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## 1st Quarter Grand Island Water Monitoring Report

1 message

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Thu, Apr 27, 2023 at 9:45 AM

To: Patrick Lennberg - DNR <patrick.lennberg@state.co.us>, Sergio Rivera <sergio.rivera@novametallix.com>, Je'an-Paul Brewer <jpbrewer@nedmining.com>

Patrick,

Enclose is our first quarter groundwater report compliant with the terms of TR-10. Please let us know if you have any questions.

Respectfully,

**Daniel J. Takami**

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**TR-10 FIRST QUARTER 2023 - WATER MONITORING REPORT DRMS - 050123 - Appendices v1r0.pdf**

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FIRST QUARTER 2023

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

May 1, 2023



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## 1. Introduction

On April 28, 2022, the Division of Reclamation, Mining and Safety (Division) approved 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.

GIR appeared before the MLR Board on January 18, 2023 where GIR presented testimony to the Board and requested to lift the Cease and Desist Order put into place during the February 2022 Board hearing for violation M2021-017. On March 13, 2023, the signed Board Order was issued which lifted the Cease and Desist Order on the site.

During the MLR Board January 2023 hearing, GIR withdrew the appeal of the Division's determination that the Cross Gold Mine was a designated mining operation (DMO). The due date for submitting the DMO Conversion Application was set to July 17, 2023, i.e., 180 days from the hearing date. GIR submitted to DRMS, a one year extension request to the maximum allowed by Rule 7.2.3(2)(c). The extension request was approved by DRMS on March 1, 2023 which includes several stipulations including Stipulation #2 which states that all groundwater monitoring and reporting will continue as approved in Technical Revision 10 (TR10). Including written request for approval by GIR and approval by DRMS process whereby GIR will issue requests for approval letters to DRMS describing planned underground activities, objectives, methods, expected disturbance and impacts preventions mechanisms prior to commencement of the activities. Upon receiving written approval by DRMS, GIR will implement the actions.)



The quarterly reports must include:

- 1.1. Analytical results for the 7 sampling locations described in Technical Revision #10 (TR10) presented on Figure 6,
- 1.2. Monthly Potentiometric Surface (water table) maps constructed from water table measurements taken during the sampling events Figures 9, 10 and 11 for the months of January, February and March 2023, respectively,
- 1.3. Water Quality analytical results summary tables highlighting exceedances of select parameters from Regulation 41, Tables 1-4 water quality standards,
- 1.4. Laboratory data packages,
- 1.5. Chain of Custody sheets,
- 1.6. Field sheets for the sampling event(s).



## 2. Ground Water Monitoring

Three groundwater monitoring locations corresponding to existing ground water wells, namely, Cabin Well (Compliance), Cross Well and Caribou Well were selected by DRMS for the program. All 3 wells 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

On March 2, 2023, the Division of Reclamation, Mining and Safety concluded its review of the Technical Revision (TR11) application submitted to the Division on February 22, 2023, addressing the following: Revise analytical parameter list for groundwater samples to eliminate analyzing for Total Silver, Asbestos, Coliform (max total), Coliform (30-day average), 2-Chlorophenol, Color, Corrosivity, Foaming Agents, Odor and Phenol. The complete updated Table 4.1 for TR10 that lists all parameters that groundwater samples will be analyzed for can be found in the permit file. The decision reached by the Division is: approve.

Test results from water samples collected from the three monitoring wells are presented on tables 2.1.1, 2.1.2 and 2.1.3 for the months of January, February and March 2023, respectively. In accordance with the revised Analytical Parameters approved by DRMS as described in the preceding paragraph, the test 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.

Table 2.1.1 Groundwater Quality Test Results – Sample Date January 17, 2023

Parameter	Standard	Cross Well	Caribou Well	Cabin Well (Compliance)	Field Blank Cabin Well (Compliance)	Unit	Comments
Aluminum (Al)	5	0.001	0.031	0.004	ND	mg/l	Dissolved
Antimony (Sb)	0.006	ND	ND	ND	ND	mg/l	Dissolved
Arsenic (As)	0.01	ND	ND	ND	ND	mg/l	Dissolved
Barium (Ba)	2	0.0306	0.0058	0.0386	ND	mg/l	Dissolved
Beryllium (Be)	0.004	ND	ND	ND	ND	mg/l	Dissolved
Beta and Photon Emitters	4	<2.8	<2.8	<2.9	<2.9	mrem/year	Std is in mrem/year; Lab reports pCi/l
Boron (B)	0.75	ND	ND	ND	ND	mg/l	Dissolved
Cadmium (Cd)	0.005	0.0002	ND	ND	ND	mg/l	Dissolved
Chloride (Cl)	250	2.96	0.42	3.37	ND	mg/l	Dissolved
Chromium (Cr)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Cobalt (Co)	0.05	ND	ND	ND	ND	mg/l	Dissolved
Copper (Cu)	0.2	0.006	0.2469	ND	ND	mg/l	Dissolved
Cyanide [Free] (Cn)	0.2	ND	ND	ND	ND	mg/l	Total
Fluoride (F)	2	ND	ND	ND	ND	mg/l	Dissolved
Gross Alpha Particle Activity	15	1	0.6	0.2	0.2	pCi/l	--
Iron (Fe)	0.3	0.031	0.02	0.013	ND	mg/l	Dissolved
Lead (Pb)	0.05	0.0011	0.0005	0.0003	ND	mg/l	Dissolved
Lithium (Li)	2.5	ND	ND	ND	ND	mg/l	Dissolved
Manganese (Mn)	0.05	0.0016	ND	0.0087	ND	mg/l	Dissolved
Mercury (inorganic) (Hg)	0.002	ND	ND	ND	ND	mg/l	Dissolved
Molybdenum (Mo)	0.21	0.0005	ND	0.0038	ND	mg/l	Dissolved
Nickel (Ni)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Nitrate (NO3)	10	ND	ND	ND	ND	mg/l as N	Dissolved
Nitrate-NitriteTotal	10	0.31	0.13	0.35	ND	mg/l as N	Dissolved
Nitrite (NO2)	1	ND	ND	ND	ND	mg/l as N	Dissolved
pH (field)	6.5 - 8.5	7.2	6.8	7.4	--	pH units	--
Selenium (Se)	0.02	ND	ND	ND	ND	mg/l	Dissolved
Silver (Ag)	0.05	ND	ND	ND	ND	mg/l	Dissolved
Sulfate (SO4)	250	9.85	2.71	10.24	ND	mg/l	Dissolved
TDS	400	105	17	77	ND	mg/l	Total
Thallium (Tl)	0.002	ND	ND	ND	ND	mg/l	Dissolved
Uranium (U)	0.0168 - 0.03	ND	ND	ND	ND	mg/l	Dissolved
Vanadium (V)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Zinc (Zn)	2	0.564	0.004	0.082	0.001	mg/l	Dissolved

The highlighted cells indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41

"ND" indicates "Not Detected"

Table 2.1.2 Groundwater Quality Test Results – Sample Date February 27, 2023

Parameter	Standard	Cross Well	Caribou Well	Cabin Well (Compliance)	Field Blank Cabin Well (Compliance)	Unit	Comments
Aluminum (Al)	5	ND	0.005	ND	ND	mg/l	Dissolved
Antimony (Sb)	0.006	ND	ND	ND	ND	mg/l	Dissolved
Arsenic (As)	0.01	ND	ND	ND	ND	mg/l	Dissolved
Barium (Ba)	2	0.0324	0.0058	0.0411	ND	mg/l	Dissolved
Beryllium (Be)	0.004	ND	ND	ND	ND	mg/l	Dissolved
Beta and Photon Emitters	4	<2.7	<3.0	<3.0	<3.1	mrem/year	Std is in mrem/year; Lab reports pCi/l
Boron (B)	0.75	ND	ND	ND	ND	mg/l	Dissolved
Cadmium (Cd)	0.005	0.0002	ND	ND	ND	mg/l	Dissolved
Chloride (Cl)	250	3.12	0.43	3.29	ND	mg/l	Dissolved
Chromium (Cr)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Cobalt (Co)	0.05	ND	ND	ND	ND	mg/l	Dissolved
Copper (Cu)	0.2	0.0045	0.1738	ND	ND	mg/l	Dissolved
Cyanide [Free] (Cn)	0.2	ND	ND	ND	ND	mg/l	Total
Fluoride (F)	2	ND	ND	ND	ND	mg/l	Dissolved
Gross Alpha Particle Activity	15	0.6	0.4	0.4	<0.1	pCi/l	--
Iron (Fe)	0.3	ND	0.006	0.01	ND	mg/l	Dissolved
Lead (Pb)	0.05	0.0005	0.0003	0.0001	ND	mg/l	Dissolved
Lithium (Li)	2.5	ND	ND	ND	ND	mg/l	Dissolved
Manganese (Mn)	0.05	ND	ND	0.0092	ND	mg/l	Dissolved
Mercury (Inorganic) (Hg)	0.002	ND	ND	ND	ND	mg/l	Dissolved
Molybdenum (Mo)	0.21	0.0006	ND	0.0042	ND	mg/l	Dissolved
Nickel (Ni)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Nitrate (NO3)	10	ND	ND	ND	ND	mg/l as N	Dissolved
Nitrate-NitriteTotal	10	0.19	0.09	0.28	ND	mg/l as N	Dissolved
Nitrite (NO2)	1	ND	ND	ND	ND	mg/l as N	Dissolved
pH (field)	6.5 - 8.5	6.8	7.5	7.2	--	pH units	--
Selenium (Se)	0.02	ND	ND	ND	ND	mg/l	Dissolved
Silver (Ag)	0.05	ND	ND	ND	ND	mg/l	Dissolved
Sulfate (SO4)	250	9.48	2.71	10.57	ND	mg/l	Dissolved
TDS	400	75	38	86	ND	mg/l	Total
Thallium (Tl)	0.002	ND	ND	ND	ND	mg/l	Dissolved
Uranium (U)	0.0168 - 0.03	0.0014	ND	0.0003	ND	mg/l	Dissolved
Vanadium (V)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Zinc (Zn)	2	1.09	0.007	0.116	ND	mg/l	Dissolved

The highlighted cells indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41

"ND" indicates "Not Detected"

Table 2.1.3 Groundwater Quality Test Results – Sample Date March 21, 2023

Parameter	Standard	Cross Well	Caribou Well	Cabin Well (Compliance)	Field Duplicate Cabin Well (Compliance)	Field Blank Cabin Well (Compliance)	Unit	Comments
Aluminum (Al)	5	ND	0.015	ND	0.001	ND	mg/l	Dissolved
Antimony (Sb)	0.006	ND	ND	ND	ND	ND	mg/l	Dissolved
Arsenic (As)	0.01	ND	ND	ND	ND	ND	mg/l	Dissolved
Barium (Ba)	2	0.0294	0.0059	0.039	0.037	ND	mg/l	Dissolved
Beryllium (Be)	0.004	ND	ND	ND	ND	ND	mg/l	Dissolved
Beta and Photon Emitters	4	<3.1	<3.0	<3.1	<3.1	<3.1	mrem/year	Std is in mrem/year; Lab reports pCi/l
Boron (B)	0.75	ND	ND	ND	ND	ND	mg/l	Dissolved
Cadmium (Cd)	0.005	0.0001	ND	ND	ND	ND	mg/l	Dissolved
Chloride (Cl)	250	3.18	0.53	3.74	3.75	ND	mg/l	Dissolved
Chromium (Cr)	0.1	ND	ND	ND	ND	ND	mg/l	Dissolved
Cobalt (Co)	0.05	ND	ND	ND	ND	ND	mg/l	Dissolved
Copper (Cu)	0.2	0.0027	1.23	0.0048	ND	ND	mg/l	Dissolved
Cyanide [Free] (Cn)	0.2	ND	ND	ND	ND	ND	mg/l	Total
Fluoride (F)	2	ND	ND	ND	ND	ND	mg/l	Dissolved
Gross Alpha Particle Activity	15	0.8	0.5	1.8	0.1	0.9	pCi/l	--
Iron (Fe)	0.3	ND	0.017	ND	ND	ND	mg/l	Dissolved
Lead (Pb)	0.05	0.0003	0.0009	0.0005	0.0001	ND	mg/l	Dissolved
Lithium (Li)	2.5	ND	ND	ND	ND	ND	mg/l	Dissolved
Manganese (Mn)	0.05	ND	ND	0.0073	0.0071	ND	mg/l	Dissolved
Mercury (Inorganic) (Hg)	0.002	ND	ND	ND	ND	ND	mg/l	Dissolved
Molybdenum (Mo)	0.21	ND	ND	0.0032	0.0039	ND	mg/l	Dissolved
Nickel (Ni)	0.1	ND	ND	ND	ND	ND	mg/l	Dissolved
Nitrate (NO3)	10	ND	ND	ND	ND	ND	mg/l as N	Dissolved
Nitrate-NitriteTotal	10	0.25	0.14	0.35	0.42	ND	mg/l as N	Dissolved
Nitrite (NO2)	1	ND	ND	ND	ND	ND	mg/l as N	Dissolved
pH (field)	6.5 - 8.5	8	6.5	7.2	7.2	--	pH units	--
Selenium (Se)	0.02	ND	ND	ND	ND	ND	mg/l	Dissolved
Silver (Ag)	0.05	ND	ND	ND	ND	ND	mg/l	Dissolved
Sulfate (SO4)	250	9	2.71	10.21	10.32	ND	mg/l	Dissolved
TDS	400	83	47	93	89	ND	mg/l	Total
Thallium (Tl)	0.002	ND	ND	ND	ND	ND	mg/l	Dissolved
Uranium (U)	0.0168 - 0.03	ND	ND	0.0002	ND	ND	mg/l	Dissolved
Vanadium (V)	0.1	ND	ND	ND	ND	ND	mg/l	Dissolved
Zinc (Zn)	2	0.514	0.035	0.097	0.088	ND	mg/l	Dissolved

The highlighted cells indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41

"ND" indicates "Not Detected"



## 2.2. Groundwater Levels and Potentiometric Water Surface

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

Tables 2.2.1, 2.2.2, and 2.2.3, provide sampling date and groundwater elevations taken at the time of water sample collection for the months of January, February and March 2023, respectively. The groundwater elevations shown on the tables were used to develop the potentiometric water surfaces depicted on Figures 9, 10, and 11 for the month of January, February and March 2023, respectively.

Table 2.2.1 Wells Groundwater Elevation – January 17, 2023

Groundwater Elevation - January		
WELL	COLLAR ELEV.	1/17/2023
	Ft. AMSL	
Caribou	9,744.25	9,713.47
Cabin (Compliance)	9,677.35	9,636.95
Cross	9,692.85	9,657.94
Winze	9,697.48	9,595.72

Table 2.2.2 Wells Groundwater Elevation – February 27, 2023

Groundwater Elevation - February		
WELL	COLLAR ELEV.	2/27/2023
	Ft. AMSL	
Caribou	9,744.25	9,712.05
Cabin (Compliance)	9,677.35	9,636.50
Cross	9,692.85	9,657.41
Winze	9,697.48	9,593.42

Table 2.2.3 Wells Groundwater Elevation – March 21, 2023

Groundwater Elevation - March		
WELL	COLLAR ELEV.	3/21/2023
	Ft. AMSL	
Caribou	9,744.25	9,712.85
Cabin (Compliance)	9,677.35	9,635.57
Cross	9,692.85	9,656.31
Winze	9,697.48	9,615.22



Figure 9 Potentiometric Water Surface – January 2023

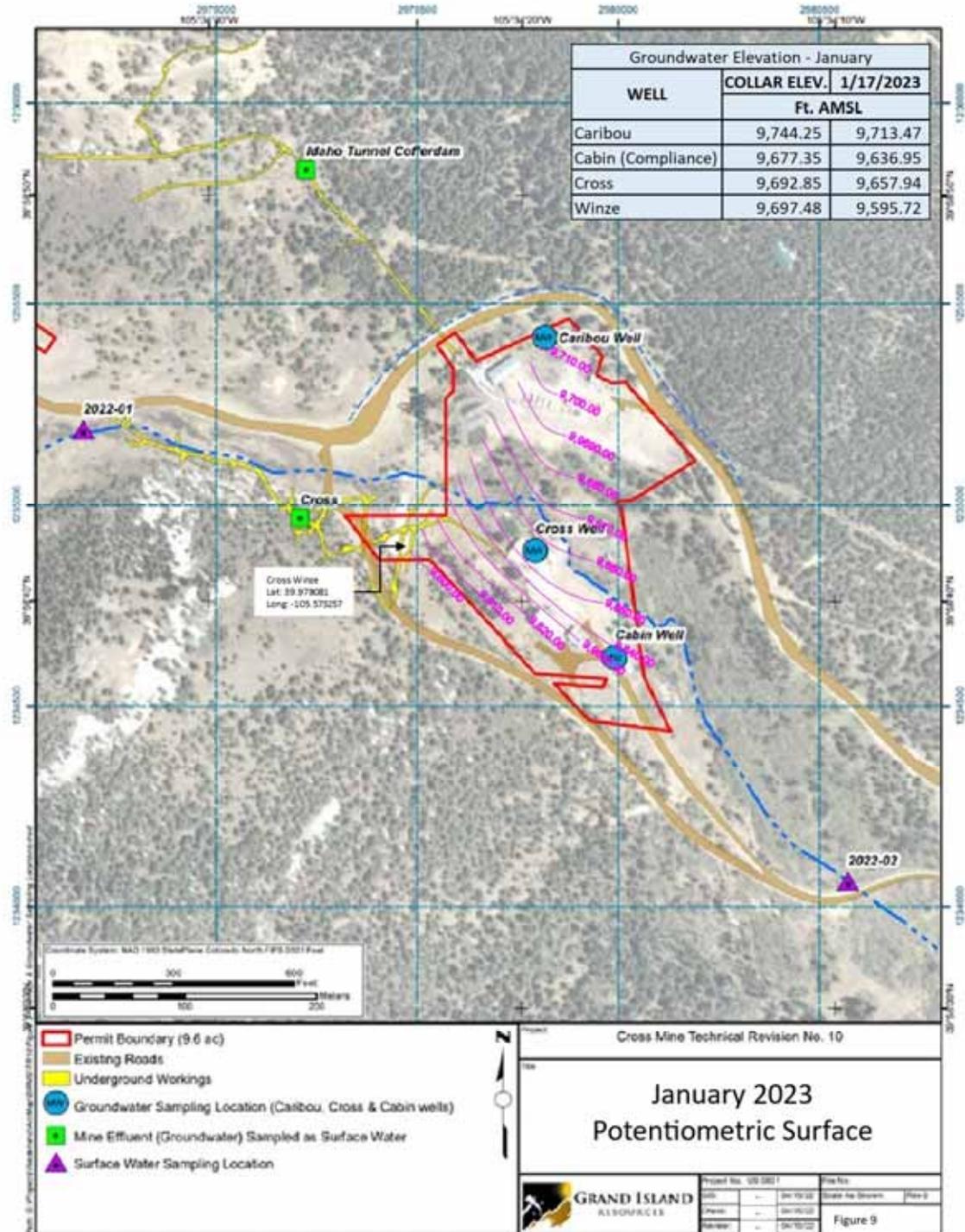




Figure 10 Potentiometric Water Surface – February 2023

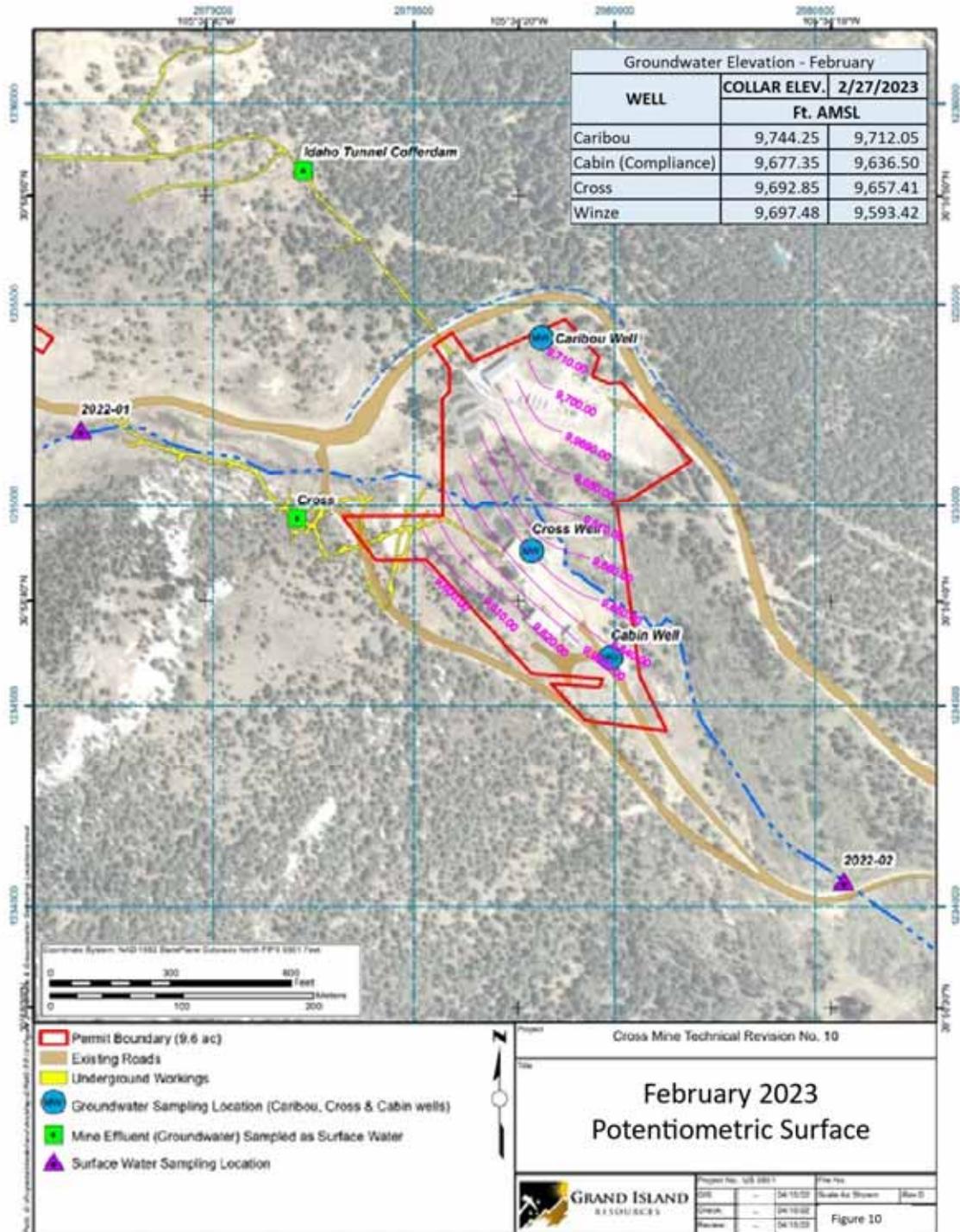
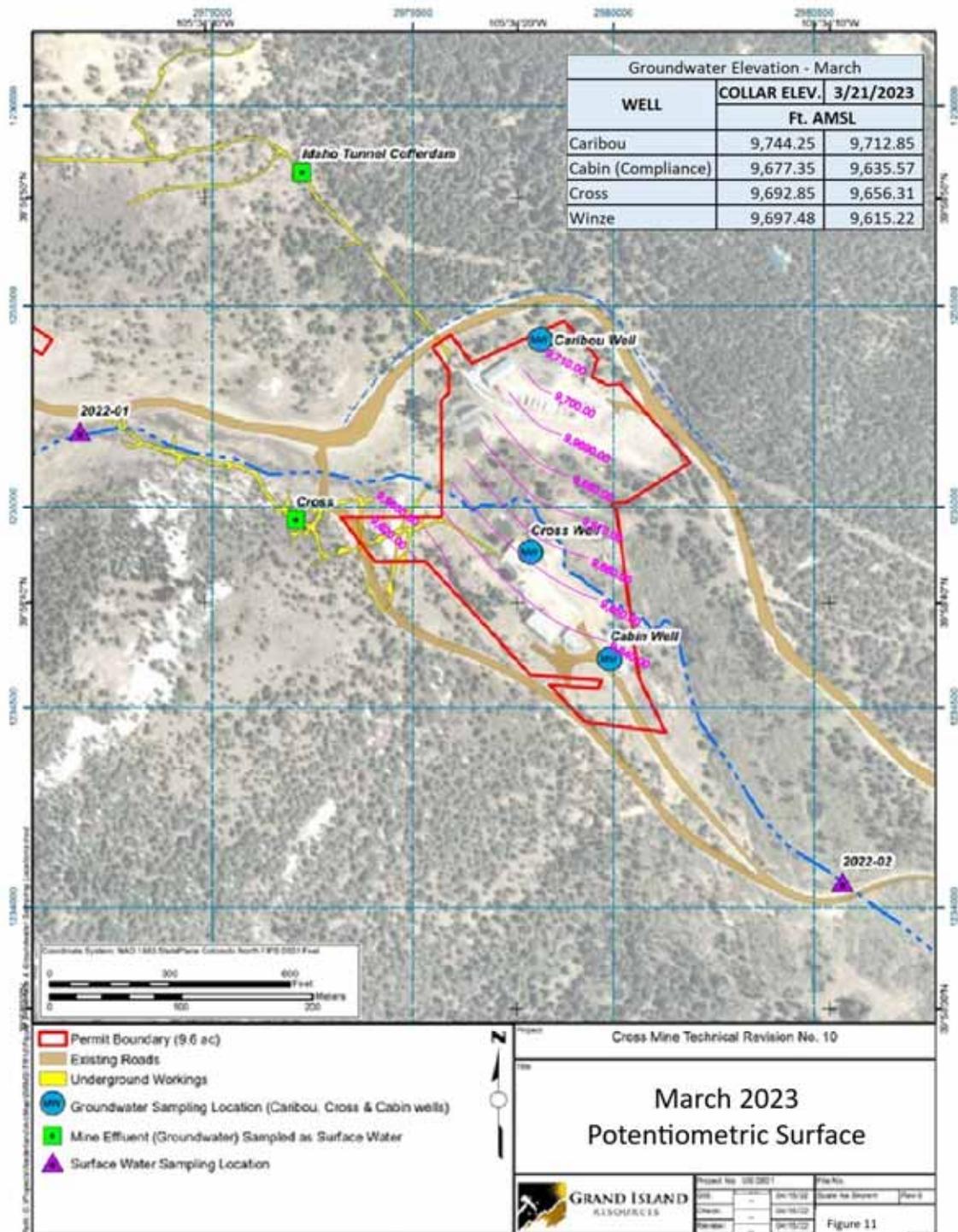




Figure 11 Potentiometric Water Surface – March 2023





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

Two mine effluent monitoring locations corresponding to points of interest within the GIR site were selected by DRMS as part of the program. One station is located in the Cross Mine and one station is located in the Idaho Tunnel/Caribou Mine, namely Cross Portal and Caribou Portal, respectively. Water Quality Analytical Results are summarized on Tables 3.1., 3.2., and 3.3 for the months of January, February and March 2023, respectively. The complete Water Quality Analytical Results from the Laboratories are provided in Appendix A.

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

Table 3.1 Effluent Quality Test Results – Sample Date January 17, 2023

Parameter	Standard	Cross Portal	Caribou Portal	Field Blank Caribou Portal	Unit	Comments
Aluminum (Al)	5	ND	ND	ND	mg/l	Dissolved
Antimony (Sb)	0.006	ND	ND	ND	mg/l	Dissolved
Arsenic (As)	0.01	ND	ND	ND	mg/l	Dissolved
Barium (Ba)	2	0.0668	0.0533	ND	mg/l	Dissolved
Beryllium (Be)	0.004	ND	ND	ND	mg/l	Dissolved
Beta and Photon Emitters	4	<2.8	<2.7	<2.8	mrem/year	Std is in mrem/year; Lab reports pCi/l
Boron (B)	0.75	ND	ND	ND	mg/l	Dissolved
Cadmium (Cd)	0.005	0.0009	ND	ND	mg/l	Dissolved
Chloride (Cl)	250	0.38	0.48	ND	mg/l	Dissolved
Chromium (Cr)	0.1	ND	ND	ND	mg/l	Dissolved
Cobalt (Co)	0.05	ND	ND	ND	mg/l	Dissolved
Copper (Cu)	0.2	0.0019	ND	ND	mg/l	Dissolved
Cyanide [Free] (Cn)	0.2	ND	ND	ND	mg/l	Total
Fluoride (F)	2	ND	ND	ND	mg/l	Dissolved
Gross Alpha Particle Activity	15	1.4	6.5	0.5	pCi/l	--
Iron (Fe)	0.3	ND	ND	ND	mg/l	Dissolved
Lead (Pb)	0.05	0.0007	0.0001	ND	mg/l	Dissolved
Lithium (Li)	2.5	ND	ND	ND	mg/l	Dissolved
Manganese (Mn)	0.05	0.011	0.001	ND	mg/l	Dissolved
Mercury (inorganic) (Hg)	0.002	ND	ND	ND	mg/l	Dissolved
Molybdenum (Mo)	0.21	0.0073	0.0063	ND	mg/l	Dissolved
Nickel (Ni)	0.1	ND	ND	ND	mg/l	Dissolved
Nitrate (NO3)	10	ND	ND	ND	mg/l as N	Dissolved
Nitrate-NitriteTotal	10	0.13	0.15	ND	mg/l as N	Dissolved
Nitrite (NO2)	1	ND	ND	ND	mg/l as N	Dissolved
pH (field)	6.5 - 8.5	7.9	8.6	--	pH units	--
Selenium (Se)	0.02	ND	ND	ND	mg/l	Dissolved
Silver (Ag)	0.05	ND	ND	ND	mg/l	Dissolved
Sulfate (SO4)	250	11.08	10.31	ND	mg/l	Dissolved
TDS	400	99	69	ND	mg/l	Total
Thallium (Tl)	0.002	ND	ND	ND	mg/l	Dissolved
Uranium (U)	0.0168 - 0.03	0.0009	0.0061	ND	mg/l	Dissolved
Vanadium (V)	0.1	ND	ND	ND	mg/l	Dissolved
Zinc (Zn)	2	0.204	0.006	ND	mg/l	Dissolved

The highlighted cells indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41

"ND" indicates "Not Detected"

Table 3.2 Effluent Quality Test Results – Sample Date February 27, 2023

Parameter	Standard	Cross Portal	Caribou Portal	Field Blank Caribou Portal	Unit	Comments
Aluminum (Al)	5	ND	0.001	ND	mg/l	Dissolved
Antimony (Sb)	0.006	ND	ND	ND	mg/l	Dissolved
Arsenic (As)	0.01	ND	ND	ND	mg/l	Dissolved
Barium (Ba)	2	0.0705	0.0568	ND	mg/l	Dissolved
Beryllium (Be)	0.004	ND	ND	ND	mg/l	Dissolved
Beta and Photon Emitters	4	<3.1	<3.1	<3.1	mrem/year	Std is in mrem/year; Lab reports pCi/l
Boron (B)	0.75	ND	ND	ND	mg/l	Dissolved
Cadmium (Cd)	0.005	0.0011	ND	ND	mg/l	Dissolved
Chloride (Cl)	250	0.33	0.47	ND	mg/l	Dissolved
Chromium (Cr)	0.1	ND	ND	ND	mg/l	Dissolved
Cobalt (Co)	0.05	ND	ND	ND	mg/l	Dissolved
Copper (Cu)	0.2	0.002	ND	ND	mg/l	Dissolved
Cyanide [Free] (Cn)	0.2	ND	ND	ND	mg/l	Total
Fluoride (F)	2	ND	ND	ND	mg/l	Dissolved
Gross Alpha Particle Activity	15	0.7	5.9	0.5	pCi/l	--
Iron (Fe)	0.3	0.009	ND	ND	mg/l	Dissolved
Lead (Pb)	0.05	0.001	0.0002	ND	mg/l	Dissolved
Lithium (Li)	2.5	ND	ND	ND	mg/l	Dissolved
Manganese (Mn)	0.05	0.0114	ND	ND	mg/l	Dissolved
Mercury (inorganic) (Hg)	0.002	ND	ND	ND	mg/l	Dissolved
Molybdenum (Mo)	0.21	0.0075	0.0063	ND	mg/l	Dissolved
Nickel (Ni)	0.1	ND	ND	ND	mg/l	Dissolved
Nitrate (NO3)	10	ND	ND	ND	mg/l as N	Dissolved
Nitrate-NitriteTotal	10	0.06	0.09	ND	mg/l as N	Dissolved
Nitrite (NO2)	1	ND	ND	ND	mg/l as N	Dissolved
pH (field)	6.5 - 8.5	8.2	8.6	--	pH units	--
Selenium (Se)	0.02	ND	ND	ND	mg/l	Dissolved
Silver (Ag)	0.05	ND	ND	ND	mg/l	Dissolved
Sulfate (SO4)	250	11.4	10.13	ND	mg/l	Dissolved
TDS	400	95	130	ND	mg/l	Total
Thallium (Tl)	0.002	ND	ND	ND	mg/l	Dissolved
Uranium (U)	0.0168 - 0.03	0.0008	0.0057	ND	mg/l	Dissolved
Vanadium (V)	0.1	ND	ND	ND	mg/l	Dissolved
Zinc (Zn)	2	0.251	0.006	ND	mg/l	Dissolved

The highlighted cells indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41

"ND" indicates "Not Detected"

Table 3.3 Effluent Quality Test Results – March 21, 2023

Parameter	Standard	Cross Portal	Caribou Portal	Field Duplicate Caribou Portal	Field Blank Caribou Portal	Unit	Comments
Aluminum (Al)	5	0.011	ND	0.001	ND	mg/l	Dissolved
Antimony (Sb)	0.006	ND	ND	ND	ND	mg/l	Dissolved
Arsenic (As)	0.01	ND	ND	ND	ND	mg/l	Dissolved
Barium (Ba)	2	0.0655	0.0522	0.0521	ND	mg/l	Dissolved
Beryllium (Be)	0.004	ND	ND	ND	ND	mg/l	Dissolved
Beta and Photon Emitters	4	<2.8	<2.7	<2.7	<2.8	mrem/year	Std is in mrem/year; Lab reports pCi/l
Boron (B)	0.75	ND	ND	ND	ND	mg/l	Dissolved
Cadmium (Cd)	0.005	0.0011	ND	ND	ND	mg/l	Dissolved
Chloride (Cl)	250	0.36	0.53	0.49	ND	mg/l	Dissolved
Chromium (Cr)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Cobalt (Co)	0.05	0.0002	ND	ND	ND	mg/l	Dissolved
Copper (Cu)	0.2	0.0025	ND	ND	ND	mg/l	Dissolved
Cyanide [Free] (Cn)	0.2	ND	ND	ND	ND	mg/l	Total
Fluoride (F)	2	ND	ND	ND	ND	mg/l	Dissolved
Gross Alpha Particle Activity	15	1	4	7.6	0.3	pCi/l	--
Iron (Fe)	0.3	0.102	0.009	0.009	ND	mg/l	Dissolved
Lead (Pb)	0.05	0.0077	0.0004	0.0004	ND	mg/l	Dissolved
Lithium (Li)	2.5	ND	ND	ND	ND	mg/l	Dissolved
Manganese (Mn)	0.05	0.013	ND	ND	ND	mg/l	Dissolved
Mercury (inorganic) (Hg)	0.002	ND	ND	ND	ND	mg/l	Dissolved
Molybdenum (Mo)	0.21	0.0067	0.0057	0.0061	ND	mg/l	Dissolved
Nickel (Ni)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Nitrate (NO3)	10	ND	ND	ND	ND	mg/l as N	Dissolved
Nitrate-NitriteTotal	10	0.11	0.14	0.15	ND	mg/l as N	Dissolved
Nitrite (NO2)	1	ND	ND	ND	ND	mg/l as N	Dissolved
pH (field)	6.5 - 8.5	8.2	8.6	8.6	--	pH units	--
Selenium (Se)	0.02	ND	ND	ND	ND	mg/l	Dissolved
Silver (Ag)	0.05	ND	ND	ND	ND	mg/l	Dissolved
Sulfate (SO4)	250	10.88	9.89	10.14	ND	mg/l	Dissolved
TDS	400	115	139	137	ND	mg/l	Total
Thallium (Tl)	0.002	ND	ND	ND	ND	mg/l	Dissolved
Uranium (U)	0.0168 - 0.03	0.0009	0.0063	0.0065	ND	mg/l	Dissolved
Vanadium (V)	0.1	ND	ND	ND	ND	mg/l	Dissolved
Zinc (Zn)	2	0.204	0.005	0.006	ND	mg/l	Dissolved

The highlighted cells indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41

"ND" indicates "Not Detected"



## **4. Surface Water Monitoring**

Two surface water monitoring stations were considered by DRMS to be sufficient and adequate to characterize surface water within 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**

No samples were collected during the First Quarter of 2023 because no surface flows were observed during January, February, and March 2023

### **4.2. Surface Water Flows**

No Flow measurements were taken during the First Quarter of 2023 because no surface flows were observed during January, February, and March 2023.

## **5. Quality Management (Quality Control & Quality Assurance)**

Grand Island Resources (GIR) is committed to meeting expectations pertaining to the TR10 water quality data collection including proper water sample collection and testing via a Quality Management Program which is founded on Quality Assurance aimed to prevent errors. The program incorporates, among others, Standard Operating Procedures, Sample Collection Protocols, Chains of Custody and the selection of State Credited Testing Laboratories which have internal Quality Control and Quality Assurance Methods and Standards. Quality Control aimed to identify errors is implemented via testing of one or more of the following Field or Laboratory: Duplicate Samples, Field Blanks and Matrix Spikes. On Monday March 13, 2023, GIR consulted with Mr. Patrick Lennberg of DRMS (via telephone) a specific deficiency noted by DRMS on their letter of March 2, 2023, requesting additional information of the GIR 4<sup>th</sup> Quarter 2022 Report; the conclusion of the review and phone conversation is that the SAP approved under TR10 states field duplicate samples will be collected side-by-side with the primary sample. The Operator shall collect one field duplicate sample for each media sampled (groundwater, effluent, and surface water), for a total of 3 duplicate samples to be collected per sampling event as committed to in TR10. GIR initiated the collection of the Field Duplicate for each media sampled on the March 2023 sampling event and will continue to do so for all sampling events going forward.

### **5.1. Groundwater**

Field Blank Quality Control Samples were collected from the Cabin Well (Compliance) for the months of January, February and March. A Field Duplicate sample was collected from the Cabin Well (Compliance) during the March sampling event. Duplicate and Matrix Spike tests were performed for select parameters which are incorporated in the QC section of the Laboratory Report. No Rinsate samples were collected because water samples were collected from permanently installed equipment at each well.

### **5.2. Mine Effluent**

Field Blank Quality Control Samples were collected from the Caribou Portal. A Filed Duplicate sample was collected from the Caribou Portal during the March sampling event. Duplicate tests were performed for select parameters which are incorporated in the QC section of the Laboratory Report. No Rinsate samples were collected because disposable samplers were used.

### **5.3. Surface Water**

No surface water samples were collected during the months of January, February or March 2023 given that the stream on both sampling stations were dry.



## **6. 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 6.1 Month of January, 6.2 Month of February and 6.3 Month of March present the monthly DMRs filed by The Operator with CDPHE for the 1<sup>st</sup> quarter 2023.

Table 6.1 DMR January 2023

**DMR Copy of Record**

<b>Permit</b>		<b>Permittee:</b> Grand Island Resources LLC		<b>Facility:</b> CROSS AND CARIBOU MINES	
<b>Permit #:</b> CO0032751	<b>Major:</b> No	<b>Permittee Address:</b> 12567 W Cedar Dr Lakewood, CO 80228	<b>Facility Location:</b> CROSS AND CARIBOU MINES BOULDER COUNTY, CO 80466		
<b>Permitted Feature:</b> 001 External Outfall		<b>Discharge:</b> 001-A Treated Mine Water to Coon Track Creek			
<b>Report Dates &amp; Status</b>					
<b>Monitoring Period:</b> From 01/01/23 to 01/31/23		<b>DMR Due Date:</b> 02/28/23		<b>Status:</b> NetDMR Validated	
<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>					
<b>First Name:</b>		<b>Title:</b>		<b>Telephone:</b>	
<b>Last Name:</b>					
<b>No Data Indicator (NODI)</b>					
<b>Form NODI:</b> --					

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						=	3.29		=	5.9	D4 - deg C	99/99 - Continuous	RC - Recorder (auto)			
					Permit Req.																
					Value NODI																
00400	pH	1 - Effluent Gross	0	--	Sample						=	7.4		=	7.8	12 - SU	02/30 - Twice Per Month	GR - GRAB			
					Permit Req.																
					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.																
					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.																
					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.																
					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.																
					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.																
					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 6.1 DMR January 2023 (continued)

71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Req. Value NODI					**	1.0 30DA AVG	**	2.0 DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB												
84066	Oil and grease visual	1 - Effluent Gross	0	--	Sample	=	0.0	AB - abs=0.prst=1								02/30 - Twice Per Month	V1 - VISUAL												
					Permit Req. Value NODI			Req Mon INST MAX	AB - abs=0.prst=1						0	02/30 - Twice Per Month	V1 - VISUAL												
<i>Submission Note</i>																													
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.																													
<i>Edit Check Errors</i>																													
No errors.																													
<i>Comments</i>																													
<i>Attachments</i>																													
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<i>Report Last Saved By</i>																													
Grand Island Resources LLC																													
User: pdelaney@alexcoresource.com																													
Name: Patrick Delaney																													
E-Mail: pdelaney@blackfoxmining.com																													
Date/Time: 2023-02-27 09:54 (Time Zone: -07:00)																													
<i>Report Last Signed By</i>																													
User: pdelaney@alexcoresource.com																													
Name: Patrick Delaney																													
E-Mail: pdelaney@blackfoxmining.com																													
Date/Time: 2023-02-27 09:55 (Time Zone: -07:00)																													

Table 6.2 DMR February 2023

**DMR Copy of Record**

<b>Permit</b>		<b>Permittee:</b> Grand Island Resources LLC		<b>Facility:</b> CROSS AND CARIBOU MINES	
<b>Permit #:</b> CO0032751	<b>Major:</b> No	<b>Permittee Address:</b> 12567 W Cedar Dr Lakewood, CO 80228	<b>Facility Location:</b> CROSS AND CARIBOU MINES BOULDER COUNTY, CO 80466		
<b>Permitted Feature:</b> 001 External Outfall		<b>Discharge:</b> 001-A Treated Mine Water to Coon Track Creek			
<b>Report Dates &amp; Status</b>					
<b>Monitoring Period:</b> From 02/01/23 to 02/28/23		<b>DMR Due Date:</b> 03/28/23		<b>Status:</b> NetDMR Validated	
<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>					
<b>First Name:</b>		<b>Title:</b>		<b>Telephone:</b>	
<b>Last Name:</b>					
<b>No Data Indicator (NODI)</b>					
<b>Form NODI:</b> --					

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						=	3.49			=	8.6	04 - deg C	99/99 - Continuous	RC - Recorder (auto)
					Permit Req.														
00400	pH	1 - Effluent Gross	0	--	Sample					=	7.3				=	7.8	12 - SU	02/30 - Twice Per Month	GR - GRAB
					Permit Req.					>=	6.5 MINIMUM			<=	9.0 MAXIMUM				12 - SU
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
00978	Arsenic, total recoverable	1 - Effluent Gross	0	--	Sample						<	5.0					28 - ug/L	01/30 - Monthly	GR - GRAB
					Permit Req.														28 - ug/L
00980	Iron, total recoverable	1 - Effluent Gross	0	--	Sample						<	100.0					28 - ug/L	01/30 - Monthly	GR - GRAB
					Permit Req.														28 - ug/L
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
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
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
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
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

Table 6.2 DMR February 2023 (continued)

Crj	Gross			Value NODI													
01303	Zinc, potentially dissolved	1 - Effluent Gross	2	--	Sample	<	10.0	<	10.0	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
					Permit Req. Value NODI	<=	186.0 30DA AVG	<=	203.0 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
01304	Silver, potentially dissolved	1 - Effluent Gross	2	--	Sample	<	0.12 30DA AVG	<	3.2 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
					Permit Req. Value NODI	B - Below Detection Limit/No Detection	B - Below Detection Limit/No Detection										
01306	Copper, potentially dissolved	1 - Effluent Gross	2	--	Sample	<	2.0	<	2.0	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
					Permit Req. Value NODI	<=	13.0 30DA AVG	<=	20.0 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
01309	Arsenic, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	5.0	<	5.0	28 - ug/L	01/30 - Monthly	GR - GRAB					
					Permit Req. Value NODI		Req Mon DAILY MX	28 - ug/L	01/30 - Monthly	GR - GRAB							
01313	Cadmium, potentially dissolved	1 - Effluent Gross	2	--	Sample	<	0.63 30DA AVG	<	2.5 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
					Permit Req. Value NODI	B - Below Detection Limit/No Detection	B - Below Detection Limit/No Detection										
01314	Chromium, trivalent, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	20.0			28 - ug/L	01/30 - Monthly	GR - GRAB					
					Permit Req. Value NODI		Req Mon 30DA AVG	28 - ug/L	01/30 - Monthly	GR - GRAB							
01318	Lead, potentially dissolved	1 - Effluent Gross	2	--	Sample	<	1.0	<	1.0	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
					Permit Req. Value NODI	<=	3.8 30DA AVG	<=	94.0 DAILY MX	28 - ug/L	02/30 - Twice Per Month	GR - GRAB					
01319	Manganese, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	3.0	<	3.0	28 - ug/L	01/30 - Monthly	GR - GRAB					
					Permit Req. Value NODI		Req Mon 30DA AVG	28 - ug/L	01/30 - Monthly	GR - GRAB							
01322	Nickel, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	3.0	<	3.0	28 - ug/L	01/30 - Monthly	GR - GRAB					
					Permit Req. Value NODI		Req Mon 30DA AVG	28 - ug/L	01/30 - Monthly	GR - GRAB							
01323	Selenium, potentially dissolved	1 - Effluent Gross	0	--	Sample	<	5.0	<	5.0	28 - ug/L	01/30 - Monthly	GR - GRAB					
					Permit Req. Value NODI		Req Mon 30DA AVG	28 - ug/L	01/30 - Monthly	GR - GRAB							
03582	Oil and grease	1 - Effluent Gross	0	--	Sample			<	10.0 INST MAX	19 - mg/L	77/77 - Contingent	GR - GRAB					
					Permit Req. 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. Value NODI			Req Mon DAILY MX	28 - ug/L	01/30 - Monthly	GR - GRAB						
50050	Flow, in conduit or thru treatment plant	1 - Effluent Gross	2	--	Sample	=	0.06445	=	0.11405	03 - MGD	99/99 - Continuous	RC - Recorder (auto)					
					Permit Req. Value NODI	<=	0.103 30DA AVG		Req Mon DAILY MX	03 - MGD	99/99 - Continuous	RC - Recorder (auto)					
51202	Sulfide-hydrogen sulfide [undissociated]	1 - Effluent Gross	0	--	Sample	<	1.0			19 - mg/L	01/30 - Monthly	GR - GRAB					
					Permit Req. Value NODI		Req Mon 30DA AVG	19 - mg/L	01/30 - Monthly	GR - GRAB							
					Sample	<	0.2	<	0.2	28 - ug/L	01/30 - Monthly	GR - GRAB					
					Permit												

Table 6.2 DMR February 2023 (continued)

71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Reg. Value NODI					**	1.0 30DA AVG	**	2.0 DAILY MX	28 - upL	0	01/30 - Monthly	GR - GRAB												
84066	Oil and grease visual	1 - Effluent Gross	0	--	Sample Permit Reg. Value NODI	=	0.0	AB - abst=0.2rst=1	Req Mon INST MAX	AB - abst=0.2rst=1				0		02/30 - Twice Per Month	VI - VISUAL												
<p><b>Submission Note</b>          If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.</p> <p><b>Edit Check Errors</b>          No errors.</p> <p><b>Comments</b></p> <p><b>Attachments</b></p> <table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>2023_02_CrossCaribouMine_Results_1.pdf</td> <td>pdf</td> <td>1027422.0</td> </tr> <tr> <td>2023_02_CrossCaribouMine_Results_2.pdf</td> <td>pdf</td> <td>1013710.0</td> </tr> <tr> <td>2023_02_CrossCaribouMine_CoverLetter.pdf</td> <td>pdf</td> <td>191460.0</td> </tr> </tbody> </table> <p><b>Report Last Saved By</b>          Grand Island Resources LLC</p> <p>User: pdelaney@alexcoresource.com          Name: Patrick Delaney          E-Mail: pdelaney@blackfoxmining.com          Date/Time: 2023-03-22 12:20 (Time Zone: -06:00)</p> <p><b>Report Last Signed By</b></p> <p>User: pdelaney@alexcoresource.com          Name: Patrick Delaney          E-Mail: pdelaney@blackfoxmining.com          Date/Time: 2023-03-28 17:38 (Time Zone: -06:00)</p>																		Name	Type	Size	2023_02_CrossCaribouMine_Results_1.pdf	pdf	1027422.0	2023_02_CrossCaribouMine_Results_2.pdf	pdf	1013710.0	2023_02_CrossCaribouMine_CoverLetter.pdf	pdf	191460.0
Name	Type	Size																											
2023_02_CrossCaribouMine_Results_1.pdf	pdf	1027422.0																											
2023_02_CrossCaribouMine_Results_2.pdf	pdf	1013710.0																											
2023_02_CrossCaribouMine_CoverLetter.pdf	pdf	191460.0																											

Table 6.3 DMR March 2023

**DMR Copy of Record**

<b>Permit</b>		<b>Permit #:</b> CO0032751		<b>Permittee:</b> Grand Island Resources LLC		<b>Facility:</b> CROSS AND CARIBOU MINES	
<b>Major:</b> No		<b>Permittee Address:</b> 12567 W Cedar Dr Lakewood, CO 80228		<b>Facility Location:</b> CROSS AND CARIBOU MINES BOULDER COUNTY, CO 80466			
<b>Permitted Feature:</b> 001 External Outfall		<b>Discharge:</b> 001-A Treated Mine Water to Coon Track Creek					
<b>Report Dates &amp; Status</b>				<b>Monitoring Period:</b> From 03/01/23 to 03/31/23		<b>DMR Due Date:</b> 04/28/23	
						<b>Status:</b> NetDMR Validated	
<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>							
<b>First Name:</b>		<b>Title:</b>		<b>Telephone:</b>			
<b>Last Name:</b>							
<b>No Data Indicator (NODI)</b>							
<b>Form NODI:</b> --							

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
00010	Temperature, water deg. centigrade	1 - Effluent Gross	0	--	Sample						=	3.38		=	17.5	04 - deg C	99/99 - Continuous	RC - Recorder (auto)
					Permit Req. Value NODI													
00400	pH	1 - Effluent Gross	0	--	Sample						=	6.7		=	7.7	12 - SU	02/30 - Twice Per Month	GR - GRAB
					Permit Req. 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. 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. 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. Value NODI													
01114	Lead, total recoverable	1 - Effluent Gross	0	--	Sample						=	5.5		=	1.1	28 - ug/L	02/30 - Twice Per Month	GR - GRAB
					Permit Req. 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. 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 6.3 DMR March 2023 (continued)

Crj	Gross			Value NODI													
01303	Zinc, potentially dissolved	1 - Effluent Gross	3	--	Sample												
					Permit Req.												
					Value NODI												
01304	Silver, potentially dissolved	1 - Effluent Gross	3	--	Sample												
					Permit Req.												
					Value NODI												
01306	Copper, potentially dissolved	1 - Effluent Gross	3	--	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	3	--	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	3	--	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	3	--	Sample												
					Permit Req.												
					Value NODI												
51202	Sulfide-hydrogen sulfide [undissociated]	1 - Effluent Gross	0	--	Sample												
					Permit Req.												
					Value NODI												
					Sample Permit												

Table 6.3 DMR March 2023 (continued)

71900	Mercury, total [as Hg]	1 - Effluent Gross	0	--	Reg. Value NODI						<=	1.0 30DA AVG		<=	2.0 DAILY MX	28 - ug/L	0	01/30 - Monthly	GR - GRAB
84066	Oil and grease visual	1 - Effluent Gross	0	--	Sample	=	0.0	AB - abet=0.prst=1										02/30 - Twice Per Month	VI - VISUAL
					Permit Reg. Value NODI			Req Mon INST MAX									0	02/30 - Twice Per Month	VI - VISUAL

**Submission Note**  
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**  
 No errors.

**Comments**

**Attachments**

Name	Type	Size
2023_03_CrossCarbouMine_Results_1.pdf	pdf	1080203.0
2023_03_CrossCarbouMine_Results_2.pdf	pdf	1036189.0
2023_03_CrossCarbouMine_CoverLetter.pdf	pdf	191902.0

**Report Last Saved By**  
 Grand Island Resources LLC

User: pdelaney@alexcoresource.com  
 Name: Patrick Delaney  
 E-Mail: pdelaney@blackfoxmining.com  
 Date/Time: 2023-04-25 11:26 (Time Zone: -06:00)

**Report Last Signed By**

User: pdelaney@alexcoresource.com  
 Name: Patrick Delaney  
 E-Mail: pdelaney@blackfoxmining.com  
 Date/Time: 2023-04-25 11:27 (Time Zone: -06:00)

## Appendices

APPENDIX A GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

APPENDIX A.1 JANUARY 2023 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 1/17/23 1:00 PM  
**Lab Number:** 230117191-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	2.96 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	0.31 mg/L	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	1/24/23	QC62426	DPL
Sulfate	9.85 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<b>Dissolved</b>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	0.001 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	0.0306 mg/L	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	0.0060 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	0.0011 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	0.0016 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	0.0005 mg/L	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191      **Date Received:** 1/17/23  
**Client PO:**                      **Date Reported:** 2/9/23  
**Client Project:** Monthly Groundwater      **Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 1/17/23 1:00 PM  
**Lab Number:** 230117191-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	0.564 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	16.0 mg/L	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	0.031 mg/L	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.37 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	0.35 mg/L	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	1/24/23	QC62426	DPL
Sulfate	10.24 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	0.004 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	0.0386 mg/L	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	0.0003 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	0.0087 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	0.0038 mg/L	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

**Abbreviations/ References:**

RL = Reporting Limit = Minimum Level  
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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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230117191

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	0.082 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	15.2 mg/L	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	0.013 mg/L	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191      **Date Received:** 1/17/23  
**Client PO:**      **Date Reported:** 2/9/23  
**Client Project:** Monthly Groundwater      **Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.10 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	1/24/23	QC62426	DPL
Sulfate	ND	EPA 300.0	0.10 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	ND	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	0.001 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	ND	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	ND	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230117191

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 1/17/23 11:30 AM  
**Lab Number:** 230117191-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.42 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	0.13 mg/L	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	1/24/23	QC62426	DPL
Sulfate	2.71 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	0.031 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	0.0058 mg/L	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	0.2469 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	0.0005 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230117191

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 1/17/23 11:30 AM  
**Lab Number:** 230117191-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	0.004 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	3.6 mg/L	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	0.020 mg/L	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**Abbreviations/ References:**

RL = Reporting Limit = Minimum Level  
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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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230117191

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 1/17/23 12:15 PM  
**Lab Number:** 230117191-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.38 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	0.13 mg/L	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	2/8/23	QC62761	DPL
Sulfate	11.08 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	0.0668 mg/L	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	0.0009 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	0.0019 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	0.0007 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	0.0110 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	0.0073 mg/L	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

**Abbreviations/ References:**

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 1/17/23 12:15 PM  
**Lab Number:** 230117191-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	0.0009 mg/L	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	0.204 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	24.8 mg/L	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	ND	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**Abbreviations/ References:**

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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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

TASK NO: 230117191

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.48 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	0.15 mg/L	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	2/8/23	QC62761	DPL
Sulfate	10.31 mg/L	EPA 300.0	0.10 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	0.0533 mg/L	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	0.0001 mg/L	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	0.0010 mg/L	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	0.0063 mg/L	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

**Abbreviations/ References:**

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	0.0061 mg/L	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	0.006 mg/L	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	25.5 mg/L	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	ND	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.01 mg/L	1/18/23	QC62332	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	1/19/23	QC62341	DPL
Fluoride	ND	EPA 300.0	0.10 mg/L	1/18/23	QC62333	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.05 mg/L	1/18/23	QC62334	MLT
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	1/19/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	1/18/23	QC62335	MLT
Phenols - Total	ND	EPA 420.4	15.0 ug/L	2/8/23	QC62761	DPL
Sulfate	ND	EPA 300.0	0.01 mg/L	1/18/23	QC62336	MLT
Total Coliform	ND	SM 9221-B	1 mpn/100ml	1/18/23	-	ARF
<b><u>Dissolved</u></b>						
Mercury	ND	EPA 245.7	0.0002 mg/L	1/24/23	QC62427	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	1/20/23	QC62363	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	1/20/23	QC62363	MBN
Barium	ND	EPA 200.8	0.0007 mg/L	1/20/23	QC62363	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	1/20/23	QC62363	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	1/20/23	QC62363	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

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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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230117191

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	1/20/23	QC62363	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	1/20/23	QC62363	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	1/20/23	QC62363	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	1/20/23	QC62363	MBN
Boron	ND	EPA 200.7	0.01 mg/L	1/20/23	QC62354	MAT
Calcium	ND	EPA 200.7	0.1 mg/L	1/20/23	QC62354	MAT
Iron	ND	EPA 200.7	0.005 mg/L	1/20/23	QC62354	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	1/20/23	QC62363	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical QC Summary

**TASK NO: 230117191**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 1/17/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC62332	Blank	ND	EPA 300.0
Cyanide-Free	QC62341	Blank	ND	ASTM D4282-15
Fluoride	QC62333	Blank	ND	EPA 300.0
Mercury	QC62427	Method Blank	ND	EPA 245.7
Aluminum	QC62363	Method Blank	ND	EPA 200.8
Antimony	QC62363	Method Blank	ND	EPA 200.8
Arsenic	QC62363	Method Blank	ND	EPA 200.8
Barium	QC62363	Method Blank	ND	EPA 200.8
Beryllium	QC62363	Method Blank	ND	EPA 200.8
Cadmium	QC62363	Method Blank	ND	EPA 200.8
Chromium	QC62363	Method Blank	ND	EPA 200.8
Cobalt	QC62363	Method Blank	ND	EPA 200.8
Copper	QC62363	Method Blank	ND	EPA 200.8
Lead	QC62363	Method Blank	ND	EPA 200.8
Manganese	QC62363	Method Blank	ND	EPA 200.8
Molybdenum	QC62363	Method Blank	ND	EPA 200.8
Nickel	QC62363	Method Blank	ND	EPA 200.8
Selenium	QC62363	Method Blank	ND	EPA 200.8
Silver	QC62363	Method Blank	ND	EPA 200.8
Thallium	QC62363	Method Blank	ND	EPA 200.8
Uranium	QC62363	Method Blank	ND	EPA 200.8
Vanadium	QC62363	Method Blank	ND	EPA 200.8
Zinc	QC62363	Method Blank	ND	EPA 200.8
Boron	QC62354	Method Blank	0.01 mg/L B	EPA 200.7
Calcium	QC62354	Method Blank	ND	EPA 200.7
Iron	QC62354	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC62334	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC62335	Blank	ND	EPA 300.0
Phenols - Total	QC62761	Blank	ND	EPA 420.4
	QC62426	Blank	ND	EPA 420.4
Sulfate	QC62336	Blank	ND	EPA 300.0

B - The analyte was found in the associated blank. Batch accepted due to all samples being non-detect or having results  $\geq 5$  times the background concentration found in the blank.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC62332	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	99.5	-	
		MS	75 - 125	92.2	-	
Cyanide-Free	QC62341	Duplicate	0 - 20	-	0.0	ASTM D4282-15
		LCS	90 - 110	95.8	-	
		MS	75 - 125	104.5	-	
		MSD	0 - 30	-	0.0	

**Abbreviations/ References:**

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

(d) RPD acceptable due to low duplicate and sample concentrations.  
 (s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Fluoride	QC62333	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	95.5	-	
		MS	75 - 125	92.0	-	
Mercury	QC62427	Duplicate	0 - 20	-	0.0	EPA 245.7
		LCS	90 - 110	108.6	-	
		MS	80 - 120	100.0	-	
Aluminum	QC62363	LCS	90 - 110	95.5	-	EPA 200.8
		MS	70 - 130	101.4	-	
		MSD	0 - 10	-	1.2	
Antimony	QC62363	LCS	90 - 110	102.0	-	EPA 200.8
		MS	70 - 130	97.5	-	
		MSD	0 - 10	-	2.5	
Arsenic	QC62363	LCS	90 - 110	102.4	-	EPA 200.8
		MS	70 - 130	98.9	-	
		MSD	0 - 10	-	2.0	
Barium	QC62363	LCS	90 - 110	95.8	-	EPA 200.8
		MS	70 - 130	96.8	-	
		MSD	0 - 10	-	2.4	
Beryllium	QC62363	LCS	90 - 110	102.2	-	EPA 200.8
		MS	70 - 130	100.7	-	
		MSD	0 - 10	-	0.6	
Cadmium	QC62363	LCS	90 - 110	96.9	-	EPA 200.8
		MS	70 - 130	99.2	-	
		MSD	0 - 10	-	0.1	
Chromium	QC62363	LCS	90 - 110	101.7	-	EPA 200.8
		MS	70 - 130	98.7	-	
		MSD	0 - 10	-	4.9	
Cobalt	QC62363	LCS	90 - 110	104.5	-	EPA 200.8
		MS	70 - 130	101.1	-	
		MSD	0 - 10	-	0.5	
Copper	QC62363	LCS	90 - 110	100.1	-	EPA 200.8
		MS	70 - 130	98.7	-	
		MSD	0 - 10	-	0.2	
Lead	QC62363	LCS	90 - 110	98.6	-	EPA 200.8
		MS	70 - 130	94.3	-	
		MSD	0 - 10	-	0.6	
Manganese	QC62363	LCS	90 - 110	102.4	-	EPA 200.8
		MS	70 - 130	99.6	-	
		MSD	0 - 10	-	3.8	
Molybdenum	QC62363	LCS	90 - 110	97.9	-	EPA 200.8
		MS	70 - 130	95.6	-	
		MSD	0 - 10	-	1.2	
Nickel	QC62363	LCS	90 - 110	103.3	-	EPA 200.8
		MS	70 - 130	101.3	-	
		MSD	0 - 10	-	0.2	
Selenium	QC62363	LCS	90 - 110	103.1	-	EPA 200.8
		MS	70 - 130	108.0	-	
		MSD	0 - 10	-	2.9	
Silver	QC62363	LCS	90 - 110	90.7	-	EPA 200.8
		MS	70 - 130	85.9	-	
		MSD	0 - 10	-	2.0	

**Abbreviations/ References:**

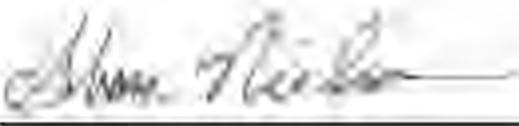
RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
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Date Analyzed = Date Test Completed

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

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Thallium	QC62363	LCS	90 - 110	102.0	-	EPA 200.8
		MS	70 - 130	95.5	-	
		MSD	0 - 10	-	1.3	
Uranium	QC62363	LCS	90 - 110	99.9	-	EPA 200.8
		MS	70 - 130	93.9	-	
		MSD	0 - 10	-	2.1	
Vanadium	QC62363	LCS	90 - 110	100.7	-	EPA 200.8
		MS	70 - 130	101.5	-	
		MSD	0 - 10	-	1.3	
Zinc	QC62363	LCS	90 - 110	99.2	-	EPA 200.8
		MS	70 - 130	100.8	-	
		MSD	0 - 10	-	0.0	
Boron	QC62354	Duplicate	0 - 20	-	18.2	EPA 200.7
		LCS	90 - 110	103.1	-	
		MS	75 - 125	114.8	-	
Calcium	QC62354	Duplicate	0 - 20	-	7.7	EPA 200.7
		LCS	90 - 110	93.8	-	
		MS	75 - 125	110.7	-	
Iron	QC62354	Duplicate	0 - 20	-	17.6	EPA 200.7
		LCS	90 - 110	97.7	-	
		MS	75 - 125	109.7	-	
Nitrate Nitrogen	QC62334	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	96.6	-	
		MS	75 - 125	88.6	-	
Nitrite Nitrogen	QC62335	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	91.2	-	
		MS	75 - 125	94.7	-	
Phenols - Total	QC62761	Duplicate	0 - 20	-	0.0	EPA 420.4
	QC62426	Duplicate	0 - 20	-	9.8	
	QC62761	LCS	90 - 110	96.5	-	
	QC62426	LCS	90 - 110	110.0	-	
	QC62761	MS	75 - 125	84.6	-	
	QC62426	MS	75 - 125	124.2	-	
Sulfate	QC62336	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	99.6	-	
		MS	75 - 125	94.7	-	

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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.



# Chain of Custody Form

**Report To Information**

Company Name: Grand Island Resources  
 Contact Name: Brocke Moran  
 Address: 12567 W Cedar Rd Ste 251  
 City: Lakewood State: CO Zip: 80228  
 Phone: 303-506-1618  
 Email: brocke.m@colorado.edu  
 Sample Collector: Brocke Moran  
 Sample Collector Phone: 303-506-1618  
 PO No.: → Sergio.rivera@novametalix.com

**Project Name / Number**  
Monthly G.I.E.

**Task Number (Lab Use Only)**  
CAL Task  
230117191  
NAB

**Bill To Information (if different from report to)**

Company Name: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 PO No.: \_\_\_\_\_

**Sample Matrix (Select One Only)**

Waste Water  
 Ground Water  
 Surface Water  
 Soil  
 Sludge  
 Drinking Water

Date	Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	Tests Requested
1/7/23	13:00	CROSS WELL	9	Grab	QB022050014
1/7/23	13:30	COMPLIANCE WELL	9	Grab	(updated 10/27/22)
1/7/23	13:30	COMPLIANCE FB	9	Grab	
1/7/23	11:30	CARIBOU WELL	9	Grab	
1/7/23	12:15	CROSS PORTAL	9	Grab	
1/7/23	11:15	CARIBOU PORTAL	9	Grab	
1/7/23	11:15	CARIBOU PORTAL FB	9	Grab	
Project name per history.					
Instructions: <input checked="" type="checkbox"/> METRIC BOTTLE & 1 GROSS ALPHA BOTTLE/S Info: <input checked="" type="checkbox"/> FIELD FILTERED (PER SAMPLE ID), INCLUDING <input checked="" type="checkbox"/> FIELD BLANKS					
Relinquished By: <u>Shade Watson</u>	Date/Time: <u>1/7/23</u>	Received By: <u>DM</u>	Date/Time: <u>1/17/23</u>	Relinquished By: <u>HD</u>	Date/Time: <u>1/17/23</u>
Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/>			Temp. <u>37</u> °C/Fce		
C/S Charge <input type="checkbox"/>			Received By: _____		
Sample Pres. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			Date/Time: _____		



## Built Environment Testing Reservoirs

January 31, 2023

**Subcontractor Number:**

**Laboratory Report: RES 548742-1**

**Project #/P.O. #: 230117191**

**Project Description: Grand Island Resources**

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

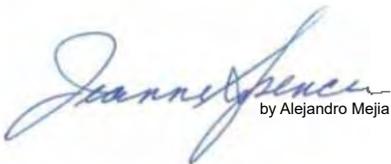
Dear Angela,

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 548742-1** 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 Alejandro Mejia

Jeanne Spencer  
President



# EUROFINS RESERVOIRS ENVIRONMENTAL, INC

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

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

RES Job Number: **RES 548742-1**  
 Client: **Colorado Analytical Laboratories, Inc.**  
 Client Project/P.O.: **230117191**  
 Client Project Description: **Grand Island Resources**  
 Date Samples Received: **January 18, 2023**  
 Analysis Type: **REI TEM SOP / USEPA 100.2-M**  
 Turnaround: **Standard 10**  
 Date Samples Analyzed: **January 31, 2023**

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 (million struct/L)	Asbestos Concentration	Total Asbestos Concentration (million struct/L)	Greater than 10 Micron Length Asbestos Concentration (million struct/L)
548742 -	230117191-01H Cross Well	30	1	ND	ND	0.12	BAS	BAS	BAS
548742 -	230117191-02H Compliance Well	30	1	ND	ND	0.12	BAS	BAS	BAS
548742 -	230117191-03H Compliance FB	30	1	ND	ND	0.12	BAS	BAS	BAS
548742 -	230117191-04H Caribou Well	40	1	ND	ND	0.087	BAS	BAS	BAS
548742 -	230117191-05H Cross Portal	30	1	ND	ND	0.12	BAS	BAS	BAS
548742 -	230117191-06H Caribou Portal	30	1	ND	ND	0.12	BAS	BAS	BAS
548742 -	230117191-07H Caribou Portal FB	30	1	ND	ND	0.12	BAS	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>

*Alejandro Mejia*  
 Alejandro Mejia  
 Analyst



Built Environment Testing  
Reservoirs

RES Job #: 548742

<b>SUBMITTED BY</b>	<b>INVOICE TO</b>	<b>SERIES</b>
Company: Colorado Analytical Laboratories, Inc. Address: 10411 Heinz Way Commerce City, CO 80640	Company: Colorado Analytical Laboratories, Inc. Address: 10411 Heinz Way Commerce City, CO 80640	-1 TEM Standard 10
Project Number and/or P.O. #: 230117191	Final Data Deliverable Email Address: aforte@coloradolab.com (+ 6 ADDNL. CONTACTS)	
Project Description/Location: Grand Island Resources		
Contact: Angela Forte Phone: (303) 659-2313 Fax: Cell:		

PLM / PCM / TEM	DTL RUSH PRIORITY STANDARD	ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm	REQUESTED ANALYSIS	VALID MATRIX CODES		LAB NOTES
				Air = A Dust = D Paint = P Surface = SU Tape = T Drinking Water = DW Waste Water = WW **ASTM E1792 approved wipe media only**	Bulk = B Food = F Soil = S Swab = SW Wipe = W	
<b>CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm</b>	<b>RUSH PRIORITY STANDARD</b>		<b>METALS - Analyte(s)</b> Lead Only (7082, 7420, Waste Water, Foodware, Multi Metals (7303, 6020A, TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan)			
<b>Dust</b>	<b>RUSH PRIORITY STANDARD</b>		<b>DUST - Total, Respirable</b> PCM - 7400A, 7400B, OSHA TEM - Drinking Water (EPA 100.2)			
<b>Metals</b>	<b>RUSH PRIORITY STANDARD</b>		<b>CHEMISTRY</b> TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan			
<b>Organics*</b>	<b>SAME DAY RUSH PRIORITY STANDARD</b>		<b>ORGANICS - Methamphetamine, TSS</b> MOLD - Spore Trap, Bulk Mold, Particulate Identification			
<b>MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm</b>	<b>PRIORITY STANDARD</b>		<b>MICROBIOLOGY</b> Quantification (+/- or Quantification), Legionella (P, NP, C) Enterococcus (+/- or Quantification), Lactac Acid, Viable Microbial Count (w/D), Count, Coliforms/E. coli - (State Water, Drinking Water, Non-Drinking Water, +/-), E. coli O157:H7, E. coli/Coliforms - Plated, S aureus, Yeast & Mold, Aerobic Plate			
<b>Medical Device Analysis</b>	<b>RUSH STANDARD</b>		<b>ASBESTOS</b> PLM - Short Report, Long Report, CARB 435			
<b>Mold Analysis</b>	<b>RUSH PRIORITY STANDARD</b>		<b>ASBESTOS</b> PLM - Short Report, Long Report, CARB 435			
<b>Special Instructions:</b>						
<b>Client Sample ID Number</b> (Sample ID's must be unique)						
1 230117191-01H Cross Well		X			1L	01/17/23 13:00
2 230117191-02H Compliance Well		X			1L	01/17/23 13:30
3 230117191-03H Compliance FB		X			1L	01/17/23 13:30
4 230117191-04H Caribou Well		X			1L	01/17/23 11:30
5 230117191-05H Cross Portal		X			1L	01/17/23 12:15
6 230117191-06H Caribou Portal		X			1L	01/17/23 11:15
7 230117191-07H Caribou Portal FB		X			1L	01/17/23 11:15

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: <i>ab</i>	Angela Forte	Date/Time: 01/18/2023 9:37:48	Sample Condition: Acceptable
Received By: <i>J Parker</i>	Jessica Parker	Date/Time: 01/18/2023 12:54:40	Carrier: Fed-Ex

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-01H Cross Well	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	30	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	F3-4	ND									
	G3-1	ND									
	G3-4	ND									
	H3-1	ND									
	H3-4	ND									
A	E4-1	ND									
	E4-4	ND									
	F4-1	ND									
	F4-4	ND									
	G4-1	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-02H Compliance Well	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	30	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	E3-6	ND									
	F3-3	ND									
	F3-6	ND									
	G3-3	ND									
	G3-6	ND									
B	C2-3	ND									
	C2-6	ND									
	E2-3	ND									
	E2-6	ND									
	F2-3	ND									

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-03H Compliance FB	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	30	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	B5-3	ND									
	B5-6	ND									
	C5-3	ND									
	C5-6	ND									
	E5-3	ND									
A	F5-4	ND									
	G5-1	ND									
	G5-4	ND									
	H5-1	ND									
	H5-4	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-04H Caribou Well	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	40	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	C5-6	ND									
	E5-3	ND									
	E5-6	ND									
	F5-3	ND									
	F5-6	ND									
B	C3-6	ND									
	E3-3	ND									
	E3-6	ND									
	F3-3	ND									
	F3-6	ND									

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-05H Cross Portal	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	30	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	B4-1	ND									
	B4-4	ND									
	B3-6	ND									
	C3-6	ND									
A	G3-1	ND									
	G3-4	ND									
	H3-1	ND									
	H3-4	ND									
	K3-1	ND									
	K3-4	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-06H Caribou Portal	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	30	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	B4-4	ND									
	C4-1	ND									
	C4-4	ND									
	E4-1	ND									
	E4-4	ND									
B	F3-3	ND									
	F3-6	ND									
	G3-3	ND									
	G3-6	ND									
	H3-3	ND									

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	AME
<b>Primary Scope</b>	JEM-100CX II	<b>Sample Type</b>	Water	<b>Analysis Date</b>	01/31/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	548742-1	<b>Date Received</b>	01/18/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230117191-07H Caribou Portal FB	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	01/31/2023
<b>Suspension</b>		<b>Aliquot</b>	30	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G4-1	ND									
	G4-4	ND									
	H4-1	ND									
	H4-4	ND									
	K4-1	ND									
A	H5-1	ND									
	H5-4	ND									
	K5-1	ND									
	K5-4	ND									
	G4-3	ND									

## Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 1/17/23 1:00 PM  
**Lab Number:** 230117191-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	64.2 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	1/18/23	-	TAB
Calcium as CaCO3	40.7 mg/L	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	1/18/23	-	TAB
Langelier Index	-2.21 units	SM 2330-B	units	1/23/23	-	SAN
pH	6.15 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	64.2 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	1/18/23	QC62316	TAB
Total Dissolved Solids	105 mg/L	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	59.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Calcium as CaCO <sub>3</sub>	38.2 mg/L	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Langelier Index	-2.13 units	SM 2330-B	units	1/23/23	-	SAN
pH	6.22 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	59.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	1/18/23	QC62316	TAB
Total Dissolved Solids	77 mg/L	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Calcium as CaCO <sub>3</sub>	0.1 mg/L	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Langelier Index	-6.57 units	SM 2330-B	units	1/23/23	-	SAN
pH	5.66 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	1/18/23	QC62316	TAB
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 1/17/23 11:30 AM  
**Lab Number:** 230117191-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	18.8 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Calcium as CaCO <sub>3</sub>	9.2 mg/L	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Langelier Index	-4.03 units	SM 2330-B	units	1/23/23	-	SAN
pH	5.44 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	18.8 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	1/18/23	QC62316	TAB
Total Dissolved Solids	17 mg/L	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 1/17/23 12:15 PM  
**Lab Number:** 230117191-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	99.6 mg/L as CaCO3	SM 2320-B	0.2 mg/L as CaCO3	1/18/23	-	TAB
Calcium as CaCO3	62.5 mg/L	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO3	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO3	1/18/23	-	TAB
Langelier Index	-0.78 units	SM 2330-B	units	1/23/23	-	SAN
pH	7.14 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	99.6 mg/L as CaCO3	SM 2320-B	4.0 mg/L as CaCO3	1/18/23	QC62316	TAB
Total Dissolved Solids	99 mg/L	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	121.2 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Calcium as CaCO <sub>3</sub>	66.0 mg/L	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Langelier Index	-0.13 units	SM 2330-B	units	1/23/23	-	SAN
pH	7.68 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	121.2 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	1/18/23	QC62316	TAB
Total Dissolved Solids	69 mg/L	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Calcium as CaCO <sub>3</sub>	ND	EPA 200.7	0.1 mg/L	1/20/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	1/18/23	-	TAB
Langelier Index	-6.76 units	SM 2330-B	units	1/23/23	-	SAN
pH	5.83 units	SM 4500-H-B	0.01 units	1/17/23	-	DAT
Temperature	20 °C	SM 4500-H-B	1 °C	1/17/23	-	DAT
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	1/18/23	QC62316	TAB
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	1/23/23	QC62344	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230117191**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 1/17/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method		
Total Alkalinity	QC62316	Blank	ND	SM 2320-B		
Total Dissolved Solids	QC62344	Blank	ND	SM 2540-C		

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC62316	Duplicate	0 - 20	-	0.2	SM 2320-B
		LCS	90 - 110	105.8	-	
		LCS-2	90 - 110	105.5	-	
Total Dissolved Solids	QC62344	Duplicate	0 - 20	-	0.7	SM 2540-C
		LCS	85 - 115	92.1	-	

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.



# Chain of Custody Form

**Report To Information**

Company Name: Grand Island Resources  
 Contact Name: Brocke Moran  
 Address: 12567 W Cedar Rd Ste 251  
 City: Lakewood State: CO Zip: 80228  
 Phone: 303-506-1618  
 Email: brocke.m@colorado.edu  
 Sample Collector: Brocke Moran  
 Sample Collector Phone: 303-506-1618  
 PO No.: → Sergio.rivera@novametalix.com

**Project Name / Number**  
Monthly G.I.E.

**Task Number (Lab Use Only)**  
CAL Task  
230117191  
NAB

**Bill To Information (If different from report to)**

Company Name: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 PO No.: \_\_\_\_\_

**Sample Matrix (Select One Only)**

Waste Water  
 Ground Water  
 Surface Water  
 Soil  
 Sludge  
 Drinking Water

Date		Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	Tests Requested
1/7/23	13:00		CROSS WELL	9	Grab	QB022050014
1/7/23	13:30		COMPLIANCE WELL	9	Grab	(updated 10/27/22)
1/7/23	13:30		COMPLIANCE FB	9	Grab	
1/7/23	11:30		CARIBOU WELL	9	Grab	
1/7/23	12:15		CROSS PORTAL	9	Grab	
1/7/23	11:15		CARIBOU PORTAL	9	Grab	
1/7/23	11:15		CARIBOU PORTAL FB	9	Grab	
Project name per history.						
Instructions: <input checked="" type="checkbox"/> METRIC BOTTLE & 1 GROSS ALPHA BOTTLE/S Info: <input checked="" type="checkbox"/> FIELD FILTERED (PER SAMPLE ID), INCLUDING <input checked="" type="checkbox"/> FIELD BLANKS						
Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:
Maude Watson	1/7/23	DN	1/17/23	HD	1/17/23	1648
Seals Present Yes <input type="checkbox"/> No <input type="checkbox"/>				Temp. <u>37</u> °C/Fce		Sample Pres. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



# ANALYTICAL SUMMARY REPORT

February 06, 2023

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

Work Order: C23010481                      Quote ID: C15681

Project Name: 230117191; Monthly Groundwater

Energy Laboratories, Inc. Casper WY received the following 7 samples for Colorado Analytical Laboratories Inc on 1/19/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C23010481-001	230117191-01G - Cross Well	01/17/23 13:00	01/19/23	Groundwater	Metals by ICP/ICPMS, Dissolved Sample Filtering, Metals
C23010481-002	230117191-02G - Compliance Well	01/17/23 13:30	01/19/23	Groundwater	Same As Above
C23010481-003	230117191-03G - Compliance FB	01/17/23 13:30	01/19/23	Groundwater	Same As Above
C23010481-004	230117191-04G - Caribou Well	01/17/23 11:30	01/19/23	Groundwater	Same As Above
C23010481-005	230117191-05G - Cross Portal	01/17/23 12:15	01/19/23	Groundwater	Same As Above
C23010481-006	230117191-06G - Caribou Portal	01/17/23 11:15	01/19/23	Groundwater	Same As Above
C23010481-007	230117191-07G - Caribou Portal FB	01/17/23 11:15	01/19/23	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:

Digitally signed by  
Ashley L. Wilson  
Date: 2023.02.06 14:58:46 -07:00



Trust our People. Trust our Data.

Billings, MT 800.735.4469 + Casper, WY 888.235.0515

Billings, WY 866.686.7175 + Helena, MT 877.472.0711

**CLIENT:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Work Order:** C23010481

**Report Date:** 02/06/23

## 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:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-001  
**Client Sample ID:** 230117191-01G - Cross Well

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 13:00  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:02 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-002  
**Client Sample ID:** 230117191-02G - Compliance Well

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 13:30  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:08 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-003  
**Client Sample ID:** 230117191-03G - Compliance FB

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 13:30  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:15 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-004  
**Client Sample ID:** 230117191-04G - Caribou Well

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 11:30  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:22 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-005  
**Client Sample ID:** 230117191-05G - Cross Portal

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 12:15  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:28 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-006  
**Client Sample ID:** 230117191-06G - Caribou Portal

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 11:15  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:35 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230117191; Monthly Groundwater  
**Lab ID:** C23010481-007  
**Client Sample ID:** 230117191-07G - Caribou Portal FB

**Report Date:** 02/06/23  
**Collection Date:** 01/17/23 11:15  
**Date Received:** 01/19/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		02/04/23 19:42 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C23010481

Report Date: 02/06/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method:</b> E200.8										Analytical Run: ICPMS208-B_230202A	
<b>Lab ID:</b> QCS		Initial Calibration Verification Standard								02/04/23 18:35	
Lithium		0.0548	mg/L	0.0062	110	90	110				
<b>Lab ID:</b> CCV		Continuing Calibration Verification Standard								02/04/23 18:42	
Lithium		0.676	mg/L	0.0062	108	90	110				
<b>Method:</b> E200.8										Batch: R397115	
<b>Lab ID:</b> LRB		Method Blank								Run: ICPMS208-B_230202A	02/02/23 12:39
Lithium		ND	mg/L	0.003							
<b>Lab ID:</b> LFB		Laboratory Fortified Blank								Run: ICPMS208-B_230202A	02/02/23 12:45
Lithium		2.15	mg/L	0.0064	86	85	115				
<b>Lab ID:</b> MB-175441		Method Blank								Run: ICPMS208-B_230202A	02/04/23 18:55
Lithium		ND	mg/L	0.003							
<b>Lab ID:</b> B23011204-003BMS		Sample Matrix Spike								Run: ICPMS208-B_230202A	02/04/23 20:22
Lithium		12.0	mg/L	0.10	95	70	130			E	
<b>Lab ID:</b> B23011204-003BMSD		Sample Matrix Spike Duplicate								Run: ICPMS208-B_230202A	02/04/23 20:29
Lithium		12.0	mg/L	0.10	96	70	130	0.6	20	E	

### Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

E - Estimated value - result exceeds the instrument upper quantitation limit



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C23010481

Login completed by: Madison A. Ray

Date Received: 1/19/2023

Reviewed by: cjohnson

Received by: jdj

Reviewed Date: 1/23/2023

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	4.1°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>

## 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. 1/23/2023 MR



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

*1230104181*

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Steve Nielsen</u> E-Mail: <u>stnielsen@coloradolab.com</u>	<b>Bill To Information (if different from report to)</b> Address: CAL TASK 230117191 NAB	<b>Project Name</b> <u>Monthly Groundwater</u>
<b>Address:</b> 10411 Heinz Way Commerce City, CO 80640 Phone: 303-659-2313	<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

Metals (Sub)

Sample Date/Time	Sample ID	Matrix	Tests Requested										Container Type		
1/17/23	1:00 PM 230117191-01G - Cross Well	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										
1/17/23	1:30 PM 230117191-02G - Compliance Well	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										
1/17/23	1:30 PM 230117191-03G - Compliance FB	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										
1/17/23	11:30 AM 230117191-04G - Canbou Well	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										
1/17/23	12:18 PM 230117191-05G - C/068 Portal	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										
1/17/23	11:15 AM 230117191-09G - Canbou Portal	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										
1/17/23	11:15 AM 230117191-07G - Canbou Portal FB	Water - Ground	<input checked="" type="checkbox"/>	<input type="checkbox"/>	250 ml Cylinder - Unpreserved										

2.10C

Relinquished by: (Signature) <i>[Signature]</i>	Date: Time: <u>1/18/23</u>	Received by: (Signature)	Date: Time:
Relinquished by: (Signature) <i>[Signature]</i>	Date: Time: <u>1/18/23</u>	Received by: (Signature) <i>[Signature]</i>	Date: Time:



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

023010481

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Nielsen</u> E-Mail: <u>stuartnielsen@coloradolab.com</u>	<b>Bill To Information (if different from report to)</b>	<b>Project Name</b> <u>Monthly Groundwater</u>
<b>Address:</b> <u>10411 Heinz Way</u> <u>Commerce City, CO 80640</u> Phone: <u>303-659-2313</u>	<b>Address:</b>	<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"/>
<b>Address:</b> CAL TASK 230117191 NAB		

Tests Requested

Sample Date/Time	Sample ID	Matrix	Metals (Std)	Container Type
Comment: 230117191-01G - Please report Dissolved Lithium. 230117191-02G - Please report Dissolved Lithium. 230117191-03G - Please report Dissolved Lithium. 230117191-04G - Please report Dissolved Lithium. 230117191-05G - Please report Dissolved Lithium. 230117191-06G - Please report Dissolved Lithium. 230117191-07G - Please report Dissolved Lithium.				

Relinquished by: (Signature) <i>[Signature]</i>	Date: Time: 11/18/23	Received by: (Signature)	Date: Time:	Relinquished by: (Signature) <i>[Signature]</i>	Date: Time: 11/23/2024	Received by: (Signature) <i>[Signature]</i>	Date: Time:
--	-------------------------	-----------------------------	-------------	--	---------------------------	--	-------------



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

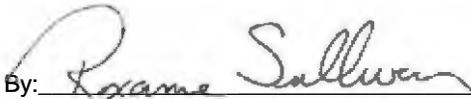
Lab Control ID: 23H01107  
Received: Jan 18, 2023  
Reported: Jan 31, 2023  
Purchase Order No.  
None Received

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



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

Lab Control ID: 23H01107  
 Received: Jan 18, 2023  
 Reported: Jan 31, 2023  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

**Stuart Nielson**  
**Colorado Analytical Laboratories, Inc.**

<b>Lab Sample ID</b>		23H01107-001						
<b>Customer Sample ID</b>		230117191-01F - Monthly Ground Water - Cross Well sampled on 01/17/23 @ 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	1.0	1.2	0.1	SM 7110 B	1/24/23 @ 1027	RG
Gross Beta	pCi/L	T	<2.8	2.1	2.8	SM 7110 B	1/24/23 @ 1027	RG

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>		23H01107-002						
<b>Customer Sample ID</b>		230117191-02F - Monthly Ground Water - Compliance Well sampled on 01/17/23 @ 1330						
<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	1/24/23 @ 1029	RG
Gross Beta	pCi/L	T	<2.9	2.3	2.9	SM 7110 B	1/24/23 @ 1029	RG

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>		23H01107-003						
<b>Customer Sample ID</b>		230117191-03F - Monthly Ground Water - Compliance FB sampled on 01/17/23 @ 1330						
<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	0.8	0.1	SM 7110 B	1/24/23 @ 1031	RG
Gross Beta	pCi/L	T	<2.9	2.2	2.9	SM 7110 B	1/24/23 @ 1031	RG

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: 23H01107  
 Received: Jan 18, 2023  
 Reported: Jan 31, 2023  
 Purchase Order No.  
 None Received

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

**Stuart Nielson**  
**Colorado Analytical Laboratories, Inc.**

<b>Lab Sample ID</b>		23H01107-004						
<b>Customer Sample ID</b>		230117191-04F - Monthly Ground Water - Caribou Well sampled on 01/17/23 @ 1130						
<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	0.6	0.8	0.1	SM 7110 B	1/24/23 @ 1033	RG
Gross Beta	pCi/L	T	<2.8	2.2	2.8	SM 7110 B	1/24/23 @ 1033	RG

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>		23H01107-005						
<b>Customer Sample ID</b>		230117191-05F - Monthly Ground Water - Cross Portal sampled on 01/17/23 @ 1215						
<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	1.4	0.1	SM 7110 B	1/24/23 @ 1035	RG
Gross Beta	pCi/L	T	<2.8	2.0	2.8	SM 7110 B	1/24/23 @ 1035	RG

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>		23H01107-006						
<b>Customer Sample ID</b>		230117191-06F - Monthly Ground Water - Caribou Portal sampled on 01/17/23 @ 1115						
<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	6.5	2.3	0.1	SM 7110 B	1/24/23 @ 1037	RG
Gross Beta	pCi/L	T	<2.7	2.2	2.7	SM 7110 B	1/24/23 @ 1037	RG

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>		23H01107-007						
<b>Customer Sample ID</b>		230117191-07F - Monthly Ground Water - Caribou Portal FB sampled on 01/17/23 @ 1115						
<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	0.8	0.1	SM 7110 B	1/24/23 @ 1039	RG
Gross Beta	pCi/L	T	<2.8	1.9	2.8	SM 7110 B	1/24/23 @ 1039	RG

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\_002 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11a\_002 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(50.1) (1.000) - (0.5) (0.200)}{57.4} \times 100 = 87\%$$

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:

23H01075 \_\_\_\_\_  
23H01097 \_\_\_\_\_  
23H01107 \_\_\_\_\_  
23H01059 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:

*Michelle Stringer* \_\_\_\_\_

01/25/2023

Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C-11\_002 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11\_002 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(40.5) (1.000) - (0.0) (0.200)}{44} \times 100 = 92\%$$

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>23H01075</u>	_____
<u>23H01097</u>	_____
<u>23H01107</u>	_____
<u>23H01059</u>	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Evaluator:

*Michelle Stringer* \_\_\_\_\_

01/25/2023

Date

23401107

Ship To: Hazen Research  
Preserved: Y/N  
HNO3 Lot #: RA  
Date Preserved: RA



<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: 303-659-2313	<b>Bill To Information (If different from report to)</b> Project Name: Monthly Groundwater CAL TASK: 230117191 NAB	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	Gross Alpha/Beta (Sub)	Container Type
1/17/23 1:00 PM	230117191-01F - Cross Well	Water - Ground	X	1L - Unpreserved
1/17/23 1:30 PM	230117191-02F - Compliance Well	Water - Ground	X	1L - Unpreserved
1/17/23 1:30 PM	230117191-03F - Compliance FB	Water - Ground	X	1L - Unpreserved
1/17/23 11:30 AM	230117191-04F - Caribou Well	Water - Ground	X	1L - Unpreserved
1/17/23 12:15 PM	230117191-05F - Cross Portal	Water - Ground	X	1L - Unpreserved
1/17/23 11:15 AM	230117191-06F - Caribou Portal	Water - Ground	X	1L - Unpreserved
1/17/23 11:15 AM	230117191-07F - Caribou Portal FB	Water - Ground	X	1L - Unpreserved

Comment:

Preserved 1300 AM 1/19/23  
408 Preserved 1530 AM

Relinquished by: (Signature) Natalie B 1-18-23 @ 0945	Received by: (Signature) Date: Time	Relinquished by: (Signature) Date: Time	Received by: (Signature) Date: Time
--	--	--	--

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 1/17/23 1:00 PM  
**Lab Number:** 230117191-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/19/23	QC62291	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/19/23	QC62291	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	77.3	16 - 145
2-Fluorobiphenyl	105.6	60 - 140
2-Fluorophenol	108.0	60 - 140
Nitrobenzene-d5	96.4	15 - 314
Phenol-d5	97.6	8 - 424
p-Terphenyl-d14	163.2	37 - 163

surrogate is above QC criteria; 5/6 surrogates meet QC criteria. MBS 1/20/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/23/23	QC62400	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/23/23	QC62400	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	96.2	16 - 145
2-Fluorobiphenyl	107.2	60 - 140
2-Fluorophenol	100.7	60 - 140
Nitrobenzene-d5	95.1	15 - 314
Phenol-d5	94.3	8 - 424
p-Terphenyl-d14	170.7	37 - 163

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 1/25/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191      **Date Received:** 1/17/23  
**Client PO:**                      **Date Reported:** 2/9/23  
**Client Project:** Monthly Groundwater      **Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 1/17/23 1:30 PM  
**Lab Number:** 230117191-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	98.8	16 - 145
2-Fluorobiphenyl	104.2	60 - 140
2-Fluorophenol	100.0	60 - 140
Nitrobenzene-d5	95.4	15 - 314
Phenol-d5	96.7	8 - 424
p-Terphenyl-d14	177.1	37 - 163

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 1/25/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 1/17/23 11:30 AM  
**Lab Number:** 230117191-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	108.9	16 - 145
2-Fluorobiphenyl	106.5	60 - 140
2-Fluorophenol	106.7	60 - 140
Nitrobenzene-d5	97.2	15 - 314
Phenol-d5	97.7	8 - 424
p-Terphenyl-d14	189.5	37 - 163

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 1/25/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 1/17/23 12:15 PM  
**Lab Number:** 230117191-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	80.9	16 - 145
2-Fluorobiphenyl	105.6	60 - 140
2-Fluorophenol	103.4	60 - 140
Nitrobenzene-d5	95.8	15 - 314
Phenol-d5	90.5	8 - 424
p-Terphenyl-d14	187.3	37 - 163

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 1/25/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191      **Date Received:** 1/17/23  
**Client PO:**                      **Date Reported:** 2/9/23  
**Client Project:** Monthly Groundwater      **Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	67.0	16 - 145
2-Fluorobiphenyl	105.2	60 - 140
2-Fluorophenol	101.7	60 - 140
Nitrobenzene-d5	93.9	15 - 314
Phenol-d5	87.9	8 - 424
p-Terphenyl-d14	195.5	37 - 163

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 1/25/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230117191**

**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.:** 230117191  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 1/17/23  
**Date Reported:** 2/9/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 1/17/23 11:15 AM  
**Lab Number:** 230117191-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS
Phenol	ND	EPA 625	10.0 ug/L	1/24/23	QC62400	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	77.6	16 - 145
2-Fluorobiphenyl	110.3	60 - 140
2-Fluorophenol	106.1	60 - 140
Nitrobenzene-d5	98.2	15 - 314
Phenol-d5	94.8	8 - 424
p-Terphenyl-d14	208.6	37 - 163

Surrogate is above QC criteria. 5/6 surrogates meet QC criteria. MBS 1/25/2023

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical QC Summary

**TASK NO: 230117191**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 1/17/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
2-Chlorophenol	QC62400	Method Blank	ND	EPA 625
	QC62291	Method Blank	ND	EPA 625
Phenol	QC62400	Method Blank	ND	EPA 625
	QC62291	Method Blank	ND	EPA 625

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
2-Chlorophenol	QC62291	LCS	55 - 130	88.5	-	EPA 625
	QC62400	LCS	55 - 130	85.8	-	
		LCS Dup	-	86.0	-	
	QC62291	LCS Dup	-	88.6	-	
		MS	23 - 134	85.3	-	
	QC62400	MS	23 - 134	90.1	-	
	QC62291	MSD	0 - 61	-	7.7	
	QC62400	MSD	0 - 61	-	5.0	
Phenol	QC62291	LCS	48 - 130	77.0	-	EPA 625
	QC62400	LCS	48 - 130	71.3	-	
		LCS Dup	-	73.2	-	
	QC62291	LCS Dup	-	74.0	-	
		MS	5 - 120	75.3	-	
	QC62400	MS	5 - 120	75.9	-	
	QC62291	MSD	0 - 64	-	7.9	
	QC62400	MSD	0 - 64	-	8.0	

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  
 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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.



# Chain of Custody Form

**Report To Information**

Company Name: Grand Island Resources  
 Contact Name: Brocke Moran  
 Address: 12567 W Cedar Rd Ste 251  
 City: Lakewood State: CO Zip: 80228  
 Phone: 303-506-1618  
 Email: brocke.m@colorado.edu  
 Sample Collector: Brocke Moran  
 Sample Collector Phone: 303-506-1618  
 PO No.: → Sergio.rivera@novametalix.com

**Bill To Information (if different from report to)**

Company Name: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 PO No.: \_\_\_\_\_

**Project Name / Number**  
Monthly G.I.R.

**Task Number (Lab Use Only)**  
CAL Task  
230117191  
NAB

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

Sample Matrix (Select One Only)		Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	Tests Requested	
Waste Water <input type="checkbox"/>	Soil <input type="checkbox"/>						Drinking Water <input type="checkbox"/>
Ground Water <input checked="" type="checkbox"/>	Sludge <input type="checkbox"/>						
Surface Water <input type="checkbox"/>							
		1/17/23 13:00	CROSS WELL	9	6	QB022050014	
		1/17/23 13:30	COMPLIANCE WELL	9	6	(updated 10/27/22)	
		1/17/23 13:30	COMPLIANCE FB	9	6		
		1/17/23 11:30	CARIBOU WELL	9	6		
		1/17/23 12:15	CROSS PORTAL	9	6		
		1/17/23 11:15	CARIBOU PORTAL	9	6		
		1/17/23 11:15	CARIBOU PORTAL FB	9	6		
Project name per history.us							
Instructions: ANIONIC BOTTLE & 1 GROSS ALPHA BOTTLES INFO: FIELD FILTERED (PER SAMPLE ID), INCLUDING FIELD BLANKS							
Relinquished By: <u>Shade Watson</u>	Date/Time: <u>1/17/23</u>	Received By: <u>DN</u>	Date/Time: <u>1/17/23</u>	Relinquished By: <u>HD</u>	Date/Time: <u>1/17/23</u>	Received By: <u>1648</u>	
Seals Present Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Temp. <u>37</u> °C/Fee		C/S Charge <input type="checkbox"/>		Sample Pres. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

APPENDIX A.2 FEBRUARY 2023 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 2/27/23 1:00 PM  
**Lab Number:** 230227057-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.12 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	0.19 mg/L	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	9.48 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	0.0324 mg/L	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	0.0045 mg/L	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	0.0005 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	0.0006 mg/L	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 2/27/23 1:00 PM  
**Lab Number:** 230227057-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	0.0014 mg/L	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	1.09 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	16.5 mg/L	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	ND	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 2/27/23 1:30 PM  
**Lab Number:** 230227057-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.29 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	0.28 mg/L	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	10.57 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	0.0411 mg/L	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	0.0001 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	0.0092 mg/L	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	0.0042 mg/L	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 2/27/23 1:30 PM  
**Lab Number:** 230227057-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	0.0003 mg/L	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	0.116 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	16.5 mg/L	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	0.010 mg/L	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 2/27/23 1:30 PM  
**Lab Number:** 230227057-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	ND	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	ND	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 2/27/23 1:30 PM  
**Lab Number:** 230227057-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	ND	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	ND	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 2/27/23 11:30 AM  
**Lab Number:** 230227057-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.43 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	0.09 mg/L	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	2.71 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	0.005 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	0.0058 mg/L	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	0.1738 mg/L	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	0.0003 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 2/27/23 11:30 AM  
**Lab Number:** 230227057-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	0.007 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	3.9 mg/L	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	0.006 mg/L	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 2/27/23 12:15 PM  
**Lab Number:** 230227057-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.33 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	0.06 mg/L	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	11.40 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<b>Dissolved</b>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	0.0705 mg/L	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	0.0011 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	0.0020 mg/L	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	0.0010 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	0.0114 mg/L	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	0.0075 mg/L	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230227057

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 2/27/23 12:15 PM  
**Lab Number:** 230227057-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	0.0008 mg/L	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	0.251 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	25.6 mg/L	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	0.009 mg/L	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.47 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	0.09 mg/L	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	10.13 mg/L	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	0.001 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	0.0568 mg/L	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	0.0002 mg/L	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	0.0063 mg/L	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	0.0057 mg/L	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	0.006 mg/L	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	26.6 mg/L	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	ND	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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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## Analytical Results

TASK NO: 230227057

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.10 mg/L	2/28/23	QC63225	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/1/23	QC63254	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	2/28/23	QC63226	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	2/28/23	QC63227	AMJ
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	3/1/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	2/28/23	QC63228	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	3/3/23	QC63329	DPL
Sulfate	ND	EPA 300.0	0.10 mg/L	2/28/23	QC63229	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	2/28/23	-	ARF
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	2/28/23	QC63211	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/1/23	QC63250	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/1/23	QC63250	MBN
Barium	ND	EPA 200.8	0.0007 mg/L	3/1/23	QC63250	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/1/23	QC63250	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	3/1/23	QC63250	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB  
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(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230227057

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Nickel	ND	EPA 200.8	0.0009 mg/L	3/1/23	QC63250	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/1/23	QC63250	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/1/23	QC63250	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	3/1/23	QC63250	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/1/23	QC63231	MAT
Calcium	ND	EPA 200.7	0.1 mg/L	3/1/23	QC63231	MAT
Iron	ND	EPA 200.7	0.005 mg/L	3/1/23	QC63231	MAT
<i>Total</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/1/23	QC63250	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical QC Summary

**TASK NO: 230227057**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 2/27/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC63225	Blank	ND	EPA 300.0
Cyanide-Free	QC63254	Blank	ND	ASTM D4282-15
Fluoride	QC63226	Blank	ND	EPA 300.0
Mercury	QC63211	Method Blank	ND	EPA 245.7
Aluminum	QC63250	Method Blank	ND	EPA 200.8
Antimony	QC63250	Method Blank	ND	EPA 200.8
Arsenic	QC63250	Method Blank	ND	EPA 200.8
Barium	QC63250	Method Blank	ND	EPA 200.8
Beryllium	QC63250	Method Blank	ND	EPA 200.8
Cadmium	QC63250	Method Blank	ND	EPA 200.8
Chromium	QC63250	Method Blank	ND	EPA 200.8
Cobalt	QC63250	Method Blank	ND	EPA 200.8
Copper	QC63250	Method Blank	ND	EPA 200.8
Lead	QC63250	Method Blank	ND	EPA 200.8
Manganese	QC63250	Method Blank	ND	EPA 200.8
Molybdenum	QC63250	Method Blank	ND	EPA 200.8
Nickel	QC63250	Method Blank	ND	EPA 200.8
Selenium	QC63250	Method Blank	ND	EPA 200.8
Silver	QC63250	Method Blank	ND	EPA 200.8
Thallium	QC63250	Method Blank	ND	EPA 200.8
Uranium	QC63250	Method Blank	ND	EPA 200.8
Vanadium	QC63250	Method Blank	ND	EPA 200.8
Zinc	QC63250	Method Blank	ND	EPA 200.8
Boron	QC63231	Method Blank	ND	EPA 200.7
Calcium	QC63231	Method Blank	ND	EPA 200.7
Iron	QC63231	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC63227	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC63228	Blank	ND	EPA 300.0
Phenols - Total	QC63329	Blank	ND	EPA 420.4
Sulfate	QC63229	Blank	ND	EPA 300.0

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC63225	Duplicate	0 - 20	-	3.6	EPA 300.0
		LCS	90 - 110	106.9	-	
		MS	75 - 125	97.5	-	
Cyanide-Free	QC63254	Duplicate	0 - 20	-	0.0	ASTM D4282-15
		LCS	90 - 110	91.9	-	
		MS	75 - 125	109.0	-	
Fluoride	QC63226	Duplicate	0 - 20	-	3.2	EPA 300.0
		LCS	90 - 110	95.6	-	
		MS	75 - 125	91.4	-	
Mercury	QC63211	Duplicate	0 - 20	-	0.0	EPA 245.7

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

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 (s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		LCS	90 - 110	105.8	-	
		MS	80 - 120	92.0	-	
Aluminum	QC63250	LCS	90 - 110	94.2	-	EPA 200.8
		MS	70 - 130	87.4	-	
		MSD	0 - 10	-	3.4	
Antimony	QC63250	LCS	90 - 110	101.7	-	EPA 200.8
		MS	70 - 130	99.6	-	
		MSD	0 - 10	-	1.0	
Arsenic	QC63250	LCS	90 - 110	96.8	-	EPA 200.8
		MS	70 - 130	112.5	-	
		MSD	0 - 10	-	1.4	
Barium	QC63250	LCS	90 - 110	97.9	-	EPA 200.8
		MS	70 - 130	103.8	-	
		MSD	0 - 10	-	4.0	
Beryllium	QC63250	LCS	90 - 110	94.5	-	EPA 200.8
		MS	70 - 130	89.4	-	
		MSD	0 - 10	-	4.0	
Cadmium	QC63250	LCS	90 - 110	97.2	-	EPA 200.8
		MS	70 - 130	90.6	-	
		MSD	0 - 10	-	0.1	
Chromium	QC63250	LCS	90 - 110	101.4	-	EPA 200.8
		MS	70 - 130	105.2	-	
		MSD	0 - 10	-	1.9	
Cobalt	QC63250	LCS	90 - 110	104.0	-	EPA 200.8
		MS	70 - 130	100.5	-	
		MSD	0 - 10	-	0.0	
Copper	QC63250	LCS	90 - 110	96.9	-	EPA 200.8
		MS	70 - 130	97.5	-	
		MSD	0 - 10	-	1.9	
Lead	QC63250	LCS	90 - 110	94.7	-	EPA 200.8
		MS	70 - 130	83.4	-	
		MSD	0 - 10	-	2.9	
Manganese	QC63250	LCS	90 - 110	101.2	-	EPA 200.8
		MS	70 - 130	98.2	-	
		MSD	0 - 10	-	0.5	
Molybdenum	QC63250	LCS	90 - 110	97.6	-	EPA 200.8
		MS	70 - 130	114.3	-	
		MSD	0 - 10	-	0.8	
Nickel	QC63250	LCS	90 - 110	102.6	-	EPA 200.8
		MS	70 - 130	94.0	-	
		MSD	0 - 10	-	1.3	
Selenium	QC63250	LCS	90 - 110	96.5	-	EPA 200.8
		MS	70 - 130	108.5	-	
		MSD	0 - 10	-	6.6	
Silver	QC63250	LCS	90 - 110	93.7	-	EPA 200.8
		MS	70 - 130	81.0	-	
		MSD	0 - 10	-	1.9	
Thallium	QC63250	LCS	90 - 110	103.3	-	EPA 200.8
		MS	70 - 130	90.3	-	
		MSD	0 - 10	-	3.2	
Uranium	QC63250	LCS	90 - 110	96.7	-	EPA 200.8

**Abbreviations/ References:**

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		MS	70 - 130	94.8	-	
		MSD	0 - 10	-	3.3	
Vanadium	QC63250	LCS	90 - 110	99.7	-	EPA 200.8
		MS	70 - 130	113.2	-	
		MSD	0 - 10	-	1.0	
Zinc	QC63250	LCS	90 - 110	97.8	-	EPA 200.8
		MS	70 - 130	78.8	-	
		MSD	0 - 10	-	0.5	
Boron	QC63231	Duplicate	0 - 20	-	0.0	EPA 200.7
		LCS	90 - 110	102.8	-	
		MS	75 - 125	112.0	-	
Calcium	QC63231	Duplicate	0 - 20	-	0.8	EPA 200.7
		LCS	90 - 110	94.4	-	
		MS	75 - 125	105.4	-	
Iron	QC63231	Duplicate	0 - 20	-	0.0	EPA 200.7
		LCS	90 - 110	97.6	-	
		MS	75 - 125	108.0	-	
Nitrate Nitrogen	QC63227	Duplicate	0 - 20	-	6.7	EPA 300.0
		LCS	90 - 110	104.1	-	
		MS	75 - 125	90.2	-	
Nitrite Nitrogen	QC63228	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	95.7	-	
		MS	75 - 125	97.9	-	
Phenols - Total	QC63329	Duplicate	0 - 20	-	0.0	EPA 420.4
		LCS	90 - 110	103.0	-	
		MS	75 - 125	76.1	-	
Sulfate	QC63229	Duplicate	0 - 20	-	4.3	EPA 300.0
		LCS	90 - 110	104.9	-	
		MS	75 - 125	100.1	-	

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  
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ND = Not Detected at Reporting Limit.



**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

### Chain of Custody Form

Report To Information		Bill To Information (If different from report to)		Project Name / Number	
Company Name: Grand Island Resources		Company Name:			
Contact Name: Brooke Moran		Contact Name:			
Address: 12567 W. Cedar Rd Ste. 251		Address:		Task Number (Lab Use Only)	
City Lakewood State CO Zip 80228		City State Zip		CAL Task	
Phone: 303-506-1618 bmo@grandislandresources.com		Phone:		230227057	
Email: sergio.rivera@novamaterials.com		Email:		NAB	
Sample Collector: B. Moran		Sample Collector:			
Sample Collector Phone: 303-506-1618		Sample Collector Phone:			
PO No.:		PO No.:			

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"/> Surface Water <input type="checkbox"/>	Soil <input type="checkbox"/> Sludge <input type="checkbox"/> Drinking Water <input type="checkbox"/>					
		CROSS WELL	9			FIELD TEMP
		2/27/23 13:00				67.68
		COMPLIANCE WELL	9			58.72
		2/27/23 13:30				-
		COMPLIANCE FB	9			12.8 7.5
		CARIBOU WELL	9			5.1 8.2
		2/27/23 11:30				2.6 8.6
		CROSS PORTAL	9			-
		2/27/23 12:15				-
		CARIBOU PORTAL	9			-
		2/27/23 11:15				-
		CARIBOU PORTAL FB	9			-
		2/27/23 11:15				-

Instructions: 1 NITRIC BOTTLE & 1 GROSS ALPHA BOTTLE FIELD-FILTERED PER SAMPLE ID INCLUDING FIELD BLANKS

Relinquished By: Sergio Rivera Date/Time: 2/27/23 14:13  
 Received By: Brooke Moran Date/Time: 2/27/23 15:54

Relinquished By: Sergio Rivera Date/Time: 2/27/23 14:13  
 Received By: Brooke Moran Date/Time: 2/27/23 15:54

C/S Info: Deliver Via: HD C/S Charge  Date/Time: 2/27/23 15:54

Seals Present Yes  No  Temp: 4.0 °C/16° F Sample Pres. Yes  No

Received By: Brooke Moran Date/Time: 2/27/23 15:54



## Built Environment Testing Reservoirs

March 11, 2023

**Subcontractor Number:**

**Laboratory Report:** RES 552840-1

**Project #/P.O. #:** None Given

**Project Description:** Monthly Groundwater

Natalie Brunel  
Colorado Analytical Laboratories, Inc.  
10411 Heinz Way  
Commerce City CO 80640

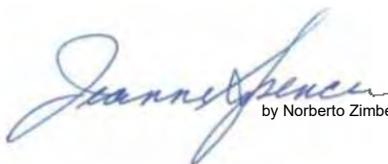
Dear Natalie,

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 552840-1** 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  
AIHA LAP, LLC. LAB ID 101533

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

RES Job Number: RES 552840-1  
 Client: Colorado Analytical Laboratories, Inc.  
 Client Project/P.O.: None Given  
 Client Project Description: Monthly Groundwater  
 Date Samples Received: February 28, 2023  
 Analysis Type: REI TEM SOP / USEPA 100.2-M  
 Turnaround: Standard 10  
 Date Samples Analyzed: March 11, 2023

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 (million struct/L)	Asbestos Concentration	Total Asbestos Concentration (million struct/L)	Greater than 10 Micron Length Asbestos Concentration
552840 -	230227057-01H Cross Well	25	1	ND	ND	0.14	BAS	BAS	BAS
552840 -	230227057-02H Compliance Well	25	1	ND	ND	0.14	BAS	BAS	BAS
552840 -	230227057-03H Compliance FB	25	1	ND	ND	0.14	BAS	BAS	BAS
552840 -	230227057-04H Caribou Well	25	1	ND	ND	0.14	BAS	BAS	BAS
552840 -	230227057-05H Cross Portal	20	1	ND	ND	0.17	BAS	BAS	BAS
552840 -	230227057-06H Caribou Portal	25	1	ND	ND	0.14	BAS	BAS	BAS
552840 -	230227057-07H Caribou Portal FB	25	1	ND	ND	0.14	BAS	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>

*H. Zimbelman*  
 Norberto Zimbelman  
 Analyst



Built Environment Testing  
Reservoirs

RES Job #: 552840

SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES	
Company: Colorado Analytical Laboratories, Inc. Address: 10411 Heinz Way Commerce City, CO 80640		Company: Colorado Analytical Laboratories, Inc. Address: 10411 Heinz Way Commerce City, CO 80640		Contact: Natalie Brunel Phone: (303) 659-2313 Fax: Cell:		-1 TEM Standard 10	
Project Number and/or P.O. #: None Given		Project Description/Location: Monthly Groundwater		Final Data Deliverable Email Address: nataliebrunel@coloradolab.com (+ 7 ADDNL. CONTACTS)			

PLM / PCM / TEM	DTL RUSH PRIORITY STANDARD	CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm RUSH PRIORITY STANDARD	Metals RUSH PRIORITY STANDARD	Organics* SAME DAY RUSH PRIORITY STANDARD	MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm RUSH PRIORITY STANDARD	Medical Device Analysis RUSH STANDARD	Mold Analysis RUSH PRIORITY STANDARD	Special Instructions:	REQUESTED ANALYSIS				VALID MATRIX CODES				LAB NOTES		
									ASBESTOS	CHEMISTRY	MICROBIOLOGY	ICO	Sample Volume (L) / Area	Length (or Aliquots) x Width (or Area per Aliquot)	Matrix Code	# of Containers		Date Collected	Time Collected
Client Sample ID Number 1 230227057-01H Cross Well									TEM - Drinking Water (EPA 100.2)	ASBESTOS	X				1L	W 1	02/27/23	13:00	
2 230227057-02H Compliance Well									PCM - 7400A, 7400B, OSHA		X				1L	W 1	02/27/23	13:30	
3 230227057-03H Compliance FB									DUST - Total, Respirable		X				1L	W 1	02/27/23	13:30	
4 230227057-04H Caribou Well									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 & Scan, Welding Fume Scan, Full Metals Scan		X			1L	W 1	02/27/23	11:30		
5 230227057-05H Cross Portal									METALS - Analyte(s) E. coli (157:H7, E. coli/Coliforms - Plated, S aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E. coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (w/ID), Enterococcus (+/- or Quantification), Legionella (P NP C) MEDICAL - Bioburden, LAL		X			1L	W 1	02/27/23	11:30		
6 230227057-06H Caribou Portal									METALS - Analyte(s) E. coli (157:H7, E. coli/Coliforms - Plated, S aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E. coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (w/ID), Enterococcus (+/- or Quantification), Legionella (P NP C) MEDICAL - Bioburden, LAL		X			1L	W 1	02/27/23	12:15		
7 230227057-07H Caribou Portal FB									METALS - Analyte(s) E. coli (157:H7, E. coli/Coliforms - Plated, S aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E. coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (w/ID), Enterococcus (+/- or Quantification), Legionella (P NP C) MEDICAL - Bioburden, LAL		X			1L	W 1	02/27/23	11:15		

PLM - Short Report, Long Report, CARB 435

\*PRIOR NOTICE REQUIRED FOR SAME DAY TAT

\*\*TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH

\*\*Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.\*\*

Relinquished By: Natalie Brunel Date/Time: 02/28/2023 9:12:10 Sample Condition: Acceptable

Received By: Jessica Parker Date/Time: 02/28/2023 10:55:02 Carrier: Fed-Ex

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230227057-01H Cross Well	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	25	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G5-3	ND								Yes	
	F5-3	ND									
	E4-3	ND									
	C4-6	ND									
	C4-3	ND									
A	F4-6	ND									
	F4-3	ND									
	E4-6	ND									
	E4-3	ND									
	C4-6	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230227057-02H Compliance Well	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	25	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	E5-4	ND									
	C5-4	ND									
	B5-4	ND									
	C4-4	ND									
	F4-1	ND									
	B4-4	ND									
B	F4-6	ND									
	F4-3	ND									
	E4-6	ND									
	C4-6	ND									

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230227057-03H Compliance FB	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	25	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	G4-3	ND									
	F4-3	ND									
	E4-3	ND									
	C4-6	ND									
	C4-3	ND									
A	E6-1	ND									
	C6-4	ND									
	C6-1	ND									
	B6-4	ND									
	E5-6	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230227057-04H Caribou Well	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	25	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	F6-1	ND									
	E6-4	ND									
	E6-1	ND									
	C6-4	ND									
	E5-4	ND									
	F5-4	ND									
B	H5-4	ND									
	G5-4	ND									
	F5-4	ND									
	E5-4	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm²)</b>		<b>Sec. Filter Area (mm²)</b>	346	<b>Grid Opening Area (mm²)</b>	0.01
<b>Sample ID</b>	230227057-05H Cross Portal	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	20	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	F4-1	ND									
	E4-4	ND									
	E4-1	ND									
	C4-4	ND									
	C4-1	ND									
	B4-4	ND									
A	F3-1	ND									
	E3-1	ND									
	C3-4	ND									
	C3-1	ND									

\*NAM = Non Asbestos Material

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230227057-06H Caribou Portal	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	25	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	G4-1	ND									
	F4-1	ND									
	E4-1	ND									
	C4-1	ND									
	B4-1	ND									
B	E3-3	ND								Yes	
	C3-6	ND									
	B3-6	ND									
	B3-3	ND									
	A3-6	ND									

<b>Lab Name</b>	Eurofins Reservoirs	<b>Client</b>	Colorado Analytical Laboratories, Inc.	<b>Analyzed By</b>	NZ
<b>Primary Scope</b>	JEM-1200EX	<b>Sample Type</b>	Water	<b>Analysis Date</b>	03/11/2023
<b>Voltage</b>	100KV	<b>Vol/Area</b>	1L	<b>Prep Method</b>	Indirect
<b>Magnification</b>	20000	<b>Res Number</b>	552840-1	<b>Date Received</b>	02/28/2023
<b>Primary Filter Area (mm<sup>2</sup>)</b>		<b>Sec. Filter Area (mm<sup>2</sup>)</b>	346	<b>Grid Opening Area (mm<sup>2</sup>)</b>	0.01
<b>Sample ID</b>	230227057-07H Caribou Portal FB	<b>Method</b>	EPA 100.2	<b>Scope Align</b>	03/11/2023
<b>Suspension</b>	1000	<b>Aliquot</b>	25	<b>Grid Openings</b>	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	F3-1	ND									
	E3-4	ND									
	C3-1	ND									
	B3-4	ND									
	G5-6	ND									
A	G5-4	ND									
	G5-1	ND									
	F5-4	ND									
	F5-1	ND									
	E5-1	ND									

## Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 2/27/23 1:00 PM  
**Lab Number:** 230227057-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	62.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	38.6 mg/L	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	-0.91 units	SM 2330-B	units	3/6/23	-	SAN
pH	7.42 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	62.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	75 mg/L	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 2/27/23 1:30 PM  
**Lab Number:** 230227057-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	60.4 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	39.2 mg/L	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	-0.67 units	SM 2330-B	units	3/6/23	-	SAN
pH	7.67 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	60.4 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	86 mg/L	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance FB  
**Sample Date/Time:** 2/27/23 1:30 PM  
**Lab Number:** 230227057-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	ND	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	-4.74 units	SM 2330-B	units	3/6/23	-	SAN
pH	7.77 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 2/27/23 11:30 AM  
**Lab Number:** 230227057-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	18.4 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	9.3 mg/L	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	-2.17 units	SM 2330-B	units	3/6/23	-	SAN
pH	7.31 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	18.4 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	38 mg/L	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 2/27/23 12:15 PM  
**Lab Number:** 230227057-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	96.9 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	60.0 mg/L	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	-0.15 units	SM 2330-B	units	3/6/23	-	SAN
pH	7.80 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	96.9 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	95 mg/L	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	118.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	62.3 mg/L	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	0.12 units	SM 2330-B	units	3/6/23	-	SAN
pH	8.03 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	118.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	130 mg/L	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Calcium as CaCO <sub>3</sub>	0.1 mg/L	EPA 200.7	0.1 mg/L	3/1/23	-	MAT
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	2/28/23	-	NH
Langelier Index	-4.25 units	SM 2330-B	units	3/6/23	-	SAN
pH	8.00 units	SM 4500-H-B	0.01 units	2/27/23	-	DEK
Temperature	20 °C	SM 4500-H-B	1 °C	2/27/23	-	DEK
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	2/28/23	QC63198	NH
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	3/1/23	QC63196	DEK

*Dissolved Metals filtered in the field by the customer*

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: 230227057**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 2/27/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method		
Total Alkalinity	QC63198	Blank	ND	SM 2320-B		
Total Dissolved Solids	QC63196	Blank	ND	SM 2540-C		

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC63198	Duplicate	0 - 20	-	4.1	SM 2320-B
		LCS	90 - 110	104.4	-	
		LCS-2	90 - 110	105.2	-	
Total Dissolved Solids	QC63196	Duplicate	0 - 20	-	1.0	SM 2540-C
		LCS	85 - 115	101.5	-	

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.





# ANALYTICAL SUMMARY REPORT

March 15, 2023

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

Work Order: C23030013                      Quote ID: C15681

Project Name: 230227057; Monthly Groundwater

Energy Laboratories, Inc. Casper WY received the following 7 samples for Colorado Analytical Laboratories Inc on 3/1/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C23030013-001	230227057-01G - Cross Well	02/27/23 13:00	03/01/23	Groundwater	Metals by ICP/ICPMS, Dissolved
C23030013-002	230227057-02G - Compliance Well	02/27/23 13:30	03/01/23	Groundwater	Same As Above
C23030013-003	230227057-03G - Compliance FB	02/27/23 13:30	03/01/23	Groundwater	Same As Above
C23030013-004	230227057-04G - Caribou Well	02/27/23 11:30	03/01/23	Groundwater	Same As Above
C23030013-005	230227057-05G - Cross Portal	02/27/23 12:15	03/01/23	Groundwater	Same As Above
C23030013-006	230227057-06G - Caribou Portal	02/27/23 11:15	03/01/23	Groundwater	Same As Above
C23030013-007	230227057-07G - Caribou Portal FB	02/27/23 11:15	03/01/23	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:



Trust our People. Trust our Data.

Billings, MT 800.735.4469 + Casper, WY 888.235.0515

Billings, WY 866.686.7175 + Helena, MT 877.472.0711

**CLIENT:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Work Order:** C23030013

**Report Date:** 03/15/23

## 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:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-001  
**Client Sample ID:** 230227057-01G - Cross Well

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 13:00  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 12:52 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-002  
**Client Sample ID:** 230227057-02G - Compliance Well

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 13:30  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 13:17 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-003  
**Client Sample ID:** 230227057-03G - Compliance FB

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 13:30  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 13:23 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-004  
**Client Sample ID:** 230227057-04G - Caribou Well

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 11:30  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 13:30 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-005  
**Client Sample ID:** 230227057-05G - Cross Portal

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 12:15  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 13:36 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-006  
**Client Sample ID:** 230227057-06G - Caribou Portal

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 11:15  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 13:55 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230227057; Monthly Groundwater  
**Lab ID:** C23030013-007  
**Client Sample ID:** 230227057-07G - Caribou Portal FB

**Report Date:** 03/15/23  
**Collection Date:** 02/27/23 11:15  
**Date Received:** 03/01/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/13/23 14:01 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C23030013

Report Date: 03/14/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method:</b> E200.8										Analytical Run: ICPMS208-B_230313A	
<b>Lab ID:</b> QCS		Initial Calibration Verification Standard								03/13/23 12:02	
Lithium		0.0475	mg/L	0.0062	95	90	110				
<b>Lab ID:</b> CCV		Continuing Calibration Verification Standard								03/13/23 12:14	
Lithium		0.575	mg/L	0.0062	92	90	110				
<b>Method:</b> E200.8										Batch: R398889	
<b>Lab ID:</b> LRB		Method Blank								Run: ICPMS208-B_230313A	03/13/23 12:27
Lithium		ND	mg/L	0.003							
<b>Lab ID:</b> LFB		Laboratory Fortified Blank								Run: ICPMS208-B_230313A	03/13/23 12:39
Lithium		2.24	mg/L	0.0064	90	85	115				
<b>Lab ID:</b> C23030013-001AMS		Sample Matrix Spike								Run: ICPMS208-B_230313A	03/13/23 12:58
Lithium		2.24	mg/L	0.10	90	70	130				
<b>Lab ID:</b> C23030013-001AMSD		Sample Matrix Spike Duplicate								Run: ICPMS208-B_230313A	03/13/23 13:05
Lithium		2.37	mg/L	0.10	95	70	130	5.9	20	E	

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

E - Estimated value - result exceeds the instrument upper quantitation limit



Trust our People. Trust our Data.

BOZEMAN, MT 800.735.4480 • DALLAS, WY 888.235.0515  
COLUMBIA, WY 866.688.7179 • HULON, MT 877.472.0711

# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C23030013

Login completed by: Hannah R. Johnson

Date Received: 3/1/2023

Reviewed by: cjohnson

Received by: cch

Reviewed Date: 3/2/2023

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	6.9°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

## 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

*19020013*  
Project Name  
Monthly Groundwater

<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> Address: <u>10411 Heinz Way</u> <u>Commerce City, CO 80540</u> Phone: <u>303-658-2313</u>	<b>Bill To Information (if different from report to)</b> Address:  CAL TASK <u>230227057</u> <u>NAB</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
2/27/23 1:00 PM	230227057-01G - Cross Well	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3
2/27/23 1:30 PM	230227057-02G - Compliance Well	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3
2/27/23 1:30 PM	230227057-03G - Compliance FB	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3
2/27/23 11:30 AM	230227057-04G - Caribou Well	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3
2/27/23 12:15 PM	230227057-05G - Cross Portal	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3
2/27/23 11:15 AM	230227057-06G - Caribou Portal	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3
2/27/23 11:15 AM	230227057-07G - Caribou Portal FB	Water - Ground	<input checked="" type="checkbox"/>	250 ml Cylinder - HNO3

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time <u>2-28-23</u>	Received by: (Signature) <i>[Signature]</i>	Date/Time <u>3-1-23</u>	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
--	-----------------------------	--	----------------------------	---------------------------------	-----------	-----------------------------	-----------



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

*Handwritten signature*  
 230227057/3

<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> Address: <u>10411 Heinz Way</u> <u>Commerce City, CO 80640</u> Phone: <u>303-659-2313</u>	<b>Bill To Information (if different from report to)</b> Address:   CAL TASK 230227057 NAB	<b>Project Name</b> <u>Monthly Groundwater</u>  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	Container Type
Comment: 230227057-01G - Please report Dissolved Lithium. Samples were field filtered 230227057-02G - Please report Dissolved Lithium. Samples were field filtered 230227057-03G - Please report Dissolved Lithium. Samples were field filtered 230227057-04G - Please report Dissolved Lithium. Samples were field filtered 230227057-05G - Please report Dissolved Lithium. Samples were field filtered 230227057-06G - Please report Dissolved Lithium. Samples were field filtered 230227057-07G - Please report Dissolved Lithium. Samples were field filtered			
		Metals (Sub)   	

Relinquished by (Signature) <i>[Signature]</i>	Date Time 1/16/10	Received by (Signature) <i>[Signature]</i>	Date Time 3-1-23 10:43 AM	Relinquished by (Signature)	Date Time	Received by (Signature)	Date Time
---	----------------------	---	------------------------------	--------------------------------	-----------	----------------------------	-----------



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

Lab Control ID: 23H01364  
Received: Feb 28, 2023  
Reported: Mar 21, 2023  
Purchase Order No.  
None Received

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>			23H01364-001					
<b>Customer Sample ID</b>			230227057-01F - Monthly Groundwater - Cross Well sampled on 02/27/23 @ 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	0.6	1.1	0.1	SM 7110 B	3/15/23 @ 0930	KT
Gross Beta	pCi/L	T	<2.7	2.0	2.7	SM 7110 B	3/15/23 @ 0930	KT

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>			23H01364-002					
<b>Customer Sample ID</b>			230227057-02F - Monthly Groundwater - Compliance Well sampled on 02/27/23 @ 1330					
<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	0.4	0.9	0.1	SM 7110 B	3/15/23 @ 0932	KT
Gross Beta	pCi/L	T	<3.0	2.1	3.0	SM 7110 B	3/15/23 @ 0932	KT

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>		23H01364-003						
<b>Customer Sample ID</b>		230227057-03F - Monthly Groundwater - Compliance FB sampled on 02/27/23 @ 1330						
<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	<0.1	0.5	0.1	SM 7110 B	3/15/23 @ 0933	KT
Gross Beta	pCi/L	T	<3.1	2.1	3.1	SM 7110 B	3/15/23 @ 0933	KT

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>			23H01364-004					
<b>Customer Sample ID</b>			230227057-04F - Monthly Groundwater - Caribou Well sampled on 02/27/23 @ 1130					
<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	0.4	0.8	0.1	SM 7110 B	3/15/23 @ 0934	KT
Gross Beta	pCi/L	T	<3.0	2.1	3.0	SM 7110 B	3/15/23 @ 0934	KT

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>		23H01364-005						
<b>Customer Sample ID</b>		230227057-05F - Monthly Groundwater - Cross Portal sampled on 02/27/23 @ 1215						
<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	0.7	1.1	0.1	SM 7110 B	3/15/23 @ 0935	KT
Gross Beta	pCi/L	T	<3.1	2.2	3.1	SM 7110 B	3/15/23 @ 0935	KT

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>		23H01364-006						
<b>Customer Sample ID</b>		230227057-06F - Monthly Groundwater - Caribou Portal sampled on 02/27/23 @ 1115						
<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	3/15/23 @ 0936	KT
Gross Beta	pCi/L	T	<3.1	2.5	3.1	SM 7110 B	3/15/23 @ 0936	KT

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>		23H01364-007						
<b>Customer Sample ID</b>		230227057-07F - Monthly Groundwater - Caribou Portal FB sampled on 02/27/23 @ 1115						
<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	0.8	0.1	SM 7110 B	3/15/23 @ 0937	KT
Gross Beta	pCi/L	T	<3.1	2.2	3.1	SM 7110 B	3/15/23 @ 0937	KT

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: C11a-003 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C11a-003 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(48.1) (1.000) - (0.1) (0.200)}{57.4} \times 100 = 84\%$$

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>23H01323</u>	<u>23H01377</u>
<u>23H01337</u>	_____
<u>23H01341</u>	_____
<u>23H01342</u>	_____
<u>23H01344</u>	_____
<u>23H01346</u>	_____
<u>23H01347</u>	_____
<u>23H01349</u>	_____
<u>23H01364</u>	_____
<u>23H01374</u>	_____

Evaluator:

*Michelle Stringer* \_\_\_\_\_

03/17/2023

Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C11a-003 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C11a-003 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(37.3) (1.000) - (0.0) (0.200)}{44} \times 100 = 85\%$$

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>23H01323</u>	<u>23H01377</u>
<u>23H01337</u>	_____
<u>23H01341</u>	_____
<u>23H01342</u>	_____
<u>23H01344</u>	_____
<u>23H01346</u>	_____
<u>23H01347</u>	_____
<u>23H01349</u>	_____
<u>23H01364</u>	_____
<u>23H01374</u>	_____

Evaluator:

*Michelle Stringer* \_\_\_\_\_

03/17/2023

Date



# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 2/27/23 1:00 PM  
**Lab Number:** 230227057-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	3/1/23	QC63199	MBS
Phenol	ND	EPA 625	10.0 ug/L	3/1/23	QC63199	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	64.0	16 - 145
2-Fluorobiphenyl	84.1	60 - 140
2-Fluorophenol	77.0	60 - 140
Nitrobenzene-d5	75.5	15 - 314
Phenol-d5	73.6	8 - 424
p-Terphenyl-d14	115.6	37 - 163

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.





# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 2/27/23 11:30 AM  
**Lab Number:** 230227057-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	3/3/23	QC63322	MBS
Phenol	ND	EPA 625	10.0 ug/L	3/3/23	QC63322	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	61.1	16 - 145
2-Fluorobiphenyl	82.1	60 - 140
2-Fluorophenol	79.6	60 - 140
Nitrobenzene-d5	73.0	15 - 314
Phenol-d5	73.5	8 - 424
p-Terphenyl-d14	125.8	37 - 163

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 2/27/23 12:15 PM  
**Lab Number:** 230227057-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	3/3/23	QC63322	MBS
Phenol	ND	EPA 625	10.0 ug/L	3/3/23	QC63322	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	66.9	16 - 145
2-Fluorobiphenyl	80.8	60 - 140
2-Fluorophenol	80.0	60 - 140
Nitrobenzene-d5	72.2	15 - 314
Phenol-d5	73.5	8 - 424
p-Terphenyl-d14	138.9	37 - 163

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	3/4/23	QC63322	MBS
Phenol	ND	EPA 625	10.0 ug/L	3/4/23	QC63322	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	60.6	16 - 145
2-Fluorobiphenyl	80.4	60 - 140
2-Fluorophenol	78.8	60 - 140
Nitrobenzene-d5	70.8	15 - 314
Phenol-d5	71.0	8 - 424
p-Terphenyl-d14	140.9	37 - 163

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230227057**

**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.:** 230227057  
**Client PO:**  
**Client Project:** Monthly Groundwater

**Date Received:** 2/27/23  
**Date Reported:** 3/23/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal FB  
**Sample Date/Time:** 2/27/23 11:15 AM  
**Lab Number:** 230227057-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
2-Chlorophenol	ND	EPA 625	10.0 ug/L	3/4/23	QC63322	MBS
Phenol	ND	EPA 625	10.0 ug/L	3/4/23	QC63322	MBS

Surrogate	PercentRecovery	Acceptance Limits
2,4,6-Tribromophenol	52.6	16 - 145
2-Fluorobiphenyl	79.6	60 - 140
2-Fluorophenol	77.3	60 - 140
Nitrobenzene-d5	68.8	15 - 314
Phenol-d5	69.9	8 - 424
p-Terphenyl-d14	140.2	37 - 163

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 2/27/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
2-Chlorophenol	QC63322	Method Blank	ND	EPA 625
	QC63199	Method Blank	ND	EPA 625
Phenol	QC63322	Method Blank	ND	EPA 625
	QC63199	Method Blank	ND	EPA 625

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
2-Chlorophenol	QC63199	LCS	55 - 130	84.7	-	EPA 625
	QC63322	LCS	55 - 130	83.1	-	
		LCS Dup	-	80.6	-	
	QC63199	LCS Dup	-	82.2	-	
		MS	23 - 134	83.6	-	
	QC63322	MS	23 - 134	84.9	-	
	QC63199	MSD	0 - 61	-	1.8	
	QC63322	MSD	0 - 61	-	1.3	
Phenol	QC63199	LCS	48 - 130	69.4	-	EPA 625
	QC63322	LCS	48 - 130	69.2	-	
	QC63199	LCS Dup	-	67.7	-	
	QC63322	LCS Dup	-	70.0	-	
	QC63199	MS	5 - 120	5.5	-	
		Analyte is extrapolated above the calibration curve; may be subject to bias. MBS 3/2/2023				
	QC63322	MS	5 - 120	74.4	-	
		MSD	0 - 64	-	1.8	
	QC63199	MSD	0 - 64	-	99.6	
	Analyte is extrapolated above the calibration curve; may be subject to bias. MBS 3/2/2023					

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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.



APPENDIX A.3 MARCH 2023 GROUNDWATER AND EFFLUENT ANALYTICAL RESULTS

## Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 3/21/23 1:00 PM  
**Lab Number:** 230321120-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.18 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.25 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	9.00 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/24/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/24/23	QC63777	MBN
Barium	0.0294 mg/L	EPA 200.8	0.0007 mg/L	3/24/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Cadmium	0.0001 mg/L	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/24/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Copper	0.0027 mg/L	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Lead	0.0003 mg/L	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/24/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 3/21/23 1:00 PM  
**Lab Number:** 230321120-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Zinc	0.514 mg/L	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	15.7 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	ND	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

*Dissolved Metals filtered in the field by the customer*

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.74 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.35 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	10.21 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/24/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/24/23	QC63777	MBN
Barium	0.0390 mg/L	EPA 200.8	0.0007 mg/L	3/24/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/24/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Copper	0.0048 mg/L	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Lead	0.0005 mg/L	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Manganese	0.0073 mg/L	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Molybdenum	0.0032 mg/L	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/24/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Uranium	0.0002 mg/L	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Zinc	0.097 mg/L	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	16.0 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	ND	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance 02  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	3.75 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.42 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	10.32 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	0.001 mg/L	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/24/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/24/23	QC63777	MBN
Barium	0.0370 mg/L	EPA 200.8	0.0007 mg/L	3/24/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/24/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Lead	0.0001 mg/L	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Manganese	0.0071 mg/L	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Molybdenum	0.0039 mg/L	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/24/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance 02  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Zinc	0.088 mg/L	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	15.6 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	ND	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance 03  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	ND	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/24/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/24/23	QC63777	MBN
Barium	ND	EPA 200.8	0.0007 mg/L	3/24/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/24/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	3/24/23	QC63777	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/24/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/24/23	QC63777	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance 03  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/24/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/24/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	3/24/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	ND	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	ND	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 3/21/23 11:30 AM  
**Lab Number:** 230321120-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.53 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.14 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	2.71 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	0.015 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/25/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/25/23	QC63777	MBN
Barium	0.0059 mg/L	EPA 200.8	0.0007 mg/L	3/25/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/25/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Copper	1.23 mg/L	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Lead	0.0009 mg/L	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/25/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 3/21/23 11:30 AM  
**Lab Number:** 230321120-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Zinc	0.035 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	3.7 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	0.017 mg/L	EPA 200.7	0.005 mg/L	3/23/23	QC63767	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 3/21/23 12:15 PM  
**Lab Number:** 230321120-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.36 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.11 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	10.88 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	0.011 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/25/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/25/23	QC63777	MBN
Barium	0.0655 mg/L	EPA 200.8	0.0007 mg/L	3/25/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Cadmium	0.0011 mg/L	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/25/23	QC63777	MBN
Cobalt	0.0002 mg/L	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Copper	0.0025 mg/L	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Lead	0.0077 mg/L	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Manganese	0.0130 mg/L	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Molybdenum	0.0067 mg/L	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/25/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal  
**Sample Date/Time:** 3/21/23 12:15 PM  
**Lab Number:** 230321120-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Uranium	0.0009 mg/L	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Zinc	0.204 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	24.3 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	0.102 mg/L	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.53 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.14 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	9.89 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/25/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/25/23	QC63777	MBN
Barium	0.0522 mg/L	EPA 200.8	0.0007 mg/L	3/25/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/25/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Lead	0.0004 mg/L	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Molybdenum	0.0057 mg/L	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/25/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN

**Abbreviations/ References:**

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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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Uranium	0.0063 mg/L	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Zinc	0.005 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	25.1 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	0.009 mg/L	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou 02  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-08

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.49 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	0.15 mg/L	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	10.14 mg/L	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	0.001 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/25/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/25/23	QC63777	MBN
Barium	0.0521 mg/L	EPA 200.8	0.0007 mg/L	3/25/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/25/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Lead	0.0004 mg/L	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Molybdenum	0.0061 mg/L	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/25/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou 02  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-08

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Uranium	0.0065 mg/L	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Zinc	0.006 mg/L	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	24.8 mg/L	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	0.009 mg/L	EPA 200.7	0.005 mg/L	3/23/23	QC63767	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

# Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou 03  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-09

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	ND	EPA 300.0	0.10 mg/L	3/22/23	QC63762	MLT
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	3/22/23	QC63723	DPL
Fluoride	ND	EPA 300.0	1.00 mg/L	3/22/23	QC63763	MLT
Nitrate Nitrogen	ND	EPA 300.0	0.50 mg/L	3/22/23	QC63764	MLT
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	3/23/23	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.30 mg/L	3/22/23	QC63765	MLT
Sulfate	ND	EPA 300.0	0.10 mg/L	3/22/23	QC63766	MLT
<i>Dissolved</i>						
Mercury	ND	EPA 245.7	0.0002 mg/L	3/28/23	QC63859	MLT
Aluminum	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	3/25/23	QC63777	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	3/25/23	QC63777	MBN
Barium	ND	EPA 200.8	0.0007 mg/L	3/25/23	QC63777	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	3/25/23	QC63777	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Lead	ND	EPA 200.8	0.0001 mg/L	3/25/23	QC63777	MBN
Manganese	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	3/25/23	QC63777	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	3/25/23	QC63777	MBN

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

## Analytical Results

**TASK NO: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou 03  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-09

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Dissolved</i>						
Silver	ND	EPA 200.8	0.0005 mg/L	3/25/23	QC63777	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	3/25/23	QC63777	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Zinc	ND	EPA 200.8	0.001 mg/L	3/25/23	QC63777	MBN
Boron	ND	EPA 200.7	0.01 mg/L	3/23/23	QC63767	MBN
Calcium	ND	EPA 200.7	0.1 mg/L	3/23/23	QC63767	MBN
Iron	ND	EPA 200.7	0.005 mg/L	3/23/23	QC63767	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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

**Analytical QC Summary**

**TASK NO: 230321120**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 3/21/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC63762	Blank	ND	EPA 300.0
Cyanide-Free	QC63723	Blank	ND	ASTM D4282-15
Fluoride	QC63763	Blank	ND	EPA 300.0
Mercury	QC63859	Method Blank	ND	EPA 245.7
Aluminum	QC63777	Method Blank	ND	EPA 200.8
Antimony	QC63777	Method Blank	ND	EPA 200.8
Arsenic	QC63777	Method Blank	ND	EPA 200.8
Barium	QC63777	Method Blank	ND	EPA 200.8
Beryllium	QC63777	Method Blank	ND	EPA 200.8
Cadmium	QC63777	Method Blank	ND	EPA 200.8
Chromium	QC63777	Method Blank	ND	EPA 200.8
Cobalt	QC63777	Method Blank	ND	EPA 200.8
Copper	QC63777	Method Blank	ND	EPA 200.8
Lead	QC63777	Method Blank	ND	EPA 200.8
Manganese	QC63777	Method Blank	ND	EPA 200.8
Molybdenum	QC63777	Method Blank	ND	EPA 200.8
Nickel	QC63777	Method Blank	ND	EPA 200.8
Selenium	QC63777	Method Blank	ND	EPA 200.8
Silver	QC63777	Method Blank	ND	EPA 200.8
Thallium	QC63777	Method Blank	ND	EPA 200.8
Uranium	QC63777	Method Blank	ND	EPA 200.8
Vanadium	QC63777	Method Blank	ND	EPA 200.8
Zinc	QC63777	Method Blank	ND	EPA 200.8
Boron	QC63767	Method Blank	ND	EPA 200.7
Calcium	QC63767	Method Blank	ND	EPA 200.7
Iron	QC63767	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC63764	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC63765	Blank	ND	EPA 300.0
Sulfate	QC63766	Blank	ND	EPA 300.0

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC63762	Duplicate	0 - 20	-	2.0	EPA 300.0
		LCS	90 - 110	100.9	-	
		MS	75 - 125	99.1	-	
Cyanide-Free	QC63723	Duplicate	0 - 20	-	0.0	ASTM D4282-15
		LCS	90 - 110	98.5	-	
		MS	75 - 125	125.0	-	
Fluoride	QC63763	Duplicate	0 - 20	-	8.7	EPA 300.0
		LCS	90 - 110	95.3	-	
		MS	75 - 125	89.8	-	
Mercury	QC63859	Duplicate	0 - 20	-	0.0	EPA 245.7
		LCS	90 - 110	107.6	-	

**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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Aluminum	QC63777	MS	80 - 120	98.0	-	EPA 200.8
		LCS	90 - 110	96.6	-	
		MS	70 - 130	85.1	-	
Antimony	QC63777	MSD	0 - 10	-	3.3	EPA 200.8
		LCS	90 - 110	104.4	-	
		MS	70 - 130	113.5	-	
Arsenic	QC63777	MSD	0 - 10	-	1.0	EPA 200.8
		LCS	90 - 110	102.4	-	
		MS	70 - 130	117.5	-	
Barium	QC63777	MSD	0 - 10	-	1.5	EPA 200.8
		LCS	90 - 110	99.1	-	
		MS	70 - 130	98.8	-	
Beryllium	QC63777	MSD	0 - 10	-	0.2	EPA 200.8
		LCS	90 - 110	101.7	-	
		MS	70 - 130	110.6	-	
Cadmium	QC63777	MSD	0 - 10	-	2.7	EPA 200.8
		LCS	90 - 110	97.2	-	
		MS	70 - 130	112.2	-	
Chromium	QC63777	MSD	0 - 10	-	0.8	EPA 200.8
		LCS	90 - 110	103.9	-	
		MS	70 - 130	105.7	-	
Cobalt	QC63777	MSD	0 - 10	-	2.3	EPA 200.8
		LCS	90 - 110	106.9	-	
		MS	70 - 130	105.7	-	
Copper	QC63777	MSD	0 - 10	-	0.3	EPA 200.8
		LCS	90 - 110	99.6	-	
		MS	70 - 130	105.7	-	
Lead	QC63777	MSD	0 - 10	-	1.5	EPA 200.8
		LCS	90 - 110	97.5	-	
		MS	70 - 130	98.3	-	
Manganese	QC63777	MSD	0 - 10	-	0.0	EPA 200.8
		LCS	90 - 110	102.4	-	
		MS	70 - 130	112.1	-	
Molybdenum	QC63777	MSD	0 - 10	-	2.0	EPA 200.8
		LCS	90 - 110	98.2	-	
		MS	70 - 130	98.7	-	
Nickel	QC63777	MSD	0 - 10	-	1.7	EPA 200.8
		LCS	90 - 110	105.9	-	
		MS	70 - 130	104.5	-	
Selenium	QC63777	MSD	0 - 10	-	2.0	EPA 200.8
		LCS	90 - 110	99.7	-	
		MS	70 - 130	115.8	-	
Silver	QC63777	MSD	0 - 10	-	0.8	EPA 200.8
		LCS	90 - 110	94.1	-	
		MS	70 - 130	97.5	-	
Thallium	QC63777	MSD	0 - 10	-	1.6	EPA 200.8
		LCS	90 - 110	103.3	-	
		MS	70 - 130	105.6	-	
Uranium	QC63777	MSD	0 - 10	-	0.4	EPA 200.8
		LCS	90 - 110	97.9	-	
		MS	70 - 130	93.4	-	

**Abbreviations/ References:**

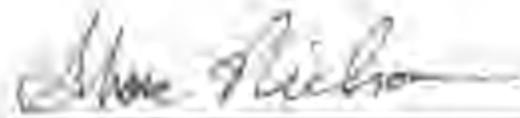
RL = Reporting Limit = Minimum Level  
mg/L = Milligrams Per Liter or PPM  
ug/L = Micrograms Per Liter or PPB  
mpn/100 mls = Most Probable Number Index/ 100 mls  
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.  
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		MSD	0 - 10	-	1.4	
Vanadium	QC63777	LCS	90 - 110	102.4	-	EPA 200.8
		MS	70 - 130	107.6	-	
		MSD	0 - 10	-	0.0	
Zinc	QC63777	LCS	90 - 110	98.7	-	EPA 200.8
		MS	70 - 130	75.9	-	
		MSD	0 - 10	-	0.8	
Boron	QC63767	Duplicate	0 - 20	-	0.0	EPA 200.7
		LCS	90 - 110	99.8	-	
		MS	75 - 125	107.7	-	
Calcium	QC63767	Duplicate	0 - 20	-	2.8	EPA 200.7
		LCS	90 - 110	95.8	-	
		MS	75 - 125	100.3	-	
Iron	QC63767	Duplicate	0 - 20	-	0.0	EPA 200.7
		LCS	90 - 110	95.8	-	
		MS	75 - 125	102.8	-	
Nitrate Nitrogen	QC63764	Duplicate	0 - 20	-	8.6	EPA 300.0
		LCS	90 - 110	96.6	-	
		MS	75 - 125	86.4	-	
Nitrite Nitrogen	QC63765	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	91.2	-	
		MS	75 - 125	93.0	-	
Sulfate	QC63766	Duplicate	0 - 20	-	1.3	EPA 300.0
		LCS	90 - 110	100.9	-	
		MS	75 - 125	98.5	-	

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) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.





CAL Task  
230321120

ARF

# Bottle Order Test Detail

Order ID: QBO22050014

Date Created: 5/4/22

**Ship To:** Grand Island Resources LLC  
65 Arikaree Circle  
Nederland CO 80466

**Attention:** Brooke Molson-Moran

**\*\*Verify All Shipping Addresses\*\***

**Shipping Options:**

Ship Via: Customer Pickup Cooler: Yes

Chain of Custody Drinking Water:  
Standard: 1

**Customer Needs By: 2/27/23**

**Ships From: Lakewood**

**Project:**

Monthly Groundwater

Qty.	Bottle / Preservative / Test
9	1L - Unpreserved Gross Alpha/Beta (Sub) - Water - Ground
18	500 ml Cylinder - HNO3 Hg - Water - Ground Metals (Sub) - Water - Ground
9	500 ml Cylinder - NaOH Cyanide - Free - Water - Ground
9	500 ml Cylinder - Unpreserved Ag - Dis - Water - Ground Al - Dis - Water - Ground As - Dis - Water - Ground B - Dis - Water - Ground Ba - Dis - Water - Ground Be - Dis - Water - Ground Ca - Dis - Water - Ground Cd - Dis - Water - Ground Chloride - Water - Ground Co - Dis - Water - Ground Cr - Dis - Water - Ground Cu - Dis - Water - Ground

**\*\*Samples should be shipped or hand delivered the same day they are collected. Orders that require sub-lab analysis should be delivered to the lab Monday thru Wednesday only.\*\***

**Internal Shipping Instructions:**

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313  
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

**Ship To:** Grand Island Resources LLC  
65 Arikaree Circle  
Nederland CO 80466

**CAL Task**  
230321120

ARF

**Shipping Options:**

Ship Via: Customer Pickup Cooler: Yes

Chain of Custody

Drinking Water:

Standard: 1

**Attention:** Brooke Molson-Moran

**Customer Needs By: 2/27/23**

**Ships From: Lakewood**

**\*\*Verify All Shipping Addresses\*\***

**Project:**

Monthly Groundwater

**Qty. Bottle / Preservative / Test**

Fe - Dis - Water - Ground  
Fluoride - Water - Ground  
Langelier Index - Water - Ground  
Mn - Dis - Water - Ground  
Mo - Dis - Water - Ground  
Ni - Dis - Water - Ground  
Nitrate Nitrogen - Water - Ground  
Nitrate/ Nitrite Nitrogen - Water - Ground  
Nitrite Nitrogen - Water - Ground  
Pb - Dis - Water - Ground  
Sb - Dis - Water - Ground  
Se - Dis - Water - Ground  
Sulfate - Water - Ground  
Tl - Dis - Water - Ground  
U - Dis - Water - Ground  
V - Dis - Water - Ground  
Zn - Dis - Water - Ground

**\*\*Samples should be shipped or hand delivered the same day they are collected. Orders that require sub-lab analysis should be delivered to the lab Monday thru Wednesday only.\*\***

**Internal Shipping Instructions:**

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313  
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

## Analytical Results

TASK NO: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Well  
**Sample Date/Time:** 3/21/23 1:00 PM  
**Lab Number:** 230321120-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	59.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	38.5 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-1.99 units	SM 2330-B	units	3/27/23	-	SAN
pH	6.36 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	59.0 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	83 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

*Dissolved Metals filtered in the field by the customer*

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: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance Well  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	57.8 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	39.6 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-1.82 units	SM 2330-B	units	3/27/23	-	SAN
pH	6.53 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	57.8 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	93 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance 02  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	57.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	39.1 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-1.85 units	SM 2330-B	units	3/27/23	-	SAN
pH	6.51 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	57.5 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	89 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

Abbreviations/ References:

RL = Reporting Limit = Minimum Level  
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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: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Compliance 03  
**Sample Date/Time:** 3/21/23 1:30 PM  
**Lab Number:** 230321120-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	ND	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-7.60 units	SM 2330-B	units	3/27/23	-	SAN
pH	5.55 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Well  
**Sample Date/Time:** 3/21/23 11:30 AM  
**Lab Number:** 230321120-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	21.2 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	9.2 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-3.55 units	SM 2330-B	units	3/27/23	-	SAN
pH	5.87 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	21.2 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	47 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Cross Portal

**Sample Date/Time:** 3/21/23 12:15 PM

**Lab Number:** 230321120-06

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	94.6 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	60.6 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-0.97 units	SM 2330-B	units	3/27/23	-	SAN
pH	7.05 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	94.6 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	115 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou Portal  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-07

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	115.3 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	61.6 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-0.51 units	SM 2330-B	units	3/27/23	-	SAN
pH	7.42 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	115.3 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	139 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120**

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou 02  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-08

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	115.8 mg/L as CaCO <sub>3</sub>	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	62.0 mg/L	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-0.25 units	SM 2330-B	units	3/27/23	-	SAN
pH	7.67 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	115.8 mg/L as CaCO <sub>3</sub>	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	137 mg/L	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120

**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.:** 230321120  
**Client PO:** \$1500 Prepayment Received  
**Client Project:** Monthly Groundwater

**Date Received:** 3/21/23  
**Date Reported:** 4/17/23  
**Matrix:** Water - Ground

**Customer Sample ID** Caribou 03  
**Sample Date/Time:** 3/21/23 11:15 AM  
**Lab Number:** 230321120-09

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Calcium as CaCO <sub>3</sub>	ND	EPA 200.7	0.1 mg/L	3/23/23	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO <sub>3</sub>	3/22/23	-	TAB
Langelier Index	-6.90 units	SM 2330-B	units	3/27/23	-	SAN
pH	5.48 units	SM 4500-H-B	0.01 units	3/21/23	-	TAB
Temperature	20 °C	SM 4500-H-B	1 °C	3/21/23	-	TAB
Total Alkalinity	ND	SM 2320-B	4.0 mg/L as CaCO <sub>3</sub>	3/22/23	QC63703	TAB
Total Dissolved Solids	ND	SM 2540-C	5 mg/L	3/23/23	QC63740	ISG

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: 230321120**

**Report To:** Patrick Delaney  
**Company:** Grand Island Resources LLC

**Receive Date:** 3/21/23  
**Project Name:** Monthly Groundwater

Test	QC Batch ID	QC Type	Result	Method		
Total Alkalinity	QC63703	Blank	ND	SM 2320-B		
Total Dissolved Solids	QC63740	Blank	ND	SM 2540-C		

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC63703	Duplicate	0 - 20	-	1.8	SM 2320-B
		LCS	90 - 110	102.8	-	
		LCS-2	90 - 110	102.1	-	
Total Dissolved Solids	QC63740	Duplicate	0 - 20	-	5.0	SM 2540-C
		LCS	85 - 115	107.1	-	

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.





CAL Task  
230321120

ARF

**Bottle Order  
Test Detail**

Order ID: QBO22050014

Date Created: 5/4/22

**Ship To:** Grand Island Resources LLC  
65 Arikaree Circle  
Nederland CO 80466

**Attention:** Brooke Molson-Moran

**\*\*Verify All Shipping Addresses\*\***

**Shipping Options:**

Ship Via: Customer Pickup Cooler: Yes

Chain of Custody Drinking Water:  
Standard: 1

**Customer Needs By: 2/27/23**

**Ships From: Lakewood**

**Project:**

Monthly Groundwater

Qty.	Bottle / Preservative / Test
9	1L - Unpreserved Gross Alpha/Beta (Sub) - Water - Ground
18	500 ml Cylinder - HNO3 Hg - Water - Ground Metals (Sub) - Water - Ground
9	500 ml Cylinder - NaOH Cyanide - Free - Water - Ground
9	500 ml Cylinder - Unpreserved Ag - Dis - Water - Ground Al - Dis - Water - Ground As - Dis - Water - Ground B - Dis - Water - Ground Ba - Dis - Water - Ground Be - Dis - Water - Ground Ca - Dis - Water - Ground Cd - Dis - Water - Ground Chloride - Water - Ground Co - Dis - Water - Ground Cr - Dis - Water - Ground Cu - Dis - Water - Ground

**\*\*Samples should be shipped or hand delivered the same day they are collected. Orders that require sub-lab analysis should be delivered to the lab Monday thru Wednesday only.\*\***

**Internal Shipping Instructions:**

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313  
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

**Ship To:** Grand Island Resources LLC  
65 Arikaree Circle  
Nederland CO 80466

**CAL Task**  
230321120

ARF

**Shipping Options:**

Ship Via: Customer Pickup Cooler: Yes

Chain of Custody Drinking Water:  
Standard: 1

**Attention:** Brooke Molson-Moran

**Customer Needs By: 2/27/23**

**Ships From: Lakewood**

**\*\*Verify All Shipping Addresses\*\***

**Project:**

Monthly Groundwater

**Qty. Bottle / Preservative / Test**

Fe - Dis - Water - Ground  
Fluoride - Water - Ground  
Langelier Index - Water - Ground  
Mn - Dis - Water - Ground  
Mo - Dis - Water - Ground  
Ni - Dis - Water - Ground  
Nitrate Nitrogen - Water - Ground  
Nitrate/ Nitrite Nitrogen - Water - Ground  
Nitrite Nitrogen - Water - Ground  
Pb - Dis - Water - Ground  
Sb - Dis - Water - Ground  
Se - Dis - Water - Ground  
Sulfate - Water - Ground  
Tl - Dis - Water - Ground  
U - Dis - Water - Ground  
V - Dis - Water - Ground  
Zn - Dis - Water - Ground

**\*\*Samples should be shipped or hand delivered the same day they are collected. Orders that require sub-lab analysis should be delivered to the lab Monday thru Wednesday only.\*\***

**Internal Shipping Instructions:**

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313  
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507



# ANALYTICAL SUMMARY REPORT

April 11, 2023

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

Work Order: C23030672                      Quote ID: C15681

Project Name: 230321120; Monthly Groundwater

Energy Laboratories, Inc. Casper WY received the following 9 samples for Colorado Analytical Laboratories Inc on 3/23/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C23030672-001	230321120-01D - Cross Well	03/21/23 13:00	03/23/23	Groundwater	Metals by ICP/ICPMS, Dissolved
C23030672-002	230321120-02D - Compliance Well	03/21/23 13:30	03/23/23	Groundwater	Same As Above
C23030672-003	230321120-03D - Compliance 02	03/21/23 13:30	03/23/23	Groundwater	Same As Above
C23030672-004	230321120-04D - Compliance 03	03/21/23 13:30	03/23/23	Groundwater	Same As Above
C23030672-005	230321120-05D - Caribou Well	03/21/23 11:30	03/23/23	Groundwater	Same As Above
C23030672-006	230321120-06D - Cross Portal	03/21/23 12:15	03/23/23	Groundwater	Same As Above
C23030672-007	230321120-07D - Caribou Portal	03/21/23 11:15	03/23/23	Groundwater	Same As Above
C23030672-008	230321120-08D - Caribou 02	03/21/23 11:15	03/23/23	Groundwater	Same As Above
C23030672-009	230321120-09D - Caribou 03	03/21/23 11:15	03/23/23	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:



Trust our People. Trust our Data.

Billings, MT 800.735.4469 + Casper, WY 888.235.0515

Billings, WY 866.686.7175 + Helena, MT 877.472.0711

**CLIENT:** Colorado Analytical Laboratories Inc  
**Project:** 230321120; Monthly Groundwater  
**Work Order:** C23030672

**Report Date:** 04/11/23

## 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:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-001  
**Client Sample ID:** 230321120-01D - Cross Well

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 13:00  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:09 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-002  
**Client Sample ID:** 230321120-02D - Compliance Well

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 13:30  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:14 / 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:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-003  
**Client Sample ID:** 230321120-03D - Compliance 02

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 13:30  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:18 / 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:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-004  
**Client Sample ID:** 230321120-04D - Compliance 03

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 13:30  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:23 / 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:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-005  
**Client Sample ID:** 230321120-05D - Caribou Well

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 11:30  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:28 / 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:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-006  
**Client Sample ID:** 230321120-06D - Cross Portal

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 12:15  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:47 / 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:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-007  
**Client Sample ID:** 230321120-07D - Caribou Portal

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 11:15  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:51 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-008  
**Client Sample ID:** 230321120-08D - Caribou 02

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 11:15  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006	E200.8		03/28/23 11:56 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



### LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

**Client:** Colorado Analytical Laboratories Inc  
**Project:** 230321120; Monthly Groundwater  
**Lab ID:** C23030672-009  
**Client Sample ID:** 230321120-09D - Caribou 03

**Report Date:** 04/11/23  
**Collection Date:** 03/21/23 11:15  
**Date Received:** 03/23/23  
**Matrix:** Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>METALS, DISSOLVED</b>							
Lithium	ND	mg/L	L	0.006		E200.8	03/28/23 12:01 / eli-b

**Report Definitions:**

RL - Analyte Reporting Limit	MCL - Maximum Contaminant Level
QCL - Quality Control Limit	ND - Not detected at the Reporting Limit (RL)
L - Lowest available reporting limit for the analytical method used	



# QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C23030672

Report Date: 04/03/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual	
<b>Method:</b> E200.8										Analytical Run: ICPMS207-B_230327A	
<b>Lab ID:</b> QCS		Initial Calibration Verification Standard								03/28/23 10:36	
Lithium		0.0533	mg/L	0.012	107	90	110				
<b>Lab ID:</b> CCV		Continuing Calibration Verification Standard								03/28/23 10:59	
Lithium		0.619	mg/L	0.012	99	90	110				
<b>Method:</b> E200.8										Batch: R399488	
<b>Lab ID:</b> LRB		Method Blank								Run: ICPMS207-B_230327A	03/27/23 13:30
Lithium		ND	mg/L	0.002							
<b>Lab ID:</b> LFB		Laboratory Fortified Blank								Run: ICPMS207-B_230327A	03/27/23 13:40
Lithium		2.66	mg/L	0.012	106	85	115				
<b>Lab ID:</b> C23030672-005AMS		Sample Matrix Spike								Run: ICPMS207-B_230327A	03/28/23 11:32
Lithium		2.69	mg/L	0.10	108	70	130			E	
<b>Lab ID:</b> C23030672-005AMSD		Sample Matrix Spike Duplicate								Run: ICPMS207-B_230327A	03/28/23 11:37
Lithium		2.72	mg/L	0.10	109	70	130	0.8	20	E	

**Qualifiers:**

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

E - Estimated value - result exceeds the instrument upper quantitation limit



# Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C23030672

Login completed by: Madison A. Ray

Date Received: 3/23/2023

Reviewed by: cjohnson

Received by: jdj

Reviewed Date: 3/24/2023

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on all sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Applicable <input type="checkbox"/>
Container/Temp Blank temperature:	3.1°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

## 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

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Melson</u> E-Mail: <u>stuartmelson@coloradolab.com</u>	<b>Bill To Information (if different from report to)</b> Address:  	<b>Project Name</b> <u>Monthly Groundwater</u>
Address: <u>10411 Heinz Way</u> <u>Commerce City, CO 80640</u> Phone: <u>303-659-2313</u>	CAL TASK <u>230321120</u> ARF	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	Matrix (Sub)	Container Type
3/21/23 1:00 PM	230321120-01D - Gross Well	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 1:30 PM	230321120-02D - Compliance Well	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 1:30 PM	230321120-03D - Compliance 02	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 1:30 PM	230321120-04D - Compliance 03	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 11:30 AM	230321120-05D - Caribou Well	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 12:15 PM	230321120-06D - Cross Portal	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 11:15 AM	230321120-07D - Caribou Portal	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 11:15 AM	230321120-08D - Caribou 02	Water - Ground	X	250 ml Cylinder - HNO3
3/21/23 11:15 AM	230321120-09D - Caribou 03	Water - Ground	X	250 ml Cylinder - HNO3

23030672

Relinquished by: (Signature) <u>A. Fork</u>	Date: Time <u>3/22/23 1500</u>	Received by: (Signature)	Date: Time	Relinquished by: (Signature) <u>SES SANCHEZ</u>	Date: Time <u>3/22/23 1009</u>	Received by: (Signature)	Date: Time
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LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

<b>Report To Information</b> Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Nielson</u> E-Mail: <u>stuartnie@coloradolab.com</u>	<b>Bill To Information (if different from report to)</b> Address: 10411 Heinz Way Commerce City, CO 80640 Phone: <u>303-659-2313</u>	<b>Project Name</b> <u>Monthly Groundwater</u>
Address: 10411 Heinz Way Commerce City, CO 80640 Phone: <u>303-659-2313</u>	Address: CAL TASK 230321120 ANF	<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

Metals (Sub)

Sample Date/Time	Sample ID	Matrix	Container Type
Comment: 230321120-01D - Run Dissolved Lithium-Sample was field filtered. 230321120-02D - Run Dissolved Lithium-Sample was field filtered. 230321120-04D - Run Dissolved Lithium-Sample was field filtered. 230321120-05D - Run Dissolved Lithium-Sample was field filtered. 230321120-06D - Run Dissolved Lithium-Sample was field filtered. 230321120-07D - Run Dissolved Lithium-Sample was field filtered. 230321120-08D - Run Dissolved Lithium-Sample was field filtered. 230321120-09D - Run Dissolved Lithium-Sample was field filtered.			

*230321120*

Relinquished by: <i>A Fork</i> (Signature)	Date: Time: <i>3/26/13 1500</i>	Received by: _____ (Signature)	Date: Time: _____	Relinquished by: <i>Jesse Jones</i> (Signature)	Date: Time: <i>3/26/13 1500</i>	Received by: _____ (Signature)	Date: Time: _____
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Hazen Research, Inc.  
4601 Indiana Street  
Golden, CO 80403 USA  
Tel: (303) 279-4501  
Fax: (303) 278-1528

Lab Control ID: 23H01514  
Received: Mar 23, 2023  
Reported: Apr 14, 2023  
Purchase Order No.  
None Received

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: Michelle Stringer for  
Roxanne Sullivan  
Analytical Laboratories Director

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

**Stuart Nielson**  
**Colorado Analytical Laboratories, Inc.**

<b>Lab Sample ID</b>		23H01514-001						
<b>Customer Sample ID</b>		230321120-01C - Monthly Ground water - Cross Well sampled on 03/21/23 @ 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	1.1	0.1	SM 7110 B	4/10/23 @ 1611	KT
Gross Beta	pCi/L	T	<3.1	2.2	3.1	SM 7110 B	4/10/23 @ 1611	KT

<b>Lab Sample ID</b>		23H01514-002						
<b>Customer Sample ID</b>		230321120-02C - Monthly Ground water - Compliance Well sampled on 03/21/23 @ 1330						
<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	4/10/23 @ 1613	KT
Gross Beta	pCi/L	T	<3.1	2.3	3.1	SM 7110 B	4/10/23 @ 1613	KT

<b>Lab Sample ID</b>		23H01514-003						
<b>Customer Sample ID</b>		230321120-03C - Monthly Ground water - Compliance 02 sampled on 03/21/23 @ 1330						
<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	0.1	0.8	0.1	SM 7110 B	4/10/23 @ 1614	KT
Gross Beta	pCi/L	T	<3.1	2.5	3.1	SM 7110 B	4/10/23 @ 1614	KT

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 < = Less Than

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

**Stuart Nielson**  
**Colorado Analytical Laboratories, Inc.**

<b>Lab Sample ID</b>			23H01514-004					
<b>Customer Sample ID</b>			230321120-04C - Monthly Ground water - Compliance 03 sampled on 03/21/23 @ 1330					
<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	0.9	0.1	SM 7110 B	4/10/23 @ 1615	KT
Gross Beta	pCi/L	T	<3.1	2.3	3.1	SM 7110 B	4/10/23 @ 1615	KT

<b>Lab Sample ID</b>			23H01514-005					
<b>Customer Sample ID</b>			230321120-05C - Monthly Ground water - Caribou Well sampled on 03/21/23 @ 1130					
<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	0.8	0.1	SM 7110 B	4/10/23 @ 1616	KT
Gross Beta	pCi/L	T	<3.0	2.2	3.0	SM 7110 B	4/10/23 @ 1616	KT

<b>Lab Sample ID</b>			23H01514-006					
<b>Customer Sample ID</b>			230321120-06C - Monthly Ground water - Cross Portaal sampled on 03/21/23 @ 1215					
<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.	1.3	0.1	SM 7110 B	4/10/23 @ 1617	KT
Gross Beta	pCi/L	T	<2.8	2.3	2.8	SM 7110 B	4/10/23 @ 1617	KT

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 < = Less Than

Customer ID: 20040H  
 Account ID: Z01034

**ANALYTICAL REPORT**

**Stuart Nielson**  
**Colorado Analytical Laboratories, Inc.**

<b>Lab Sample ID</b>		23H01514-007						
<b>Customer Sample ID</b>		230321120-07C - Monthly Ground water - Caribou Portal sampled on 03/21/23 @ 1115						
Parameter	Units	Code	Precision* Detection			Analysis		Analyst
			Result	+/-	Limit	Method	Date / Time	
Gross Alpha	pCi/L	T	4.0	1.9	0.1	SM 7110 B	4/11/23 @ 0850	KT
Gross Beta	pCi/L	T	<2.7	2.2	2.7	SM 7110 B	4/11/23 @ 0850	KT

<b>Lab Sample ID</b>		23H01514-008						
<b>Customer Sample ID</b>		230321120-08C - Monthly Ground water - Caribou 02 sampled on 03/21/23 @ 1115						
Parameter	Units	Code	Precision* Detection			Analysis		Analyst
			Result	+/-	Limit	Method	Date / Time	
Gross Alpha	pCi/L	T	7.6	2.5	0.1	SM 7110 B	4/11/23 @ 0851	KT
Gross Beta	pCi/L	T	<2.7	2.2	2.7	SM 7110 B	4/11/23 @ 0851	KT

<b>Lab Sample ID</b>		23H01514-009						
<b>Customer Sample ID</b>		230321120-09C - Monthly Ground water - Caribou 03 sampled on 03/21/23 @ 1115						
Parameter	Units	Code	Precision* Detection			Analysis		Analyst
			Result	+/-	Limit	Method	Date / Time	
Gross Alpha	pCi/L	T	0.3	0.8	0.1	SM 7110 B	4/11/23 @ 0852	KT
Gross Beta	pCi/L	T	<2.8	2.0	2.8	SM 7110 B	4/11/23 @ 0852	KT

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 < = Less Than

**Batch QC Summary Form**

Analyte: Gross Alpha

Control Standard/LFB: ID: C11a-003 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C11a-003 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(50.1) (1.000) - (0.2) (0.200)}{57.4} \times 100 = 87\%$$

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:

23H01512 \_\_\_\_\_  
 23H01514 \_\_\_\_\_  
 23H01519 \_\_\_\_\_  
 23H01520 \_\_\_\_\_  
 23H01524 \_\_\_\_\_  
 23H01529 \_\_\_\_\_  
 23H01530 \_\_\_\_\_  
 23H01546 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:

*Michelle Stringer* \_\_\_\_\_

04/13/2023

Date

**Batch QC Summary Form**

Analyte: Gross Beta

Control Standard/LFB: ID: C11a-003 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C11a-003 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap\*

$$\text{Calculation: } \frac{(38.8) (1.000) - (0.0) (0.200)}{44} \times 100 = 88\%$$

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:

\*\*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:

23H01512 \_\_\_\_\_  
 23H01514 \_\_\_\_\_  
 23H01519 \_\_\_\_\_  
 23H01520 \_\_\_\_\_  
 23H01524 \_\_\_\_\_  
 23H01529 \_\_\_\_\_  
 23H01530 \_\_\_\_\_  
 23H01546 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Evaluator:

*Michelle Stringer* \_\_\_\_\_

04/13/2023

Date



LABORATORIES, INC.

23 Ho 1514  
 Ship To: Hazen Research  
 Preserved: Y/N  
 HNO3 Lot #:             
 Date Preserved:           

<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> <u>Monthly Groundwater</u>	<b>Project Name</b> <u>Monthly Groundwater</u>
<b>Address:</b> 10411 Heinz Way Commerce City, CO 80540 Phone: <u>303-659-2313</u>	<b>CAL TASK</b> 230321120 ARF	<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**

Gross Alpha/Beta (Sub)

Sample Date/Time	Sample ID	Matrix	Container Type
3/21/23 1:00 PM	230321120-01C - Cross Well	Water - Ground	1L - Unpreserved
3/21/23 1:30 PM	230321120-02C - Compliance Well	Water - Ground	1L - Unpreserved
3/21/23 1:30 PM	230321120-03C - Compliance 02	Water - Ground	1L - Unpreserved
3/21/23 1:30 PM	230321120-04C - Compliance 03	Water - Ground	1L - Unpreserved
3/21/23 11:30 AM	230321120-05C - Caribou Well	Water - Ground	1L - Unpreserved
3/21/23 12:15 PM	230321120-06C - Cross Portal	Water - Ground	1L - Unpreserved
3/21/23 11:15 AM	230321120-07C - Caribou Portal	Water - Ground	1L - Unpreserved
3/21/23 11:15 AM	230321120-08C - Caribou 02	Water - Ground	1L - Unpreserved
3/21/23 11:15 AM	230321120-09C - Caribou 03	Water - Ground	1L - Unpreserved

Comment:

*Preserved on 3/24/23 2000*  
*ARF Preserved on 3/23/23 2015*

Relinquished by: <u>          </u> (Signature)	Date: <u>3/23/23</u> Time: <u>9:00 AM</u>	Received by: <u>          </u> (Signature)	Date: <u>          </u> Time: <u>          </u>
Relinquished by: <u>          </u> (Signature)	Date: <u>          </u> Time: <u>          </u>	Received by: <u>          </u> (Signature)	Date: <u>          </u> Time: <u>          </u>

APPENDIX B OUTFALL-001 ANALYTICAL RESULTS

APPENDIX B.1 JANUARY 2023 OUTFALL-001 ANALYTICAL RESULTS

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Patrick Delaney  
GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Generated 1/19/2023 12:51:42 PM

## JOB DESCRIPTION

Nederland, CO

## JOB NUMBER

280-170983-1

# Eurofins Denver

## Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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1/19/2023 12:51:42 PM

Authorized for release by  
Dylan Bieniulis, Project Manager I  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)  
(303)736-0138



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# Definitions/Glossary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
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: Nederland, CO

Job ID: 280-170983-1

**Job ID: 280-170983-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Nederland, CO**

**Report Number: 280-170983-1**

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 01/05/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 C.

One of two 500mL plastic bottle with no preservative was received without any sample identification information or labeling present. It is unclear if the bottle is a temperature blank or if it is sample volume for sample OUTFALL-001 (280-170983-1). As such the container has been marked not to use pending client clarification. The client was notified on 1/6/2022 and instructed the laboratory to dispose of the unmarked container as it was intended to be used as a cooling medium (ice pack) only.

### **TOTAL RECOVERABLE METALS (ICP)**

Sample OUTFALL-001 (280-170983-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 01/11/2023 and analyzed on 01/13/2023.

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 (280-170983-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 01/11/2023.

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.

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 (280-170983-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 01/12/2023.

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: Nederland, CO

Job ID: 280-170983-1

## Job ID: 280-170983-1 (Continued)

### Laboratory: Eurofins Denver (Continued)

#### **TOTAL MERCURY (CVAA)**

Sample UTFALL-001 (280-170983-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared and analyzed on 01/17/2023.

Mercury failed the recovery criteria low for the MS of sample UTFALL-001 (280-170983-1) in batch 280-599743. Mercury exceeded the RPD limit for the MSD of sample UTFALL-001 (280-170983-1) in batch 280-599743. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is 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.

#### **TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED**

Sample UTFALL-001 (280-170983-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 01/18/2023.

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 (280-170983-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 01/18/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SPECIFIC CONDUCTIVITY**

Sample UTFALL-001 (280-170983-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 01/06/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL SUSPENDED SOLIDS**

Sample UTFALL-001 (280-170983-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 01/12/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **DISSOLVED HEXAVALENT CHROMIUM**

Sample UTFALL-001 (280-170983-1) was analyzed for dissolved hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 01/05/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HEXAVALENT CHROMIUM**

Sample UTFALL-001 (280-170983-1) was analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 01/05/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CORROSIVITY (PH)**

Sample UTFALL-001 (280-170983-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 01/12/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SULFIDE**

Sample UTFALL-001 (280-170983-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

---

## Job ID: 280-170983-1 (Continued)

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### Laboratory: Eurofins Denver (Continued)

01/11/2023.

Sulfide failed the recovery criteria high for LCS 280-599180/9. Sulfide failed the recovery criteria high for LCSD 280-599180/10. The analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported. Refer to the QC report for details.

The initial calibration verification (ICV) result for batch 280-599180 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.

### HYDROGEN SULFIDE

Sample OUTFALL-001 (280-170983-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 01/16/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### LOW LEVEL MERCURY

Sample OUTFALL-001 (280-170983-1) was analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 01/09/2023 and analyzed on 01/10/2023.

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: Nederland, CO

Job ID: 280-170983-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-170983-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	2.0		0.50	0.20	ng/L	1		1631E	Total/NA
Iron	22	J	100	9.1	ug/L	1		200.7 Rev 4.4	Total Recoverable
Lead	0.64	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	2.2		2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	0.58	J	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Manganese	0.75	J	3.0	0.51	ug/L	1		200.8	Potentially Dissolved
Zinc	8.1	J	10	2.0	ug/L	1		200.8	Potentially Dissolved
Specific Conductance	240		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
pH adj. to 25 deg C	8.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	24.0	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	8.2		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	24		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	240		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: Nederland, CO

Job ID: 280-170983-1

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  
Project/Site: Nederland, CO

Job ID: 280-170983-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-170983-1	OUTFALL-001	Water	01/05/23 09:00	01/05/23 12:00

- 1
- 2
- 3
- 4
- 5
- 7
- 8
- 9
- 10
- 12
- 13
- 14

# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: EPA 1631E - Mercury, Low Level (CVAFS)

Client Sample ID: OUTFALL-001  
Date Collected: 01/05/23 09:00  
Date Received: 01/05/23 12:00

Lab Sample ID: 280-170983-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.0		0.50	0.20	ng/L		01/09/23 15:25	01/10/23 12:10	1

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: OUTFALL-001  
Date Collected: 01/05/23 09:00  
Date Received: 01/05/23 12:00

Lab Sample ID: 280-170983-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	22	J	100	9.1	ug/L		01/11/23 09:21	01/13/23 10:16	1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001  
Date Collected: 01/05/23 09:00  
Date Received: 01/05/23 12:00

Lab Sample ID: 280-170983-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		01/12/23 08:13	01/12/23 17:37	1
Cadmium	ND		1.0	0.19	ug/L		01/12/23 08:13	01/12/23 17:37	1
Chromium	ND		3.0	0.50	ug/L		01/12/23 08:13	01/12/23 17:37	1
Copper	ND		2.0	0.71	ug/L		01/12/23 08:13	01/12/23 17:37	1
Lead	0.64	J	1.0	0.23	ug/L		01/12/23 08:13	01/12/23 17:37	1
Zinc	2.0	J	10	2.0	ug/L		01/12/23 08:13	01/12/23 17:37	1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001  
Date Collected: 01/05/23 09:00  
Date Received: 01/05/23 12:00

Lab Sample ID: 280-170983-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		01/11/23 08:10	01/11/23 20:16	1
Cadmium	ND		1.0	0.19	ug/L		01/11/23 08:10	01/11/23 20:16	1
Chromium	ND		3.0	0.50	ug/L		01/11/23 08:10	01/11/23 20:16	1
Copper	2.2		2.0	0.71	ug/L		01/11/23 08:10	01/11/23 20:16	1
Lead	0.58	J	1.0	0.23	ug/L		01/11/23 08:10	01/11/23 20:16	1
Manganese	0.75	J	3.0	0.51	ug/L		01/11/23 08:10	01/11/23 20:16	1
Nickel	ND		3.0	0.83	ug/L		01/11/23 08:10	01/11/23 20:16	1
Selenium	ND		5.0	1.0	ug/L		01/11/23 08:10	01/11/23 20:16	1
Silver	ND		0.50	0.045	ug/L		01/11/23 08:10	01/11/23 20:16	1
Zinc	8.1	J	10	2.0	ug/L		01/11/23 08:10	01/11/23 20:16	1

## Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: OUTFALL-001  
Date Collected: 01/05/23 09:00  
Date Received: 01/05/23 12:00

Lab Sample ID: 280-170983-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1 F2	0.20	0.061	ug/L		01/17/23 13:20	01/17/23 19:20	1

# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## General Chemistry

**Client Sample ID: OUTFALL-001**  
**Date Collected: 01/05/23 09:00**  
**Date Received: 01/05/23 12:00**

**Lab Sample ID: 280-170983-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Specific Conductance (SM 2510B)</b>	<b>240</b>		2.0	2.0	umhos/cm			01/06/23 11:29	1
Total Suspended Solids (SM 2540D)	ND		4.0	1.1	mg/L			01/12/23 11:40	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			01/05/23 17:35	1
<b>pH adj. to 25 deg C (SM 4500 H+ B)</b>	<b>8.2</b>	<b>HF</b>	0.1	0.1	SU			01/12/23 16:44	1
<b>Temperature (SM 4500 H+ B)</b>	<b>24.0</b>	<b>HF</b>	1.0	1.0	Degrees C			01/12/23 16:44	1
Sulfide (SM 4500 S2 D)	ND	^1+ *+	0.050	0.022	mg/L			01/11/23 16:06	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	ND		1.0	1.0	mg/L			01/16/23 14:40	1
<b>Field pH (SM4500 S2 H)</b>	<b>8.2</b>		1.0	1.0	SU			01/16/23 14:40	1
<b>Field Temperature (SM4500 S2 H)</b>	<b>24</b>		1.0	1.0	Celsius			01/16/23 14:40	1
<b>Specific Conductance (SM4500 S2 H)</b>	<b>240</b>		2.0	2.0	umhos/cm			01/16/23 14:40	1
Sulfide (SM4500 S2 H)	ND		4.0	4.0	mg/L			01/16/23 14:40	1

## General Chemistry - Total Recoverable

**Client Sample ID: OUTFALL-001**  
**Date Collected: 01/05/23 09:00**  
**Date Received: 01/05/23 12:00**

**Lab Sample ID: 280-170983-1**  
**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			01/18/23 08:36	1

## General Chemistry - Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 01/05/23 09:00**  
**Date Received: 01/05/23 12:00**

**Lab Sample ID: 280-170983-1**  
**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			01/05/23 18:51	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 01/05/23 09:00**  
**Date Received: 01/05/23 12:00**

**Lab Sample ID: 280-170983-1**  
**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			01/18/23 08:44	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-607841/3-A  
Matrix: Water  
Analysis Batch: 607943

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 607841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L		01/09/23 16:00	01/10/23 10:23	1

Lab Sample ID: LCS 400-607841/4-A  
Matrix: Water  
Analysis Batch: 607943

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 607841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.36		ng/L		87	79 - 121

Lab Sample ID: LCSD 400-607841/5-A  
Matrix: Water  
Analysis Batch: 607943

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 607841

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.29		ng/L		86	79 - 121	2	20

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-598908/1-A  
Matrix: Water  
Analysis Batch: 599374

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 598908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100	9.1	ug/L		01/11/23 09:21	01/13/23 08:04	1

Lab Sample ID: LCS 280-598908/2-A  
Matrix: Water  
Analysis Batch: 599374

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 598908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	9900		ug/L		99	85 - 115

Lab Sample ID: 280-170983-1 MS  
Matrix: Water  
Analysis Batch: 599374

Client Sample ID: OUTFALL-001  
Prep Type: Total Recoverable  
Prep Batch: 598908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	22	J	10000	7950		ug/L		79	70 - 130

Lab Sample ID: 280-170983-1 MSD  
Matrix: Water  
Analysis Batch: 599374

Client Sample ID: OUTFALL-001  
Prep Type: Total Recoverable  
Prep Batch: 598908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	22	J	10000	8210		ug/L		82	70 - 130	3	20

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 280-598906/1-A**  
**Matrix: Water**  
**Analysis Batch: 599315**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 598906**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		01/12/23 08:13	01/12/23 16:46	1
Cadmium	ND		1.0	0.19	ug/L		01/12/23 08:13	01/12/23 16:46	1
Chromium	ND		3.0	0.50	ug/L		01/12/23 08:13	01/12/23 16:46	1
Copper	ND		2.0	0.71	ug/L		01/12/23 08:13	01/12/23 16:46	1
Lead	ND		1.0	0.23	ug/L		01/12/23 08:13	01/12/23 16:46	1
Zinc	ND		10	2.0	ug/L		01/12/23 08:13	01/12/23 16:46	1

**Lab Sample ID: LCS 280-598906/2-A**  
**Matrix: Water**  
**Analysis Batch: 599315**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 598906**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	41.5		ug/L		104	89 - 111
Cadmium	40.0	39.7		ug/L		99	89 - 111
Chromium	40.0	41.3		ug/L		103	86 - 115
Copper	40.0	41.8		ug/L		104	90 - 115
Lead	40.0	40.4		ug/L		101	88 - 115
Zinc	40.0	41.6		ug/L		104	88 - 115

**Lab Sample ID: LCSD 280-598906/3-A**  
**Matrix: Water**  
**Analysis Batch: 599315**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 598906**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	40.0	39.3		ug/L		98	89 - 111	6	20
Cadmium	40.0	40.1		ug/L		100	89 - 111	1	20
Chromium	40.0	40.5		ug/L		101	86 - 115	2	20
Copper	40.0	40.9		ug/L		102	90 - 115	2	20
Lead	40.0	40.3		ug/L		101	88 - 115	0	20
Zinc	40.0	42.1		ug/L		105	88 - 115	1	20

**Lab Sample ID: MB 280-598554/1-C**  
**Matrix: Water**  
**Analysis Batch: 599194**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 598879**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		01/11/23 08:10	01/11/23 19:40	1
Cadmium	ND		1.0	0.19	ug/L		01/11/23 08:10	01/11/23 19:40	1
Chromium	ND		3.0	0.50	ug/L		01/11/23 08:10	01/11/23 19:40	1
Copper	ND		2.0	0.71	ug/L		01/11/23 08:10	01/11/23 19:40	1
Lead	ND		1.0	0.23	ug/L		01/11/23 08:10	01/11/23 19:40	1
Manganese	ND		3.0	0.51	ug/L		01/11/23 08:10	01/11/23 19:40	1
Nickel	ND		3.0	0.83	ug/L		01/11/23 08:10	01/11/23 19:40	1
Selenium	ND		5.0	1.0	ug/L		01/11/23 08:10	01/11/23 19:40	1
Silver	ND		0.50	0.045	ug/L		01/11/23 08:10	01/11/23 19:40	1
Zinc	ND		10	2.0	ug/L		01/11/23 08:10	01/11/23 19:40	1

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-598554/2-C  
Matrix: Water  
Analysis Batch: 599194

Client Sample ID: Lab Control Sample  
Prep Type: Potentially Dissolved  
Prep Batch: 598879

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Arsenic	40.0	40.7		ug/L		102	89 - 111	
Cadmium	40.0	39.3		ug/L		98	89 - 111	
Chromium	40.0	40.5		ug/L		101	86 - 115	
Copper	40.0	39.2		ug/L		98	90 - 115	
Lead	40.0	39.4		ug/L		99	88 - 115	
Manganese	40.0	39.9		ug/L		100	87 - 115	
Nickel	40.0	39.8		ug/L		99	86 - 115	
Selenium	40.0	38.3		ug/L		96	85 - 114	
Silver	40.0	39.9		ug/L		100	90 - 114	
Zinc	40.0	42.9		ug/L		107	88 - 115	

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-599609/1-A  
Matrix: Water  
Analysis Batch: 599743

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 599609

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.061	ug/L		01/17/23 13:20	01/17/23 19:15	1

Lab Sample ID: LCS 280-599609/2-A  
Matrix: Water  
Analysis Batch: 599743

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 599609

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Mercury	5.00	4.91		ug/L		98	90 - 110	

Lab Sample ID: 280-170983-1 MS  
Matrix: Water  
Analysis Batch: 599743

Client Sample ID: OUTFALL-001  
Prep Type: Total/NA  
Prep Batch: 599609

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec	
	Result	Qualifier		Result	Qualifier				Limits	
Mercury	ND	F1 F2	5.00	3.78	F1	ug/L		76	80 - 120	

Lab Sample ID: 280-170983-1 MSD  
Matrix: Water  
Analysis Batch: 599743

Client Sample ID: OUTFALL-001  
Prep Type: Total/NA  
Prep Batch: 599609

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD
	Result	Qualifier		Result	Qualifier				Limits	RPD	
Mercury	ND	F1 F2	5.00	4.94	F2	ug/L		99	80 - 120	27	10

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-598728/31  
Matrix: Water  
Analysis Batch: 598728

Client Sample ID: Method Blank  
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			01/06/23 11:29	1

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: LCS 280-598728/30  
 Matrix: Water  
 Analysis Batch: 598728

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	1480		umhos/cm		105	90 - 110

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-599253/2  
 Matrix: Water  
 Analysis Batch: 599253

Client Sample ID: Method Blank  
 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			01/12/23 11:40	1

Lab Sample ID: LCS 280-599253/1  
 Matrix: Water  
 Analysis Batch: 599253

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	200	215		mg/L		108	79 - 114

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-598689/10  
 Matrix: Water  
 Analysis Batch: 598689

Client Sample ID: Method Blank  
 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			01/05/23 17:34	1

Lab Sample ID: LCS 280-598689/8  
 Matrix: Water  
 Analysis Batch: 598689

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.100	0.101		mg/L		101	91 - 112

Lab Sample ID: LCSD 280-598689/9  
 Matrix: Water  
 Analysis Batch: 598689

Client Sample ID: Lab Control Sample Dup  
 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	0	20

Lab Sample ID: 280-170983-1 MS  
 Matrix: Water  
 Analysis Batch: 598689

Client Sample ID: OUTFALL-001  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.100	0.0995		mg/L		99	91 - 112

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-170983-1 MSD

Matrix: Water

Analysis Batch: 598689

Client Sample ID: OUTFALL-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.100		mg/L		100	91 - 112	1	20

Lab Sample ID: 280-170983-1 DU

Matrix: Water

Analysis Batch: 598689

Client Sample ID: OUTFALL-001

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Lab Sample ID: MB 280-598690/3-A

Matrix: Water

Analysis Batch: 598692

Client Sample ID: Method Blank

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			01/05/23 18:51	1

Lab Sample ID: LCS 280-598690/1-A

Matrix: Water

Analysis Batch: 598692

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.100	0.105		mg/L		105	91 - 112

Lab Sample ID: LCSD 280-598690/2-A

Matrix: Water

Analysis Batch: 598692

Client Sample ID: Lab Control Sample Dup

Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.103		mg/L		103	91 - 112	2	20

Lab Sample ID: 280-170983-1 MS

Matrix: Water

Analysis Batch: 598692

Client Sample ID: OUTFALL-001

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.100	0.102		mg/L		102	91 - 112

Lab Sample ID: 280-170983-1 MSD

Matrix: Water

Analysis Batch: 598692

Client Sample ID: OUTFALL-001

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	0.0998		mg/L		100	91 - 112	2	20

Lab Sample ID: 280-170983-1 DU

Matrix: Water

Analysis Batch: 598692

Client Sample ID: OUTFALL-001

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-170983-1

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-599312/32  
 Matrix: Water  
 Analysis Batch: 599312

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH adj. to 25 deg C	7.00	7.1		SU		101	99 - 101

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-599180/11  
 Matrix: Water  
 Analysis Batch: 599180

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	^1+	0.050	0.022	mg/L			01/11/23 15:46	1

Lab Sample ID: LCS 280-599180/9  
 Matrix: Water  
 Analysis Batch: 599180

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.501	0.638	*+ ^1+	mg/L		127	81 - 122

Lab Sample ID: LCSD 280-599180/10  
 Matrix: Water  
 Analysis Batch: 599180

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.501	0.642	*+ ^1+	mg/L		128	81 - 122	1	10

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-599521/1  
 Matrix: Water  
 Analysis Batch: 599521

Client Sample ID: Method Blank  
 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			01/16/23 14:40	1
Field pH	ND		1.0	1.0	SU			01/16/23 14:40	1
Field Temperature	ND		1.0	1.0	Celsius			01/16/23 14:40	1
Specific Conductance	ND		2.0	2.0	umhos/cm			01/16/23 14:40	1
Sulfide	ND		4.0	4.0	mg/L			01/16/23 14:40	1

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Metals

### Filtration Batch: 598554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-598554/1-C	Method Blank	Potentially Dissolved	Water	FILTRATION	
LCS 280-598554/2-C	Lab Control Sample	Potentially Dissolved	Water	FILTRATION	

### Filtration Batch: 598760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 598879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Potentially Dissolved	Water	200.8	598760
MB 280-598554/1-C	Method Blank	Potentially Dissolved	Water	200.8	598554
LCS 280-598554/2-C	Lab Control Sample	Potentially Dissolved	Water	200.8	598554

### Prep Batch: 598906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-598906/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-598906/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 280-598906/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

### Prep Batch: 598908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total Recoverable	Water	200.7	
MB 280-598908/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-598908/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
280-170983-1 MS	OUTFALL-001	Total Recoverable	Water	200.7	
280-170983-1 MSD	OUTFALL-001	Total Recoverable	Water	200.7	

### Analysis Batch: 599194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Potentially Dissolved	Water	200.8	598879
MB 280-598554/1-C	Method Blank	Potentially Dissolved	Water	200.8	598879
LCS 280-598554/2-C	Lab Control Sample	Potentially Dissolved	Water	200.8	598879

### Analysis Batch: 599315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total Recoverable	Water	200.8	598906
MB 280-598906/1-A	Method Blank	Total Recoverable	Water	200.8	598906
LCS 280-598906/2-A	Lab Control Sample	Total Recoverable	Water	200.8	598906
LCSD 280-598906/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	598906

### Analysis Batch: 599374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	598908
MB 280-598908/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	598908
LCS 280-598908/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	598908
280-170983-1 MS	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	598908
280-170983-1 MSD	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	598908

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## Metals

### Prep Batch: 599609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	245.1	
MB 280-599609/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-599609/2-A	Lab Control Sample	Total/NA	Water	245.1	
280-170983-1 MS	OUTFALL-001	Total/NA	Water	245.1	
280-170983-1 MSD	OUTFALL-001	Total/NA	Water	245.1	

### Analysis Batch: 599743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	245.1	599609
MB 280-599609/1-A	Method Blank	Total/NA	Water	245.1	599609
LCS 280-599609/2-A	Lab Control Sample	Total/NA	Water	245.1	599609
280-170983-1 MS	OUTFALL-001	Total/NA	Water	245.1	599609
280-170983-1 MSD	OUTFALL-001	Total/NA	Water	245.1	599609

### Prep Batch: 607841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	1631E	
MB 400-607841/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-607841/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-607841/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	

### Analysis Batch: 607943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	1631E	607841
MB 400-607841/3-A	Method Blank	Total/NA	Water	1631E	607841
LCS 400-607841/4-A	Lab Control Sample	Total/NA	Water	1631E	607841
LCSD 400-607841/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	607841

## General Chemistry

### Analysis Batch: 598689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
MB 280-598689/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-598689/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-598689/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-170983-1 MS	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-170983-1 MSD	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-170983-1 DU	OUTFALL-001	Total/NA	Water	SM 3500 CR B	

### Filtration Batch: 598690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Dissolved	Water	FILTRATION	
MB 280-598690/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-598690/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-598690/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-170983-1 MS	OUTFALL-001	Dissolved	Water	FILTRATION	
280-170983-1 MSD	OUTFALL-001	Dissolved	Water	FILTRATION	
280-170983-1 DU	OUTFALL-001	Dissolved	Water	FILTRATION	

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## General Chemistry

### Analysis Batch: 598692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Dissolved	Water	SM 3500 CR B	598690
MB 280-598690/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	598690
LCS 280-598690/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	598690
LCSD 280-598690/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	598690
280-170983-1 MS	OUTFALL-001	Dissolved	Water	SM 3500 CR B	598690
280-170983-1 MSD	OUTFALL-001	Dissolved	Water	SM 3500 CR B	598690
280-170983-1 DU	OUTFALL-001	Dissolved	Water	SM 3500 CR B	598690

### Analysis Batch: 598728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	SM 2510B	
MB 280-598728/31	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-598728/30	Lab Control Sample	Total/NA	Water	SM 2510B	

### Analysis Batch: 599180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
MB 280-599180/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-599180/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-599180/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

### Analysis Batch: 599253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	SM 2540D	
MB 280-599253/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-599253/1	Lab Control Sample	Total/NA	Water	SM 2540D	

### Analysis Batch: 599312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	SM 4500 H+ B	
LCS 280-599312/32	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

### Analysis Batch: 599521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total/NA	Water	SM4500 S2 H	
MB 280-599521/1	Method Blank	Total/NA	Water	SM4500 S2 H	

### Analysis Batch: 599712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Total Recoverable	Water	SM3500 CR B	

### Analysis Batch: 599713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-170983-1	OUTFALL-001	Potentially Dissolved	Water	SM3500 CR B	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-170983-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-170983-1**

**Date Collected: 01/05/23 09:00**

**Matrix: Water**

**Date Received: 01/05/23 12:00**

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	607841	01/09/23 15:25	VLC	EET PEN
							Completed:	01/10/23 09:30 <sup>1</sup>		
Total/NA	Analysis	1631E		1			607943	01/10/23 12:10	VLC	EET PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	598908	01/11/23 09:21	LJS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			599374	01/13/23 10:16	KRP	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	598760	01/06/23 18:00	LRD	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	598879	01/11/23 08:10	LJS	EET DEN
Potentially Dissolved	Analysis	200.8		1			599194	01/11/23 20:16	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	598906	01/12/23 08:13	LJS	EET DEN
Total Recoverable	Analysis	200.8		1			599315	01/12/23 17:37	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	599609	01/17/23 13:20	PFM	EET DEN
Total/NA	Analysis	245.1		1			599743	01/17/23 19:20	PFM	EET DEN
Total/NA	Analysis	SM 2510B		1			598728	01/06/23 11:29	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	599253	01/12/23 11:40	MCR	EET DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	598690	01/05/23 18:07	SJD	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	598692	01/05/23 18:51	SJD	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	598689	01/05/23 17:35	SJD	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			599312	01/12/23 16:44	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	599180	01/11/23 16:06	LRB	EET DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			599713	01/18/23 08:44	RMS	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			599712	01/18/23 08:36	RMS	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			599521	01/16/23 14:40	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: Nederland, CO

Job ID: 280-170983-1

## 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	05-31-23
California	State	2513	01-08-23 *
Connecticut	State	PH-0686	09-30-22 *
Florida	NELAP	E87667-57	06-30-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-01-24
Kansas	NELAP	E-10166	04-30-23
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Louisiana (All)	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 Dakota	State	R-034	01-08-23 *
Oklahoma	NELAP	8614	08-31-23
Pennsylvania	NELAP	013	07-31-23
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
Wisconsin	State	999615430	08-31-23

## 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	10-09-23
Kansas	NELAP	E-10253	10-31-23
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	12-31-23
Maryland	State	233	09-30-23

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-170983-1

## 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
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
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



**Eurofins Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone: 303-736-0100 Fax: 303-431-7171

# Chain of Custody Record



Environment Testing

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Bientulis, Dylan T		Carrier Tracking No(s): 280-641744.1	
Client Contact: Shipping/Receiving		E-Mail: Dylan.Bientulis@et.eurofins.com		Page: Page 1 of 1	
Company: Eurofins Environment Testing Southeast		Accreditations Required (See note):		Job #: 280-170983-1	
Address: 3355 McLemore Drive		Due Date Requested: 1/19/2023		Preservation Codes:	
City: Pensacola		TAT Requested (days):		A - HCL	
State, Zip: FL, 32514		PO #:		B - NaOH	
Phone: 850-474-1001(Tel) 850-478-2671(Fax)		WO #:		C - Zn Acetate	
Email:		Project #: 28022821		D - Nitric Acid	
Project Name: Nederland, CO		SSOW#:		E - NaHSO4	
Site:		Sample Date: 1/5/23		F - MeOH	
Sample Identification - Client ID (Lab ID)		Sample Time: 09:00 Mountain		G - Amchlor	
OUTFALL-001 (280-170983-1)		Preservation Code: Water		H - Ascorbic Acid	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>		I - Ice	
Total Number of Containers: 2		Special Instructions/Note:		J - DI Water	
				K - EDTA	
				L - EDA	
				Other:	
				M - Hexane	
				N - None	
				O - AsHsO2	
				P - Na2O4S	
				Q - Na2SO3	
				R - Na2S2O3	
				S - H2SO4	
				T - TSP Dodecahydrate	
				U - Acetone	
				V - MCAA	
				W - pH 4-5	
				Y - Trizma	
				Z - other (specify)	

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/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.

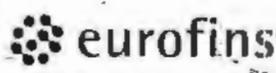
**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: *[Signature]* Date/Time: 1/6/23 14:31 Company: ETADEN  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_  
 Δ Yes Δ No



RT 686

1 12:00 A  
6027  
01.07



Environment Testing  
TestAmerica

ORIGIN ID: WJHA (303) 736-0100  
EUROFINS  
EUROFINS TESTAMERICA DENVER  
4955 YARROW ST

SHIP DATE: 06JAN23  
ACTWGT: 15.40 LB  
CAD: 290884/CAFE3616

ARVADA, CO 80002  
UNITED STATES US

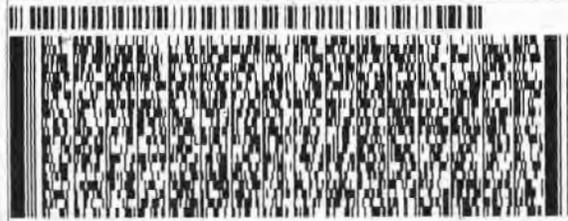
BILL SENDER

TO SHIPPING/RECEIVING  
EUROFINS ENVIRONMENT TESTING SOUTHE  
3355 MCLEMORE DRIVE

PENSACOLA FL 32514

(860) 474-1001  
PO: YES

REF: 8260-126051  
DEPT: BOTTLE PREP



TRK# 6092 7398 6027  
0201

SATURDAY 12:00P  
PRIORITY OVERNIGHT

XO PNSA

*Handwritten signature*

32514  
FL-US BFM



Part # 135489-434 KITW EXP 08/23  
EPC/1488/2/2/2  
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11  
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14

686

12:00  
4837  
01:07

**Do not lift up this tag.**

SAMPLE CONTROL  
TESTAMERICA ST. LOUIS  
13715 RIDER TRAIL NORTH

12.30 LB  
359833/CAFE3616  
14x14x9 IN

EARTH CITY, MO 63045  
UNITED STATES US

WILL RECIPIENT

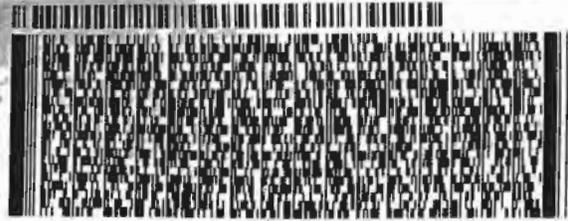
TO **STÉPHANIE WILSON**  
**TEST AMERICA PENSACOLA**  
**3355 MCLEMORE DR.**

**PENSACOLA FL 32514**

(850) 474-1001  
MU:  
PS:

REF:

DEPT:



**FedEx**  
Express



**SATURDAY 12:00P**

TRK# 5737 0410 4837  
0201

**PRIORITY OVERNIGHT**

**XO PNSA**

*0.00  
7526  
JN*

32514  
FL-US BFM



159409-400-NTW-EXP-09/23

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# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-170983-1

**Login Number: 170983**

**List Number: 1**

**Creator: Roehsner, Karen P**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (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: 280-170983-1

**Login Number: 170983**

**List Number: 2**

**Creator: Whitley, Adrian**

**List Source: Eurofins Pensacola**

**List Creation: 01/07/23 11:14 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	0.0°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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Patrick Delaney  
GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Generated 1/27/2023 4:11:36 PM

## JOB DESCRIPTION

Nederland, CO

## JOB NUMBER

280-171461-1

# Eurofins Denver

## Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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Authorized for release by  
Dylan Bieniulis, Project Manager I  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)  
(303)736-0138



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# Definitions/Glossary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-171461-1

## 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.

## 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: Nederland, CO

Job ID: 280-171461-1

**Job ID: 280-171461-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Nederland, CO**

**Report Number: 280-171461-1**

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 01/17/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.7 C.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL-001 (280-171461-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 01/23/2023 and analyzed on 01/23/2023 and 01/24/2023.

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.

Zinc was detected in method blank MB 280-599789/1-C 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)**

Sample OUTFALL-001 (280-171461-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 01/20/2023 and analyzed on 01/23/2023.

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: Nederland, CO

Job ID: 280-171461-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-171461-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.91	J	1.0	0.23	ug/L	1		200.8	Total Recoverable
Lead	0.92	J	1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Zinc	9.3	J B	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: Nederland, CO

Job ID: 280-171461-1

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

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# Sample Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-171461-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-171461-1	OUTFALL-001	Water	01/17/23 08:00	01/17/23 16:21

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# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-171461-1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001

Date Collected: 01/17/23 08:00

Date Received: 01/17/23 16:21

Lab Sample ID: 280-171461-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		01/20/23 08:03	01/23/23 19:08	1
Lead	0.91	J	1.0	0.23	ug/L		01/20/23 08:03	01/23/23 19:08	1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 01/17/23 08:00

Date Received: 01/17/23 16:21

Lab Sample ID: 280-171461-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.19	ug/L		01/23/23 08:20	01/23/23 18:29	1
Copper	ND		2.0	0.71	ug/L		01/23/23 08:20	01/23/23 18:29	1
Lead	0.92	J	1.0	0.23	ug/L		01/23/23 08:20	01/23/23 18:29	1
Silver	ND		0.50	0.045	ug/L		01/23/23 08:20	01/23/23 18:29	1
Zinc	9.3	J B	10	2.0	ug/L		01/23/23 08:20	01/24/23 16:06	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-171461-1

## Method: 200.8 - Metals (ICP/MS)

**Lab Sample ID: MB 280-599805/1-A**  
**Matrix: Water**  
**Analysis Batch: 600187**

**Client Sample ID: Method Blank**  
**Prep Type: Total Recoverable**  
**Prep Batch: 599805**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Copper	ND		2.0	0.71	ug/L		01/20/23 08:03	01/23/23 19:02	1
Lead	ND		1.0	0.23	ug/L		01/20/23 08:03	01/23/23 19:02	1

**Lab Sample ID: LCS 280-599805/2-A**  
**Matrix: Water**  
**Analysis Batch: 600187**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 599805**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	40.0	41.0		ug/L		102	88 - 115

**Lab Sample ID: LCSD 280-599805/3-A**  
**Matrix: Water**  
**Analysis Batch: 600187**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 599805**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	40.0	41.0		ug/L		103	88 - 115	0	20

**Lab Sample ID: MB 280-599789/1-C**  
**Matrix: Water**  
**Analysis Batch: 600187**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 599867**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	ND		1.0	0.19	ug/L		01/23/23 08:20	01/23/23 17:45	1
Copper	ND		2.0	0.71	ug/L		01/23/23 08:20	01/23/23 17:45	1
Lead	ND		1.0	0.23	ug/L		01/23/23 08:20	01/23/23 17:45	1
Silver	ND		0.50	0.045	ug/L		01/23/23 08:20	01/23/23 17:45	1

**Lab Sample ID: MB 280-599789/1-C**  
**Matrix: Water**  
**Analysis Batch: 600314**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 599867**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Zinc	2.02	J	10	2.0	ug/L		01/23/23 08:20	01/24/23 13:33	1

**Lab Sample ID: LCS 280-599789/2-C**  
**Matrix: Water**  
**Analysis Batch: 600187**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 599867**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	40.0	40.3		ug/L		101	90 - 115
Lead	40.0	38.0		ug/L		95	88 - 115
Silver	40.0	39.4		ug/L		99	90 - 114

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-171461-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-599789/2-C  
Matrix: Water  
Analysis Batch: 600314

Client Sample ID: Lab Control Sample  
Prep Type: Potentially Dissolved  
Prep Batch: 599867

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	40.0	41.2		ug/L		103	88 - 115

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# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-171461-1

## Metals

### Filtration Batch: 599789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-599789/1-C	Method Blank	Potentially Dissolved	Water	FILTRATION	
LCS 280-599789/2-C	Lab Control Sample	Potentially Dissolved	Water	FILTRATION	

### Prep Batch: 599805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-171461-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-599805/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-599805/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 280-599805/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	

### Filtration Batch: 599863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-171461-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

### Prep Batch: 599867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-171461-1	OUTFALL-001	Potentially Dissolved	Water	200.8	599863
MB 280-599789/1-C	Method Blank	Potentially Dissolved	Water	200.8	599789
LCS 280-599789/2-C	Lab Control Sample	Potentially Dissolved	Water	200.8	599789

### Analysis Batch: 600187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-171461-1	OUTFALL-001	Potentially Dissolved	Water	200.8	599867
280-171461-1	OUTFALL-001	Total Recoverable	Water	200.8	599805
MB 280-599789/1-C	Method Blank	Potentially Dissolved	Water	200.8	599867
MB 280-599805/1-A	Method Blank	Total Recoverable	Water	200.8	599805
LCS 280-599789/2-C	Lab Control Sample	Potentially Dissolved	Water	200.8	599867
LCS 280-599805/2-A	Lab Control Sample	Total Recoverable	Water	200.8	599805
LCSD 280-599805/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	599805

### Analysis Batch: 600314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-171461-1	OUTFALL-001	Potentially Dissolved	Water	200.8	599867
MB 280-599789/1-C	Method Blank	Potentially Dissolved	Water	200.8	599867
LCS 280-599789/2-C	Lab Control Sample	Potentially Dissolved	Water	200.8	599867

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-171461-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-171461-1**

**Date Collected: 01/17/23 08:00**

**Matrix: Water**

**Date Received: 01/17/23 16:21**

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	599863	01/19/23 10:35	LJS	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	599867	01/23/23 08:20	LJS	EET DEN
Potentially Dissolved	Analysis	200.8		1			600187	01/23/23 18:29	LMT	EET DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	599863	01/19/23 10:35	LJS	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	599867	01/23/23 08:20	LJS	EET DEN
Potentially Dissolved	Analysis	200.8		1			600314	01/24/23 16:06	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	599805	01/20/23 08:03	LJS	EET DEN
Total Recoverable	Analysis	200.8		1			600187	01/23/23 19:08	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: Nederland, CO

Job ID: 280-171461-1

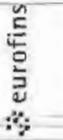
## Laboratory: Eurofins Denver

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	05-31-23
California	State	2513	01-08-23 *
Connecticut	State	PH-0686	09-30-22 *
Florida	NELAP	E87667-57	06-30-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-01-24
Kansas	NELAP	E-10166	04-30-23
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Louisiana (All)	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	01-10-24
Pennsylvania	NELAP	013	07-31-23
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 *

\* 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: 303-414-6986 Email: pdelaney@blackfoxmining.com Project Name: Wastewater Discharge - Nederland, CO Site: second half of the month event		Sampler: Brooke Moran Lab PM: Blentulis, Dylan T Project: 303-506-1618 E-Mail: Dylan.Blentulis@Eurofinset.com PWSID:		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		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:		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification 001FALL-001 Sample Date: 1/17/23 08:00 Sample Time: 08:00 Sample Type (C=Comp, G=grab): S Preservation Code: W Matrix (Powder, Solid, Suspension, Other): Field Filtered Sample (Yes or No): N Perform RES/MSD (Yes or No): 200.8 - Potentially Dissolved Metals (Second half of the month permit list): D 200.8 - Total Recoverable Metals (Second half of the month permit list): D Total Number of Containers:		Special Instructions/Note: *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) PH = 7.4 Temp = 30C		Barcode: 280-171461 Chain of Custody		Special Instructions/Note: *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)	
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"/> Radiobiological 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 checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:		Method of Shipment:		Date/Time: 1/17/23 11:17:58 PST Date/Time: 1/17/23 14:21 Date/Time:	
Relinquished by: Brooke Moran Relinquished by:		Relinquished by:		Relinquished by:		Relinquished by:	
Empty Kit Relinquished by:		Date: 1/17/23 11:17:58 Date/Time: 1/17/23 11:17:58 Date/Time:		Date/Time:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 27.1R12.0F0.0		Ver: 01/16/2019	



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-171461-1

**Login Number: 171461**

**List Number: 1**

**Creator: Rystrom, Joshua R**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	False	Thermal preservation not required.
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B.2 FEBRUARY 2023 OUTFALL-001 ANALYTICAL RESULTS



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Patrick Delaney  
GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Generated 2/28/2023 4:38:22 PM

## JOB DESCRIPTION

Nederland, CO

## JOB NUMBER

280-172397-1

# Eurofins Denver

## Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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2/28/2023 4:38:22 PM

Authorized for release by  
Dylan Bieniulis, Project Manager I  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)  
(303)736-0138



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# Definitions/Glossary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## 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
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.
▫	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: Nederland, CO

Job ID: 280-172397-1

**Job ID: 280-172397-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Nederland, CO**

**Report Number: 280-172397-1**

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 02/14/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.1 C.

### **TOTAL RECOVERABLE METALS (ICP)**

Sample OUTFALL-001 (280-172397-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 02/16/2023 and analyzed on 02/17/2023.

Iron was detected in method blank MB 280-602260/1-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 (280-172397-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 02/20/2023 and analyzed on 02/20/2023 and 02/21/2023.

Zinc was detected in method blank MB 280-602341/1-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)**

Sample OUTFALL-001 (280-172397-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 02/17/2023.

Zinc was detected in method blank MB 280-602335/1-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.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Job ID: 280-172397-1 (Continued)

### Laboratory: Eurofins Denver (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL MERCURY (CVAA)**

Sample OUTFALL-001 (280-172397-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared and analyzed on 02/15/2023.

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 (280-172397-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 02/27/2023.

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 (280-172397-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 02/27/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SPECIFIC CONDUCTIVITY**

Sample OUTFALL-001 (280-172397-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 02/23/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL SUSPENDED SOLIDS**

Sample OUTFALL-001 (280-172397-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 02/15/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **DISSOLVED HEXAVALENT CHROMIUM**

Sample OUTFALL-001 (280-172397-1) was analyzed for dissolved hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 02/14/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HEXAVALENT CHROMIUM**

Sample OUTFALL-001 (280-172397-1) was analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 02/14/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CORROSIVITY (PH)**

Sample OUTFALL-001 (280-172397-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 02/15/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SULFIDE**

Sample OUTFALL-001 (280-172397-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 02/17/2023.

Sulfide was detected in method blank MB 280-602604/11 at a level that was above the method detection limit but below the reporting limit.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

---

## Job ID: 280-172397-1 (Continued)

---

### Laboratory: Eurofins Denver (Continued)

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.

### HYDROGEN SULFIDE

Sample OUTFALL-001 (280-172397-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 02/23/2023.

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: Nederland, CO

Job ID: 280-172937-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-172937-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2E	J 6	100	3.1	ug/L	1		200.7 TeARR	5total TecoAerable
Lead	0.87	J	1.0	0.29	ug/L	1		200.8	5total TecoAerable
vinc	2.R	J 6	10	2.0	ug/L	1		200.8	5total TecoAerable
Lead	0.ZR	J	1.0	0.29	ug/L	1		200.8	Potentially Di44oIAed
vinc	E.Z	J 6	10	2.0	ug/L	1		200.8	Potentially Di44oIAed
Speci5ic Conductance	2R0		2.0	2.0	umf o4/cm	1		SM 2E106	5total/Nh
pB adj. to 2E deg C	7.3	BU	0.1	0.1	SH	1		SM RE00 BF 6	5total/Nh
5emperature	21.7	BU	1.0	1.0	Degree4 C	1		SM RE00 BF 6	5total/Nh
Uield pB	7.3		1.0	1.0	SH	1		SMRE00 S2 B	5total/Nh
Uield 5emperature	22		1.0	1.0	Cel4iu4	1		SMRE00 S2 B	5total/Nh
Speci5ic Conductance	2R0		2.0	2.0	umf o4/cm	1		SMRE00 S2 B	5total/Nh

5f i4 Detection Summary doe4 not include radiocf emical te4t re4ult4.

+uro5n4 DenAer

# Method Summary

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-172937-1

Method	Method Description	Protocol	Laboratory
20067 u ewv6	Metal( VCPF	EPA	EE) DEN
20068	Metal( VCP/MSF	EPA	EE) DEN
2vT6l	Merc. ry VCRAAF	EPA	EE) DEN
SM 2T104	Cond. ctivity, Specific Cond. ctance	SM	EE) DEN
SM 2Tv0D	Solid( , )otal S. ( pended V SSF	SM	EE) DEN
SM 9T00 Cu 4	C5romi. m, Bef awalent	SM	EE) DEN
SM vT00 Bh 4	pB	SM	EE) DEN
SM vT00 S2 D	S. lside, )otal	SM	EE) DEN
SM9T00 Cu 4	C5romi. m, ) rivalent	SM	EE) DEN
SMvT00 S2 B	Hnionixed Bydrogen S. lside	SM	EE) DEN
20067	Preparation, )otal u ecowerable Metal(	EPA	EE) DEN
20068	Preparation, )otal u ecowerable Metal(	EPA	EE) DEN
2vT6l	Preparation, Merc. ry	EPA	EE) DEN
+IL) u A) ION	Sample +iltration	None	EE) DEN
PotenUDi( ( UMet	+iltration sor Potentially Di( ( olwed Metal(	EPA	EE) DEN

**Protocol References:**

- EPA z HS Environmental Protection Agency
- None z None
- SM z \_Standard Met5od( +or ) 5e Ef amination Os= ater And = a(te" ater\_

**Laboratory References:**

- EE) DEN z E. rosn( Denver, v3TT W4rro" Street, Arwada, CO 80002, ) EL W09F79Y-0100

# Sample Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-172397-1	OUTFALL-001	Water	02/14/23 12:10	02/14/23 14:36

1

2

3

4

5

7

8

9

10

12

13

14

# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: OUTFALL-001  
Date Collected: 02/14/23 12:10  
Date Received: 02/14/23 14:36

Lab Sample ID: 280-172397-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	25	J B	100	9.1	ug/L		02/16/23 08:08	02/17/23 06:37	1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001  
Date Collected: 02/14/23 12:10  
Date Received: 02/14/23 14:36

Lab Sample ID: 280-172397-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		02/17/23 09:25	02/17/23 22:19	1
Cadmium	ND		1.0	0.19	ug/L		02/17/23 09:25	02/17/23 22:19	1
Chromium	ND		3.0	0.50	ug/L		02/17/23 09:25	02/17/23 22:19	1
Copper	ND		2.0	0.71	ug/L		02/17/23 09:25	02/17/23 22:19	1
Lead	0.87	J	1.0	0.23	ug/L		02/17/23 09:25	02/17/23 22:19	1
Zinc	2.4	J B	10	2.0	ug/L		02/17/23 09:25	02/17/23 22:19	1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001  
Date Collected: 02/14/23 12:10  
Date Received: 02/14/23 14:36

Lab Sample ID: 280-172397-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		02/20/23 08:00	02/20/23 19:10	1
Cadmium	ND		1.0	0.19	ug/L		02/20/23 08:00	02/20/23 19:10	1
Chromium	ND		3.0	0.50	ug/L		02/20/23 08:00	02/20/23 19:10	1
Copper	ND		2.0	0.71	ug/L		02/20/23 08:00	02/21/23 10:58	1
Lead	0.64	J	1.0	0.23	ug/L		02/20/23 08:00	02/20/23 19:10	1
Manganese	ND		3.0	0.51	ug/L		02/20/23 08:00	02/20/23 19:10	1
Nickel	ND		3.0	0.83	ug/L		02/20/23 08:00	02/21/23 10:58	1
Selenium	ND		5.0	1.0	ug/L		02/20/23 08:00	02/20/23 19:10	1
Silver	ND		0.50	0.045	ug/L		02/20/23 08:00	02/20/23 19:10	1
Zinc	5.6	J B	10	2.0	ug/L		02/20/23 08:00	02/21/23 10:58	1

## Method: EPA 245.1 - Mercury (CVAA)

Client Sample ID: OUTFALL-001  
Date Collected: 02/14/23 12:10  
Date Received: 02/14/23 14:36

Lab Sample ID: 280-172397-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		02/15/23 12:08	02/15/23 18:12	1

## General Chemistry

Client Sample ID: OUTFALL-001  
Date Collected: 02/14/23 12:10  
Date Received: 02/14/23 14:36

Lab Sample ID: 280-172397-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (SM 2510B)	240		2.0	2.0	umhos/cm			02/23/23 10:27	1
Total Suspended Solids (SM 2540D)	ND		4.0	1.1	mg/L			02/15/23 13:56	1
Chromium, hexavalent (SM 3500 CR B)	ND		0.020	0.0040	mg/L			02/14/23 17:15	1
pH adj. to 25 deg C (SM 4500 H+ B)	7.9	HF	0.1	0.1	SU			02/15/23 12:32	1
Temperature (SM 4500 H+ B)	21.7	HF	1.0	1.0	Degrees C			02/15/23 12:32	1

Eurofins Denver

# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## General Chemistry (Continued)

**Client Sample ID: OUTFALL-001**  
**Date Collected: 02/14/23 12:10**  
**Date Received: 02/14/23 14:36**

**Lab Sample ID: 280-172397-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SM 4500 S2 D)	ND		0.050	0.022	mg/L			02/17/23 15:35	1
Un-ionized Hydrogen Sulfide (SM4500 S2 H)	ND		1.0	1.0	mg/L			02/23/23 16:26	1
<b>Field pH (SM4500 S2 H)</b>	<b>7.9</b>		1.0	1.0	SU			02/23/23 16:26	1
<b>Field Temperature (SM4500 S2 H)</b>	<b>22</b>		1.0	1.0	Celsius			02/23/23 16:26	1
<b>Specific Conductance (SM4500 S2 H)</b>	<b>240</b>		2.0	2.0	umhos/cm			02/23/23 16:26	1
Sulfide (SM4500 S2 H)	ND		4.0	4.0	mg/L			02/23/23 16:26	1

## General Chemistry - Total Recoverable

**Client Sample ID: OUTFALL-001**  
**Date Collected: 02/14/23 12:10**  
**Date Received: 02/14/23 14:36**

**Lab Sample ID: 280-172397-1**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (SM3500 CR B)	ND		0.020	0.020	mg/L			02/27/23 13:33	1

## General Chemistry - Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 02/14/23 12:10**  
**Date Received: 02/14/23 14:36**

**Lab Sample ID: 280-172397-1**  
**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			02/14/23 17:28	1

## General Chemistry - Potentially Dissolved

**Client Sample ID: OUTFALL-001**  
**Date Collected: 02/14/23 12:10**  
**Date Received: 02/14/23 14:36**

**Lab Sample ID: 280-172397-1**  
**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			02/27/23 13:34	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-602260/1-A  
Matrix: Water  
Analysis Batch: 602539

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 602260

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	24.7	J	100	9.1	ug/L		02/16/23 08:08	02/17/23 05:28	1

Lab Sample ID: LCS 280-602260/2-A  
Matrix: Water  
Analysis Batch: 602539

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 602260

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

Lab Sample ID: LCSD 280-602260/3-A  
Matrix: Water  
Analysis Batch: 602539

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total Recoverable  
Prep Batch: 602260

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-602335/1-A  
Matrix: Water  
Analysis Batch: 602640

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 602335

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		5.0	0.50	ug/L		02/17/23 09:25	02/17/23 22:07	1
Cadmium	ND		1.0	0.19	ug/L		02/17/23 09:25	02/17/23 22:07	1
Chromium	ND		3.0	0.50	ug/L		02/17/23 09:25	02/17/23 22:07	1
Copper	ND		2.0	0.71	ug/L		02/17/23 09:25	02/17/23 22:07	1
Lead	ND		1.0	0.23	ug/L		02/17/23 09:25	02/17/23 22:07	1
Zinc	3.20	J	10	2.0	ug/L		02/17/23 09:25	02/17/23 22:07	1

Lab Sample ID: LCS 280-602335/2-A  
Matrix: Water  
Analysis Batch: 602640

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 602335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	40.0	41.0		ug/L		103	89 - 111
Chromium	40.0	42.6		ug/L		106	86 - 115
Copper	40.0	43.3		ug/L		108	90 - 115
Lead	40.0	41.0		ug/L		103	88 - 115
Zinc	40.0	44.0		ug/L		110	88 - 115

Lab Sample ID: LCSD 280-602335/3-A  
Matrix: Water  
Analysis Batch: 602640

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total Recoverable  
Prep Batch: 602335

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cadmium	40.0	39.0		ug/L		97	89 - 111	5	20
Chromium	40.0	42.2		ug/L		105	86 - 115	1	20

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCSD 280-602335/3-A**  
**Matrix: Water**  
**Analysis Batch: 602640**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total Recoverable**  
**Prep Batch: 602335**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Copper	40.0	42.4		ug/L		106	90 - 115	2	20
Lead	40.0	41.2		ug/L		103	88 - 115	0	20
Zinc	40.0	42.3		ug/L		106	88 - 115	4	20

**Lab Sample ID: 280-172397-1 MS**  
**Matrix: Water**  
**Analysis Batch: 602640**

**Client Sample ID: OUTFALL-001**  
**Prep Type: Total Recoverable**  
**Prep Batch: 602335**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		40.0	41.2		ug/L		103	79 - 120		
Cadmium	ND		40.0	40.4		ug/L		101	89 - 111		
Chromium	ND		40.0	42.3		ug/L		106	86 - 115		
Copper	ND		40.0	42.2		ug/L		105	90 - 115		
Lead	0.87	J	40.0	42.6		ug/L		104	88 - 115		
Zinc	2.4	J B	40.0	42.9		ug/L		101	88 - 115		

**Lab Sample ID: 280-172397-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 602640**

**Client Sample ID: OUTFALL-001**  
**Prep Type: Total Recoverable**  
**Prep Batch: 602335**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		40.0	41.2		ug/L		103	79 - 120	0	20
Cadmium	ND		40.0	41.1		ug/L		103	89 - 111	2	20
Chromium	ND		40.0	42.4		ug/L		106	86 - 115	0	20
Copper	ND		40.0	42.3		ug/L		106	90 - 115	0	20
Lead	0.87	J	40.0	42.7		ug/L		104	88 - 115	0	20
Zinc	2.4	J B	40.0	45.4		ug/L		108	88 - 115	6	20

**Lab Sample ID: MB 280-602341/1-B**  
**Matrix: Water**  
**Analysis Batch: 602773**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 602395**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		02/20/23 08:00	02/20/23 18:52	1
Cadmium	ND		1.0	0.19	ug/L		02/20/23 08:00	02/20/23 18:52	1
Chromium	ND		3.0	0.50	ug/L		02/20/23 08:00	02/20/23 18:52	1
Lead	ND		1.0	0.23	ug/L		02/20/23 08:00	02/20/23 18:52	1
Manganese	ND		3.0	0.51	ug/L		02/20/23 08:00	02/20/23 18:52	1
Selenium	ND		5.0	1.0	ug/L		02/20/23 08:00	02/20/23 18:52	1
Silver	ND		0.50	0.045	ug/L		02/20/23 08:00	02/20/23 18:52	1

**Lab Sample ID: MB 280-602341/1-B**  
**Matrix: Water**  
**Analysis Batch: 602850**

**Client Sample ID: Method Blank**  
**Prep Type: Potentially Dissolved**  
**Prep Batch: 602395**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		02/20/23 08:00	02/21/23 10:40	1
Nickel	ND		3.0	0.83	ug/L		02/20/23 08:00	02/21/23 10:40	1
Zinc	2.41	J	10	2.0	ug/L		02/20/23 08:00	02/21/23 10:40	1

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-602341/2-B  
Matrix: Water  
Analysis Batch: 602773

Client Sample ID: Lab Control Sample  
Prep Type: Potentially Dissolved  
Prep Batch: 602395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	37.5		ug/L		94	89 - 111
Cadmium	40.0	39.7		ug/L		99	89 - 111
Chromium	40.0	37.4		ug/L		94	86 - 115
Lead	40.0	40.2		ug/L		101	88 - 115
Manganese	40.0	37.0		ug/L		93	87 - 115
Selenium	40.0	39.9		ug/L		100	85 - 114
Silver	40.0	39.1		ug/L		98	90 - 114

Lab Sample ID: LCS 280-602341/2-B  
Matrix: Water  
Analysis Batch: 602850

Client Sample ID: Lab Control Sample  
Prep Type: Potentially Dissolved  
Prep Batch: 602395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	40.0	41.1		ug/L		103	90 - 115
Nickel	40.0	39.2		ug/L		98	86 - 115
Zinc	40.0	40.5		ug/L		101	88 - 115

Lab Sample ID: LCSD 280-602341/3-B  
Matrix: Water  
Analysis Batch: 602773

Client Sample ID: Lab Control Sample Dup  
Prep Type: Potentially Dissolved  
Prep Batch: 602395

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	40.0	37.2		ug/L		93	89 - 111	1	20
Cadmium	40.0	38.6		ug/L		97	89 - 111	3	20
Chromium	40.0	38.3		ug/L		96	86 - 115	2	20
Lead	40.0	40.2		ug/L		101	88 - 115	0	20
Manganese	40.0	37.7		ug/L		94	87 - 115	2	20
Selenium	40.0	39.6		ug/L		99	85 - 114	1	20
Silver	40.0	38.8		ug/L		97	90 - 114	1	20

Lab Sample ID: LCSD 280-602341/3-B  
Matrix: Water  
Analysis Batch: 602850

Client Sample ID: Lab Control Sample Dup  
Prep Type: Potentially Dissolved  
Prep Batch: 602395

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Copper	40.0	41.0		ug/L		102	90 - 115	0	20
Nickel	40.0	38.6		ug/L		97	86 - 115	2	20
Zinc	40.0	42.8		ug/L		107	88 - 115	6	20

## Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-602241/1-A  
Matrix: Water  
Analysis Batch: 602403

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 602241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		02/15/23 12:08	02/15/23 16:59	1

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 280-602241/2-A  
Matrix: Water  
Analysis Batch: 602403

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 602241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.97		ug/L		99	90 - 110

Lab Sample ID: LCSD 280-602241/3-A  
Matrix: Water  
Analysis Batch: 602403

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 602241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.96		ug/L		99	90 - 110	0	10

## Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-603113/5  
Matrix: Water  
Analysis Batch: 603113

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			02/23/23 10:27	1

Lab Sample ID: LCS 280-603113/4  
Matrix: Water  
Analysis Batch: 603113

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	1490		umhos/cm		106	90 - 110

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-602322/3  
Matrix: Water  
Analysis Batch: 602322

Client Sample ID: Method Blank  
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			02/15/23 13:55	1

Lab Sample ID: LCS 280-602322/1  
Matrix: Water  
Analysis Batch: 602322

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	506	482		mg/L		95	79 - 114

Lab Sample ID: LCSD 280-602322/2  
Matrix: Water  
Analysis Batch: 602322

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Suspended Solids	506	486		mg/L		96	79 - 114	1	20

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-602210/10  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: Method Blank  
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			02/14/23 17:14	1

Lab Sample ID: LCS 280-602210/8  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.100	0.105		mg/L		105	91 - 112

Lab Sample ID: LCSD 280-602210/9  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.105		mg/L		105	91 - 112	0	20

Lab Sample ID: 280-172397-1 MS  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: OUTFALL-001  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.100	0.108		mg/L		108	91 - 112

Lab Sample ID: 280-172397-1 MSD  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: OUTFALL-001  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.108		mg/L		108	91 - 112	0	20

Lab Sample ID: 280-172397-1 DU  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: OUTFALL-001  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Lab Sample ID: MB 280-602205/3-A  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: Method Blank  
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			02/14/23 17:27	1

Lab Sample ID: LCS 280-602205/1-A  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: Lab Control Sample  
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.100	0.106		mg/L		106	91 - 112

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: LCSD 280-602205/2-A  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: Lab Control Sample Dup  
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.106		mg/L		106	91 - 112	0	20

Lab Sample ID: 280-172397-1 MS  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: OUTFALL-001  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.106		mg/L		106	91 - 112		

Lab Sample ID: 280-172397-1 MSD  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: OUTFALL-001  
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	0.108		mg/L		108	91 - 112	2	20

Lab Sample ID: 280-172397-1 DU  
Matrix: Water  
Analysis Batch: 602210

Client Sample ID: OUTFALL-001  
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	ND		mg/L				NC	20

## Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-602289/4  
Matrix: Water  
Analysis Batch: 602289

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH adj. to 25 deg C	7.00	7.0		SU		100	99 - 101		

Lab Sample ID: 280-172397-1 DU  
Matrix: Water  
Analysis Batch: 602289

Client Sample ID: OUTFALL-001  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH adj. to 25 deg C	7.9	HF	7.00	7.9		SU				0.3	5
Temperature	21.7	HF	7.00	21.7		Degrees C				0	10

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-602604/11  
Matrix: Water  
Analysis Batch: 602604

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	0.0273	J	0.050	0.022	mg/L			02/17/23 14:18	1

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-172397-1

## Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: LCS 280-602604/9  
 Matrix: Water  
 Analysis Batch: 602604

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.499	0.463		mg/L		93	81 - 122

Lab Sample ID: LCSD 280-602604/10  
 Matrix: Water  
 Analysis Batch: 602604

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	0.499	0.471		mg/L		94	81 - 122	2	10

## Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-603181/1  
 Matrix: Water  
 Analysis Batch: 603181

Client Sample ID: Method Blank  
 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			02/23/23 16:26	1
Field pH	ND		1.0	1.0	SU			02/23/23 16:26	1
Field Temperature	ND		1.0	1.0	Celsius			02/23/23 16:26	1
Specific Conductance	ND		2.0	2.0	umhos/cm			02/23/23 16:26	1
Sulfide	ND		4.0	4.0	mg/L			02/23/23 16:26	1

# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172937-1

## Metals

### FreB hatc: 59844Lb

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Botal/N4	Water	2FTR	
Mh 280-k022F1/1-4	Metsod hlanv	Botal/N4	Water	2FTR	
LCS 280-k022F1/2-4	Lab Control Sample	Botal/N4	Water	2FTR	
LCSD 280-k022F1/9-4	Lab Control Sample D_p	Botal/N4	Water	2FTR	

### FreB hatc: 5984498

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Botal Ueco. erable	Water	200R	
Mh 280-k022k0/1-4	Metsod hlanv	Botal Ueco. erable	Water	200R	
LCS 280-k022k0/2-4	Lab Control Sample	Botal Ueco. erable	Water	200R	
LCSD 280-k022k0/9-4	Lab Control Sample D_p	Botal Ueco. erable	Water	200R	

### FreB hatc: 5984776

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Botal Ueco. erable	Water	200R	
Mh 280-k0299T/1-4	Metsod hlanv	Botal Ueco. erable	Water	200R	
LCS 280-k0299T/2-4	Lab Control Sample	Botal Ueco. erable	Water	200R	
LCSD 280-k0299T/9-4	Lab Control Sample D_p	Botal Ueco. erable	Water	200R	
280-172937-1 MS	OAB54LL-001	Botal Ueco. erable	Water	200R	
280-172937-1 MSD	OAB54LL-001	Botal Ueco. erable	Water	200R	

### Oiltration hatc: 59847Lb

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Potentially Diuul. ec	Water	Poten6Diuu6Met	
Mh 280-k029F1/1-h	Metsod hlanv	Potentially Diuul. ec	Water	Poten6Diuu6Met	
LCS 280-k029F1/2-h	Lab Control Sample	Potentially Diuul. ec	Water	Poten6Diuu6Met	
LCSD 280-k029F1/9-h	Lab Control Sample D_p	Potentially Diuul. ec	Water	Poten6Diuu6Met	

### FreB hatc: 5984716

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Potentially Diuul. ec	Water	200R	k029F1
Mh 280-k029F1/1-h	Metsod hlanv	Potentially Diuul. ec	Water	200R	k029F1
LCS 280-k029F1/2-h	Lab Control Sample	Potentially Diuul. ec	Water	200R	k029F1
LCSD 280-k029F1/9-h	Lab Control Sample D_p	Potentially Diuul. ec	Water	200R	k029F1

### Analysis hatc: 5984L87

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Botal/N4	Water	2FTR	k022F1
Mh 280-k022F1/1-4	Metsod hlanv	Botal/N4	Water	2FTR	k022F1
LCS 280-k022F1/2-4	Lab Control Sample	Botal/N4	Water	2FTR	k022F1
LCSD 280-k022F1/9-4	Lab Control Sample D_p	Botal/N4	Water	2FTR	k022F1

### Analysis hatc: 5984671

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Botal Ueco. erable	Water	200R Ue. FR	k022k0
Mh 280-k022k0/1-4	Metsod hlanv	Botal Ueco. erable	Water	200R Ue. FR	k022k0
LCS 280-k022k0/2-4	Lab Control Sample	Botal Ueco. erable	Water	200R Ue. FR	k022k0
LCSD 280-k022k0/9-4	Lab Control Sample D_p	Botal Ueco. erable	Water	200R Ue. FR	k022k0

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# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172937-1

## Metals

### Analysis hatc: 59849L8

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Botal Ueco. erable	Water	200RB	k0299T
Mh 280-k0299T/1-4	Metsod hlanv	Botal Ueco. erable	Water	200RB	k0299T
LCS 280-k0299T/2-4	Lab Control Sample	Botal Ueco. erable	Water	200RB	k0299T
LCSD 280-k0299T/9-4	Lab Control Sample D_p	Botal Ueco. erable	Water	200RB	k0299T
280-172937-1 MS	OAB54LL-001	Botal Ueco. erable	Water	200RB	k0299T
280-172937-1 MSD	OAB54LL-001	Botal Ueco. erable	Water	200RB	k0299T

### Analysis hatc: 5984337

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Potentially Diuool. ec	Water	200RB	k0293T
Mh 280-k029F1/1-h	Metsod hlanv	Potentially Diuool. ec	Water	200RB	k0293T
LCS 280-k029F1/2-h	Lab Control Sample	Potentially Diuool. ec	Water	200RB	k0293T
LCSD 280-k029F1/9-h	Lab Control Sample D_p	Potentially Diuool. ec	Water	200RB	k0293T

### Analysis hatc: 5984C68

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Potentially Diuool. ec	Water	200RB	k0293T
Mh 280-k029F1/1-h	Metsod hlanv	Potentially Diuool. ec	Water	200RB	k0293T
LCS 280-k029F1/2-h	Lab Control Sample	Potentially Diuool. ec	Water	200RB	k0293T
LCSD 280-k029F1/9-h	Lab Control Sample D_p	Potentially Diuool. ec	Water	200RB	k0293T

## 2 eneral C: emistry

### Oiltration hatc: 5984486

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Diuool. ed	Water	5ILBU4BION	
Mh 280-k0220T/9-4	Metsod hlanv	Diuool. ed	Water	5ILBU4BION	
LCS 280-k0220T/1-4	Lab Control Sample	Diuool. ed	Water	5ILBU4BION	
LCSD 280-k0220T/2-4	Lab Control Sample D_p	Diuool. ed	Water	5ILBU4BION	
280-172937-1 MS	OAB54LL-001	Diuool. ed	Water	5ILBU4BION	
280-172937-1 MSD	OAB54LL-001	Diuool. ed	Water	5ILBU4BION	
280-172937-1 DA	OAB54LL-001	Diuool. ed	Water	5ILBU4BION	

### Analysis hatc: 59844b8

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54LL-001	Diuool. ed	Water	SM 9T00 CU h	k0220T
280-172937-1	OAB54LL-001	Botal/N4	Water	SM 9T00 CU h	
Mh 280-k0220T/9-4	Metsod hlanv	Diuool. ed	Water	SM 9T00 CU h	k0220T
Mh 280-k02210/10	Metsod hlanv	Botal/N4	Water	SM 9T00 CU h	
LCS 280-k0220T/1-4	Lab Control Sample	Diuool. ed	Water	SM 9T00 CU h	k0220T
LCS 280-k02210/8	Lab Control Sample	Botal/N4	Water	SM 9T00 CU h	
LCSD 280-k0220T/2-4	Lab Control Sample D_p	Diuool. ed	Water	SM 9T00 CU h	k0220T
LCSD 280-k02210/3	Lab Control Sample D_p	Botal/N4	Water	SM 9T00 CU h	
280-172937-1 MS	OAB54LL-001	Diuool. ed	Water	SM 9T00 CU h	k0220T
280-172937-1 MS	OAB54LL-001	Botal/N4	Water	SM 9T00 CU h	
280-172937-1 MSD	OAB54LL-001	Diuool. ed	Water	SM 9T00 CU h	k0220T
280-172937-1 MSD	OAB54LL-001	Botal/N4	Water	SM 9T00 CU h	
280-172937-1 DA	OAB54LL-001	Diuool. ed	Water	SM 9T00 CU h	k0220T
280-172937-1 DA	OAB54LL-001	Botal/N4	Water	SM 9T00 CU h	

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# QC Association Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172937-1

## 2 eneral C: emistry

### Analysis hatc: 59844G1

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Botal/N4	Water	SM FT00 H+ h	
LCS 280-k02283/F	Lab Control Sample	Botal/N4	Water	SM FT00 H+ h	
280-172937-1 DA	OAB54 LL-001	Botal/N4	Water	SM FT00 H+ h	

### Analysis hatc: 5984744

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Botal/N4	Water	SM 2TF0D	
Mh 280-k02922/9	Metsod hlanv	Botal/N4	Water	SM 2TF0D	
LCS 280-k02922/1	Lab Control Sample	Botal/N4	Water	SM 2TF0D	
LCSD 280-k02922/2	Lab Control Sample D_p	Botal/N4	Water	SM 2TF0D	

### Analysis hatc: 598498L

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Botal/N4	Water	SM FT00 S2 D	
Mh 280-k02k0F/11	Metsod hlanv	Botal/N4	Water	SM FT00 S2 D	
LCS 280-k02k0F/3	Lab Control Sample	Botal/N4	Water	SM FT00 S2 D	
LCSD 280-k02k0F/10	Lab Control Sample D_p	Botal/N4	Water	SM FT00 S2 D	

### Analysis hatc: 5987bb7

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Botal/N4	Water	SM 2T10h	
Mh 280-k09119/T	Metsod hlanv	Botal/N4	Water	SM 2T10h	
LCS 280-k09119/F	Lab Control Sample	Botal/N4	Water	SM 2T10h	

### Analysis hatc: 5987bCb

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Botal/N4	Water	SMFT00 S2 H	
Mh 280-k09181/1	Metsod hlanv	Botal/N4	Water	SMFT00 S2 H	

### Analysis hatc: 5987L4b

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Botal Ueco. erable	Water	SM9T00 CU h	

### Analysis hatc: 5987L44

pal SamBle ID	Client SamBle ID	FreB TyBe	Matrix	Met: od	FreB hatc:
280-172937-1	OAB54 LL-001	Potentially Diuuo. ec	Water	SM9T00 CU h	

# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-172397-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-172397-1**

**Date Collected: 02/14/23 12:10**

**Matrix: Water**

**Date Received: 02/14/23 14:36**

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	602260	02/16/23 08:08	KMS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			602539	02/17/23 06:37	ADL	EET DEN
Potentially Dissolvec	Filtration	Poten_Diss_Met			250 mL	250 mL	602341	02/15/23 15:33	KMS	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	602395	02/20/23 08:00	LJS	EET DEN
Potentially Dissolvec	Analysis	200.8		1			602773	02/20/23 19:10	LMT	EET DEN
Potentially Dissolvec	Filtration	Poten_Diss_Met			250 mL	250 mL	602341	02/15/23 15:33	KMS	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	602395	02/20/23 08:00	LJS	EET DEN
Potentially Dissolvec	Analysis	200.8		1			602850	02/21/23 10:58	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	602335	02/17/23 09:25	MSM	EET DEN
Total Recoverable	Analysis	200.8		1			602640	02/17/23 22:19	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	602241	02/15/23 12:08	PFM	EET DEN
Total/NA	Analysis	245.1		1			602403	02/15/23 18:12	PFM	EET DEN
Total/NA	Analysis	SM 2510B		1			603113	02/23/23 10:27	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	602322	02/15/23 13:56	MCR	EET DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	602205	02/14/23 17:03	SJD	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	602210	02/14/23 17:28	SJD	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	602210	02/14/23 17:15	SJD	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			602289	02/15/23 12:32	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	602604	02/17/23 15:35	SJD	EET DEN
Potentially Dissolvec	Analysis	SM3500 CR B		1			603422	02/27/23 13:34	RMS	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			603421	02/27/23 13:33	RMS	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			603181	02/23/23 16:26	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: Nederland, CO

Job ID: 280-172397-1

## 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 *
Arizona	State	AZ0713	12-20-23
Arkansas DEQ	State	19-047-0	05-31-23
California	State	2513	01-08-23 *
Connecticut	State	PH-0686	09-30-22 *
Florida	NELAP	E87667-57	06-30-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-01-24
Kansas	NELAP	E-10166	04-30-23
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Louisiana (All)	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	01-10-24
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	12037	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.



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-172397-1

**Login Number: 172397**

**List Number: 1**

**Creator: Rystrom, Joshua R**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Patrick Delaney  
GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Generated 3/10/2023 4:07:09 PM

## JOB DESCRIPTION

Nederland, CO

## JOB NUMBER

280-172863-1

# Eurofins Denver

## Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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Authorized for release by  
Dylan Bieniulis, Project Manager I  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)  
(303)736-0138



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# Definitions/Glossary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172863-1

## 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.

## 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: Nederland, CO

Job ID: 280-172863-1

**Job ID: 280-172863-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Nederland, CO**

**Report Number: 280-172863-1**

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 02/27/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.7 C.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample Outfall - 001 (280-172863-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 03/02/2023 and analyzed on 03/03/2023.

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.

Zinc was detected in method blank MB 280-603773/1-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)**

Sample Outfall - 001 (280-172863-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 02/28/2023 and analyzed on 03/01/2023.

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: Nederland, CO

Job ID: 280-172846-1

**Client Sample ID: Outfall - 001**

**Lab Sample ID: 280-172863-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.7v	J	1.0	0.26	ug/L	1		200.8	Total
Lead	0.7s	J	1.0	0.26	ug/L	1		200.8	Tecoreable
Zinc	4.v	J B	10	2.0	ug/L	1		200.8	Potentially Di99olRed

# Method Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172846-1

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, 95YY warro3 Street, Arvada, CO 80002, TEL (606)764-0100

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# Sample Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172863-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-172863-1	Outfall - 001	Water	02/27/23 14:00	02/27/23 16:45

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# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172846-1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: Outfall - 001  
Date Collected: 02/27/23 14:00  
Date Received: 02/27/23 16:45

Lab Sample ID: 280-172863-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		02/28/26 13:00	06/01/26 22:61	1
Lead	0.79	J	1.0	0.26	ug/L		02/28/26 13:00	06/01/26 22:61	1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: Outfall - 001  
Date Collected: 02/27/23 14:00  
Date Received: 02/27/23 16:45

Lab Sample ID: 280-172863-1  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.19	ug/L		06/02/26 13:03	06/06/26 16:59	1
Copper	ND		2.0	0.71	ug/L		06/02/26 13:03	06/06/26 16:59	1
Lead	0.74	J	1.0	0.26	ug/L		06/02/26 13:03	06/06/26 16:59	1
Silver	ND		0.30	0.053	ug/L		06/02/26 13:03	06/06/26 16:59	1
Zinc	6.9	J B	10	2.0	ug/L		06/02/26 13:03	06/06/26 16:59	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172846-1

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-603502/1-A  
Matrix: Water  
Analysis Batch: 603789

Client Sample ID: Method Blank  
Prep Type: Total Recoverable  
Prep Batch: 603502

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		02/28/26 13:00	06/01/26 21:98	1
Lead	ND		1.0	0.26	ug/L		02/28/26 13:00	06/01/26 21:98	1

Lab Sample ID: LCS 280-603502/2-A  
Matrix: Water  
Analysis Batch: 603789

Client Sample ID: Lab Control Sample  
Prep Type: Total Recoverable  
Prep Batch: 603502

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	90.0	90.4		ug/L		102	50 - 113
Lead	90.0	68.7		ug/L		57	88 - 113

Lab Sample ID: 280-172863-1 MS  
Matrix: Water  
Analysis Batch: 603789

Client Sample ID: Outfall - 001  
Prep Type: Total Recoverable  
Prep Batch: 603502

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	ND		90.0	68.8		ug/L		57	50 - 113
Lead	0.75	J	90.0	65.8		ug/L		58	88 - 113

Lab Sample ID: 280-172863-1 MSD  
Matrix: Water  
Analysis Batch: 603789

Client Sample ID: Outfall - 001  
Prep Type: Total Recoverable  
Prep Batch: 603502

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Copper	ND		90.0	65.1		ug/L		58	50 - 113	1	20
Lead	0.75	J	90.0	65.4		ug/L		57	88 - 113	1	20

Lab Sample ID: MB 280-603773/1-B  
Matrix: Water  
Analysis Batch: 604016

Client Sample ID: Method Blank  
Prep Type: Potentially Dissolved  
Prep Batch: 603776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.15	ug/L		06/02/26 13:03	06/06/26 16:14	1
Copper	ND		2.0	0.71	ug/L		06/02/26 13:03	06/06/26 16:14	1
Lead	ND		1.0	0.26	ug/L		06/02/26 13:03	06/06/26 16:14	1
Silver	ND		0.30	0.093	ug/L		06/02/26 13:03	06/06/26 16:14	1
Zinc	2.60	J	10	2.0	ug/L		06/02/26 13:03	06/06/26 16:14	1

Lab Sample ID: LCS 280-603773/2-B  
Matrix: Water  
Analysis Batch: 604016

Client Sample ID: Lab Control Sample  
Prep Type: Potentially Dissolved  
Prep Batch: 603776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	90.0	67.7		ug/L		59	85 - 111
Copper	90.0	90.6		ug/L		101	50 - 113
Lead	90.0	68.7		ug/L		57	88 - 113
Silver	90.0	65.9		ug/L		55	50 - 119
Zinc	90.0	92.0		ug/L		103	88 - 113

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172846-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 280-603773/3-B  
Matrix: Water  
Analysis Batch: 604016

Client Sample ID: Lab Control Sample Dup  
Prep Type: Potentially Dissolved  
Prep Batch: 603776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits	RPD	RPD	Limit
Cadmium	90.0	68.7		ug/L		57	85 - 111	6	20	
Copper	90.0	92.0		ug/L		103	50 - 113	9	20	
Lead	90.0	90.6		ug/L		101	88 - 113	9	20	
Silver	90.0	65.6		ug/L		58	50 - 119	0	20	
Zinc	90.0	96.9		ug/L		108	88 - 113	6	20	

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-172863-1

## Metals

### Prep Batch: 603502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-172863-1	Outfall - 001	Total Recoverable	Water	200.8	
MB 280-603502/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-603502/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
280-172863-1 MS	Outfall - 001	Total Recoverable	Water	200.8	
280-172863-1 MSD	Outfall - 001	Total Recoverable	Water	200.8	

### Filtration Batch: 603725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-172863-1	Outfall - 001	Potentially Dissolved	Water	Poten_Diss_Met	

### Filtration Batch: 603773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-603773/1-B	Method Blank	Potentially Dissolved	Water	FILTRATION	
LCS 280-603773/2-B	Lab Control Sample	Potentially Dissolved	Water	FILTRATION	
LCSD 280-603773/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	FILTRATION	

### Prep Batch: 603776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-172863-1	Outfall - 001	Potentially Dissolved	Water	200.8	603725
MB 280-603773/1-B	Method Blank	Potentially Dissolved	Water	200.8	603773
LCS 280-603773/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	603773
LCSD 280-603773/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	603773

### Analysis Batch: 603789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-172863-1	Outfall - 001	Total Recoverable	Water	200.8	603502
MB 280-603502/1-A	Method Blank	Total Recoverable	Water	200.8	603502
LCS 280-603502/2-A	Lab Control Sample	Total Recoverable	Water	200.8	603502
280-172863-1 MS	Outfall - 001	Total Recoverable	Water	200.8	603502
280-172863-1 MSD	Outfall - 001	Total Recoverable	Water	200.8	603502

### Analysis Batch: 604016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-172863-1	Outfall - 001	Potentially Dissolved	Water	200.8	603776
MB 280-603773/1-B	Method Blank	Potentially Dissolved	Water	200.8	603776
LCS 280-603773/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	603776
LCSD 280-603773/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	603776

# Lab Chronicle

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-172863-1

**Client Sample ID: Outfall - 001**

**Lab Sample ID: 280-172863-1**

**Date Collected: 02/27/23 14:00**

**Matrix: Water**

**Date Received: 02/27/23 16:45**

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	603725	03/01/23 15:11	KMS	EET DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	603776	03/02/23 15:05	LJS	EET DEN
Potentially Dissolved	Analysis	200.8		1			604016	03/03/23 13:49	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	603502	02/28/23 15:00	LJS	EET DEN
Total Recoverable	Analysis	200.8		1			603789	03/01/23 22:31	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: Nederland, CO

Job ID: 280-172839-1

## Laboratory: Eurofins Denver

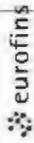
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2507.01	10-91-29
A2LA	ISO/IEC 17024	2507.01	10-91-29
Alabama	State Program	* 0790	05-90-12 z
AriZona	State	Ak0719	12-20-29
ArKansas DEu	State	15-0* 7-0	04-91-29
California	State	2419	01-08-29 z
Connecticut	State	P6-0383	05-90-22 z
Florida	NELAP	E87337-47	03-90-29
Illinois	NELAP	2000172015-1	0* -90-29
Iowa	State	IA#970	12-01-2*
Kansas	NELAP	E-10133	0* -90-29
LoHsiana	NELAP	90784	03-90-1* z
LoHsiana	NELAP	90784	03-90-29
LoHsiana (All)	NELAP	90784	03-90-29
Minnesota	NELAP	1788742	12-91-22 z
Nevada	State	CO000232020-1	07-91-29
New Hampshire	NELAP	204915	0* -28-29
New Jersey	NELAP	150002	03-90-29
New York	NELAP	45529	0* -01-29
North Carolina (WW/SW)	State	948	12-91-22 z
North Dakota	State	R-09*	01-08-29 z
Oklahoma	NELAP	831*	08-91-29
Oregon	NELAP	* 024-011	01-10-2*
Pennsylvania	NELAP	019	07-91-29
South Carolina	State	72002001	01-08-29 z
Texas	NELAP	TX10* 70* 189-08-TX	05-90-05 z
Texas	NELAP	T10* 70* 189-21-15	05-90-29
US Fish & Wildlife	US Federal Programs	048** 8	07-91-29
USDA	US Federal Programs	P990-20-00034	09-03-29
Utah	NELAP	u UAN4	03-90-19 z
Utah	NELAP	CO000232015-11	07-91-29
Virginia	NELAP	12097	03-1* -29
Washington	State	C489-15	08-09-29
West Virginia DEP	State	94*	11-90-22 z
Wisconsin	State	555314* 90	08-91-29
Wyoming (UST)	A2LA	2507.01	10-91-22 z

z Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

# 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: CO, Zip: 80466 Phone: 315 414-6986 Email: pdelaney@blackfoxmining.com Project Name: Wastewater Discharge - Nederland, CO Site: second half of the month event		Lab PM: Blentulis, Dylan T E-Mail: Dylan.Blentulis@Eurofinset.com PWSID:		Carrier Tracking No(s): State of Origin: Job #: Analysis Requested:		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: 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: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: Advance Payment Required WO #:		Field Filled Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/Std (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 200.8 - Potentially Dissolved Metals (Second half of the month permit list) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 200.8 - Total Recoverable Metals (Second half of the month permit list) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Number of Containers:		Special Instructions/Note: *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) Temp = 40C pH = 7.5		Sample Identification OUTFALL-001 Sample Date: 2/27/23 14:00 Sample Type (C=comp, G=grab): G Matrix (W=water, S=solid, O=soil/sink, B=leachate, A=air): W Preservation Code: W Barcode: 280-172863 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 checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:		Empty Kit Relinquished by: Relinquished by: Karen Lopez Thompson Date/Time: 02/27/23 16:45 Company: GILR Relinquished by: [Signature] Date/Time: 02/27/23 16:45 Company: [Signature] Relinquished by: [Signature] Date/Time: [Signature] Company: [Signature]		Method of Shipment: Cooler Temperature(s) °C and Other Remarks: 4.6 IR 1630.01	



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-172863-1

**Login Number: 172863**

**List Number: 1**

**Creator: Held, Wesley**

**List Source: Eurofins Denver**

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	
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 B.3 MARCH 2023 OUTFALL-001 ANALYTICAL RESULTS



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Patrick Delaney  
GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Generated 3/21/2023 2:11:08 PM

## JOB DESCRIPTION

Nederland, CO

## JOB NUMBER

280-173278-1

# Eurofins Denver

## Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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3/21/2023 2:11:08 PM

Authorized for release by  
Dylan Bieniulis, Project Manager I  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)  
(303)736-0138

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# Definitions/Glossary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## 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
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.
▫	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: Nederland, CO

Job ID: 280-173278-1

**Job ID: 280-173278-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Nederland, CO**

**Report Number: 280-173278-1**

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 03/08/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 6.0 C.

### **TOTAL RECOVERABLE METALS (ICP)**

Sample OUTFALL-001 (280-173278-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 03/09/2023 and analyzed on 03/10/2023.

Iron was detected in method blank MB 280-604508/1-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 (280-173278-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 03/10/2023 and 03/14/2023 and analyzed on 03/13/2023 and 03/14/2023.

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.

Zinc was detected in method blank MB 280-604646/1-D 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)**

Sample OUTFALL-001 (280-173278-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 03/10/2023.

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

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## Job ID: 280-173278-1 (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.

#### **TOTAL MERCURY (CVAA)**

Sample OUTFALL-001 (280-173278-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared and analyzed on 03/14/2023.

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 (280-173278-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500\_CR3\_B. The samples were analyzed on 03/20/2023.

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 (280-173278-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500\_CR3\_B. The samples were analyzed on 03/20/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SPECIFIC CONDUCTIVITY**

Sample OUTFALL-001 (280-173278-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 03/16/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **TOTAL SUSPENDED SOLIDS**

Sample OUTFALL-001 (280-173278-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 03/13/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **DISSOLVED HEXAVALENT CHROMIUM**

Sample OUTFALL-001 (280-173278-1) was analyzed for dissolved hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 03/08/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **HEXAVALENT CHROMIUM**

Sample OUTFALL-001 (280-173278-1) was analyzed for hexavalent chromium in accordance with 3500\_CR\_B. The samples were analyzed on 03/08/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **CORROSIVITY (PH)**

Sample OUTFALL-001 (280-173278-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 03/20/2023.

Sample OUTFALL-001 (280-173278-1) did not equilibrate to within 0.05 pH units after three measurements. This was observed previous analysis thus the sample was not rerun.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **SULFIDE**

# Case Narrative

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

---

## Job ID: 280-173278-1 (Continued)

---

### Laboratory: Eurofins Denver (Continued)

Sample OUTFALL-001 (280-173278-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 03/10/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### HYDROGEN SULFIDE

Sample OUTFALL-001 (280-173278-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 03/21/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# Detection Summary

30 ent GSleleM3 og mpea yy3  
 LRij nGri : / i N RpeNd3 ,

Job ID: 280-179278-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-173278-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
IRde	28	J 6	100	u.1	OMy	1		200.7 Ti AEE	5orpC Tij oAi RpbC
3 ormi P	0.8u	J	2.0	0.71	OMy	1		200.8	5orpC Tij oAi RpbC
yi pN	0.u1	J	1.0	0.29	OMy	1		200.8	5orpC Tij oAi RpbC
Rlej	E.v	J	10	2.0	OMy	1		200.8	5orpC Tij oAi RpbC
yi pN	0.8v	J	1.0	0.29	OMy	1		200.8	Lon erpC DI44oAi N
Rlej	u.Z	J 6	10	2.0	OMy	1		200.8	Lon erpC DI44oAi N
Gri j lsj 3 oeNQ rpej i	2E0		2.0	2.0	Qg f o4j g	1		GS 2Z106	5orpC h
mB pN: ro 2Z N M3	8.0	BU	0.1	0.1	GH	1		GS EZ00 BF 6	5orpC h
5i g mi RrCP	22.7	BU	1.0	1.0	Di MR i 4 3	1		GS EZ00 BF 6	5orpC h
Uli QmB	8.0		1.0	1.0	GH	1		GS EZ00 G2 B	5orpC h
Uli Q5i g mi RrCP	29		1.0	1.0	3i QIO4	1		GS EZ00 G2 B	5orpC h
Gri j lsj 3 oeNQ rpej i	2E0		2.0	2.0	Qg f o4j g	1		GS EZ00 G2 B	5orpC h

# Method Summary

Job ID: 280-179278-1

30 ent GSleleM3 og mpeayy3  
L R i j n G i : / i N P e N d 3 ,

Method	Method Description	Protocol	Laboratory
200A 6 i u wAv	S i r p Q (I3LV	OLE	OOF DO/
200A8	S i r p Q (I3L S GV	OLE	OOF DO/
2w) A	S i r T P a (3 . EEV	OLE	OOF DO/
GS 2) 10R	3 o e N T j r i u l r a d G r i j l 4 j 3 o e N T j r p e j i	GS	OOF DO/
GS 2) w0D	G o Q N w d F o r p C G T v m i e N i N (F G G V	GS	OOF DO/
GS 9) 00 3 6 R	3 s R o g I T g d 5 i B p u p C e n	GS	OOF DO/
GS w) 00 5 f R	n 6	GS	OOF DO/
GS w) 00 G 2 D	G T Q N i d F o r p C	GS	OOF DO/
GS 9) 00 3 6 R	3 s R o g I T g d F R u p C e n	GS	OOF DO/
GS w) 00 G 2 5	h e l o e l H N 5 a N P M e G T Q N	GS	OOF DO/
200A	L R r p r p r i o e d F o r p C 6 i j o u i P b C S i r p Q	OLE	OOF DO/
200A8	L R r p r p r i o e d F o r p C 6 i j o u i P b C S i r p Q	OLE	OOF DO/
2w) A	L R r p r p r i o e d S i r T P a	OLE	OOF DO/
xlyF6EFI, /	G p g m C x l Q P r i o e	/ o e i	OOF DO/
Lori e+Dlvv+Si n	x l Q P r i o e 4 P L o r i e r i p Q D l v v o Q i N S i r p Q	OLE	OOF DO/

**Protocol References:**

- OLE U h G O e u l P o e g i e r p Q L R i j r i o e E M e j a
- / o e i U / o e i
- GS U z G r e N p R N S i r s o N v x o P F s i O B p g l e p r i o e , 4 \_ p r i P E e N \_ p v r i = p r i P z

**Laboratory References:**

- OOF DO/ U O T R 4 e v D i e u i R d w ' ) ) V p P R o = G r R i r d E R p N p d 3 , 80002dFOy (909V79Y-0100

# Sample Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-173278-1	OUTFALL-001	Water	03/08/23 13:00	03/08/23 16:20

1

2

3

4

5

7

8

9

10

12

13

14

# Client Sample Results

90 ent GSleleM9 og mpeayy9  
L Rri j rGri : / i N RpeNd9 ,

Job ID: 280-173278-1

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: 9 OTUALL-001  
Date Collected: 03/08/23 13:00  
Date Received: 03/08/23 1/ :20

Lab Sample ID: 280-173278-1  
MatriF: x ater

AnalJte	Result y ualizier	RL	MDL	Onit	D	Prepared	AnalJBød	Dil Uac
Iron	28.65	100	0.1	uMy		03/02/23 08:10	03/10/23 00:66	1

## Method: EPA 200.8 - Metals (ICPMS) - Total Recoverable

Client Sample ID: 9 OTUALL-001  
Date Collected: 03/08/23 13:00  
Date Received: 03/08/23 1/ :20

Lab Sample ID: 280-173278-1  
MatriF: x ater

AnalJte	Result y ualizier	RL	MDL	Onit	D	Prepared	AnalJBød	Dil Uac
ArSi elj	/ D	5.0	0.50	uMy		03/10/23 08:08	03/10/23 23:13	1
9 pNg lug	/ D	1.0	0.10	uMy		03/10/23 08:08	03/10/23 23:13	1
9 hRg lug	/ D	3.0	0.50	uMy		03/10/23 08:08	03/10/23 23:13	1
Copper	0.86	2.0	0.71	uMy		03/10/23 08:08	03/10/23 23:13	1
Lead	0.06	1.0	0.23	uMy		03/10/23 08:08	03/10/23 23:13	1
zinc	4.6	10	2.0	uMy		03/10/23 08:08	03/10/23 23:13	1

## Method: EPA 200.8 - Metals (ICPMS) - PotentialIJ Dissolved

Client Sample ID: 9 OTUALL-001  
Date Collected: 03/08/23 13:00  
Date Received: 03/08/23 1/ :20

Lab Sample ID: 280-173278-1  
MatriF: x ater

AnalJte	Result y ualizier	RL	MDL	Onit	D	Prepared	AnalJBød	Dil Uac
ArSi elj	/ D	5.0	0.50	uMy		03/10/23 15:10	03/13/23 10:02	1
9 pNg lug	/ D	1.0	0.10	uMy		03/10/23 15:10	03/13/23 10:02	1
9 hRg lug	/ D	3.0	0.50	uMy		03/10/23 15:10	03/13/23 10:02	1
9 onmi P	/ D	2.0	0.71	uMy		03/10/23 15:10	03/13/23 10:02	1
Lead	0.86	1.0	0.23	uMy		03/10/23 15:10	03/13/23 10:02	1
SpeMpei si	/ D	3.0	0.51	uMy		03/10/23 15:10	03/13/23 10:02	1
/ lj ki C	/ D	3.0	0.83	uMy		03/10/23 15:10	03/13/23 10:02	1
Gi Celug	/ D	5.0	1.0	uMy		03/10/23 15:10	03/13/23 10:02	1
Gi P	/ D	0.50	0.065	uMy		03/16/23 08:22	03/16/23 15:22	1
zinc	0.65	10	2.0	uMy		03/16/23 08:22	03/16/23 15:22	1

## Method: EPA 242.1 - MercurJ (CVAA)

Client Sample ID: 9 OTUALL-001  
Date Collected: 03/08/23 13:00  
Date Received: 03/08/23 1/ :20

Lab Sample ID: 280-173278-1  
MatriF: x ater

AnalJte	Result y ualizier	RL	MDL	Onit	D	Prepared	AnalJBød	Dil Uac
Si R uPa	/ D	0.20	0.0v1	uMy		03/16/23 16:30	03/16/23 10:61	1

## General ChemistrJ

Client Sample ID: 9 OTUALL-001  
Date Collected: 03/08/23 13:00  
Date Received: 03/08/23 1/ :20

Lab Sample ID: 280-173278-1  
MatriF: x ater

AnalJte	Result y ualizier	RL	MDL	Onit	D	Prepared	AnalJBød	Dil Uac
Specizic Conductance (SM 2Z105)	240	2.0	2.0	ug hosq g			03/1v23 11:20	1
TorpGusmi eN NGoNs (GS 2560D)	/ D	6.0	1.1	g My			03/13/23 15:55	1
9 hRg lug dhi xp4pCen(GS 3500 9R B)	/ D	0.020	0.0060	g My			03/08/23 18:21	1
pH adj. to 2Z deg C (SM 4Z00 H+ 5)	8.0 HU	0.1	0.1	GU			03/20/23 16:5v	1
Temperature (SM 4Z00 H+ 5)	22.7 HU	1.0	1.0	Di MR i s 9			03/20/23 16:5v	1

EuRfles Di e4i F

# Client Sample Results

90 ent GSleleM9 og mpea yy9  
L Rri j nCln : / i N P eNd9 ,

Job ID: 280-173278-1

## General ChemistrJ (Continued)

Client Sample ID: 9 OTUALL-001

Lab Sample ID: 280-173278-1

Date Collected: 03/08/23 13:00

MatriF: x ater

Date Received: 03/08/23 1/ :20

AnalJte	Result	y ualizer	RL	MDL	Onit	D	Prepared	AnalJBed	Dil Uac
Gu@N (GS 6500 G2 D)	/	D	0.050	0.022	g My			03d10d23 1v:13	1
Ue-joelzi N HaNRoM e Gu@N (GS 6500 G2 H)	/	D	1.0	1.0	g My			03d21d23 0Q:11	1
Uield pH (SM4Z00 S2 H)	8.0		1.0	1.0	GU			03d21d23 0Q:11	1
Uield Temperature (SM4Z00 S2 H)	23		1.0	1.0	9 i @lus			03d21d23 0Q:11	1
Specizic Conductance (SM4Z00 S2 H)	240		2.0	2.0	ug hosq g			03d21d23 0Q:11	1
Gu@N (GS 6500 G2 H)	/	D	6.0	6.0	g My			03d21d23 0Q:11	1

## General ChemistrJ - Total Recoverable

Client Sample ID: 9 OTUALL-001

Lab Sample ID: 280-173278-1

Date Collected: 03/08/23 13:00

MatriF: x ater

Date Received: 03/08/23 1/ :20

AnalJte	Result	y ualizer	RL	MDL	Onit	D	Prepared	AnalJBed	Dil Uac
9 hRg lug drR4pCen(GS 3500 9 R B)	/	D	0.020	0.020	g My			03d20d23 10:25	1

## General ChemistrJ - Dissolved

Client Sample ID: 9 OTUALL-001

Lab Sample ID: 280-173278-1

Date Collected: 03/08/23 13:00

MatriF: x ater

Date Received: 03/08/23 1/ :20

AnalJte	Result	y ualizer	RL	MDL	Onit	D	Prepared	AnalJBed	Dil Uac
9 hRg lug dhi xp4pCen(GS 3500 9 R B)	/	D	0.020	0.0060	g My			03d08d23 18:62	1

## General ChemistrJ - PotentialJ Dissolved

Client Sample ID: 9 OTUALL-001

Lab Sample ID: 280-173278-1

Date Collected: 03/08/23 13:00

MatriF: x ater

Date Received: 03/08/23 1/ :20

AnalJte	Result	y ualizer	RL	MDL	Onit	D	Prepared	AnalJBed	Dil Uac
9 hRg lug drR4pCen(Nsso@i N) (GS 3500 9 R B)	/	D	0.020	0.020	g My			03d20d23 10:27	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-604/ 081A-r  
Matix W T atex  
r nalcsis Bat5h: 6047A2

Client Sample ID: Method Blank  
Pæp yçpe: yotal Re5ovexable  
Pæp Bat5h: 604/ 08

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Pæpaxed	r nalc9ed	Dil 3a5
Iron	13.2	J	100	9.1	ug/L		03/09/23 08:10	03/10/23 00:11	1

Lab Sample ID: LCS 280-604/ 0812-r  
Matix W T atex  
r nalcsis Bat5h: 6047A2

Client Sample ID: Lab Control Sample  
Pæp yçpe: yotal Re5ovexable  
Pæp Bat5h: 604/ 08

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Iron	10000	10600		ug/L		106	85 - 115

## Method: 200.8 - Metals (ICP MS)

Lab Sample ID: MB 280-604/ A61A-r  
Matix W T atex  
r nalcsis Bat5h: 6048f 8

Client Sample ID: Method Blank  
Pæp yçpe: yotal Re5ovexable  
Pæp Bat5h: 604/ A6

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Pæpaxed	r nalc9ed	Dil 3a5
Arsenic	ND		5.0	0.50	ug/L		03/10/23 08:08	03/10/23 22:27	1
Cadmium	ND		1.0	0.19	ug/L		03/10/23 08:08	03/10/23 22:27	1
Chromium	ND		3.0	0.50	ug/L		03/10/23 08:08	03/10/23 22:27	1
Copper	ND		2.0	0.71	ug/L		03/10/23 08:08	03/10/23 22:27	1
Lead	ND		1.0	0.23	ug/L		03/10/23 08:08	03/10/23 22:27	1
Zinc	ND		10	2.0	ug/L		03/10/23 08:08	03/10/23 22:27	1

Lab Sample ID: LCS 280-604/ A612-r  
Matix W T atex  
r nalcsis Bat5h: 6048f 8

Client Sample ID: Lab Control Sample  
Pæp yçpe: yotal Re5ovexable  
Pæp Bat5h: 604/ A6

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Arsenic	40.0	39.6		ug/L		99	89 - 111
Cadmium	40.0	38.3		ug/L		96	89 - 111
Chromium	40.0	40.6		ug/L		101	86 - 115
Copper	40.0	41.0		ug/L		102	90 - 115
Lead	40.0	41.1		ug/L		103	88 - 115
Zinc	40.0	41.1		ug/L		103	88 - 115

Lab Sample ID: LCSD 280-604/ A61f -r  
Matix W T atex  
r nalcsis Bat5h: 6048f 8

Client Sample ID: Lab Control Sample Dup  
Pæp yçpe: yotal Re5ovexable  
Pæp Bat5h: 604/ A6

r nalcte	Spike r dded	LCSD Result	LCSD Qualizex	F nit	D	U Re5	U Re5 Limits	RPD	RPD Limit
Arsenic	40.0	38.8		ug/L		97	89 - 111	2	20
Cadmium	40.0	39.5		ug/L		99	89 - 111	3	20
Chromium	40.0	41.4		ug/L		104	86 - 115	2	20
Copper	40.0	41.7		ug/L		104	90 - 115	2	20
Lead	40.0	41.2		ug/L		103	88 - 115	0	20
Zinc	40.0	41.8		ug/L		105	88 - 115	2	20

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## Method: 200.8 - Metals (ICP-MS) (Continued)

Lab Sample ID: MB 280-6046461A-C  
Matrix: T atex  
r nalcsis Bat5h: 60/ 0AA

Client Sample ID: Method Blank  
Prep type: Potentiallc Dissolved  
Prep Bat5h: 60468A

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Prepared	r nalcs9ed	Dil 3a5
Arsenic	ND		5.0	0.50	ug/L		03/10/23 15:10	03/13/23 18:37	1
Cadmium	ND		1.0	0.19	ug/L		03/10/23 15:10	03/13/23 18:37	1
Chromium	ND		3.0	0.50	ug/L		03/10/23 15:10	03/13/23 18:37	1
Copper	ND		2.0	0.71	ug/L		03/10/23 15:10	03/13/23 18:37	1
Lead	ND		1.0	0.23	ug/L		03/10/23 15:10	03/13/23 18:37	1
Manganese	ND		3.0	0.51	ug/L		03/10/23 15:10	03/13/23 18:37	1
Nickel	ND		3.0	0.83	ug/L		03/10/23 15:10	03/13/23 18:37	1
Selenium	ND		5.0	1.0	ug/L		03/10/23 15:10	03/13/23 18:37	1

Lab Sample ID: LCS 280-60464612-C  
Matrix: T atex  
r nalcsis Bat5h: 60/ 0AA

Client Sample ID: Lab Control Sample  
Prep type: Potentiallc Dissolved  
Prep Bat5h: 60468A

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Arsenic	40.0	40.1		ug/L		100	89 - 111
Cadmium	40.0	40.9		ug/L		102	89 - 111
Chromium	40.0	41.4		ug/L		103	86 - 115
Copper	40.0	42.2		ug/L		105	90 - 115
Lead	40.0	40.0		ug/L		100	88 - 115
Manganese	40.0	40.3		ug/L		101	87 - 115
Nickel	40.0	40.7		ug/L		102	86 - 115
Selenium	40.0	40.6		ug/L		102	85 - 114

Lab Sample ID: LCSD 280-6046461f-B  
Matrix: T atex  
r nalcsis Bat5h: 60/ 0AA

Client Sample ID: Lab Control Sample Dup  
Prep type: Potentiallc Dissolved  
Prep Bat5h: 60468A

r nalcte	Spike r dded	LCSD Result	LCSD Qualizex	F nit	D	U Re5	U Re5 Limits	RPD	RPD Limit
Arsenic	40.0	39.4		ug/L		98	89 - 111	2	20
Cadmium	40.0	40.6		ug/L		102	89 - 111	1	20
Chromium	40.0	40.6		ug/L		101	86 - 115	2	20
Copper	40.0	41.3		ug/L		103	90 - 115	2	20
Lead	40.0	39.8		ug/L		100	88 - 115	0	20
Manganese	40.0	39.3		ug/L		98	87 - 115	2	20
Nickel	40.0	41.5		ug/L		104	86 - 115	2	20
Selenium	40.0	39.9		ug/L		100	85 - 114	2	20

Lab Sample ID: MB 280-6046461A-D  
Matrix: T atex  
r nalcsis Bat5h: 60/ A24

Client Sample ID: Method Blank  
Prep type: Potentiallc Dissolved  
Prep Bat5h: 604680

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Prepared	r nalcs9ed	Dil 3a5
Silver	ND		0.50	0.045	ug/L		03/14/23 08:22	03/14/23 14:55	1
Zinc	2.25	J	10	2.0	ug/L		03/14/23 08:22	03/14/23 14:55	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## Method: 200.8 - Metals (ICP MS) (Continued)

Lab Sample ID: LCS 280-6046462-D  
Matrix: T atex  
r nalcsis Bat5h: 60/ A24

Client Sample ID: Lab Control Sample  
Prep type: Potential Dissolved  
Prep Bat5h: 604%80

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Silver	40.0	39.3		ug/L		98	90 - 114
Zinc	40.0	43.0		ug/L		108	88 - 115

Lab Sample ID: LCSD 280-604646f-D  
Matrix: W T atex  
r nalcsis Bat5h: 60/ A24

Client Sample ID: Lab Control Sample Dup  
Prep type: Potential Dissolved  
Prep Bat5h: 604%80

r nalcte	Spike r dded	LCSD Result	LCSD Qualizex	F nit	D	U Re5	U Re5 Limits	RPD	Limit
Silver	40.0	41.8		ug/L		105	90 - 114	6	20
Zinc	40.0	42.5		ug/L		106	88 - 115	1	20

## Method: 24/ .A- Mex5uxc (CO r r)

Lab Sample ID: MB 280-60/ 07A1A-r  
Matrix: W T atex  
r nalcsis Bat5h: 60/ A%#

Client Sample ID: Method Blank  
Prep type: yotalVr  
Prep Bat5h: 60/ 07A

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Prepared	r nalced	Dil 3a5
Mercury	ND		0.20	0.061	ug/L		03/14/23 14:39	03/14/23 18:45	1

Lab Sample ID: LCS 280-60/ 07A2-r  
Matrix: W T atex  
r nalcsis Bat5h: 60/ A%#

Client Sample ID: Lab Control Sample  
Prep type: yotalVr  
Prep Bat5h: 60/ 07A

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Mercury	5.00	4.95		ug/L		99	90 - 110

Lab Sample ID: 280-A7f 278-AMS  
Matrix: W T atex  
r nalcsis Bat5h: 60/ A%#

Client Sample ID: NFy3r LL-00A  
Prep type: yotalVr  
Prep Bat5h: 60/ 07A

r nalcte	Sample Result	Sample Qualizex	Spike r dded	MS Result	MS Qualizex	F nit	D	U Re5	U Re5 Limits
Mercury	ND		5.00	4.91		ug/L		98	80 - 120

Lab Sample ID: 280-A7f 278-AMSD  
Matrix: W T atex  
r nalcsis Bat5h: 60/ A%#

Client Sample ID: NFy3r LL-00A  
Prep type: yotalVr  
Prep Bat5h: 60/ 07A

r nalcte	Sample Result	Sample Qualizex	Spike r dded	MSD Result	MSD Qualizex	F nit	D	U Re5	U Re5 Limits	RPD	Limit
Mercury	ND		5.00	4.86		ug/L		97	80 - 120	1	10

## Method: SM 2/ A0B - Condu5tivity, Spe5izi5 Condu5tan5e

Lab Sample ID: MB 280-60/ f 661  
Matrix: W T atex  
r nalcsis Bat5h: 60/ f 66

Client Sample ID: Method Blank  
Prep type: yotalVr

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Prepared	r nalced	Dil 3a5
Specific Conductance	ND		2.0	2.0	umhos/cm			03/16/23 11:20	1

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# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## Method: SM 2/ A0B - Condu5tivity, Spe5izi5 Condu5tan5e (Continued)

Lab Sample ID: LCS 280-60/ f 66A  
MatxiW T atex  
r nalcsis Bat5h: 60/ f 66

Client Sample ID: Lab Contxol Sample  
Pxp ycp: yotalVr

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Specific Conductance	1410	1480		umhos/cm		105	90 - 110

## Method: SM 2/ 40D - Solids, yotal Suspended (ySS)

Lab Sample ID: MB 280-604/68B  
MatxiW T atex  
r nalcsis Bat5h: 604/68

Client Sample ID: Method Blank  
Pxp ycp: yotalVr

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Pxpaxed	r nalced	Dil 3a5
Total Suspended Solids	ND		4.0	1.1	mg/L			03/13/23 15:55	1

Lab Sample ID: LCS 280-604/68A  
MatxiW T atex  
r nalcsis Bat5h: 604/68

Client Sample ID: Lab Contxol Sample  
Pxp ycp: yotalVr

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Total Suspended Solids	501	451		mg/L		90	79 - 114

## Method: SM f/ 00 CR B - Chxomium, HeVavalent

Lab Sample ID: MB 280-604/ A7A  
MatxiW T atex  
r nalcsis Bat5h: 604/ A7

Client Sample ID: Method Blank  
Pxp ycp: yotalVr

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Pxpaxed	r nalced	Dil 3a5
Chromium, hexavalent	ND		0.020	0.0040	mg/L			03/08/23 18:20	1

Lab Sample ID: LCS 280-604/ A7B  
MatxiW T atex  
r nalcsis Bat5h: 604/ A7

Client Sample ID: Lab Contxol Sample  
Pxp ycp: yotalVr

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Chromium, hexavalent	0.100	0.109		mg/L		109	91 - 112

Lab Sample ID: LCSD 280-604/ A7C  
MatxiW T atex  
r nalcsis Bat5h: 604/ A7

Client Sample ID: Lab Contxol Sample Dup  
Pxp ycp: yotalVr

r nalcte	Spike r dded	LCSD Result	LCSD Qualizex	F nit	D	U Re5	U Re5 Limits	RPD Limit
Chromium, hexavalent	0.100	0.109		mg/L		109	91 - 112	1 20

Lab Sample ID: 280-A7f 278-AMS  
MatxiW T atex  
r nalcsis Bat5h: 604/ A7

Client Sample ID: NFy3r LL-00A  
Pxp ycp: yotalVr

r nalcte	Sample Result	Sample Qualizex	Spike r dded	MS Result	MS Qualizex	F nit	D	U Re5	U Re5 Limits
Chromium, hexavalent	ND		0.100	0.102		mg/L		102	91 - 112

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## Method: SM f / 00 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-A7f 278-A MSD  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: NFy3r LL-00A  
Preparation: Total

Parameter	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Final	D	UR5	UR5 Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.105		mg/L		105	91 - 112	2	20

Lab Sample ID: 280-A7f 278-A DF  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: NFy3r LL-00A  
Preparation: Total

Parameter	Sample Result	Sample Qualifier	DF Result	DF Qualifier	Final	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Lab Sample ID: MB 280-604/ A2f -r  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: Method Blank  
Preparation: Dissolved

Parameter	MB Result	MB Qualifier	RL	MDL	Final	D	Prepared	Received	Time
Chromium, hexavalent	ND		0.020	0.0040	mg/L			03/08/23	18:41

Lab Sample ID: LCS 280-604/ A2A-r  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: Lab Control Sample  
Preparation: Dissolved

Parameter	Spike Added	LCS Result	LCS Qualifier	Final	D	UR5	UR5 Limits
Chromium, hexavalent	0.100	0.104		mg/L		104	91 - 112

Lab Sample ID: LCSD 280-604/ A2B-r  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: Lab Control Sample Dup  
Preparation: Dissolved

Parameter	Spike Added	LCSD Result	LCSD Qualifier	Final	D	UR5	UR5 Limits	RPD	RPD Limit
Chromium, hexavalent	0.100	0.103		mg/L		103	91 - 112	0	20

Lab Sample ID: 280-A7f 278-A MS  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: NFy3r LL-00A  
Preparation: Dissolved

Parameter	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Final	D	UR5	UR5 Limits
Chromium, hexavalent	ND		0.100	0.103		mg/L		103	91 - 112

Lab Sample ID: 280-A7f 278-A MSD  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: NFy3r LL-00A  
Preparation: Dissolved

Parameter	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Final	D	UR5	UR5 Limits	RPD	RPD Limit
Chromium, hexavalent	ND		0.100	0.104		mg/L		104	91 - 112	1	20

Lab Sample ID: 280-A7f 278-A DF  
Matrix: Water  
Reference: Bat5h: 604/ A7

Client Sample ID: NFy3r LL-00A  
Preparation: Dissolved

Parameter	Sample Result	Sample Qualifier	DF Result	DF Qualifier	Final	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	20

Eurofins Denver

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-173278-1

## Method: SM 4/ 00 H+ B - pH

Lab Sample ID: LCS 280-60/ 7447  
MatixW T atex  
r nalcsis Bat5h: 60/ 744

Client Sample ID: Lab Control Sample  
Prep type: yotalVr

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
pH adj. to 25 deg C	7.00	7.1		SU		101	99 - 101

## Method: SM 4/ 00 S2 D - Sulzide, yotal

Lab Sample ID: MB 280-6047871A  
MatixW T atex  
r nalcsis Bat5h: 604787

Client Sample ID: Method Blank  
Prep type: yotalVr

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Prepared	r nalcsed	Dil 3a5
Sulfide	ND		0.050	0.022	mg/L			03/10/23 14:01	1

Lab Sample ID: LCS 280-6047871%  
MatixW T atex  
r nalcsis Bat5h: 604787

Client Sample ID: Lab Control Sample  
Prep type: yotalVr

r nalcte	Spike r dded	LCS Result	LCS Qualizex	F nit	D	U Re5	U Re5 Limits
Sulfide	0.500	0.510		mg/L		102	81 - 122

Lab Sample ID: LCSD 280-6047871A0  
MatixW T atex  
r nalcsis Bat5h: 604787

Client Sample ID: Lab Control Sample Dup  
Prep type: yotalVr

r nalcte	Spike r dded	LCSD Result	LCSD Qualizex	F nit	D	U Re5	U Re5 Limits	RPD	RPD Limit
Sulfide	0.500	0.514		mg/L		103	81 - 122	1	10

## Method: SM4/ 00 S2 H - F nioni9ed Hcdxogen Sulzide

Lab Sample ID: MB 280-60/ 77/ 1A  
MatixW T atex  
r nalcsis Bat5h: 60/ 77/

Client Sample ID: Method Blank  
Prep type: yotalVr

r nalcte	MB Result	MB Qualizex	RL	MDL	F nit	D	Prepared	r nalcsed	Dil 3a5
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			03/21/23 09:11	1
Field pH	ND		1.0	1.0	SU			03/21/23 09:11	1
Field Temperature	ND		1.0	1.0	Celsius			03/21/23 09:11	1
Specific Conductance	ND		2.0	2.0	umhos/cm			03/21/23 09:11	1
Sulfide	ND		4.0	4.0	mg/L			03/21/23 09:11	1

# QC Association Summary

30 ent GSleleM3 og mpeayy3  
L Røi j nGri : / i N RøeNd3 ,

Job ID: 280-179278-1

## Metals

### Prep Batch: 604508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	TorpCBi j o5i RpbC	O pri P	200W	
S4 280-h0ks08d-A	Si nvoN4 Røe_	TorpCBi j o5i RpbC	O pri P	200W	
y3 G 280-h0ks08d-A	y pb 3 oerRøCGpg mC	TorpCBi j o5i RpbC	O pri P	200W	

### Prep Batch: 604516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	TorpCBi j o5i RpbC	O pri P	200W	
S4 280-h0ks1hd-A	Si nvoN4 Røe_	TorpCBi j o5i RpbC	O pri P	200W	
y3 G 280-h0ks1hd-A	y pb 3 oerRøCGpg mC	TorpCBi j o5i RpbC	O pri P	200W	
y3 GD 280-h0ks1hd-A	y pb 3 oerRøCGpg mC DUm	TorpCBi j o5i RpbC	O pri P	200W	

### Filtration Batch: 604646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
S4 280-h0khkhd-3	Si nvoN4 Røe_	Loni erpC Di . o5i R	O pri P	RlyTBATI, /	
S4 280-h0khkhd-D	Si nvoN4 Røe_	Loni erpC Di . o5i R	O pri P	RlyTBATI, /	
y3 G 280-h0khkhd-3	y pb 3 oerRøCGpg mC	Loni erpC Di . o5i R	O pri P	RlyTBATI, /	
y3 G 280-h0khkhd-D	y pb 3 oerRøCGpg mC	Loni erpC Di . o5i R	O pri P	RlyTBATI, /	
y3 GD 280-h0khkhd-4	y pb 3 oerRøCGpg mC DUm	Loni erpC Di . o5i R	O pri P	RlyTBATI, /	
y3 GD 280-h0khkhd-D	y pb 3 oerRøCGpg mC DUm	Loni erpC Di . o5i R	O pri P	RlyTBATI, /	

### Filtration Batch: 604658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Loni erpC Di . o5i R	O pri P	Loni e6Di . 6Si n	

### Prep Batch: 604681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Loni erpC Di . o5i R	O pri P	200W	h0khs8
S4 280-h0khkhd-3	Si nvoN4 Røe_	Loni erpC Di . o5i R	O pri P	200W	h0khkh
y3 G 280-h0khkhd-3	y pb 3 oerRøCGpg mC	Loni erpC Di . o5i R	O pri P	200W	h0khkh
y3 GD 280-h0khkhd-4	y pb 3 oerRøCGpg mC DUm	Loni erpC Di . o5i R	O pri P	200W	h0khkh

### Analysis Batch: 604712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	TorpCBi j o5i RpbC	O pri P	200W Bi 5 kW	h0ks08
S4 280-h0ks08d-A	Si nvoN4 Røe_	TorpCBi j o5i RpbC	O pri P	200W Bi 5 kW	h0ks08
y3 G 280-h0ks08d-A	y pb 3 oerRøCGpg mC	TorpCBi j o5i RpbC	O pri P	200W Bi 5 kW	h0ks08

### Analysis Batch: 604838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	TorpCBi j o5i RpbC	O pri P	200W	h0ks1h
S4 280-h0ks1hd-A	Si nvoN4 Røe_	TorpCBi j o5i RpbC	O pri P	200W	h0ks1h
y3 G 280-h0ks1hd-A	y pb 3 oerRøCGpg mC	TorpCBi j o5i RpbC	O pri P	200W	h0ks1h
y3 GD 280-h0ks1hd-A	y pb 3 oerRøCGpg mC DUm	TorpCBi j o5i RpbC	O pri P	200W	h0ks1h

### Prep Batch: 604980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Loni erpC Di . o5i R	O pri P	200W	h0khs8
S4 280-h0khkhd-D	Si nvoN4 Røe_	Loni erpC Di . o5i R	O pri P	200W	h0khkh
y3 G 280-h0khkhd-D	y pb 3 oerRøCGpg mC	Loni erpC Di . o5i R	O pri P	200W	h0khkh
y3 GD 280-h0khkhd-D	y pb 3 oerRøCGpg mC DUm	Loni erpC Di . o5i R	O pri P	200W	h0khkh

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# QC Association Summary

30 ent GSleleM3 og mpeayy3  
L Rri j nGri : / i N RpeNd3,

Job ID: 280-179278-1

## Metals

### Analysis Batch: 605011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Lori erip@ Dl. . oGi N	O pri P	200W	h0kh81
S4 280-h0khhkd-3	Si nvoN4@e_	Lori erip@ Dl. . oGi N	O pri P	200W	h0kh81
y3 G 280-h0khhkd-3	y pb 3 oerR@Gpg mC	Lori erip@ Dl. . oGi N	O pri P	200W	h0kh81
y3 GD 280-h0khhkd-4	y pb 3 oerR@Gpg mC DUm	Lori erip@ Dl. . oGi N	O pri P	200W	h0kh81

### Prep Batch: 605071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp@ A	O pri P	2ksW	
S4 280-h0s071d-A	Si nvoN4@e_	Torp@ A	O pri P	2ksW	
y3 G 280-h0s071d-A	y pb 3 oerR@Gpg mC	Torp@ A	O pri P	2ksW	
280-179278-1 S G	, FTRAYy-001	Torp@ A	O pri P	2ksW	
280-179278-1 S GD	, FTRAYy-001	Torp@ A	O pri P	2ksW	

### Analysis Batch: 605124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Lori erip@ Dl. . oGi N	O pri P	200W	h0kf 80
S4 280-h0khhkd-D	Si nvoN4@e_	Lori erip@ Dl. . oGi N	O pri P	200W	h0kf 80
y3 G 280-h0khhkd-D	y pb 3 oerR@Gpg mC	Lori erip@ Dl. . oGi N	O pri P	200W	h0kf 80
y3 GD 280-h0khhkd-D	y pb 3 oerR@Gpg mC DUm	Lori erip@ Dl. . oGi N	O pri P	200W	h0kf 80

### Analysis Batch: 605193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp@ A	O pri P	2ksW	h0s071
S4 280-h0s071d-A	Si nvoN4@e_	Torp@ A	O pri P	2ksW	h0s071
y3 G 280-h0s071d-A	y pb 3 oerR@Gpg mC	Torp@ A	O pri P	2ksW	h0s071
280-179278-1 S G	, FTRAYy-001	Torp@ A	O pri P	2ksW	h0s071
280-179278-1 S GD	, FTRAYy-001	Torp@ A	O pri P	2ksW	h0s071

## General Chemistry

### Filtration Batch: 604512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Dl. . oGi N	O pri P	RlyTBATI, /	
S4 280-h0ks12d-A	Si nvoN4@e_	Dl. . oGi N	O pri P	RlyTBATI, /	
y3 G 280-h0ks12d-A	y pb 3 oerR@Gpg mC	Dl. . oGi N	O pri P	RlyTBATI, /	
y3 GD 280-h0ks12d-A	y pb 3 oerR@Gpg mC DUm	Dl. . oGi N	O pri P	RlyTBATI, /	
280-179278-1 S G	, FTRAYy-001	Dl. . oGi N	O pri P	RlyTBATI, /	
280-179278-1 S GD	, FTRAYy-001	Dl. . oGi N	O pri P	RlyTBATI, /	
280-179278-1 DF	, FTRAYy-001	Dl. . oGi N	O pri P	RlyTBATI, /	

### Analysis Batch: 604517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Dl. . oGi N	O pri P	GS 9s00 3 B 4	h0ks12
280-179278-1	, FTRAYy-001	Torp@ A	O pri P	GS 9s00 3 B 4	
S4 280-h0ks12d-A	Si nvoN4@e_	Dl. . oGi N	O pri P	GS 9s00 3 B 4	h0ks12
S4 280-h0ks17d0	Si nvoN4@e_	Torp@ A	O pri P	GS 9s00 3 B 4	
y3 G 280-h0ks12d-A	y pb 3 oerR@Gpg mC	Dl. . oGi N	O pri P	GS 9s00 3 B 4	h0ks12
y3 G 280-h0ks17d	y pb 3 oerR@Gpg mC	Torp@ A	O pri P	GS 9s00 3 B 4	
y3 GD 280-h0ks12d-A	y pb 3 oerR@Gpg mC DUm	Dl. . oGi N	O pri P	GS 9s00 3 B 4	h0ks12
y3 GD 280-h0ks17d	y pb 3 oerR@Gpg mC DUm	Torp@ A	O pri P	GS 9s00 3 B 4	
280-179278-1 S G	, FTRAYy-001	Dl. . oGi N	O pri P	GS 9s00 3 B 4	h0ks12

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# QC Association Summary

30 ent GS leleM3 og mpeayy3  
L Rri j rGri : / i N RpeNd3 ,

Job ID: 280-179278-1

## General Chemistry (Continued)

### Analysis Batch: 604517 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1 S G	, FTRAYy-001	Torp A	O pri P	GS 9s00 3 B 4	
280-179278-1 S GD	, FTRAYy-001	DL . oGi N	O pri P	GS 9s00 3 B 4	h0ks12
280-179278-1 S GD	, FTRAYy-001	Torp A	O pri P	GS 9s00 3 B 4	
280-179278-1 DF	, FTRAYy-001	DL . oGi N	O pri P	GS 9s00 3 B 4	h0ks12
280-179278-1 DF	, FTRAYy-001	Torp A	O pri P	GS 9s00 3 B 4	

### Analysis Batch: 604787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp A	O pri P	GS ks00 G2 D	
S4 280-h0k787d1	Si nvoN4 pe_	Torp A	O pri P	GS ks00 G2 D	
y3 G 280-h0k787d	y pb 3 oer bCGpg mC	Torp A	O pri P	GS ks00 G2 D	
y3 GD 280-h0k787d0	y pb 3 oer bCGpg mC DUm	Torp A	O pri P	GS ks00 G2 D	

### Analysis Batch: 604968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp A	O pri P	GS 2sk0D	
S4 280-h0kf h8d	Si nvoN4 pe_	Torp A	O pri P	GS 2sk0D	
y3 G 280-h0kf h8d	y pb 3 oer bCGpg mC	Torp A	O pri P	GS 2sk0D	

### Analysis Batch: 605366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp A	O pri P	GS 2s104	
S4 280-h0s9hhc	Si nvoN4 pe_	Torp A	O pri P	GS 2s104	
y3 G 280-h0s9hhc	y pb 3 oer bCGpg mC	Torp A	O pri P	GS 2s104	

### Analysis Batch: 605638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp CBi j o5i RpbC	O pri P	GS 9s00 3 B 4	

### Analysis Batch: 605640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Lori erp o DL . oGi N	O pri P	GS 9s00 3 B 4	

### Analysis Batch: 605744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp A	O pri P	GS ks00 H+ 4	
y3 G 280-h0s7kkc	y pb 3 oer bCGpg mC	Torp A	O pri P	GS ks00 H+ 4	

### Analysis Batch: 605775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-179278-1	, FTRAYy-001	Torp A	O pri P	GS ks00 G2 H	
S4 280-h0s77scd	Si nvoN4 pe_	Torp A	O pri P	GS ks00 G2 H	

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# Lab Chronicle

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-173278-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-173278-1**

**Date Collected: 03/08/23 13:00**

**Matrix: Water**

**Date Received: 03/08/23 16:20**

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	604508	03/09/23 08:10	LJS	EET DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			604712	03/10/23 00:44	ADL	EET DEN
Potentially Dissolvec	Filtration	Poten_Diss_Met			250 mL	250 mL	604658	03/09/23 20:00	LRD	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	604681	03/10/23 15:10	LJS	EET DEN
Potentially Dissolvec	Analysis	200.8		1			605011	03/13/23 19:02	LMT	EET DEN
Potentially Dissolvec	Filtration	Poten_Diss_Met			250 mL	250 mL	604658	03/09/23 20:00	LRD	EET DEN
Potentially Dissolvec	Prep	200.8			50 mL	50 mL	604980	03/14/23 08:22	LJS	EET DEN
Potentially Dissolvec	Analysis	200.8		1			605124	03/14/23 15:22	LMT	EET DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	604516	03/10/23 08:08	LJS	EET DEN
Total Recoverable	Analysis	200.8		1			604838	03/10/23 23:13	LMT	EET DEN
Total/NA	Prep	245.1			30 mL	50 mL	605071	03/14/23 14:39	PFM	EET DEN
Total/NA	Analysis	245.1		1			605193	03/14/23 19:41	PFM	EET DEN
Total/NA	Analysis	SM 2510B		1			605366	03/16/23 11:20	KEG	EET DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	604968	03/13/23 15:55	MCR	EET DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	604512	03/08/23 18:01	SJD	EET DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	604517	03/08/23 18:42	SJD	EET DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	604517	03/08/23 18:21	SJD	EET DEN
Total/NA	Analysis	SM 4500 H+ B		1			605744	03/20/23 14:56	KEG	EET DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	604787	03/10/23 16:13	SJD	EET DEN
Potentially Dissolvec	Analysis	SM3500 CR B		1			605640	03/20/23 10:27	RMS	EET DEN
Total Recoverable	Analysis	SM3500 CR B		1			605638	03/20/23 10:25	RMS	EET DEN
Total/NA	Analysis	SM4500 S2 H		1			605775	03/21/23 09:11	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  
 6000 E. 1st Ave., Suite 100, Denver, CO 80202

Job ID: 280-174278-1

## Laboratory: Eurofins Denver

Our accreditation is issued by the International Laboratory Accreditation Cooperation (ILAC) and is valid in all countries that are signatories to the ILAC Mutual Recognition Arrangement (MRA).

Authority	Program	Identification Number	Expiration Date
O2LO	DepthosDesenAe . LO6	2E07H01	10-41-24
O2LO	IS, d. C 17029	2E07H01	10-41-24
Alabama	State 6 RgPam	30740	0E-40-12 5
Alaska	State	18-001	02-08-23
Arizona	State	Oz0714	12-20-24
Arkansas	State	1E-037-0	09-41-24
California	State	2914	01-08-23
Connecticut	State	6u-0H8H	0E-40-22 5
Florida	/ . LO6	. 87H7-97	0H40-24
Georgia	State	3029-011	01-08-23
Illinois	/ . LO6	200017201E-1	03-40-24
Iowa	State	IO#470	12-01-23
Kansas	/ . LO6	. -101H	03-40-24
Kentucky	State	KYE8037	12-41-24
Louisiana	/ . LO6	40789	0H40-13 5
Louisiana	/ . LO6	40789	0H40-24
Louisiana	/ . LO6	40789	0H40-24
Minnesota	/ . LO6	1788792	12-41-24
Mississippi	State	C, 0002H2020-1	07-41-24
Missouri	/ . LO6	20941E	03-28-24
Montana	/ . LO6	1E0002	0H40-24
Nebraska	/ . LO6	9EE24	03-01-24
Nevada	State	498	12-41-22 5
New Hampshire	State	R-043	01-08-24 5
New Jersey	/ . LO6	8H13	08-41-24
New Mexico	State	2018-00H	08-41-24
New York	/ . LO6	3029-011	01-10-23
Pennsylvania	/ . LO6	014	07-41-24
South Carolina	State	72002001	01-08-24 5
Texas	/ . LO6	UX103703184-08-UX	0E-40-0E 5
Texas	/ . LO6	U103703184-21-1E	0E-40-24
Utah	( S FeNePal 6 RgPamA	098338	07-41-24
Utah	( S FeNePal 6 RgPamA	6440-20-000H9	12-1E-29
Virginia	/ . LO6	Z ( O/ 9	0H40-14 5
Virginia	/ . LO6	C, 0002H201E-11	07-41-24
Virginia	/ . LO6	12047	0H13-24
Washington	State	C984-1E	08-04-24
West Virginia	State	493	11-40-24
Wisconsin	State	EEEH19340	08-41-24
Wyoming	O2LO	2E07H01	10-41-22 5

5000 E. 1st Ave., Suite 100, Denver, CO 80202

Eurofins Denver

**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone (303) 736-0100 Phone (303) 431-7171

**Chain of Custody Record**



Environment Testing  
 America

<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: <del>CONFIDENTIAL</del> <b>First half of month</b>		Sampler: <b>KL</b> Lab P/N: Blentiulis, Dylan T Phone: 720-649-7722 E-Mail: Dylan.Blentiulis@Eurofins.com PWSID:		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 Advance Payment Required PO #: WO #: Project #: 28022821 SSOW#:		Analysis Requested 25108 - 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) 1040E - Low Level Mercury (Cr, Pb, Manganese)		Total Number of Containers:		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 X - EDTA L - EDA Z - other (specify)	
Sample Identification <b>OUTFALL-001</b>		Sample Date: <b>3/8/23 13:00</b> Sample Time: <b>6</b> Sample Type (C=comp, G=grab): <b>W</b> Matrix (W=water, S=solid, O=soil/sediment, A=air):		Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Preservation Code: <b>W</b>		Special Instructions/Notes: *potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn) <b>First half of month</b> *Surface water total recoverable metals list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg) <b>First half of month</b>	
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)		280-173278 Chain of Custody 		PH = 7.4 Temp = 5.0C	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <b>Patrick Delaney</b>		Date/Time: <b>3/8/23 13:20</b>		Company:		Relinquished by: <b>Patrick Delaney</b>	
Relinquished by:		Date/Time:		Company:		Relinquished by:	
Relinquished by:		Date/Time:		Company:		Relinquished by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <b>5.9 14.0C/0.1</b>		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 1 Months	



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-176278-1

**Login Number: 173278**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Roehsner, Karen P**

Question	Answer	Comment
/ aAioaRidity c avnwRseR eA or iv hk baR grounA av meavureA by a vurdey meter=	3rue	
3se Rbolerw RuvtoAy vealTi, preventTiv intaR=	Nk	
Sample RuvtoAy vealvTi, preventTare intaR=	3rue	
3se Rboler or vamplev Ao not appear to sade been RbompromiveA or tampereA c its=	3rue	
Samplev c ere reReideA on iRe=	f alve	
Cooler 3emperature iv aRReptable=	3rue	
Cooler 3emperature iv reRbrAeA=	3rue	
COC iv prevent=	3rue	
COC iv ,illeA out in in' anA legible=	3rue	
COC iv ,illeA out c its all pertinent in,ormation=	3rue	
Iv tse f ielA Samplerw name prevent on COCF	3rue	
3sere are no AivRrepanRev betc een tse Rbntainerv reReideA anA tse COC=	3rue	
Samplev are reReideA c itsin ? olAing 3ime H( RuAing tevtv c its immeAiate ? 3vx	3rue	
Sample Rbntainerv sade legible labelv=	3rue	
Containerv are not bro' en or lea' ing=	3rue	
Sample RbllerRion Aatekimev are prodiAeA=	3rue	
. pppropriate vample Rbntainerv are uveA=	3rue	
Sample bottlev are Rbompletely ,illeA=	3rue	
Sample ) reverdation Peri,ieA=	Nk	
3sere iv vu,,iRent dol=,or all reVuevteA analyvevTinR=any reVuevteA MSMSq v	3rue	
Containerv reVuiring Dero seaAvpaRe sade no seaAvpaRe or bubble iv hzmm Hk"x=	Nk	
MultipsaveRvamplev are not prevent=	3rue	
Samplev Ao not reVuire vplitting or Rbmpoviting=	3rue	
/ eviAual Cslorine CseR eA=	Nk	

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Patrick Delaney  
GS Mining Company LLC  
422 Gregory Street  
Central City, Colorado 80427

Generated 4/6/2023 3:14:43 PM

## JOB DESCRIPTION

Nederland, CO

## JOB NUMBER

280-174380-1

# Eurofins Denver

## Job Notes

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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Authorized for release by  
Dylan Bieniulis, Project Manager I  
[Dylan.Bieniulis@et.eurofinsus.com](mailto:Dylan.Bieniulis@et.eurofinsus.com)  
(303)736-0138



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# Definitions/Glossary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-174380-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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: Nederland, CO

Job ID: 280-174380-1

**Job ID: 280-174380-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: GS Mining Company LLC**

**Project: Nederland, CO**

**Report Number: 280-174380-1**

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 03/31/2023; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.3 C.

The sample collection date and time were not recorded on the sample containers received for sample OUTFALL-001 (280-174380-1). Logged per chain of custody.

### **POTENTIALLY DISSOLVED METALS (ICPMS)**

Sample OUTFALL-001 (280-174380-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 04/04/2023.

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.

Zinc failed the recovery criteria high for LCS 280-607380/2-B. These analytes were biased high in the LCS and were not detected above the RL in the associated samples; therefore, the data have been qualified and reported. 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 (280-174380-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 04/04/2023.

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: Nederland, CO

Job ID: 280-174380-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-174380-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.71	J	2.0	0.71	ug/L	1		200.8	Total Recoverable
Lead	1.1		1.0	0.23	ug/L	1		200.8	Total Recoverable
Copper	3.5		2.0	0.71	ug/L	1		200.8	Potentially Dissolved
Lead	1.2		1.0	0.23	ug/L	1		200.8	Potentially Dissolved
Zinc	7.6	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: Nederland, CO

Job ID: 280-174680-1

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 (606)763-0100

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# Sample Summary

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-174380-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-174380-1	OUTFALL-001	Water	03/31/23 10:00	03/31/23 13:47

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# Client Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-174380-1

## Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001

Date Collected: 03/31/23 10:00

Date Received: 03/31/23 13:47

Lab Sample ID: 280-174380-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.71	J	2.0	0.71	ug/L		04/04/23 07:58	04/04/23 15:41	1
Lead	1.1		1.0	0.23	ug/L		04/04/23 07:58	04/04/23 15:41	1

## Method: EPA 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 03/31/23 10:00

Date Received: 03/31/23 13:47

Lab Sample ID: 280-174380-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.19	ug/L		04/04/23 07:58	04/04/23 15:17	1
Copper	3.5		2.0	0.71	ug/L		04/04/23 07:58	04/04/23 15:17	1
Lead	1.2		1.0	0.23	ug/L		04/04/23 07:58	04/04/23 15:17	1
Silver	ND		0.50	0.045	ug/L		04/04/23 07:58	04/04/23 15:17	1
Zinc	7.6	J**	10	2.0	ug/L		04/04/23 07:58	04/04/23 15:17	1

# QC Sample Results

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-174380-1

## Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-60351A/1-r  
Matrix: T atex  
Reference: 6039FF

Client Sample ID: Method Blank  
Prep type: yotal Revo7exable  
Prep Reference: 60351A

Element	MB Result	MB Qual%	RL	MDL	Unit	D	Prep	Ref	Dil
Copper	ND		2.0	0.71	ug/L		04/04/23 07:58	04/04/23 15:26	1
Lead	ND		1.0	0.23	ug/L		04/04/23 07:58	04/04/23 15:26	1

Lab Sample ID: LCS 280-60351A/2-r  
Matrix: W T atex  
Reference: 6039FF

Client Sample ID: Lab Control Sample  
Prep type: yotal Revo7exable  
Prep Reference: 60351A

Element	Spike	LCS Result	LCS Qual%	Unit	D	ORev	Limits
Copper	40.0	42.1		ug/L		105	90 - 115
Lead	40.0	40.4		ug/L		101	88 - 115

Lab Sample ID: MB 280-603295/1-B  
Matrix: W T atex  
Reference: 6039A1

Client Sample ID: Method Blank  
Prep type: Potential Dissolved  
Prep Reference: 6035F1

Element	MB Result	MB Qual%	RL	MDL	Unit	D	Prep	Ref	Dil
Cadmium	ND		1.0	0.19	ug/L		04/04/23 07:58	04/04/23 15:08	1
Copper	ND		2.0	0.71	ug/L		04/04/23 07:58	04/04/23 15:08	1
Lead	ND		1.0	0.23	ug/L		04/04/23 07:58	04/04/23 15:08	1
Silver	ND		0.50	0.045	ug/L		04/04/23 07:58	04/04/23 15:08	1
Zinc	ND		10	2.0	ug/L		04/04/23 07:58	04/04/23 15:08	1

Lab Sample ID: LCS 280-603580/2-B  
Matrix: W T atex  
Reference: 6039A1

Client Sample ID: Lab Control Sample  
Prep type: Potential Dissolved  
Prep Reference: 6035F1

Element	Spike	LCS Result	LCS Qual%	Unit	D	ORev	Limits
Cadmium	40.0	39.8		ug/L		99	89 - 111
Copper	40.0	41.9		ug/L		105	90 - 115
Lead	40.0	40.6		ug/L		102	88 - 115
Silver	40.0	40.4		ug/L		101	90 - 114
Zinc	40.0	46.5	+	ug/L		116	88 - 115

Lab Sample ID: 280-13A580-1 MS  
Matrix: W T atex  
Reference: 6039A1

Client Sample ID: 4 f yzr LL-001  
Prep type: Potential Dissolved  
Prep Reference: 6035F1

Element	Sample Result	Sample Qual%	Spike	MS Result	MS Qual%	Unit	D	ORev	Limits
Cadmium	ND		40.0	40.4		ug/L		101	89 - 111
Copper	3.5		40.0	42.3		ug/L		97	90 - 115
Lead	1.2		40.0	42.2		ug/L		103	88 - 115
Silver	ND		40.0	41.3		ug/L		103	70 - 130
Zinc	7.6	J *	40.0	49.2		ug/L		104	88 - 115

Lab Sample ID: 280-13A580-1 MSD  
Matrix: W T atex  
Reference: 6039A1

Client Sample ID: 4 f yzr LL-001  
Prep type: Potential Dissolved  
Prep Reference: 6035F1

Element	Sample Result	Sample Qual%	Spike	MSD Result	MSD Qual%	Unit	D	ORev	Limits	RPD	Limit
Cadmium	ND		40.0	40.4		ug/L		101	89 - 111	0	20

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# QC Sample Results

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-174380-1

## Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-13A580-1 MSD  
 Matrix: Water  
 Reference: 6039A1

Client Sample ID: 4 f yzr LL-001  
 Purpose: Potential Dissolved  
 Reference: 6035F1

Element	Sample Result	Sample Quality %	Spike Added	MSD Result	MSD Quality %	Unit	D	O Rev	O Rev Limits	RPD	RPD Limit
Copper	3.5		40.0	42.2		ug/L		97	90 - 115	0	20
Lead	1.2		40.0	42.5		ug/L		103	88 - 115	1	20
Silver	ND		40.0	41.1		ug/L		103	70 - 130	1	20
Zinc	7.6	J*+	40.0	49.2		ug/L		104	88 - 115	0	20

# QC Association Summary

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-174680-1

## Metals

### Filtration Batch: 607253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-174680-1	ORAB5LL-001	Potentially DiTToI9ec	Water	PotenFDiTTFMet	
Mh 280-k072s6/1-h	Metvod hlan.	Potentially DiTToI9ec	Water	PotenFDiTTFMet	
280-174680-1 MS	ORAB5LL-001	Potentially DiTToI9ec	Water	PotenFDiTTFMet	
280-174680-1 MSD	ORAB5LL-001	Potentially DiTToI9ec	Water	PotenFDiTTFMet	

### Prep Batch: 607314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-174680-1	ORAB5LL-001	Aotal 3 eco9erable	Water	200L	
Mh 280-k07614/1-5	Metvod hlan.	Aotal 3 eco9erable	Water	200L	
LCS 280-k07614/2-5	Lab Control Sample	Aotal 3 eco9erable	Water	200L	

### Filtration Batch: 607380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-k07680/2-h	Lab Control Sample	Potentially DiTToI9ec	Water	BILA35AION	

### Prep Batch: 607391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-174680-1	ORAB5LL-001	Potentially DiTToI9ec	Water	200L	k072s6
Mh 280-k072s6/1-h	Metvod hlan.	Potentially DiTToI9ec	Water	200L	k072s6
LCS 280-k07680/2-h	Lab Control Sample	Potentially DiTToI9ec	Water	200L	k07680
280-174680-1 MS	ORAB5LL-001	Potentially DiTToI9ec	Water	200L	k072s6
280-174680-1 MSD	ORAB5LL-001	Potentially DiTToI9ec	Water	200L	k072s6

### Analysis Batch: 607541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-174680-1	ORAB5LL-001	Potentially DiTToI9ec	Water	200L	k076u1
Mh 280-k072s6/1-h	Metvod hlan.	Potentially DiTToI9ec	Water	200L	k076u1
LCS 280-k07680/2-h	Lab Control Sample	Potentially DiTToI9ec	Water	200L	k076u1
280-174680-1 MS	ORAB5LL-001	Potentially DiTToI9ec	Water	200L	k076u1
280-174680-1 MSD	ORAB5LL-001	Potentially DiTToI9ec	Water	200L	k076u1

### Analysis Batch: 607599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-174680-1	ORAB5LL-001	Aotal 3 eco9erable	Water	200L	k07614
Mh 280-k07614/1-5	Metvod hlan.	Aotal 3 eco9erable	Water	200L	k07614
LCS 280-k07614/2-5	Lab Control Sample	Aotal 3 eco9erable	Water	200L	k07614

# Lab Chronicle

Client: GS Mining Company LLC  
Project/Site: Nederland, CO

Job ID: 280-174680-1

**Client Sample ID: OUTFALL-001**

**Lab Sample ID: 280-174380-1**

**Date Collected: 03/31/23 10:00**

**Matrix: Water**

**Date Received: 03/31/23 13:47**

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			200 mL	200 mL	E072T6	06/61/26 20:60	L9D	335 D3N
Potentially Dissolved	Prep	200.8			T0 mL	T0 mL	E076A1	04/04/26 07:T8	LJS	335 D3N
Potentially Dissolved	Ranalysis	200.8		1			E07T41	04/04/26 1T:17	LM5	335 D3N
5otal 9 ecoverable	Prep	200.8			T0 mL	T0 mL	E07614	04/04/26 07:T8	LJS	335 D3N
5otal 9 ecoverable	Ranalysis	200.8		1			E07TAA	04/04/26 1T:41	LM5	335 D3N

**Laboratory References:**

335 D3N = 3uofins Denver, 4ATT Yarrow Street, Rvada, CO 80002, 53L (606)76E-0100

# Accreditation/Certification Summary

Client: GS Mining Company LLC  
 Project/Site: Nederland, CO

Job ID: 280-174680-1

## 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	10-61-26
A2LA	ISO/IEC 17023	2907.01	10-61-26
Alabama	State Program	40760	09-60-12 5
Alaska SUT	State	18-001	02-08-24
Arizona	State	Az0716	12-20-26
Arkansas DEZ	State	19-047-0	03-61-26
California	State	2316	01-08-24
Connecticut	State	Pu-0H8H	09-60-22 5
Florida	NELAP	E87H7-37	0H-60-26
Georgia	State	4023-011	01-08-24
Illinois	NELAP	2000172019-1	04-60-26
Iowa	State	IA#670	12-01-24
Kansas	NELAP	E-101H	04-60-26
Kentucky VT	State	KY98047	12-61-26
Louisiana	NELAP	60783	0H-60-14 5
Louisiana	NELAP	60783	0H-60-26
Louisiana AIT	NELAP	60783	0H-60-26
Minnesota	NELAP	1788732	12-61-26
Nevada	State	CO0002H2020-1	07-61-26
New Hampshire	NELAP	203619	04-28-26
New Jersey	NELAP	190002	0H-60-26
North Carolina SVT	State	638	12-61-22 5
North Dakota	State	R-064	01-08-26 5
Oklahoma	NELAP	8H14	08-61-26
Oklahoma	State	2018-00H	08-61-26
Oregon	NELAP	4023-011	01-10-24
Pennsylvania	NELAP	016	07-61-26
South Carolina	State	72002001	01-08-26 5
Texas	NELAP	UX104704186-08-UX	09-60-09 5
Texas	NELAP	U104704186-21-19	09-60-26
US Fish & Wildlife	US Federal Programs	038448	07-61-26
USDA	US Federal Programs	P660-20-000H3	12-19-23
Utah	NELAP	Z ( AN3	0H-60-16 5
Utah	NELAP	CO0002H2019-11	07-61-26
Virginia	NELAP	12067	0H-14-26
Washington	State	C386-19	08-06-26
West Virginia DEP	State	634	11-60-26
Wisconsin	State	999H13460	08-61-26
Wyoming SUT	A2LA	2907.01	10-61-22 5

5 Accreditation/Certification renewal pending - accreditation/certification considered Valid.

**Eurofins TestAmerica, Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone (303) 736-0100 Phone (303) 431-7171

**Chain of Custody Record**

**eurofins** Environment Testing  
 America

<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: second half of the month event		Lab PM: Blentulis, Dylan T E-Mail: Dylan.blentulis@Eurofins.com RWSID:		Sampler: Karen Lopez Phone:		Carrier Tracking Note(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 #:		Field Filtered Sample (Yes or No)		200g - Potentially Dissolved Metals (Second half of the month permit list) 200g - Total Recoverable Metals (Second half of the month permit list)		Analysis Requested		Preservation Codes: M - Hexane N - None O - Ash/O2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDTA Other:			
Sample Identification OUTFALL-001		Sample Date 03/31/2023 10:00		Sample Time 10:00		Sample Type (C=comp, G=grab) G		Matrix (Wood, Sewage, Oil, etc.) W		Special Instructions/Note: *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) temp = 3°C pH = 7.3	
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:		Relinquished by:		Relinquished by:		Relinquished by:	
Relinquished by: Karen Lopez Date/Time: 03/31/2023 10:07 Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Relinquished by: GIR Date/Time: 03/31/2023 13:47		Relinquished by: [Signature] Date/Time: 4/1/2023 12:40		Relinquished by: [Signature] Date/Time: 4/1/2023 13:47		Relinquished by: [Signature] Date/Time: 4/1/2023 13:47		Relinquished by: [Signature] Date/Time: 4/1/2023 13:47	
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:		Received by:		Received by:		Received by:	
280-174380 Chain of Custody		Barcode		280-174380 Chain of Custody		Received by:		Received by:		Received by:	



# Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-176380-1

**Login Number: 174380**

**List Source: Eurofins Denver**

**List Number: 1**

**Creator: Roehsner, Karen P**

Question	Answer	Comment
Accuracy of the flowmeter.	/ rue	
The flowmeter is calibrated.	/ rue	
Sample flowmeter is intact.	/ rue	
The flowmeter or sample flowmeter does not appear to have been compromised or tampered with.	/ rue	
Sample vials are sealed on site.	/ rue	
Cooler / temperature is acceptable.	/ rue	
Cooler / temperature is recorded.	/ rue	
Cf C is prevented.	/ rue	
Cf C is, if it is in an illegible.	/ rue	
Cf C is, if it is in all pertinent information.	/ rue	
What is the sample name present on Cf C?	/ rue	
There are no discrepancies between the container and the Cf C.	I always	Refer to Job Narrative, or Retailer
Sample is sealed in a bag / time (during the time it is in the bag) / vial	/ rue	
Sample container has a legible label.	/ rue	
Containerware not broken or leaking.	/ rue	
Sample collection Rate-time is recorded.	/ rue	
Appropriate sample containerware used.	/ rue	
Sample bottleware completely sealed.	/ rue	
Sample Preservation Verified.	N/A	
There is no, if it is, or all requested analytical. any requested MSDW	/ rue	
Container requiring zero headspace or no headspace or bubble in 4mm H <sub>2</sub> O	N/A	
Multiple vials are not present.	/ rue	
Sample does not require splitting or homogenizing.	/ rue	
Actual C-10 or C-11	N/A	

## APPENDIX C SURFACE WATER ANALYTICAL RESULTS

No observable flow, therefore no samples collected.

APPENDIX D CHAIN OF CUSTODY (COC) FORMS





### Chain of Custody Form

<b>Report To Information</b>		<b>Bill To Information</b> (If different from report to)		<b>Project Name / Number</b>	
Company Name: <u>Grand Island Resources</u>		Company Name: _____		_____	
Contact Name: <u>Brooke Moran</u>		Contact Name: _____		_____	
Address: <u>12567 W. Cedar Rd Ste 251</u>		Address: _____		Task Number (Lab Use Only)	
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80228</u>		City: _____ State: _____ Zip: _____			
Phone: <u>303-506-1618</u>		Phone: _____			
Email: <u>scg@riverpark.com</u>		Email: _____			
Sample Collector: <u>BM</u>		PO No.: _____			
Sample Collector Phone: <u>303-506-1618</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)				Sample ID	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													
3/21/23	13:00			CROSS WELL	5	☐	QR	022	050014					
3/21/23	13:30			COMPLIANCE WELL	5	☐	RIV	SED	3/2023					
3/21/23	13:30			COMPLIANCE C2	5	☐								
3/21/23	13:30			COMPLIANCE C3	5	☐								
3/21/23	11:30			CARIBOU WELL	5	☐								
3/21/23	12:15			CROSS PORTAL	5	☐								
3/21/23	11:15			CARIBOU PORTAL	5	☐								
3/21/23	11:15			CARIBOU C2	5	☐								
3/21/23	11:15			CARIBOU C3	5	☐								

Instructions: I HANDLED BOTTLE AND CROSS ALPHA  
 Bottle Field Filtered.

Relinquished By: <u>Brooke Moran</u>	Date/Time: <u>3/21/23</u>	Received By: <u>J Hill</u>	Date/Time: <u>3/21/23</u>	Relinquished By: _____	Date/Time: _____
C/S Info: _____		C/S Charge: <input type="checkbox"/>		Temp. Received By: _____	
Seals Present Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Sample Pres. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Date/Time: _____	

## APPENDIX E FIELD SHEETS

# SURFACE WATER SAMPLING DATA SHEET

<b>SWAMP Field Data Sheet (Water Chemistry &amp; Discrete Probe) - Event Type=WQ</b>				EPA SWAMP Form # WQ-1 (Rev. 1/2018)		Page 1 of 1 Page							
*StationID: 2022-01		*Date (mm/dd/yyyy): 01/16/23		*Group: n/a		*Agency: n/a							
*Funding: n/a		*Arrival Time: 15:10		*Departure Time:		*Sample Time (1st sample): n/a							
*Personnel: KM, K		*Purpose (check all that apply): <input checked="" type="checkbox"/> Water Quality <input type="checkbox"/> Water Use <input type="checkbox"/> Field Study <input type="checkbox"/> Field Maintenance		*Purpose Nature: n/a		*Protocol: n/a							
*Location (Bank) <input type="checkbox"/> Thruweg <input type="checkbox"/> Midchannel <input type="checkbox"/> Open Water				*GPS/DGPS: Lat (dd.ddddd) Long (ddd.ddddd)		*Occupation Method: <input checked="" type="checkbox"/> Velocity <input type="checkbox"/> Bridge <input type="checkbox"/> RV <input type="checkbox"/> Other							
GPS Device: GPS WAYPOINTS APP				Target: 39.97904 -105.57585		STARTING BANK (facing downstream): <input checked="" type="checkbox"/> LB <input type="checkbox"/> RB / NA							
Date: NADEI Address (NAD 83): @ 1.20				Actual: 39.978993 -105.575798		Point of Sample (if integrated, then NA w/obes)							
<b>Field Observations (Sample Type = FieldObs)</b>				WIND DIRECTION (from): W		WIND SPEED (mi/h): 4							
SITE ODOR: <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): W		DISTANCE FROM BANK (m): n/a							
SKY CODE: <input type="checkbox"/> Clear <input type="checkbox"/> Partly Cloudy <input type="checkbox"/> Overcast <input type="checkbox"/> Fog				WIND DIRECTION (from): W		STREAM WIDTH (m): n/a							
OTHER PRESENCE: <input type="checkbox"/> Volcanic <input type="checkbox"/> Nonvolcanic <input type="checkbox"/> Oily Sheen <input type="checkbox"/> Foam <input type="checkbox"/> Trash <input type="checkbox"/> Other				WIND DIRECTION (from): W		WATER DEPTH (m): n/a							
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: n/a				HYDROMODIFICATION (define) <input type="checkbox"/> Bridge <input type="checkbox"/> Pole <input type="checkbox"/> Culvert <input type="checkbox"/> Channel <input type="checkbox"/> Grade Control <input type="checkbox"/> Culvert		LOCATION (to sample): LB / RB (m)							
WATER CLARITY: <input checked="" type="checkbox"/> Clear (see notes) <input type="checkbox"/> Cloudy (>4" vis) <input type="checkbox"/> Murky (>4" vis)				PRECIPITATION: (None) <input type="checkbox"/> Fog <input type="checkbox"/> Drizzle <input type="checkbox"/> Rain <input type="checkbox"/> Snow		PHOTOS (PB & LB) <input type="checkbox"/> Photograph taken facing downstream. BEAMS in: <input type="checkbox"/> Station Code - yyyy-mm-dd-Location							
WATER ODOR: <input type="checkbox"/> None <input type="checkbox"/> Sulfides <input type="checkbox"/> Sewage <input type="checkbox"/> Petroleum <input type="checkbox"/> Mixed <input type="checkbox"/> Other				PRECIPITATION (last 24 hrs): Unknown, <1", <1" None		1: (PB / LB / BR / US / DS) (m) - JAN 25 - 2022 - 01 A							
WATER COLOR: <input type="checkbox"/> N/A <input type="checkbox"/> Colorless <input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Brown				OBSERVED FLOW: <input checked="" type="checkbox"/> NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs		2: (RB / LB / BR / US / DS) (m) - JAN 23 2022 - 01 B							
OBSERVED FLOW: <input checked="" type="checkbox"/> NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs						3: (RB / LB / BR / US / DS) (m) - JAN 23 2022 - 01 C							
<b>Field Measurements (Sample Type = FieldMeasure; Method = Field)</b>													
	Depth/Collec (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)		
SURFACE AND BOTTOMS	n/a	n/a	-9.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
SUBSURFACE													
Instrument:													
Coll. Date:													
<b>Samples Taken (# of containers filled) - Method=Water_Grab</b>								Field Dup YES / NO: (Sample Type = Grab / Integrated; LABEL_ID = FWSQA, create collection record upon data entry)					
SAMPLE TYPE: Grab / Integrated		COLLECTION EQUIPMENT:						In situ bottle (by hand, by pole, by bucket), Teflon tubing, Kemmerle, Pole & Bucket, Other					
	Depth/Collec (m)	Inorganic	Bacteria	Chl a	TSS / SSC	TOC / DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Toxicity	VOCs
Sub/Surface													
Sub/Surface													
COMMENTS: NO SAMPLE TAKEN, SITE COVERED IN SNOW, NO OBSERVED FLOW													

N/A

Sample ID: N/A												Sample Processing Date:	
Site Code:													
Velocity -													
# Small Vials													
# Large Vials													
Filter Pads/MSF													
FIELD DUPLICATES													
LAB DUPLICATES													
TOTAL COLIFORM													
E. COLI													
BLANKS													
Sample Signature / Date / Time Arrived													
Printed on Inkscape By / Date / Time													
Printed from Inkscape #77 04/17/16													
Printed By													
Entered on Inkscape													

Brooke Moran 1/16/23





**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location COMPLIANCE WELL Date 1/17/23 Start Time 13:00 Stop time 15:45 Page 1 of 1  
 Sample Control Number n/a Samplers EM, KL Project Number \_\_\_\_\_

**WEATHER CONDITIONS**

Ambient Air Temperature: 26.1° °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 40 Total Depth 11.5 Top of Screen 10.5 Filter Pack Interval n/a Borehole Diameter (inches) 9" (0-50 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 185 gallons 6" (50-165 ft)  
 Well Casing ID n/a Well Casing OD X Protective Casing Stickup n/a Well Casing Stickup 6.0 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 40 Total Depth 11.5 Total Volume Purged 54 Saturated Borehole Volume (gal) 33 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number ORAKON 01 Conductivity Meter: Meter Number CM1-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. 14.0 °C Standard 0.447 mS/cm Measured Value 0.5 mS/cm Temp. 13 °C  
 Buffer 4 Measured Value 4.0 Temp. 12.5 °C Standard 0.467 mS/cm Measured Value 0.5 mS/cm Temp. 12 °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 type="checkbox"/> Measured <input checked="" type="checkbox"/>	Comments
13:00	0	7.5	0.4	4.6°	2.9	Field-filtered bottles =
13:30	554	7.4	0.3	5.4°	2.4	DHNO <sub>3</sub> -preserved ① radionuclides
						SAMPLES COLLECTED WITH DISPOSABLE CUP

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input type="checkbox"/> Measured <input checked="" type="checkbox"/>		
1/17/23	13:30	10.4	7.4	0.3	5.4°	2.4		

Duplicate Sample-02 (sample control number/time n/a) Duplicate and  
 Field Blank-03 (sample control number/time COMPLIANCE FB) matrix spike  
 Rinsate Sample-04 (sample control number/time n/a) BADC info  
 Matrix Spike-MS (sample control number/time n/a) available in  
 (sample control number/time n/a) lab reports.

Notes: SAMPLED AT WELL, \* 6 1/2" (-1-50 FT) & 4 1/2" (15-165 FT)  
 Sampler's Signature Brooke Moran 1/17/23

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location CARLETON WELL Date 1/17/23 Start Time 10:30 Stop time 1:45 Page 1 of 1  
 Sample Control Number n/a Samplers EM, KC Project Number: \_\_\_\_\_

**WEATHER CONDITIONS**

Ambient Air Temperature: 28.2 °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 31 Total Depth 168 Top of Screen 25 Filter Pack Interval n/a Borehole Diameter (inches) 9" (10-26 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 161 gallons 6" (26-165 ft)  
 Well Casing ID n/a Well Casing OD X Protective Casing Stickup 16 Well Casing Stickup 24 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 31 Total Depth 168 Total Volume Purged 44 Saturated Borehole Volume (gal) 11 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number CAKTDN01 Conductivity Meter: Meter Number CM-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. 14.0 °C Standard 0.44 mS/cm Measured Value 0.5 mS/cm Temp. 13 °C  
 Buffer 4 Measured Value 4.0 Temp. 12.5 °C Standard 0.44 mS/cm Measured Value 0.5 mS/cm Temp. 13 °C  
 Turbidity Meter: n/a Standard n/a NTU Measured Value 0 NTU Standard 1 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 type="checkbox"/> Measured <input checked="" type="checkbox"/>	Comments
10:30	0	6.8	0.1	13.0	2.9	Field filtered bottles =
11:30	483	6.8	0.3	6.7	2.1	D HNO <sub>3</sub> - preserved Radionuclides
						SAMPLES COLLECTED WITH DISPOSABLE CUPS

**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 checked="" type="checkbox"/>		
1/17/23	11:30	10.0	6.8	0.3	6.7	2.1		

- 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)
- ) DUPLICATE &  
 ) MATRIX SPIKE  
 ) QA/QC INFO  
 ) AVAILABLE IN  
 ) LAB REPORT

Notes: SAMPLED VIA PORT. 4 1/2" (10-26 ft) & 4 1/2" (15-165 ft)

Sampler's Signature Brooke Moran 1/17/23





# SURFACE WATER SAMPLING DATA SHEET

<b>SWAMP Field Data Sheet (Water Chemistry &amp; Discrete Probe) - Event Type=WQ</b>				Event ID: <u>2022-01</u>		Page 1 of 1	
*Station ID: <u>2022-01</u>		*Date (m/d/y): <u>02/27/2023</u>		*Group: <u>n/a</u>		*Agency: <u>n/a</u>	
*Funding: <u>n/a</u>		*Arrival Time: <u>15:01</u>		*Departure Time: <u>15:07</u>		*Sample Time (1st sample): <u>n/a</u>	
*Personnel: <u>RAM</u>		*Purpose (check all that apply): <u>Water Chem, Water Test, Field Obs, Field Measure</u>				*Purpose Failure: <u>n/a</u>	
*Location: <u>Barb Tholweg Midchannel Open Water</u>		*GPS/OGPS		*Occupation Method: <u>Water in Bridge</u>		*Other: _____	
*GPS Device: <u>GPS W/ POINTS APP</u>		*Lat (dd,ddd): <u>39.97904</u>		*Long (ddd,ddd): <u>-105.57575</u>		*Starting Bank (facing downstream): <u>LB</u>	
*Datum: <u>NAD83</u>		*Accuracy (R/M): <u>1.20</u>		*Actual: <u>39.978993 - 105.575792</u>		*Point of Sample (if integrated, list in above)	
*Field Observations (Sample Type = FieldObs)				*WATER CLARITY: <u>11 N / Unk</u>		*BEAUFORT SCALE (see attachment): <u>3</u>	
*SITE ODR: <u>None/Solids/Sewage/Petroleum/Mixed/Other</u>				*WIND DIRECTION (from): <u>SW</u>		*DISTANCE FROM BANK (m): <u>n/a</u>	
*SKY CODE: <u>Clear, Partly Cloudy, Overcast, Fog</u>				*HYDROMORPHICATION: <u>None</u>		*STREAM WIDTH (m): <u>n/a</u>	
*OTHER PRESENCE: <u>Vascular, Nonvascular, Clay Sheen, Foam, Trash, Other</u>				*LOCATIONS: <u>None</u>		*WATER DEPTH (m): <u>n/a</u>	
*DOMINANT SUBSTRATE: <u>Bedrock, Concrete, Cobble, Gravel, Sand, Mud, Link, Other</u>				*PHOTOS (RB & LB assigned when facing downstream) FILENAME to StationCode_yyyymmdd: <u>FE23_2022-01-A</u>		*LOCATION (to sample): <u>US / GS / W /</u>	
*WATER CLARITY: <u>11 N / Unk</u>				*PRECIPITATION: <u>None, Fog, Drizzle, Rain, Snow</u>		*2: (RB / LB / BB / US / DS / #)	
*WATER ODR: <u>n/a</u>				*PRECIPITATION (last 24 hrs): <u>Unknown, &lt;1'&gt;1', None</u>		*3: (RB / LB / BB / US / DS / #)	
*WATER COLOR: <u>11 N / Unk</u>				*OBSERVED FLOW: <u>NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (&lt;0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, &gt;200cfs</u>		*4: (RB / LB / BB / US / DS / #)	

Field Measurements (Sample Type = FieldMeasure, Method = Field)											
	Depth/Color (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O <sub>2</sub> (mg/L)	O <sub>2</sub> (%)	Specific Conductivity (uS/cm)	Salinity (ppt)	Turbidity (NTU)	Stage Ht (units)
SUBSURFACE BOTTOMS	<u>n/a</u>	<u>n/a</u>	<u>-2.22</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
SUBSURFACE BOTTOMS											
SUBSURFACE BOTTOMS											
Instrument:	<u>Arched</u>										
Calib. Date:	<u>2/23</u>										

Samples Taken (# of containers filled) - Method=Water_Grab															
SAMPLE TYPE: <u>Grab / Integrated</u>		COLLECTION EQUIPMENT: _____		Field Dup YES / NO: (Sample Type = Grab / Integrated; LABEL_ID = FieldObs; create collection record upon data entry)											
Depth/Color (m)	Inorganics	Bacteria	Chl a	TSS/SSC	TOC/DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Turbidity	VOAs			
Sub/Surface															
Sub/Surface															

COMMENTS: NO SAMPLE TAKEN, SITE COVERED IN SNOW, NO OBSERVED FLOW, SURVEY STAKES COMPLETELY COVERED BY SNOW

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Sample ID #</td> <td colspan="11"><u>N/A</u></td> </tr> <tr> <td>Site Code</td> <td colspan="11"><u>N/A</u></td> </tr> <tr> <td>Yield #</td> <td colspan="11"></td> </tr> <tr> <td>Yield #</td> <td colspan="11"></td> </tr> <tr> <td>Temp Time</td> <td colspan="11"></td> </tr> </table>												Sample ID #	<u>N/A</u>											Site Code	<u>N/A</u>											Yield #												Yield #												Temp Time											
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<p>Method # Mean of Duplicate Analytes, which are compared to the detection level using the detection level table.</p> <p>Sampler Signature / Date / Time: _____ Picked in Analyte By / Date / Time: _____</p> <p>Processor / Date / Time: _____ Picked from Processor By / Date / Time: _____</p> <p>Thurs Read By: _____ Entered into database: _____</p>																																																																							

Brocke Moran 2/27/23



**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location CROSS WELL Date 2/27/23 Start Time 12:00 Stop time 13:15 Page 1 of 1  
 Sample Control Number n/a Samplers EM, KL Project Number: \_\_\_\_\_

**WEATHER CONDITIONS**

Ambient Air Temperature: 24.1 °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 36 Total Depth 205 Top of Screen \_\_\_\_\_ Filter Pack Interval \_\_\_\_\_ Borehole Diameter (inches) 3 7/8 (40-205 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 208 gallons  
 Well Casing ID n/a Well Casing OD \* Protective Casing Stickup n/a Well Casing Stickup 1.2 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 36 Total Depth 205 Total Volume Purged 124 Saturated Borehole Volume (gal) 228 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

**pH Meter:** Meter Number ORAKTON01 Conductivity Meter: Meter Number CM1-210W-01479  
 Buffer 7 Measured Value 7.0 Temp. 23 °C Standard 0.44 mS/cm Measured Value 0.4 mS/cm Temp. 24 °C  
 Buffer 10 Measured Value 10.0 Temp. 23 °C Standard 0.44 mS/cm Measured Value 0.4 mS/cm Temp. 24 °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 type="checkbox"/> Measured <input type="checkbox"/>	Comments
12:00	0	7.0	0.3	8.2°	1.3	FIELD FILTERED FOR PD
13:00	624	6.8	0.3	6.2	1.3	METALS & RADIONUCLIDES
						SAMPLES COLLECTED WITH DISPOSABLE CUPS

**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 checked="" type="checkbox"/>		
2/27/23	13:00	7.0	6.8	0.3	6.2	1.3		

- Duplicate Sample-02 (sample control number/time n/a) Duplicate &
- Field Blank-03 (sample control number/time n/a) MATRIX SPIKE
- Rinsate Sample-04 (sample control number/time n/a) QA/QC INFO
- Matrix Spike-MS (sample control number/time n/a) AVAILABLE IF
- (sample control number/time n/a) LAB REPORT

Notes: SAMPLED VIA PORT. \* 6 7/8 (1-40 FT) & 4 1/2 (15-205 FT)

Sampler's Signature Brooke Moran 2/27/23

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location COMPLIANCE WELL Date 2/27/23 Start Time 13:00 Stop time 13:45 Page 1 of 1  
 Sample Control Number n/a Samplers BM, KL Project Number: \_\_\_\_\_

**WEATHER CONDITIONS**

Ambient Air Temperature: 24.30 °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 4.9 Total Depth 65 Top of Screen 65 Filter Pack Interval n/a Borehole Diameter (inches) 6" (50-165 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 125 gallons  
 Well Casing ID n/a Well Casing OD n/a Protective Casing Stickup n/a Well Casing Stickup 1.0 Feet of Water n/a  
 Well purged with: WELL FUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 4.9 Total Depth 65 Total Volume Purged 54 Saturated Borehole Volume (gal) 272 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number UAKTON101 Conductivity Meter: Meter Number CM1-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. 23 °C Standard 0.443 mS/cm Measured Value 0.4 mS/cm Temp. 24 °C  
 Buffer 10 Measured Value 10.0 Temp. 23 °C Standard 0.445 mS/cm Measured Value 0.4 mS/cm Temp. 24 °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 type="checkbox"/> Measured <input checked="" type="checkbox"/>	Comments
13:00	0	7.8	0.3	5.7°	2.1	FIELD FILTERED FOR PD
13:30	554	7.2	0.3	5.8°	2.0	METALS & RADIONUCLIDES
						SAMPLES COLLECTED WITH DISPOSABLE CUPS

**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 checked="" type="checkbox"/>		
2/27/23	13:30	10.4	7.2	0.3	5.8°	2.0		

- Duplicate Sample-02 (sample control number/time n/a) DUPLICATE &
- Field Blank-03 (sample control number/time COMPLIANCE FB) MATRIX SPIKE
- Rinsate Sample-04 (sample control number/time n/a) RACC INFO
- Matrix Spike-MS (sample control number/time n/a) AVAILABLE IN
- (sample control number/time n/a) LAB REPORT

Notes: SAMPLED AT WELL \*6 5/8" (-1-50 ft) & 4 1/2" (15-165 ft)

Sampler's Signature Brooke Moran 2/27/23

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location CARIBOU WELL Date 2/27/23 Start Time 10:30 Stop time 11:20 Project Number: \_\_\_\_\_  
 Sample Control Number n/a Samplers BM, KL Page 1 of 1

**WEATHER CONDITIONS**

Ambient Air Temperature: 20.7° °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 31 Total Depth 165 Top of Screen 25 Filter Pack Interval n/a Borehole Diameter (inches) 9" (0-26 ft)  
6" (24-165 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 161 gallons  
 Well Casing ID n/a Well Casing OD \* Protective Casing Stickup n/a Well Casing Stickup 2.5 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 31 Total Depth 165 Total Volume Purged 483 Saturated Borehole Volume (gal) 111 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number ORATORIAL Conductivity Meter: Meter Number CM1-2104-01499  
 Buffer 7 Measured Value 7.0 Temp. 23 °C Standard 0.44 mS/cm Measured Value 0.3 mS/cm Temp. 24 °C  
 Buffer 10 Measured Value 10.0 Temp. 23 °C Standard 0.115 mS/cm Measured Value 0.9 mS/cm Temp. 23 °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 type="checkbox"/> Measured <input checked="" type="checkbox"/>	Comments
10:30	0	6.8	0.1	12.8°	1.4	FIELD FILTERED FOR PD
11:20	483	7.5	0.3	5.0°	1.2	METALS & RADIONUCLIDES
						SAMPLES COLLECTED WITH DISPOSABLE CUPS

**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 checked="" type="checkbox"/>		
2/27/23	11:20	10.0	7.5	0.3	5.0	1.2		

- Duplicate Sample-02 (sample control number/time n/a) ) DUPLICATE 2
- Field Blank-03 (sample control number/time n/a) ) MATRIX SPIKE
- Rinsate Sample-04 (sample control number/time n/a) ) BACC INED
- Matrix Spike-MS (sample control number/time n/a) ) AVAILABLE IN
- (sample control number/time n/a) ) LAB REPORT

Notes: SAMPLED VIA PORT. \* 6 3/8" (1-26 ft) & 4 1/2" (15-165 ft)

Sampler's Signature Brooke Moran 2/27/23







# SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - Event Type=WQ				EPC SWPWS (VA) (10/15/04)		Pg 1 of 1 Pg							
*StationID: 2022-02	*Date (mm/dd/yyyy): 3/22/23	*Group: n/a	*Agency: n/a		*Protocol: n/a								
*Funding: n/a	*Arrival Time: 11:05	*Departure Time: 12:13	*Sample Time (1st sample): n/a		*Purpose (probe all that apply): Water Chem, Water Tax, Fisheries, Water Measure								
*Personnel: BM	*Purpose (probe all that apply): Water Chem, Water Tax, Fisheries, Water Measure		*Purpose Future: n/a										
*Location: (Bank) Thalesig Midchannel Open Water	*GPS (GPS):	Lat (dd.ddddd): 39.975787	Long (ddd.ddddd): -105.569305	OCCUPATION METHOD: Walk-in Bridge R/V Other									
GPS Device: GPS WAYPOINTS APP	*Target:	39.975787 -105.569305		STARTING BANK (facing downstream): LB (RB / NA)									
Datum: NAD83	*Actual:	39.975787 -105.569305		Point of Sample (if integrated, then -05 in 0000)									
Field Observations (Sample Type = FieldObs)				WIND DIRECTION (from): CC		WIND VELOCITY (Y / N / W): 1							
SITE ODOUR: (None/Sulfides/Sewage/Petroleum/Mixed/Other)				BEAUFORT SCALE (see attachment): 1		DISTANCE FROM BANK (m): n/a							
SKY CODE: Clear, Partly Cloudy, Overcast, Fog				HYDROMODIFICATION: None, Bridge, Piers, Concrete Channel, Grade Control, Culvert, Lock/Sluice, Other		STREAM WIDTH (m): n/a							
OTHER PRESENCE: (Vascular, Nonvascular, Dry Shrub, Fern, Trash, Other)				PHOTOS (RB & LB assigned when facing downstream; RBNAME in StationCode yyyy mm dd unless noted):		WATER DEPTH (m): n/a							
DOMINANT SUBSTRATE: Bedrock, Concrete, Cobble, Gravel, Sand, Mud, Unk, Other: n/a				1: (RB / LB / BB / US / DS / NF)		2: (RB / LB / BB / US / DS / NF)							
WATER CLARITY: (1) Clear (see bottom), Cloudy (>4" vis), Murky (>4" vis)				PRECIPITATION: None, Fog, Drizzle, Rain, Snow		3: (RB / LB / BB / US / DS / NF)							
WATER ODOUR: (None/Sulfides/Sewage/Petroleum/Mixed/Other)				PRECIPITATION (last 24 hrs): Unknown, <1", >1", None		MAR 23 2022-02-B							
WATER COLOR: (1) Colorless, Green, Yellow, Brown				OBSERVED FLOW: NA, Dry Waterbody Bag, No Obs Flow, Isolated Pool, Trickles (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs		MAR 22 2022-02-E							
Field Measurements (Sample Type = FieldMeasure, Method = Field)													
	Depth/Collec (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	D <sub>1</sub> (mg/L)	D <sub>2</sub> (%)	Specific Conductivity (µS/cm)	Salinity (ppt)	Turbidity (ntu)	Stage Ht (units)		
SUBSURFACE BOTTOMS	n/a	n/a	0.3 <sup>0</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
INSTRUMENT:	AD7247												
CALIB. DATE:	n/a												
Samples Taken (# of containers filled) - Method=Water_Grab				Field Dup YES / NO: (sampleType = Grab / Integrated, LABEL_ID = FieldQA; obtain collection record upon data entry)									
SAMPLE TYPE: Grab / Integrated		COLLECTION EQUIPMENT:		Indy bottle (by hand, by pole, by bucket), Teflon tubing, Kommer, Polo & Banker, Other									
	Depth/Collec (m)	Inorganics	Bacteria	Chl a	TSS / SSC	TOC / DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Toxicity	VOCs
SubSurface													
SubSurface													
COMMENTS: NO VISIBLE FLOW, SO NO SAMPLES COLLECTED.													

N/A

Sample Processing Date											
N/A											
FIELD DUPLICATES											
Normal Sample #						Normal Sample #					
Day/Date Sample #						Day/Date Sample #					
MW						MW					
SSC						SSC					
Temp						Temp					
pH						pH					
DO						DO					
Turbidity						Turbidity					
Total Solids						Total Solids					
Total Suspended Solids						Total Suspended Solids					
Total Dissolved Solids						Total Dissolved Solids					
Total Hardness						Total Hardness					
Total Alkalinity						Total Alkalinity					
Total Chloride						Total Chloride					
Total Sulfate						Total Sulfate					
Total Nitrate						Total Nitrate					
Total Ammonia						Total Ammonia					
Total Phosphate						Total Phosphate					
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Total Iron						Total Iron					
Total Manganese						Total Manganese					
Total Zinc						Total Zinc					
Total Copper						Total Copper					
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Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium						Total Magnesium					
Total Potassium						Total Potassium					
Total Sodium						Total Sodium					
Total Chlorine						Total Chlorine					
Total Sulfur						Total Sulfur					
Total Carbon						Total Carbon					
Total Oxygen						Total Oxygen					
Total Hydrogen						Total Hydrogen					
Total Nitrogen						Total Nitrogen					
Total Phosphorus						Total Phosphorus					
Total Silicon						Total Silicon					
Total Calcium						Total Calcium					
Total Magnesium											

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location CROSS WELL Date 3/21/23 Start Time 12:00 Stop time 1:51 Project Number 515 Page 1 of 1  
 Sample Control Number n/a Samplers BM

**WEATHER CONDITIONS**

Ambient Air Temperature: 29.0 °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 -27 Total Depth 205 Top of Screen 15 Filter Pack Interval n/a Borehole Diameter (inches) 9" (10-40 ft)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 208 gallons 5 3/8" (40-205 ft)  
 Well Casing ID n/a Well Casing OD X Protective Casing Stickup n/a Well Casing Stickup 1.2 Feet of Water n/a  
 Well purged with: WELL FLUID

**FINAL WELL MEASUREMENTS**

Static Water Level 37 Total Depth 205 Total Volume Purged 24 Saturated Borehole Volume (gal) 205 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number DAKTON 101 Conductivity Meter: Meter Number CM1-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. 17.4 °C Standard 0.47 mS/cm Measured Value 0.5 mS/cm Temp. 19 °C  
 Buffer 10 Measured Value 10.0 Temp. 17.4 °C Standard 0.44 mS/cm Measured Value 0.5 mS/cm Temp. 19 °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 type="checkbox"/> Measured <input type="checkbox"/>	Comments
12:00	0	7.2	2.2	15.2°	4.3	FIELD FILTERED & HANDLED
1:00	624	8.0	0.4	5.8°	2.4	PRESERVED BOTTLE FOR DISSOLVED METALS & TL FOR RADIONUCLIDES
						COLLECTED SAMPLES WITH DISPOSABLE SAMPLING CUP.

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input type="checkbox"/> Measured <input type="checkbox"/>		
3/21/23	13:00	7.0	8.0	0.4	5.8°	2.4		

- Duplicate Sample-02 (sample control number/time n/a) ) DUPLICATE &
- Field Blank-03 (sample control number/time n/a) ) MATRIX SPIKE
- Rinsate Sample-04 (sample control number/time n/a) ) QA/QC INFO
- Matrix Spike-MS (sample control number/time n/a) ) AVAILABLE IN
- (sample control number/time n/a) ) LAB REPORT

Notes: SAMPLED VIA PORT. \* 6 5/8" (-1-40 ft) & 4 1/2" (15-205 ft)

Sampler's Signature Brooke Moran 3/21/23

**GROUND WATER SAMPLING DATA SHEET**

**IDENTIFICATION**

Sample Location COMPLIANCE WELL Date 3/21/23 Start Time 13:00 Stop time 13:35 Project Number: \_\_\_\_\_ Page 1 of 1  
 Sample Control Number n/a Samplers BM

**WEATHER CONDITIONS**

Ambient Air Temperature: 28.2 °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 42 Total Depth 105 Top of Screen 65 Filter Pack Interval n/a Borehole Diameter (inches) 9" (0-50F)  
6" (50-165F)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 185 gallons  
 Well Casing ID n/a Well Casing OD \* Protective Casing Stickup n/a Well Casing Stickup 10 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 42 Total Depth 105 Total Volume Purged 88 Saturated Borehole Volume (gal) 200 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

**pH Meter:** Meter Number DEKTRON 81 Conductivity Meter: Meter Number CMI-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. 18.4 °C Standard 0.4 mS/cm Measured Value 0.5 mS/cm Temp. 19 °C  
 Buffer 10 Measured Value 10.0 Temp. 18.4 °C Standard 2003 mS/cm Measured Value 0.5 mS/cm Temp. 19 °C  
 Turbidity Meter: n/a Standard 0.6 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 type="checkbox"/> Measured <input checked="" type="checkbox"/>	Comments
13:00	0	7.9	0.3	5.5	1.9	FIELD FILTERED 1
13:30	554	7.2	0.4	5.1	2.6	HNO <sub>3</sub> -PRESERVED BOTTLE FOR DISSOLVED METALS & IL FOR RADIONUCLIDES.
						COLLECTED SAMPLES WITH DISPOSABLE SAMPLING CUP.

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input type="checkbox"/> Measured <input checked="" type="checkbox"/>		
3/21/23	13:30	10.4	7.2	0.4	5.1	2.6		

- Duplicate Sample-02 (sample control number/time COMPLIANCE 02) DUPLICATE &
- Field Blank-03 (sample control number/time COMPLIANCE 03) MATRIX SPIKE
- Rinsate Sample-04 (sample control number/time n/a) QA/QC INFO
- Matrix Spike-MS (sample control number/time n/a) AVAILABLE
- (sample control number/time n/a) IN LAB REPORT

Notes: SAMPLED AT WELL \*6 5/8" (-1-50 F) & 4 1/2" (15-165 F)

Sampler's Signature Roche Moran 3/21/23

**GROUND WATER SAMPLING DATA SHEET**

Project Number: \_\_\_\_\_

**IDENTIFICATION**

Sample Location CARIBOU WELL Date 3/21/23 Start Time 10:30 Stop time 11:45 Page 1 of 1  
 Sample Control Number n/a Samplers BM

**WEATHER CONDITIONS**

Ambient Air Temperature: 29.5° °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 36 Total Depth 145 Top of Screen 25 Filter Pack Interval n/a Borehole Diameter (inches) 6" (1-26 FA)  
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: 161 gallons  
 Well Casing ID n/a Well Casing OD X Protective Casing Stickup n/a Well Casing Stickup 2.9 Feet of Water n/a  
 Well purged with: WELL PUMP

**FINAL WELL MEASUREMENTS**

Static Water Level 36 Total Depth 145 Total Volume Purged 483 Saturated Borehole Volume (gal) 107 Max Pumping Rate n/a

**INSTRUMENT CALIBRATION**

pH Meter: Meter Number NAKTON 01 Conductivity Meter: Meter Number EMI-2104-01479  
 Buffer 7 Measured Value 7.0 Temp. 24°C Standard 3.45 mS/cm Measured Value 0.5 mS/cm Temp. 19°C  
 Buffer 10 Measured Value 10.0 Temp. 24°C Standard 1.415 mS/cm Measured Value 0.5 mS/cm Temp. 19°C  
 Turbidity Meter: n/a Standard 0.6 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 type="checkbox"/> Measured <input type="checkbox"/>	Comments
10:30	0	7.3	0.3	11.3°	1.7	FIELD FILTERED &
11:30	483	6.5	0.2	5.5°	2.1	HNO <sub>2</sub> PRESERVED
						BOTTLE FOR DISSOLVED
						METALS & 3 L FOR
						RADIONUCLIDES
						COLLECTED SAMPLES
						WITH DISPOSABLE
						SAMPLING CUP

**FINAL SAMPLE PARAMETERS**

Sample Date	Sample Time	Discharge cfs <input type="checkbox"/> gpm <input type="checkbox"/>	pH	Cond. (µS/cm)	Temp. (°C)	Turbidity Visual Est. <input type="checkbox"/> Measured <input type="checkbox"/>		
3/21/23	11:30	10.0	6.5	0.2	5.5°	2.1		

Duplicate Sample-02 (sample control number/time n/a) } DUPLICATE &  
 Field Blank-03 (sample control number/time n/a) } MATRIX SPIKE  
 Rinsate Sample-04 (sample control number/time 2.3) } QA/QC INFO  
 Matrix Spike-MS (sample control number/time n/a) } AVAILABLE IN  
 (sample control number/time 2.10) } LAB REPORT

Notes: SAMPLED VIA PORT. \*6 5/8" (1-26 FA) X 4 1/2" (15-105 FA)

Sampler's Signature Brooke Moran 3/21/23

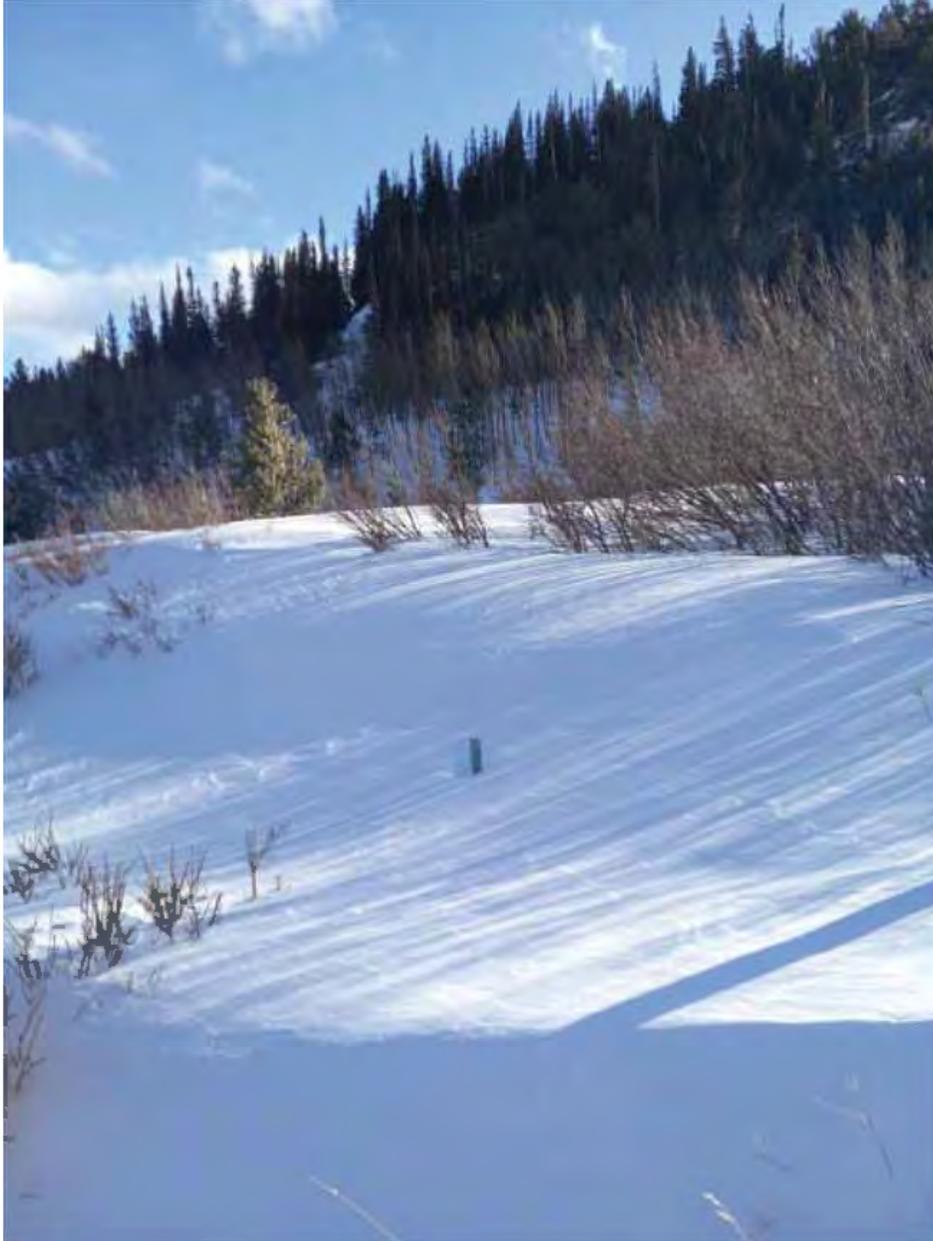




## APPENDIX F PHOTOGRAPHS

APPENDIX F.1 SAMPLE LOCATION 2022-01 PHOTOGRAPHS

JANUARY 2023







FEBRUARY 2023







MARCH 2023







APPENDIX F.2 SAMPLE LOCATION 2022-02 PHOTOGRAPHS

JANUARY 2023







FEBRUARY 2023







MARCH 2023





