batch: 588770

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

**Analyte**

Specific Conductance

Lab Sample ID: 280-166931-1 DU  
 Matrix: Water  
 Analysis Batch: 588770

Client Sample ID: 2022-02  
 Prep Type: Total/NA

	Sample	Sample	DU	DU		RPD
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**Analyte**

Specific Conductance

	Result	Qualifier				
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220

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-588215/2  
 Matrix: Water  
 Analysis Batch: 588215

Client Sample ID: Method Blank  
 Prep Type: Total/NA

MB MB

**Analyte**

Total Suspended Solids

	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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	ND		4.0	1.1	mg/L			09/28/22 10:25	1
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Lab Sample ID: LCS 280-588215/1

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588215

Prep Type: Total/NA

**Analyte**

Total Suspended Solids

	Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
	500		474		mg/L		95	79 - 114

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-588014/19  
 Matrix: Water  
 Analysis Batch: 588014

Client Sample ID: Method Blank  
 Prep Type: Total/NA

MB MB

**Analyte**

Chromium, hexavalent

	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
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	ND		0.020	0.0040	mg/L			09/26/22 17:59	1
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Lab Sample ID: LCS 280-588014/17

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Matrix: Water  
 Analysis Batch: 588014

**Analyte**

Chromium, hexavalent

	Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
	0.100		0.102		mg/L		102	91 - 112

Lab Sample ID: LCSD 280-588014/18

Client Sample ID: Lab Control Sample Dup

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

**Matrix: Water**  
**Analysis Batch: 588014**

**Prep Type: Total/NA**

**Analyte**

Chromium, hexavalent

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	ND		0.100	0.101		mg/L		101	91 - 112

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier					RPD	
Chromium, hexavalent	ND		0.100	0.102		mg/L		102	91 - 112	1	20

Lab Sample ID: 280-166931-1 DU

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Total/NA

Analyte	Sample	Sample	DU		Unit	D	%Rec	Limits	RPD
	Result	Qualifier	Result	Qualifier					RPD
Chromium, hexavalent	ND								

Lab Sample ID: MB 280-587973/29-A

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Dissolved

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chromium, hexavalent	ND		0.020	0.0040	mg/L			09/26/22 18:35	1

Lab Sample ID: LCS 280-587973/27-A

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Dissolved

Chromium, hexavalent									
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Lab Sample ID: LCSD 280-587973/28-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Dissolved

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier					RPD	
Chromium, hexavalent	0.100	0.103		mg/L		103	91 - 112	1	20

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Dissolved

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Chromium, hexavalent	ND		0.100	0.110		mg/L		110	91 - 112

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

Lab Sample ID: 280-166931-1 MSD  
Matrix: Water  
Analysis Batch: 588014

Client Sample ID: 2022-02  
Prep Type: Dissolved

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Chromium, hexavalent	ND		0.100	0.104		mg/L		104	91 - 112	6	20

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: 280-166931-1 DU

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588014

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU	DU	RPD
Chromium, hexavalent	ND				

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-588713/4

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588713

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C									

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-588688/11

Client Sample ID: Method Blank

Matrix: Water  
 Analysis Batch: 588688

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			10/03/22 18:44	1

Lab Sample ID: LCS 280-588688/9

Client Sample ID: Lab Control Sample

Matrix: Water  
 Analysis Batch: 588688

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide									

Lab Sample ID: LCSD 280-588688/10

Client Sample ID: Lab Control Sample Dup

Matrix: Water  
 Analysis Batch: 588688

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.501	0.507		mg/L		101	81 - 122	2	10

Lab Sample ID: 280-166931-1 MS

Client Sample ID: 2022-02

Matrix: Water  
 Analysis Batch: 588688

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	ND		0.501	0.551		mg/L		110	81 - 122

Lab Sample ID: 280-166931-1 MSD

Client Sample ID: 2022-02

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1  
2

**Matrix: Water**  
**Analysis Batch: 588688**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier			%Rec		RPD	
Sulfide	ND		0.501	0.541		mg/L		108	81 - 122	2	10

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-588972/1

Client Sample ID: Method Blank

Matrix: Water  
Analysis Batch: 588972

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			10/05/22 15:27	1
Field pH	ND		1.0	1.0	SU			10/05/22 15:27	1
Field Temperature	ND		1.0	1.0	Celsius			10/05/22 15:27	1
Specific Conductance	ND		2.0	2.0	umhos/cm			10/05/22 15:27	1
Sulfide	ND		4.0	4.0	mg/L			10/05/22 15:27	1

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Metals

### Prep Batch: 588147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total Recoverable	Water	200.7	
280-166931-2	2022-02-FB	Total Recoverable	Water	200.7	
280-166931-3	2022-02-DUPLICATE	Total Recoverable	Water	200.7	
MB 280-588147/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-588147/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
280-166931-1 MS	2022-02	Total Recoverable	Water	200.7	
280-166931-1 MSD	2022-02	Total Recoverable	Water	200.7	

### Prep Batch: 588218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total Recoverable	Water	200.8	
280-166931-2	2022-02-FB	Total Recoverable	Water	200.8	
280-166931-3	2022-02-DUPLICATE	Total Recoverable	Water	200.8	
MB 280-588218/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-588218/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
280-166931-1 MS	2022-02	Total Recoverable	Water	200.8	
280-166931-1 MSD	2022-02	Total Recoverable	Water	200.8	

### Filtration Batch: 588283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-588283/1-B	Method Blank	Potentially Dissolved	Water	FILTRATION	
LCS 280-588283/2-B	Lab Control Sample	Potentially Dissolved	Water	FILTRATION	

### Filtration Batch: 588310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	
280-166931-2	2022-02-FB	Potentially Dissolved	Water	Poten_Diss_Met	
280-166931-3	2022-02-DUPLICATE	Potentially Dissolved	Water	Poten_Diss_Met	
280-166931-1 MS	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	
280-166931-1 MSD	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 588361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Potentially Dissolved	Water	200.8	588310
280-166931-2	2022-02-FB	Potentially Dissolved	Water	200.8	588310
280-166931-3	2022-02-DUPLICATE	Potentially Dissolved	Water	200.8	588310
MB 280-588283/1-B	Method Blank	Potentially Dissolved	Water	200.8	588283
LCS 280-588283/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	588283
280-166931-1 MS	2022-02	Potentially Dissolved	Water	200.8	588310
280-166931-1 MSD	2022-02	Potentially Dissolved	Water	200.8	588310

### Prep Batch: 588403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	245.1	
280-166931-2	2022-02-FB	Total/NA	Water	245.1	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	245.1	
MB 280-588403/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-588403/2-A	Lab Control Sample	Total/NA	Water	245.1	
280-166931-1 MS	2022-02	Total/NA	Water	245.1	
280-166931-1 MSD	2022-02	Total/NA	Water	245.1	

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Metals

### Analysis Batch: 588459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total Recoverable	Water	200.8	588218
280-166931-2	2022-02-FB	Total Recoverable	Water	200.8	588218
280-166931-3	2022-02-DUPLICATE	Total Recoverable	Water	200.8	588218
MB 280-588218/1-A	Method Blank	Total Recoverable	Water	200.8	588218
LCS 280-588218/2-A	Lab Control Sample	Total Recoverable	Water	200.8	588218
280-166931-1 MS	2022-02	Total Recoverable	Water	200.8	588218
280-166931-1 MSD	2022-02	Total Recoverable	Water	200.8	588218

### Analysis Batch: 588463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total Recoverable	Water	200.7 Rev 4.4	588147
280-166931-2	2022-02-FB	Total Recoverable	Water	200.7 Rev 4.4	588147
280-166931-3	2022-02-DUPLICATE	Total Recoverable	Water	200.7 Rev 4.4	588147
MB 280-588147/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	588147
LCS 280-588147/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	588147
280-166931-1 MS	2022-02	Total Recoverable	Water	200.7 Rev 4.4	588147
280-166931-1 MSD	2022-02	Total Recoverable	Water	200.7 Rev 4.4	588147

### Analysis Batch: 588587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Potentially Dissolved	Water	200.8	588361
280-166931-2	2022-02-FB	Potentially Dissolved	Water	200.8	588361
280-166931-3	2022-02-DUPLICATE	Potentially Dissolved	Water	200.8	588361
MB 280-588283/1-B	Method Blank	Potentially Dissolved	Water	200.8	588361
LCS 280-588283/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	588361
280-166931-1 MS	2022-02	Potentially Dissolved	Water	200.8	588361
280-166931-1 MSD	2022-02	Potentially Dissolved	Water	200.8	588361

### Analysis Batch: 588685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	245.1	588403
280-166931-2	2022-02-FB	Total/NA	Water	245.1	588403
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	245.1	588403
MB 280-588403/1-A	Method Blank	Total/NA	Water	245.1	588403
LCS 280-588403/2-A	Lab Control Sample	Total/NA	Water	245.1	588403
280-166931-1 MS	2022-02	Total/NA	Water	245.1	588403
280-166931-1 MSD	2022-02	Total/NA	Water	245.1	588403

### Prep Batch: 595040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	1631E	
280-166931-2	2022-02-FB	Total/NA	Water	1631E	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	1631E	
MB 400-595040/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-595040/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-595040/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	
280-166931-1 MS	2022-02	Total/NA	Water	1631E	

### Analysis Batch: 595169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	1631E	595040

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# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Metals (Continued)

### Analysis Batch: 595169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-2	2022-02-FB	Total/NA	Water	1631E	595040
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	1631E	595040
MB 400-595040/3-A	Method Blank	Total/NA	Water	1631E	595040
LCS 400-595040/4-A	Lab Control Sample	Total/NA	Water	1631E	595040
LCSD 400-595040/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	595040
280-166931-1 MS	2022-02	Total/NA	Water	1631E	595040

## General Chemistry

### Filtration Batch: 587973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Dissolved	Water	FILTRATION	
280-166931-2	2022-02-FB	Dissolved	Water	FILTRATION	
280-166931-3	2022-02-DUPLICATE	Dissolved	Water	FILTRATION	
MB 280-587973/29-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-587973/27-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-587973/28-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-166931-1 MS	2022-02	Dissolved	Water	FILTRATION	
280-166931-1 MSD	2022-02	Dissolved	Water	FILTRATION	
280-166931-1 DU	2022-02	Dissolved	Water	FILTRATION	

### Analysis Batch: 588014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Dissolved	Water	SM 3500 CR B	587973
280-166931-1	2022-02	Total/NA	Water	SM 3500 CR B	
280-166931-2	2022-02-FB	Dissolved	Water	SM 3500 CR B	587973
280-166931-2	2022-02-FB	Total/NA	Water	SM 3500 CR B	
280-166931-3	2022-02-DUPLICATE	Dissolved	Water	SM 3500 CR B	587973
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	SM 3500 CR B	
MB 280-587973/29-A	Method Blank	Dissolved	Water	SM 3500 CR B	587973
MB 280-588014/19	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-587973/27-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	587973
LCS 280-588014/17	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-587973/28-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	587973
LCSD 280-588014/18	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-166931-1 MS	2022-02	Dissolved	Water	SM 3500 CR B	587973
280-166931-1 MS	2022-02	Total/NA	Water	SM 3500 CR B	
280-166931-1 MSD	2022-02	Dissolved	Water	SM 3500 CR B	587973
280-166931-1 MSD	2022-02	Total/NA	Water	SM 3500 CR B	
280-166931-1 DU	2022-02	Dissolved	Water	SM 3500 CR B	587973
280-166931-1 DU	2022-02	Total/NA	Water	SM 3500 CR B	

### Analysis Batch: 588215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	SM 2540D	
280-166931-2	2022-02-FB	Total/NA	Water	SM 2540D	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	SM 2540D	
MB 280-588215/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-588215/1	Lab Control Sample	Total/NA	Water	SM 2540D	

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## General Chemistry

### Analysis Batch: 588688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	SM 4500 S2 D	
280-166931-2	2022-02-FB	Total/NA	Water	SM 4500 S2 D	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	SM 4500 S2 D	
MB 280-588688/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-588688/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-588688/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
280-166931-1 MS	2022-02	Total/NA	Water	SM 4500 S2 D	
280-166931-1 MSD	2022-02	Total/NA	Water	SM 4500 S2 D	

### Analysis Batch: 588713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	SM 4500 H+ B	
280-166931-2	2022-02-FB	Total/NA	Water	SM 4500 H+ B	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	SM 4500 H+ B	
LCS 280-588713/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 588770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	SM 2510B	
280-166931-2	2022-02-FB	Total/NA	Water	SM 2510B	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	SM 2510B	
MB 280-588770/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-588770/4	Lab Control Sample	Total/NA	Water	SM 2510B	
280-166931-1 DU	2022-02	Total/NA	Water	SM 2510B	

### Analysis Batch: 588972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total/NA	Water	SM4500 S2 H	
280-166931-2	2022-02-FB	Total/NA	Water	SM4500 S2 H	
280-166931-3	2022-02-DUPLICATE	Total/NA	Water	SM4500 S2 H	
MB 280-588972/1	Method Blank	Total/NA	Water	SM4500 S2 H	

### Analysis Batch: 589678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Total Recoverable	Water	SM3500 CR B	
280-166931-2	2022-02-FB	Total Recoverable	Water	SM3500 CR B	
280-166931-3	2022-02-DUPLICATE	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 589679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-166931-1	2022-02	Potentially Dissolved	Water	SM3500 CR B	
280-166931-2	2022-02-FB	Potentially Dissolved	Water	SM3500 CR B	
280-166931-3	2022-02-DUPLICATE	Potentially Dissolved	Water	SM3500 CR B	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

**Client Sample ID: 2022-02**  
**Date Collected: 09/26/22 12:30**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	595040	09/29/22 16:30	VLC	EET PEN
							Completed:	09/30/22 09:50 <sup>1</sup>		
Total/NA	Analysis	1631E		1			595169	10/05/22 13:10	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	588147	09/28/22 23:32	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			588463	09/29/22 14:51	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	588310	09/28/22 23:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	588361	09/30/22 09:19	KMS	EET DEN
Potentially Dissolved	Analysis	200.8		1			588587	09/30/22 20:57	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	588218	09/29/22 09:13	PFM	EET DEN
Total Recoverable	Analysis	200.8		1			588459	09/29/22 22:23	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	588403	09/29/22 17:00	CEH	EET DEN
Total/NA	Analysis	245.1		1			588685	09/30/22 16:29	CEH	EET DEN
Total/NA	Analysis	SM 2510B		1			588770	10/04/22 11:33	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	588215	09/28/22 10:25	ASP	EET DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	587973	09/26/22 17:45	LRB	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	588014	09/26/22 19:06	LRB	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	588014	09/26/22 17:59	LRB	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			588713	10/03/22 13:49	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	588688	10/03/22 18:56	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			589679	10/12/22 09:16	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			589678	10/12/22 09:15	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			588972	10/05/22 15:27	ZPM	EET DEN

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	595040	09/29/22 16:30	VLC	EET PEN
							Completed:	09/30/22 09:50 <sup>1</sup>		
Total/NA	Analysis	1631E		1			595169	10/05/22 13:26	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	588147	09/28/22 23:32	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			588463	09/29/22 15:08	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	588310	09/28/22 23:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	588361	09/30/22 09:19	KMS	EET DEN
Potentially Dissolved	Analysis	200.8		1			588587	09/30/22 21:07	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	588218	09/29/22 09:13	PFM	EET DEN
Total Recoverable	Analysis	200.8		1			588459	09/29/22 22:33	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	588403	09/29/22 17:00	CEH	EET DEN
Total/NA	Analysis	245.1		1			588685	09/30/22 16:37	CEH	EET DEN
Total/NA	Analysis	SM 2510B		1			588770	10/04/22 11:33	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	588215	09/28/22 10:25	ASP	EET DEN

Eurofins Denver

# Lab Chronicle

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

1

2

Dissolved	Filtration	FILTRATION		2 mL	2 mL	587973	09/26/22 17:45	LRB	EET DEN
Dissolved	Analysis	SM 3500 CR B	1	2 mL	2 mL	588014	09/26/22 19:08	LRB	EET DEN

4

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

**Client Sample ID: 2022-02-FB**  
**Date Collected: 09/26/22 12:40**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	588014	09/26/22 18:01	LRB	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			588713	10/03/22 13:55	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	588688	10/03/22 18:57	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			589679	10/12/22 09:16	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			589678	10/12/22 09:15	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			588972	10/05/22 15:27	ZPM	EET DEN

**Client Sample ID: 2022-02-DUPLICATE**  
**Date Collected: 09/26/22 12:45**  
**Date Received: 09/26/22 16:52**

**Lab Sample ID: 280-166931-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	595040	09/29/22 16:30	VLC	EET PEN
							Completed:	09/30/22 09:50 <sup>1</sup>		
Total/NA	Analysis	1631E		1			595169	10/05/22 13:33	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	588147	09/28/22 23:32	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			588463	09/29/22 15:12	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	588310	09/28/22 23:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	588361	09/30/22 09:19	KMS	EET DEN
Potentially Dissolved	Analysis	200.8		1			588587	09/30/22 21:09	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	588218	09/29/22 09:13	PFM	EET DEN
Total Recoverable	Analysis	200.8		1			588459	09/29/22 22:34	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	588403	09/29/22 17:00	CEH	EET DEN
Total/NA	Analysis	245.1		1			588685	09/30/22 16:39	CEH	EET DEN
Total/NA	Analysis	SM 2510B		1			588770	10/04/22 11:33	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	588215	09/28/22 10:25	ASP	EET DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	587973	09/26/22 17:45	LRB	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	588014	09/26/22 19:08	LRB	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	588014	09/26/22 18:01	LRB	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			588713	10/03/22 14:01	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	588688	10/03/22 18:58	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			589679	10/12/22 09:16	DNM	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			589678	10/12/22 09:15	DNM	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			588972	10/05/22 15:27	ZPM	EET DEN

<sup>1</sup> Completion dates and times are reported or not reported per method requirements or individual lab discretion.

**Laboratory References:**

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100  
 EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-08-23
Connecticut	State	PH-0686	09-30-22 *
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	04-30-23
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-23
New Hampshire	NELAP	205319	04-28-23
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-23
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	09-30-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-23
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-23
Wyoming (UST)	A2LA	2907.01	10-31-22

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-166931-1

## Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

<b>Client Information</b>		Lab PM: Bieniliulis, Dylan T		Carrier Tracking No(s):		COC No:	
Client Contact: Patrick Delaney		E-Mail: Dylan.Bieniliulis@Eurofinset.com		State of Origin:		Page:	
Company: Grand Island Resources		PWSID:		Analysis Requested		Job #:	
Address: 12567 West Cedar Road Suite 250		Due Date Requested:		200.8 - Potentially Dissolved Metals (First half of the month permit list)		Preservation Codes:	
City: Lakewood		TAT Requested (days):		200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: CO, 80466		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		1631E - Low Level Mercury (ETA Pensacola)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SZO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 315-414-6986		Advance Payment Required		3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc)		NO 2022-03, NO 2022-01.	
Email: pdelaney@blackfoxmining.com		WO #:		3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc)		Special Instructions/Note:	
Project Name: Wastewater Discharge - Nederland, CO		Project #: 28022821		2510B - Specific Conductance, 2540D - TSS, SM4500_H+ - pH / Temp		* Surface water potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn)	
Site: Surface Water Sampling		SSOW#:		3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc)		* Surface water total recoverable metals list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg)	
		Sample Date		2510B - Specific Conductance, 2540D - TSS, SM4500_H+ - pH / Temp		2022-02 pH = 8.4 temp = 12.0C	
		Sample Time		3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc)			
		Sample Type (C=Comp, G=grab)		3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc)			
		Matrix (W=water, S=solid, O=wastewater, AT=Asbestos, A=As)		1631E - Low Level Mercury (ETA Pensacola)			
		Preservation Code:		Hydrogen Sulfide (calc)			
		9/26/22 12:30		SM4500_S2_D - Sulfide and SM3500_S2_H - Un-ionized			
		9/26/22 12:30		Potentially Dissolved Trivalent Cr (calc)			
		9/26/22 12:40		3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc)			
		9/26/22 12:45		3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc)			
				200.8 - Potentially Dissolved Metals (First half of the month permit list)			
				200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list)			
				Total Number of Containers			
				Field Filtered Sample (Yes or No)			
				280-166931 Chain of Custody			
				Barcode			
				Special Instructions/QC Requirements:			
				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
				Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months			
				Method of Shipment:			
				Time:			
				Received by: [Signature]		Company: ADEU	
				Date/Time: 9/26/22 4:55pm		Date/Time: 9/26/22 10:50	
				Received by: [Signature]		Company:	
				Date/Time:		Date/Time:	
				Received by:		Company:	
				Cooler Temperature(s) °C and Other Remarks: 11.3 11.2 CFO-0			





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RT 574  
10:30  
6091  
09/29  
A

Part # 159469-434 M/TW EXP 07/23

euofins Environment Testing  
America

4.1°C  
NO 1R8

ORIGIN ID:WHHA (303) 736-0100  
EUROFINS  
EUROFINS TESTAMERICA DENVER  
4955 YARROW ST

SHIP DATE: 27SEP22  
ACTWTG: 15.07 LB  
CAD: 290884/CAFE3616

ARVADA, CO 80002  
UNITED STATES US

BILL SENDER

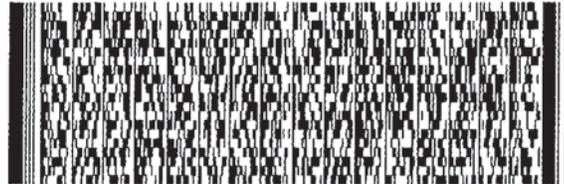
TO SHIPPING/RECEIVING  
EUROFINS ENVIRONMENT TESTING SOUTHE  
3355 MCLEMORE DRIVE

PENSACOLA FL 32514

(850) 474-1001  
PO: YES

REF: 8280-123249  
DEPT: BOTTLE PREP

1 2 3 4 5 6 7 8 9 10 11 12 13 14



FedEx  
Express



JZZ202202182801 uv

TRK# 5708 4894 6091  
0201

WED - 28 SEP 10:30A  
PRIORITY OVERNIGHT

XH PNSA

32514  
FL-US BFM



## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-166931-1

**Login Number: 166931**

**List Number: 1**

**Creator: Rystrom, Joshua R**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	False	Refer to Job Narrative for details.
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-166931-1

**Login Number: 166931**

**List Number: 2**

**Creator: Whitley, Adrian**

**List Source: Eurofins Pensacola**

**List Creation: 09/29/22 01:11 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## APPENDIX D CHAIN OF CUSTODY (COC) FORMS

**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Aurora, CO 80002  
 Phone (303) 736-0100 Phone (303) 431-7171

**Chain of Custody Record**

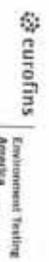
**eurofins** | Environment Testing  
 America

<b>Client Information</b> Sample ID: <b>BM</b> Project: <b>303-506-1618</b> Client: <b>City of Aurora</b>		Lab No: <b>Beverly Dylan T</b> E-Mail: <b>Dylan.Beverly@eurofins.com</b>		Chain of Custody No: <b>280-164183</b> Date of Request: <b>7/8/22</b>	
<b>Company</b> Grand Island Resources Address: <b>12107 West Cedar Road Suite 250</b> City: <b>Lakewood</b> State, Zip: <b>CO 80228</b> Phone: <b>315-414-6986</b> Email: <b>goldisland@grandislandresources.com</b>		<b>Test Data Requested</b> IAT Requested (Yes/No): Compliance Project: <b>1 Yes, 2 No</b> Advance Payment Required: <b>NO</b> WQS: <b>28022821</b> Request # <b>28022821</b> Request Date: <b>7/8/2022</b> Requested By: <b>SSC</b>		<b>Analysis Requested</b> 25108 - Specific Conductance, 35400 - TSS, SM4500_H <sub>2</sub> O - pH / Temp 3000_CR_B - Total Hexavalent Cr and Trivalent Cr (calc) 3004_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc) SM4500_S2_D - Sulfide and SM2500_S2_H - Unoxidized Hydrogen Sulfide (calc) 1631E - Low Level Mercury (ETA Peracetic) 206.9 - Potentially Dissolved Metals (First half of the month permit list) 3007.7, 206.8 / 348.1 - Total Recoverable Metals and Mercury (First half of the month permit list)	
<b>Sample Identification</b> 2022-A (PH=7.0 Temp=10.8) 2022-B (PH=7.3 Temp=15.8) 2022-C (PH=7.7 Temp=14.8)		<b>Sample Date</b> 7/8/22 10:00am 7/8/22 10:30am 7/8/22 11:00am		<b>Sample Type</b> G G G	
<b>Matrix</b> W W W		<b>Preservation Code</b> N N N		<b>Field Filtered Sample (Yes or No)</b> X X X	
<b>Special Instructions/Notes:</b> - Surface water potentially elevated metals permit list - 200.8 (PA, Cd, Cr, Cu, Pb, Mn, Ni, OR, Ag, Zn) - 200.7 (PA, 200.8 (PA, Cd, Cr, Cu, Pb, Ni, Zn), and 246.1 (Pb))		<b>Total Number of Containers</b> 1		<b>Barcode</b> 	
<b>Chain of Custody</b> Prepared by: <i>[Signature]</i> Date: <b>7/8/22</b> Received by: <i>[Signature]</i> Date: <b>7/8/22</b> Released by: <i>[Signature]</i> Date: <b>7/8/22</b>		<b>Company</b> Grand Island Resources City of Aurora		<b>Signature</b> Beverly Dylan T Date: <b>7/8/22</b>	



**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Aurora, CO 80002  
 Phone (303) 736-0100 Phone (303) 431-7171

**Chain of Custody Record**



<b>Client Information</b>		Sample #	BM	Lab File	Burnilla, Dylan T	Order Tracking No.:	COO No.:
Client Contact		Phone	303-506-1618	State	Dylan.Burnilla@Eurofins.com	State of Origin	Page
Company		303-506-1618		Dylan.Burnilla@Eurofins.com		Lab #	
Grand Island Resources		PWSID				Preservation Codes:	
Address		Data Date Requested		Analysts Requested		A - HCL B - HCHO C - Zn Acetate D - Nitric Acid E - HNO3 F - H2SO4 G - Acetic Acid H - Acetic Acid I - Ice J - DI Water K - EDTA L - ETOA O - Other	
12201 West Cedar Road Suite 250		1st Requested (days)		Dylan, Dylan T		M - Hexane N - N/A O - AHHO3 P - HNO3 Q - H2O2 R - H2O2 S - H2O2 T - 10% Oxidant/Phos U - Acetic V - HCl W - pH 4.5 X - other (specify):	
City		Laf Requested (days)		Dylan, Dylan T			
Lakewood				Dylan.Burnilla@Eurofins.com			
State, Zip		Compliance Project: A Yes, B No		State of Origin			
CO, 80066		Advance Payment Required					
Phone		VOW #					
434-4444 315-414-6986							
Email		Project #					
Dylan.Burnilla@eurofins.com		28022821					
Project Name		Site					
Westwood-Discharge-Neeland-CO		SSOW#					
Surface Water Sampling							

Sample Identification	Sample Date	Sample Time	Sample Type (C=Chem, P=Physical, S=Solid)	Matrix (Source, Location, etc.)	Field (Filtered Sample) (Yes or No)	25108 - Specific Conductance, 25400 - TSS, SM4500_H+ - pH / Temp	2500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc)	SM4500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc)	SM4500_S2_D - Sulfide and SM4500_S2_H - Unfiltered Hydrogen Sulfide (calc)	1631E - Low Level Mercury (ETA Permeable)	200.8 - Potentially Dissolved Metals (First half of the month permit list)	206.7 / 209.3 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list)	Total Number of Containers	Special Instructions/Notes:
2022-01 PH = 7.3 temp = 12.9C	8/25/22	8 am	E	W	N	N	N	N	N	N	X	X	X	Surface water potentially dissolved metals permit list = 200.8 (Pb, Cd, Cr, Cu, Fe, Mn, Ni, Se, Ag, Zn)
2022-B PH = 7.1 temp = 8.9C	8/25/22	8:30 am	E	W	N	X	X	X	X	X	X	X		Surface water total recoverable metals list = 200.7 (Pb, 200.8 (Pb, Cd, Cr, Cu, Fe, Ni, Zn, and 240.1 (Hg)
2022-02 PH = 7.9 temp = 8.9C	8/25/22	9:00 am	E	W	N	X	X	X	X	X	X	X		

Generated by:	Date:	Time:	Method of Shipment:
<i>[Signature]</i>	8/25/22	4:47 pm	
Company:	Company:	Company:	Company:
Grand Island Resources	Grand Island Resources	Grand Island Resources	Grand Island Resources
Order Time:	Order Time:	Order Time:	Order Time:
Received by:	Received by:	Received by:	Received by:
Company:	Company:	Company:	Company:
Order Time:	Order Time:	Order Time:	Order Time:

Special Instructions/Notes:  Return To Client  Disposal By Lab  Archive For Months

Sample Disposal / A fee may be assessed if samples are retained longer than 1 month

Reusable Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deleterious Requested: I, II, III, IV, Other (Specify):

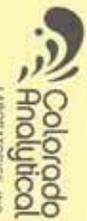
Empty Kit Replenished by:

Custody Seal Intact:  Yes  No

Custody Seal No.:

### Chain of Custody Form

Report To Information	Bill To Information (if different from report to)	Project Name / Number
Company Name: <u>Grant Island Resources</u>	Company Name: <u>Credit Card</u>	
Contact Name: <u>Patrick Delaney</u>	Contact Name: _____	
Address: <u>17567 W Cedar Rd Ste 250</u>	Address: _____	Task Number (Lab Use Only)
City: <u>Lakewood State CO</u> Zip: <u>80228</u>	City: _____ State: _____ Zip: _____	
Phone: <u>315-414-6986</u>	Phone: _____	
Email: <u>pdelaney@blackfoxm</u>	Email: <u>ng-com</u>	
Sample Collector: <u>BM</u>		
Sample Collector Phone: <u>303-506-1618</u>	PO No.: _____	


  
**Colorado Analytical**  
LABORATORIES, INC.  
**Commerce City Lab**  
 10411 Heinz Way  
 Commerce City CO 80640  
**Lakewood Service Center**  
 12860 W. Cedar Dr, Suite 100A  
 Lakewood CO 80228  
 Phone: 303-659-2313  
[www.coloradolab.com](http://www.coloradolab.com)

Sample Matrix (Select One Only)				Sample ID	No. of Containers	Grab or (Check One Only) Composite	Tests Requested							
Waste Water <input type="checkbox"/>	Ground Water <input checked="" type="checkbox"/>	Soil <input type="checkbox"/>	Sludge <input type="checkbox"/>				Drinking Water <input type="checkbox"/>	S&P	Micro	Metals	VOC	Pesticides		
Surface Water <input type="checkbox"/>					Date	Time								
					8/25/12	11:00 AM	8							
					8/25/12	12:40 PM	8							
					8/25/12	2:00 PM	8							
					8/25/12	11:45 AM	8							
					8/25/12	11:00 AM	8							

Instructions: QB022050014

Relinquished By: [Signature] Date/Time: 8/25/12 4:23 PM Received By: [Signature] Date/Time: 8/25/12 11:00 AM

C/S Label: 110 C/S Charge:  Temp. 45 Seal Present Yes  No

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

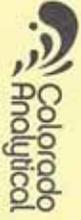
C/S Charge:  Temp. \_\_\_\_\_ Seal Present Yes  No

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



### Chain of Custody Form

<b>Report To Information</b>		<b>Bill To Information (if different from report to)</b>		<b>Project Name / Number</b>
Company Name: <u>Greenland Island Services</u>		Company Name: <u>Swift Card</u>		
Contact Name: <u>Patrick Delaney</u>		Contact Name: _____		
Address: <u>2527 Weeder Rd Ste 250</u>		Address: _____		Task Number (Lab Use Only)
City: <u>Lakewood</u> State: <u>CO</u> Zip: <u>80228</u>		City: _____ State: _____ Zip: _____		
Phone: <u>303-414-6986</u>		Phone: _____		
Email: <u>patrick@gsblackfox.com</u>		Email: <u>g.com</u>		
Sample Collector: <u>BM</u>		PO No.: _____		
Sample Collector Phone: <u>303-566-1615</u>				

  
**Colorado Analytical**  
 LABORATORIES, INC.  
 Commerce City Lab  
 10411 Heinz Way  
 Commerce City CO 80640  
 Lakewood Service Center  
 610 Garrison Street, Unit E  
 Lakewood CO 80215  
 Phone: 303-659-2313  
[www.coloradolab.com](http://www.coloradolab.com)

Sample Matrix (Select One Only)				No. of Containers	Grab or (Check One Only) Composite	Tests Requested															
Waste Water <input type="checkbox"/>	Ground Water <input checked="" type="checkbox"/>	Surface Water <input type="checkbox"/>	Soil <input type="checkbox"/>			Sludge <input type="checkbox"/>	Drinking Water <input type="checkbox"/>														
Date	Time	Sample ID																			
9/15/12	12:10	CROSS WELL																			
9/15/12	14:00	CARRIER WELL																			
9/15/12	11:45	CROSS PORTAL																			
9/15/12	12:15	CARRIER PORTAL																			
9/15/12	12:40	COMPLIANCE WELL																			
9/15/12	12:55	COMPLIANCE-MS																			
9/15/12	12:50	COMPLIANCE-MS																			
9/15/12	12:50	COMPLIANCE-MS																			
9/15/12	13:00	COMPLIANCE-DBLIGATE																			
9/15/12	13:00	COMPLIANCE-FB																			

Instructions: Please use quote revision 9/15  
 Samples have not been filtered.  
 Relinquished By: [Signature] Date/Time: 9/15/12 11:20am Received By: JA Date/Time: 9/27/12 Deliver Via: AD Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Seal Present Yes  No  Temp. ✓ Cite ✓ Sample Pres. Yes  No   
 16:42



1-800-458-3330

### General Compliance

Order Number: 2196591  
Order Date: 6/2/2022  
Sample Number: 4097797  
Product: Custom Compliance  
Paid: No Payment Method: P.O.:  
TSR: EF

Sold To:  
Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood CO 80228  
303-506-1618  
bmoranm@gamporia.edu

Date Sampled: 5/25/22

Time Sampled: 12:10 PM Please Use Military Time, e.g. 1300m = 11:00

Check Time Zone:  EST  CST  MST  PST

Client Name: \_\_\_\_\_

Phone Number: SEE ABOVE

Fax Number: \_\_\_\_\_

PWS ID# (if applicable): \_\_\_\_\_

Sample ID or Source: CROSS WELL

Source Type:  Spring  Well  Municipal  Surface  
 Other: \_\_\_\_\_

City & State: Nederland, CO  
(if Different than Above)

Sample Collected By: Brooke Moran  
(Signature)

Sample Collected By: Brooke Moran  
(Please Print)

Form Completed By: Brooke Moran

Additional Comments:

For Laboratory Use ONLY	
Lab Accounting Information:	
Payment \$:	_____
Check #:	_____
Lab Comments/Special Instructions:	
Color, Odor, Foaming Agents	
State Forms:	
Lab Sample Information:	
Date Received:	____/____/____
Time Received:	____:____
Received By:	_____
<input type="checkbox"/> Sample receipt criteria checked & acceptable. <input type="checkbox"/> Deviations from acceptable sample receipt criteria noted on PSA form.	

Rev: SRT102120

INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS



1-800-458-3330

### General Compliance

Order Number: 2196589  
Order Date: 6/2/2022  
Sample Number: 4097796  
Product: Custom Compliance  
Paid To: Payment Method: P.O.  
TSR: EF

Sold To:  
Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood CO 80228  
303-506-1618  
bmoran@g.ampora.edu

Date Sampled: 8/25/22

Time Sampled: 13:40 (Note: Use Military Time, e.g. 1300 = 1:00)

Check Time Zone:  EST  CST  MST  PST

Client Name: \_\_\_\_\_

Phone Number: SEE ABOVE

Fax Number: \_\_\_\_\_

PWS ID# (if applicable): \_\_\_\_\_

Sample ID or Source: COMPLIANCE WELL

Source Type:  Spring  Well  Municipal  Surface  
 Other

City & State: Nederland, CO  
(If Different than Above)

Sample Collected By: Brooke Moran  
(Signature)

Sample Collected By: Brooke Moran  
(Please Print)

Form Completed By: Brooke Moran

Additional Comments:

For Laboratory Use ONLY	
Lab Accounting Information:	
Payment \$:	_____
Check #:	_____
Lab Comments/Special Instructions:	
Color, Odor, Foaming Agents	
State Forms:	
Lab Sample Information:	
Date Received:	____/____/____
Time Received:	____:____:____
Received By: _____	
<input type="checkbox"/> Sample receipt criteria checked & acceptable. <input type="checkbox"/> Deviations from acceptable sample receipt criteria noted on PSA form.	

Rev. SRT10z120

INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS



1-800-458-3330

### General Compliance

Order Number: 2196589  
Order Date: 6/2/2022  
Sample Number: 4097793  
Product: Custom Compliance  
Paid: No Payment Method: P.O.:  
TSR: EF

Sold To:  
Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood CO 80228  
303-506-1618  
bmolsonm@g.emporla.edu

Date Sampled: 8.25.22

Time Sampled: 13:00 Please Use Military Time, e.g. 1:00pm = 13:00

Check Time Zone:  EST  CST  MST  PST

Client Name: SEE ABOVE

Phone Number: SEE ABOVE

Fax Number: \_\_\_\_\_

PWS ID# (if applicable): \_\_\_\_\_

Sample ID or Source: CARIBOU PORTAL

Source Type:  Spring  Well  Municipal  Surface  
 Other: \_\_\_\_\_

City & State: Nederland, CO  
(If Different than Above)

Sample Collected By: Brooke Moran  
(Signature)

Sample Collected By: Brooke Moran  
(Please Print)

Form Completed By: Brooke Moran

Additional Comments: \_\_\_\_\_

For Laboratory Use ONLY	
Lab Accounting Information:	
Payment \$:	_____
Check #:	_____
Lab Comments/Special Instructions:	
Color, Odor, Foaming Agents	
State Forms:	
Lab Sample Information:	
Date Received:	____/____/____
Time Received:	____:____:____
Received By:	_____
<input type="checkbox"/> Sample receipt criteria checked & acceptable. <input type="checkbox"/> Deviations from acceptable sample receipt criteria noted on PSA form.	

Rev: SRT102120

INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS



### General Compliance

Order Number: 2196589  
Order Date: 6/2/2022  
Sample Number: 4097794  
Product: Custom Compliance  
Paid: No Payment Method: P.O.  
TSR: EF

Sold To:  
Grand Island Resource  
Brooke Moran  
12567 West Cedar Rd  
Lakewood CO 80228  
303-606-1618  
bmoranm@gampora.edu

Date Sampled: 8.25.22

Time Sampled: 11:45 Please Use Military Time, e.g. 2100H or 1900

Check Time Zone:  EST  CST  MST  PST

Client Name: \_\_\_\_\_

Phone Number: SEE ABOVE

Fax Number: \_\_\_\_\_

PWS ID# (if applicable): \_\_\_\_\_

Sample ID or Source: CROSS PORTAL

Source Type:  Spring  Well  Municipal  Surface

Other: MINE PORTAL

City & State: Nederland, CO  
(If Different than Above)

Sample Collected By: Brooke Moran  
(Signature)

Sample Collected By: Brooke Moran  
(Please Print)

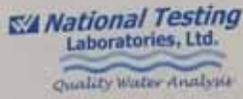
Form Completed By: Brooke Moran

Additional Comments: \_\_\_\_\_

For Laboratory Use ONLY	
Lab Accounting Information:	
Payment \$:	_____
Check #:	_____
Lab Comments/Special Instructions:	
Color, Odor, Foaming Agents	
State Form:	
Lab Sample Information:	
Date Received:	____/____/____
Time Received:	____:____:____
Received By:	_____
<input type="checkbox"/> Sample receipt criteria checked & acceptable.	
<input type="checkbox"/> Deviations from acceptable sample receipt criteria noted on PSA form.	

Rev: SRT102120

INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS



1-800-458-3330

### General Compliance

Order Number: 2196589  
Order Date: 6/2/2022  
Sample Number: 4097795  
Product: Custom Compliance  
Paid: No Payment Method: P.O.:  
TSR: EF

Sold To:  
Grand Island Resources  
Brooke Moran  
12567 West Cedar Rd  
Lakewood  
303-506-1618  
bmolsom@gmporia.edu

CO 80228

Date Sampled: 8.25.22

Time Sampled: 15:00 Please Use Military Time, e.g. 1200 = 12:00

Check Time Zone:  EST  CST  MST  PST

Client Name: \_\_\_\_\_

Phone Number: SEE ABOVE

Fax Number: \_\_\_\_\_

PWS ID# (if applicable): \_\_\_\_\_

Sample ID or Source: CARIBOU WELL

Source Type:  Spring  Well  Municipal  Surface  
 Other: \_\_\_\_\_

City & State: Nederland, CO  
(If Different than Above)

Sample Collected By: Brooke Moran  
(Signature)

Sample Collected By: Brooke Moran  
(Please Print)

Form Completed By: Brooke Moran

Additional Comments: \_\_\_\_\_

For Laboratory Use ONLY	
Lab Accounting Information:	
Payment \$:	_____
Check #:	_____
Lab Comments/Special Instructions:	
Color, Odor, Foaming Agents	
State Form:	
Lab Sample Information:	
Date Received:	____/____/____
Time Received:	____:____:____
Received By:	_____
<input type="checkbox"/> Sample receipt criteria checked & acceptable. <input type="checkbox"/> Deviations from acceptable sample receipt criteria noted on PSA form.	

## APPENDIX E FIELD FORMS

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location CROSS WELL Date 7/7/22 Start Time 12:10 Stop time 12:30 Page 1 of 1  
 Sample Control Number n/a Samplers B, M & C Project Number: n/a  
 pm

**WEATHER CONDITIONS**

Ambient Air Temperature: 66°F °C  °F  Not Measured  Wind: Heavy  Moderate  Light   
 Precipitation: None  Rain  Snow  Heavy  Moderate  Light  Sunny  Partly Cloudy

**INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)**

Static Water Level 19.7 Total Depth 205 Top of Screen 15 Filter Pack Interval n/a Borehole Diameter (inches) 9 in (0-40 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 207.8 gallons 5 7/8 in (40-205 ft)  
 Well Casing ID: n/a Well Casing OD: \* Protective Casing Stickup: n/a Well Casing Stickup: 1 1/2 Feet of Water n/a  
 Well purged with: WELL PUMP VIA PORT

**FINAL WELL MEASUREMENTS**

Static Water Level 17 Total Depth 205 Total Volume Purged 624 Saturated Borehole Volume (gal) 172 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number CMI-2104-01479 Conductivity Meter: Meter Number CMI-2104-01479  
 Buffer 7 Measured Value 7.0 Temp n/a °C Standard n/a mS/cm Measured Value n/a mS/cm Temp n/a °C  
 Buffer n/a Measured Value n/a Temp n/a °C Standard n/a mS/cm Measured Value n/a mS/cm Temp n/a °C  
 Turbidity Meter: n/a Standard n/a NTU Measured Value n/a NTU Standard n/a NTU Measured Value n/a NTU

**FIELD PARAMETER MEASUREMENTS DURING PURGING**

Time	Volume (gallons)	pH	Cond. (µS/cm)	Temp. °C/°F	Turbidity Visual Est. <input checked="" type="checkbox"/> Measured <input type="checkbox"/>	Comments
12:10	0	7.0	0.2	15°	5	clear
12:30	624	6.8	0.3	12°	5	

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input checked="" type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input type="checkbox"/> Measured <input type="checkbox"/>		
7/7/22	12:30 pm	7	6.8	0.3	12°C	clear (s)		

- Duplicate Sample-02 (sample control number/time n/a)
- Field Blank-03 (sample control number/time n/a) \* 6 5/8 (-1-40 ft)
- Rinsate Sample-04 (sample control number/time n/a) 4 1/2 (15-205 ft)
- Matrix Spike-MS (sample control number/time n/a)
- (sample control number/time n/a)

Notes:

Sampler's Signature Brooke Moran 7/7/22

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location COMPLIANCE WELL Date 7/7/22 Start Time 12:18 Stop time 12:40 Page 1 of 1  
 Sample Control Number n/a Samplers BM&TC Project Number: n/a

**WEATHER CONDITIONS**

Ambient Air Temperature: 66°F °C  °F  Not Measured  Wind: Heavy  Moderate  Light   
 Precipitation: None  Rain  Snow  Heavy  Moderate  Light  Sunny  Partly Cloudy

**INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)**

Static Water Level 33.7 Total Depth 165 Top of Screen 65 Filter Pack Interval n/a Borehole Diameter (inches) 9 in (0-50 ft)  
6 in (50-165 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 184.5 gallons  
 Well Casing ID n/a Well Casing OD \* Protective Casing Stickup n/a Well Casing Stickup 1.0 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 38 Total Depth 165 Total Volume Purged 54 Saturated Borehole Volume (gal) 15.6 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number CMI-2104-01479 Conductivity Meter: Meter Number CMI-2104-01479  
 Buffer 7 Measured Value 7.0 Temp n/a °C Standard n/a mS/cm Measured Value n/a mS/cm Temp n/a °C  
 Buffer n/a Measured Value n/a Temp n/a °C Standard n/a mS/cm Measured Value n/a mS/cm Temp n/a °C  
 Turbidity Meter: n/a Standard n/a NTU Measured Value n/a NTU Standard n/a NTU Measured Value n/a NTU

**FIELD PARAMETER MEASUREMENTS DURING PURGING**

Time	Volume (gallons)	pH	Cond. (µS/cm)	Temp. °C/°F	Turbidity Visual Est. <input checked="" type="checkbox"/> Measured <input type="checkbox"/>	Comments
12:30	0	7.3	0.1	12°	clear (S)	
12:40	554	7.1	0.2	10°	S	

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input checked="" type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input checked="" type="checkbox"/> Measured <input type="checkbox"/>		
7/7/22	12:40 pm	10.4	7.1	0.2	10°C	clear (S)		

- Duplicate Sample-02 (sample control number/time n/a) x 6 5/8 (-1-50 ft)
- Field Blank-03 (sample control number/time n/a) 4 1/2 (15-65 ft)
- Rinsate Sample-04 (sample control number/time n/a)
- Matrix Spike-MS (sample control number/time n/a)
- (sample control number/time n/a)

Notes:

Sampler's Signature Brooke Moran 7/7/22

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location CARIBOU WELL Date 7/7/22 Start Time 1:40 pm Stop time 2:00 pm Page 1 of 1 Project Number: n/a  
 Sample Control Number n/a Samplers BM&TC

**WEATHER CONDITIONS**

Ambient Air Temperature: 66° F °C  °F  Not Measured  Wind: Heavy  Moderate  Light   
 Precipitation: None  Rain  Snow  Heavy  Moderate  Light  Sunny  Partly Cloudy

**INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)**

Static Water Level 22.9 Total Depth 165 Top of Screen 25 Filter Pack Interval n/a Borehole Diameter (inches) 9 in (0-26 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 161.4 gallons 6 in (26-165 ft)  
 Well Casing ID n/a Well Casing OD X Protective Casing Stickup n/a Well Casing Stickup 24 Feet of Water n/a  
 Well purged with: WELL PUMP VIA PORT

**FINAL WELL MEASUREMENTS**

Static Water Level 23 Total Depth 165 Total Volume Purged 424 Saturated Borehole Volume (gal) 120 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number CM1-2104-01479 Conductivity Meter: Meter Number CM1-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. n/a °C Standard n/a mS/cm Measured Value n/a mS/cm Temp. n/a °C  
 Buffer n/a Measured Value n/a Temp. n/a °C Standard n/a mS/cm Measured Value n/a mS/cm Temp. n/a °C  
 Turbidity Meter: n/a Standard n/a NTU Measured Value n/a NTU Standard n/a NTU Measured Value n/a NTU

**FIELD PARAMETER MEASUREMENTS DURING PURGING**

Time	Volume (gallons)	pH	Cond. (µS/cm)	Temp. °C <input type="checkbox"/> °F <input type="checkbox"/>	Turbidity Visual Est. <input checked="" type="checkbox"/> Measured <input type="checkbox"/>	Comments
<u>10:30 am</u>	<u>0</u>	<u>5.8</u>	<u>0.1</u>	<u>12°</u>	<u>clear (5)</u>	
<u>2:00 pm</u>	<u>484</u>	<u>5.7</u>	<u>0.2</u>	<u>8°</u>	<u>5</u>	

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input checked="" type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input checked="" type="checkbox"/> Measured <input type="checkbox"/>		
<u>7/7/22</u>	<u>2:00 pm</u>	<u>2.5</u>	<u>5.7</u>	<u>0.2</u>	<u>8°C</u>	<u>clear</u>		

- Duplicate Sample-02 (sample control number/time n/a)
- Field Blank-03 (sample control number/time n/a)
- Rinsate Sample-04 (sample control number/time n/a)
- Matrix Spike-MS (sample control number/time n/a)
- \_\_\_\_\_ (sample control number/time n/a)

\* 6 5/8 (-1-26 ft)  
4 1/2 (15-165 ft)

Notes:

Sampler's Signature Brooke Moran 7/7/22





















## SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - Event Type: WQ				EPA-816-B-01-001 (A-TU) (Rev. 1/01)		Pg. 1 of 1						
Station ID: <b>2022-02</b>	Date (mm/dd/yyyy): <b>08/25/2022</b>	Group: <b>n/a</b>	Agency: <b>n/a</b>									
Funding: <b>n/a</b>	Arrival Time: <b>8:55 am</b>	Departure Time: <b>9:25</b>	Sample Time (1st sample): <b>9:00 am</b>	Protocol: <b>n/a</b>								
Personnel: <b>EMTC</b>	Purpose (check all that apply): <input type="checkbox"/> Water Chem, <input type="checkbox"/> Water Tox, <input type="checkbox"/> Field Occ, <input type="checkbox"/> Field Measure			Purpose Failure: <b>n/a</b>								
Location: <b>Bank Thelweg (In-channel/Open Water)</b>	GPS/OGPS Lat (dd dddd): <b>39.975787</b>	GPS/OGPS Long (ddd dddd): <b>-105.569328</b>	Occupation Method: <input checked="" type="checkbox"/> Walk-2l, <input type="checkbox"/> Bridge, <input type="checkbox"/> RV, <input type="checkbox"/> Other	Starting Bank (facing downstream): <input type="checkbox"/> LB / <input type="checkbox"/> RB / <input type="checkbox"/> NA								
GPS Data: <b>BFS APP</b>	Target: <b>39.975787</b>	*Actual: <b>39.9756780</b>	Point of Sample (if integrated, then -08 in above)									
Date: <b>NA03</b>	Accuracy (E/M): <b>1.4 m</b>	BEAUFORT SCALE (see attachment): <b>2</b>	DISTANCE FROM BANK (m): <b>3-5'</b>	STREAM WIDTH (m): <b>15.5'</b>		WATER DEPTH (m): <b>6'</b>						
Field Observations (Sample Type = FieldObs)			HYDROGRAPHIC: Name, Bridge, Piers, Concrete Channel, Grade Control, Culvert, LOCATION (to sample): <b>US / DS / WB</b>									
SITE COOR: <input type="checkbox"/> Nonp, <input type="checkbox"/> Sulfides, <input type="checkbox"/> Sewage, <input type="checkbox"/> Petroleum, <input type="checkbox"/> Mixed, <input type="checkbox"/> Other	WIND DIRECTION (from):	PHOTOS (RB & LB assigned when being downloaded; RENAME to StationCode_yyyymmdd_YYYYMMDD)										
SKY CODE: <input checked="" type="checkbox"/> Clear, <input type="checkbox"/> Partly Cloudy, <input type="checkbox"/> Overcast, <input type="checkbox"/> Fog	OTHER PRESENCE: <input type="checkbox"/> Vasculi, <input type="checkbox"/> Nonvasculi, <input type="checkbox"/> Jelly Sheen, <input type="checkbox"/> Foam, <input type="checkbox"/> Trash, <input type="checkbox"/> Other			PRECIPITATION: <input checked="" type="checkbox"/> None, <input type="checkbox"/> Fog, <input type="checkbox"/> Drizzle, <input type="checkbox"/> Rain, <input type="checkbox"/> Snow								
DOMINANT SUBSTRATE: <input type="checkbox"/> Bedrock, <input type="checkbox"/> Concrete, <input type="checkbox"/> Cobble, <input type="checkbox"/> Gravel, <input type="checkbox"/> Sand, <input type="checkbox"/> Mud, <input type="checkbox"/> Unk, <input type="checkbox"/> Other			PRECIPITATION (last 24 hrs): <input type="checkbox"/> Unknown, (<P> > 1", None				2: (RB / LB / BB / US / DS / #)					
WATER CLARITY: <input checked="" type="checkbox"/> Clear (see bottom), <input type="checkbox"/> Cloudy (>4" vis), <input type="checkbox"/> Murky (>4" vis)	WATER COLOR: <input type="checkbox"/> Nonp, <input type="checkbox"/> Sulfides, <input type="checkbox"/> Sewage, <input type="checkbox"/> Petroleum, <input type="checkbox"/> Mixed, <input type="checkbox"/> Other			WATER COLOR: <input type="checkbox"/> Colorless, <input type="checkbox"/> Green, <input type="checkbox"/> Yellow, <input type="checkbox"/> Brown								
OBSERVED FLOW: <input checked="" type="checkbox"/> NA, <input type="checkbox"/> Dry Waterbody Bed, <input type="checkbox"/> No Obs Flow, <input type="checkbox"/> Isolated Pool, <input type="checkbox"/> Trickle (<0.1cfs), <input type="checkbox"/> 0.1-1cfs, <input type="checkbox"/> 1-5cfs, <input type="checkbox"/> 5-20cfs, <input type="checkbox"/> 20-50cfs, <input type="checkbox"/> 50-200cfs, <input type="checkbox"/> >200cfs												
Field Measurements (Sample Type = FieldMeasure; Method = Field)												
Depth/Collect (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O <sub>2</sub> (mg/L)	O <sub>2</sub> (%)	Specific Conductivity (µS/cm)	Salinity (ppt)	Turbidity (ntu)	Stage Ht (units)		
1'	1.7	19°	8	7.9	n/a	n/a	0.5	n/a	5	n/a		
Instrument: <b>YSI 6600</b>								Calib. Date: <b>7/5/22</b>				
Samples Taken (# of containers filled) - Method = Water_Grab				Field Dup Y/N/O: (Sample Type = Grab / Integrated; LABEL_ID = FieldID, media collection record upon data entry)								
SAMPLE TYPE: <input type="checkbox"/> Grab / <input type="checkbox"/> Integrated		COLLECTION EQUIPMENT:		Intr. Code (by hand, by pole, by bucket), Teflon tubing, Kemmer, Pole & Beaker, Other								
Depth/Collect (m)	Inorganics	Bacteria	CH <sub>4</sub>	TSS / SSC	TOC / DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Toxicity	VOCs
Surface												
SubSurface												
COMMENTS: <b>For 24 Temp &amp; Sc - measured using Btu Lab Temp meter</b>												

PLEASE SEE EUROFIN'S ANALYTICAL REPORT

Sample ID #											
Site Code											
Yellow #											
Yellow # Fluorescence (u)											
Target Time											
FIELD DUPLICATES						LAB DUPLICATES					
Original Sample #		Duplicate Sample #		Original Sample #		Duplicate Sample #		Original Sample #		Duplicate Sample #	
TOTAL COLIFORM	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN
E. COLI	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN
BLANKS	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN	MPN
Sampler Signature / Date / Time Arrived						Placed in Incubator By / Date / Time					
Inspector / Date / Time						Field from incubator By / Date / Time					
Prepared by						Checked by					

Brooke Moran 8/25/22











## SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - Event Type= WQ				Date (mm/dd/yyyy) 09/26/2022		Group: n/a		Page 1 of 1			
*StationID: 2022-01		*Date (mm/dd/yyyy): 09/26/2022		*Group: n/a		*Agency: n/a					
*Funding: n/a		*Arrival Time: 11:00		*Departure Time: 11:20		*Sample Time (1st sample): n/a		*Protocol: n/a			
*Personnel: AM TC		*Purpose (check all that apply): <input checked="" type="checkbox"/> Water Quality <input type="checkbox"/> Other		*Purpose Failure: DRY BED							
*Location (Bank): Halfweg Michamel Open Water		*GPS/OGPS: Lat (dd.ddddd): 39.97904		*Long (ddd.ddddd): -105.57585		*Occupation Method: <input type="checkbox"/> Walk <input type="checkbox"/> Bridge <input type="checkbox"/> RV <input type="checkbox"/> Other					
*GPS Device: GPS Waypoints App		*Target: 39.97904		*Actual: 39.978993		*Starting Bank (facing downstream): (L) / (R) / NA					
*Datum: NAD83		*Accuracy: 01.20		*Actual: -105.575798		*Point of Sample (if integrated, then -88 in dist):					
Field Observations (Sample Type = FieldObs)				SCALE/DRY SCALE (see attachment): 3		DISTANCE FROM BANK (m): n/a		STREAM WIDTH (m): n/a			
SITE COOR: <input type="checkbox"/> None <input type="checkbox"/> Sulfides <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Mixed <input type="checkbox"/> Other				WIND DIRECTION (from):		HYDRO-MODIFICATION: <input type="checkbox"/> None <input type="checkbox"/> Bridge <input type="checkbox"/> Pipes <input type="checkbox"/> Concrete <input type="checkbox"/> Animal <input type="checkbox"/> Gravel <input type="checkbox"/> Culvert <input type="checkbox"/> Other		WATER DEPTH (m): n/a			
SKY CODE: <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Overcast <input type="checkbox"/> Fog				PRECIPITATION (last 24 hrs): None <input type="checkbox"/> Fog <input type="checkbox"/> Drizzle <input type="checkbox"/> Rain <input type="checkbox"/> Snow		PHOTOS (RS & LS assigned when being downstream; RSNAME is:)		1: (RS / LB / SB / US / DS / #)			
OTHER PRESENCE: <input type="checkbox"/> Volcanic <input type="checkbox"/> Nonvolcanic <input type="checkbox"/> Oil <input type="checkbox"/> Diesel <input type="checkbox"/> Foam <input type="checkbox"/> Trash <input type="checkbox"/> Other				PRECIPITATION (last 24 hrs): Unknown, <1", >1" (None)		APPROXIMATE CODE (yyyymmdd):		2: (RS / LB / SB / US / DS / #)			
DOMINANT SUBSTRATE: <input type="checkbox"/> Bedrock <input type="checkbox"/> Concrete <input type="checkbox"/> Cobble <input type="checkbox"/> Gravel <input type="checkbox"/> Sand <input type="checkbox"/> Mud <input type="checkbox"/> Unk. <input type="checkbox"/> Other				WATER CLARITY (1/1 Clear (see bottom), 1/2 Cloudy (>4" vis), 1/3 Murky (>4" vis))		WATER COLOR (1/1 None, Sulfides, Sewage, Petroleum, Mixed, Other)		3: (RS / LB / SB / US / DS / #)			
WATER COLOR (1/1 Colorless, Green, Yellow, Brown)				OBSERVED FLOW: NA (Dry Waterbody Bed) No Obs Flow, Isolated Pool, Trickle (>0 lph), 0.1-1lph, 1-5lph, 5-20lph, 20-50lph, 50-200lph, >200lph							
Field Measurements (Sample Type = FieldMeasure; Method = Field)											
	Depth (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O <sub>2</sub> (mg/L)	O <sub>2</sub> (%)	Specific Conductivity (µS/cm)	Salinity (ppt)	Turbidity (ntu)	Slope Ht (m)
1	n/a	0	15°C	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2											
3											
4											
5											
6											
7											
8											
9											
10											
Samples Taken (# of containers filled) - Method=Water_Grab											
SAMPLE TYPE: Grab / Integrated		COLLECTION EQUIPMENT:				Field Dup YES / NO (Sample Type = Grab / Integrated, LABEL_ID = FieldCA, create collection record upon data entry)					
N/A		Depth Collected (m): Inorganics, Bacteria, ON a, TSS / SSC, TOC / DOC, Total Hg, Dissolved Mercury, Total Metals, Dissolved Metals, Organics, Toxicity, VOAs									
Sub/Surface											
Sub/Surface											
COMMENTS: Creek bed is dry, no running water. No samples collected.											

Run									
Sample ID#									
Site Code									
FIELD DUPLICATES									
LAB DUPLICATES									
TOTAL COLIFORM									
E. COLI									
BLANKS									
Note: Most of these are duplicate work. Check collected to see whether corresponding to the collection responsibility of this sample. Signature / Date / Time Allowed. Placed in incubator by / Date / Time. Trips Arrived by. Entered the lab by.									

Brooke Moran 9/26/22



## APPENDIX F PHOTOGRAPHS

APPENDIX F.1 SAMPLE LOCATION 2022-01 PHOTOGRAPHS













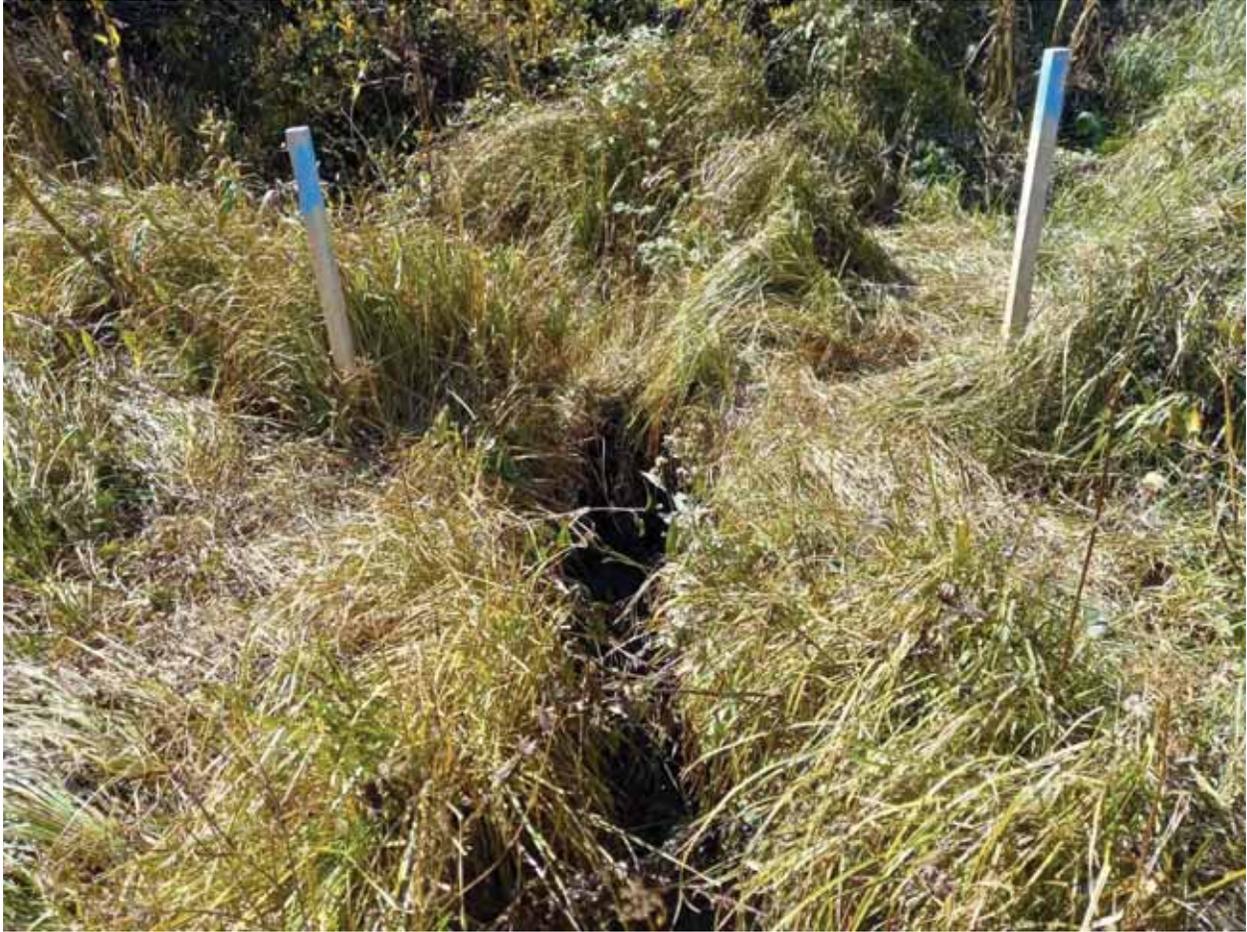












APPENDIX F.2 SAMPLE LOCATION 2022-02 PHOTOGRAPHS













