



2022 2nd Quarter Surface Water Report GIR

rmittasch@nedmining.com <rmittasch@nedmining.com>

Mon, Aug 15, 2022 at 11:42 AM

To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>

Cc: Daniel Takami <danieltakami@gmail.com>, Sergio Rivera <sergio.rivera@novametallix.com>, pdelaney@blackfoxmining.com

Patrick

here's our surface water monitoring report for second quarter 2022 if you have any questions, or need any explanations, please do not hesitate to reach out.

Kind Regards,

Richard Mittasch, Vice President

Nederland Mining Consultants, Inc.

Phone: 720-893-3749

Mobile: 516 582-0833

Email: Rmittasch@nedmining.com

[4415 Caribou Rd](#), PO Box 3395, Nederland, CO 80466



2022 2nd Quarter Surface Water Report GIR-1.pdf

4665K

August 10, 2022

Mr. Patrick Lennberg
Colorado Division of Reclamation Mining and Safety
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, Colorado 80203
VIA EMAIL

SECOND QUARTERLY EVENT 2022 SURFACE WATER SAMPLING AT CROSS-CARIBOU MINES

Dear Mr. Lennberg,

On behalf of Grand Island Resources LLC (“GIR”), Black Fox Mining LLC (“Black Fox”) is pleased to submit analytical laboratory results for the 2nd quarter 2022 surface water sampling event at the Cross-Caribou Mine in Nederland, Colorado. Attached are Tables 1-3 summarizing the results and a copy of all of the laboratory reports (Attachment 1). Field sheets from those sampling events on May 27th, June 2nd and June 10th are attached (Attachment 2). Low-level mercury samples were taken on June 10th as sample bottles were not received at site prior to the June 2nd sampling event. This is the first quarter these locations were sampled per Colorado Division of Reclamation Mining and Safety’s request.

Three (3) surface water locations were sampled. Sample location 2022-01 is upstream of the site and 2022-02 is downstream of the site. Outfall-001 has been a normal sampling location twice a month for CDPHE compliance per the Water Quality Control Division permit.

After receiving the analytical results from the laboratory reports, Black Fox reviewed the Chain of Custodies provided and the results. This review concluded the following:

- The required analyses were performed.
- All of the samples were received at the laboratories at the correct temperature.
- All analyses were completed within the United States Environmental Protection Agency recommended hold times. pH, conductivity and temperature were taken at the field during the sampling events.

There is not enough data to analyze a trend in the analytical results at this time. Only two (2) sample sets have been conducted from May and June 2022 as this started the six (6) quarter request of surface water sampling. The 3rd quarter 2022 report will provide an analysis of the data and identify any trends that are found.

Black Fox Mining LLC
1508 Ridge Road, Nederland, CO 80466
(303) 570-6269



Sincerely,



Patrick Delaney
Environmental Manager
(315) 414-6986

Attachments: Table 1 – 2022-01 (Upstream) Results
Table 2 – Outfall-001 Results
Table 3 – 2022-02 (Downstream) Results
Attachment 1 – Laboratory Reports
Attachment 2 – Field Sheets

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1508 Ridge Road, Nederland, CO 80466
(303) 570-6269



Tables 1-3: Summary Results

Table 1: 2022-01 Results

**2022-01 = 2022-A for July				
Upstream				
		5/27/2022	6/2/2022	6/10/2022
Parameter	Units	280-162851-1	280-16299-1	280-163355-1
pH	SU	7.0	7.2	
Temp	Degrees C	18	19	
Specific COND	umhos/cm	39	39	
TSS	mg/L	<4	<4	
Arsenic (TR)	ug/L	<5	<5	
Arsenic (PD)	ug/L	<5	<5	
Cadmium (TR)	ug/L	<1	<1	
Cadmium (PD)	ug/L	<1	<1	
Chromium (III,TR)	ug/L	<20	<20	
Chromium (III,PD)	ug/L	<20	<20	
Chromium (VI)	ug/L	<20	<20	
Copper (TR)	ug/L	2.6	2.0	
Copper (PD)	ug/L	2.4	2.2	
Iron (TR)	ug/L	330	160	
Lead (TR)	ug/L	<1	<1	
Lead (PD)	ug/L	<1	<1	
Manganese (PD)	ug/L	15	4.7	
Mercury (Tot)	ug/L	<0.2	<0.2	
Mercury (Tot, LL)	ng/L	4.9		4.4
Nickel (PD)	ug/L	<2	<2	
Selenium (PD)	ug/L	<5	<5	
Silver (PD)	ug/L	<0.5	<0.5	
Zinc (TR)	ug/L	14	<10	
Zinc (PD)	ug/L	<10	<10	
Sulfide (as H2S)	mg/L	<1	<1	

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Table 2: Outfall-001 Results

Outfall-001			
		5/27/2022	6/10/2022
Parameter	Units	280-162328-1	280-163315-1
pH	SU	7.9	7.1
Temp	Degrees C	21	20
Specific COND	umhos/cm	190	89
TSS	mg/L	<4	<4
Arsenic (TR)	ug/L	<5	<5
Arsenic (PD)	ug/L	<5	<5
Cadmium (TR)	ug/L	<1	<1
Cadmium (PD)	ug/L	<1	<1
Chromium (III,TR)	ug/L	<20	<20
Chromium (III,PD)	ug/L	<20	<20
Chromium (VI)	ug/L	<20	<20
Copper (TR)	ug/L	2.1	<2
Copper (PD)	ug/L	<2	<2
Iron (TR)	ug/L	300	<100
Lead (TR)	ug/L	3.2	2.1
Lead (PD)	ug/L	3.0	1.6
Manganese (PD)	ug/L	2.4	<2
Mercury (Tot)	ug/L	<0.2	<0.2
Mercury (Tot, LL)	ng/L	N/A	N/A
Nickel (PD)	ug/L	<2	<2
Selenium (PD)	ug/L	<5	<5
Silver (PD)	ug/L	<0.5	<0.5
Zinc (TR)	ug/L	<10	<10
Zinc (PD)	ug/L	<10	<10
Sulfide (as H2S)	mg/L	<1	<1

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Table 3: 2022-02 Results

**2022-02 = 2022-C for July				
Downstream				
		5/27/2022	6/2/2022	6/10/2022
Parameter	Units	280-162851-1	280-16299-1	280-163355-1
pH	SU	7.4	7.6	
Temp	Degrees C	19	19	
Specific COND	umhos/cm	60	79	
TSS	mg/L	35	<4	
Arsenic (TR)	ug/L	<5	<5	
Arsenic (PD)	ug/L	<5	<5	
Cadmium (TR)	ug/L	<1	<1	
Cadmium (PD)	ug/L	<1	<1	
Chromium (III,TR)	ug/L	<20	<20	
Chromium (III,PD)	ug/L	<20	<20	
Chromium (VI)	ug/L	<20	<20	
Copper (TR)	ug/L	6.6	3.7	
Copper (PD)	ug/L	2.4	2.5	
Iron (TR)	ug/L	2000	310	
Lead (TR)	ug/L	19	4.5	
Lead (PD)	ug/L	17	3.9	
Manganese (PD)	ug/L	56	10	
Mercury (Tot)	ug/L	<0.2	<0.2	
Mercury (Tot, LL)	ng/L	19		5.8
Nickel (PD)	ug/L	<2	<2	
Selenium (PD)	ug/L	<5	<5	
Silver (PD)	ug/L	<0.5	<0.5	
Zinc (TR)	ug/L	36	18	
Zinc (PD)	ug/L	37	24	
Sulfide (as H2S)	mg/L	<1	<1	

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SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - EventType=WQ										ECOL BOARD 1.8.14.2008		Pg of Pgs					
*StationID: 2022-02		*Date (mm/dd/yyyy): 05/27/2022		*Group:		*Agency:		*Funding:		*ArrivalTime:		*DepartureTime:		*SampleTime (1st sample): 1:05 pm		*Protocol:	
*Personnel: B.M., R.M.		*Purpose (circle all that apply): WaterChem WaterTox FieldObs FieldMeasure										*PurposeFailure:					
*Location: Bank Thalweg Midchannel OpenWater		*GPS/DGPS		Lat (dd.ddddd)		Long (ddd.ddddd)		OCCUPATION METHOD: (Walk-in) Bridge RV Other									
GPS Device: GPS Waypoints APP		Target:		-		STARTING BANK (facing downstream): LB / RB / NA											
Datum: NAD83		Accuracy (ft / m): 1.4 m		*Actual: 39.975873°		-105.569305°		Point of Sample (if integrated, then -88 in dbase)									
Field Observations (SampleType = FieldObs)										WADEABILITY: Y / N / Unk BEAUFORT SCALE (see attachment): 3							
SITE ODOR: (None) Sulfides, Sewage, Petroleum, Mixed, Other										DISTANCE FROM BANK (m): 0.2921				STREAM WIDTH (m): 0.5842		WATER DEPTH (m): 0.2667	
SKY CODE: Clear, Partly Cloudy, Overcast, Fog										WIND DIRECTION (from):				HYDROMODIFICATION: (None) Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Aerial Zipline, Other			
OTHER PRESENCE: Vascular, Norvascular, Oily Sheen, Foam, Trash, Other										PHOTOS (RB & LB assigned when facing downstream; RENAME to StationCode yyyy mm dd uniquecode):				1: (RB / LB / BB / US / DS / ##)			
DOMINANT SUBSTRATE: Bedrock, Concrete, Cobble, (Gravel) Sand, Mud, Unk, Other										PRECIPITATION: (None) Fog, Drizzle, Rain, Snow				2: (RB / LB / BB / US / DS / ##)			
WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)										PRECIPITATION (last 24 hrs): Unknown, <1", >1", None				3: (RB / LB / BB / US / DS / ##)			
WATER ODOR: (None) Sulfides, Sewage, Petroleum, Mixed, Other										WATER COLOR: (Colorless) Green, Yellow, Brown				OBSERVED FLOW: NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs			
Field Measurements (SampleType = FieldMeasure; Method = Field)																	
	DepthCollec (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O ₂ (mg/L)	O ₂ (%)	Specific Conductivity (uS/cm)	Salinity (ppt)	Turbidity (ntu)	Stage Ht (units)						
SUBSURF/MID/BOTTOMREP	0.0254		16°	6°	7.4			0.3									
SUBSURF/MID/BOTTOMREP																	
SUBSURF/MID/BOTTOMREP																	
Instrument:																	
Calib. Date:																	
Samples Taken (# of containers filled) - Method=Water_Grab Field Dup YES (NO) (SampleType = Grab / Integrated; LABEL_ID = FieldQA; create collection record upon data entry)																	
SAMPLE TYPE: (Grab) / Integrated		COLLECTION EQUIPMENT: Indiv bottle (by hand, by pole, by bucket); Teflon tubing; Kemmer; Pole & Beaker; Other															
	DepthCollec (m)	Inorganics	Bacteria	Chl a	TSS / SSC	TOC / DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Toxicity	VOAs				
Sub/Surface																	
Sub/Surface																	
COMMENTS: Rich stated he will calculate flow velocity.																	

Run:										Sample Processing Date:									
Sample ID #:																			
Site Code:																			
# Small Wells																			
# Large Wells																			
Empty Wells																			
MPN																			
Yellow +																			
# Small Wells																			
# Large Wells																			
False Positives																			
MPN																			
Yellow + Fluorescence (+)																			
Temp / Time																			
Start																			
4 Hr. Check																			
14 Hr. Check																			
18 Hr. Check																			
22 Hr. Check, if needed																			
FIELD DUPLICATES										LAB DUPLICATES									
Normal Sample #										Normal Sample #									
Duplicate Sample #										Duplicate Sample #									
MPN										MPN									
95% CI										95% CI									
Lower										Lower									
Upper										Upper									
Pass										Pass									
Needs Review										Needs Review									
TOTAL COLIFORM										TOTAL COLIFORM									
E. COLI										E. COLI									
BLANKS										BLANKS									
Field Sample #										Lab Sample #									
Pass										Pass									
Needs Review										Needs Review									
Mean = Mean of Normal and Duplicate, which is then compared to the individual corresponding CI's to determine acceptability of data																			
Sampler Signature / Date / Time Arrived:										Placed in Incubator By / Date / Time:									
Processor / Date / Time:										Trays Read By:									
Pulled from Incubator By / Date / Time:										Entered into database:									

$22.5" \times 24" \times 12" \text{ (L) (W) (D)} = 9.51 \text{ inch}^3/\text{sec}$
 3245 gal/min
 $36" \text{ culvert} \times 2.6 \text{ ft}$
 $43\% \text{ full}$
 94 min

SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - Event Type=WQ										Pg. of Pgs.			
*StationID: 2022-01		*Date (mm/dd/yyyy): 05/27/2022		*Group:		*Agency:		*Protocol:					
*Funding:		ArrivalTime: 12:20pm		DepartureTime: 12:45pm		*SampleTime (1st sample): 12:25pm							
*Personnel: B.M. RM		*Purpose (circle all that apply): WaterChem WaterTox FieldObs FieldMeasure		*PurposeFailure:									
*Location: Bank Thalweg Midchannel OpenWater		*GPS/DGPS		Lat (dd.ddddd)		Long (ddd.ddddd)		OCCUPATION METHOD: (Walk-in) Bridge RV Other					
GPS Device: GPS Waypoints APP		Target:						STARTING BANK (facing downstream): LB / RB / NA					
Datum: NAD83		Accuracy (ft/m): 1.7m		*Actual: 39.978998°		-105.575810°		Point of Sample (if Integrated, then -88 in dbase)					
Field Observations (SampleType = FieldObs)													
SITE ODOR: (None) Sulfides, Sewage, Petroleum, Mixed, Other		WATERCLARITY: Y / N / Unk		BEAUFORT SCALE (see attachment): 4		DISTANCE FROM BANK (m): 0.3048		STREAM WIDTH (m): 0.6096		WATER DEPTH (m): 0.5588			
SKY CODE: (Clear) Partly Cloudy, Overcast, Fog		WIND DIRECTION (from):		HYDROMODIFICATION: (None) Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Aerial Zipline, Other		PHOTOS (RB & LB assigned when facing downstream; REWAVE to StationCode yyyy mm dd uniquecode):		1: (RB / LB / BB / US / DS / ##)					
OTHER PRESENCE: Vascular, Nonvascular, Oily Sheen, Foam, Trash, Other		DOMINANT SUBSTRATE: Bedrock, Concrete, Cobble, Gravel, Sand, Mud, Unk, Other		PRECIPITATION: (None) Fog, Drizzle, Rain, Snow		2: (RB / LB / BB / US / DS / ##)							
WATERCLARITY: Clear (see bottom); Cloudy (>4" vis); Murky (<4" vis)		PRECIPITATION (last 24 hrs):		Unknown, <1", >1", None		3: (RB / LB / BB / US / DS / ##)							
WATERODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other		WATERCOLOR: Colorless, Green, Yellow, Brown		OBSERVED FLOW: NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs									
Field Measurements (SampleType = FieldMeasure; Method = Field)													
	Depth Collec (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O ₂ (mg/L)	O ₂ (%)	Specific Conductivity (uS/cm)	Salinity (ppt)	Turbidity (ntu)	Stage Ht (units)		
SUBSURF/MID/ BOTTOM/REP	0.0254		16°	40°	6.8			0.3					
SUBSURF/MID/ BOTTOM/REP													
SUBSURF/MID/ BOTTOM/REP													
Instrument:													
Calib. Date:					5/27								
Samples Taken (# of containers filled) - Method=Water Grab													
Field Dup YES / NO (SampleType = Grab / Integrated; LABEL_ID = FieldQA; create collection record upon data entry)													
SAMPLE TYPE: (Grab) / Integrated													
COLLECTION EQUIPMENT: Indiv bottle (by hand, by pole, by bucket); Teflon tubing; Kemmer; Pole & Beaker; Other													
	Depth Collec (m)	Inorganics	Bacteria	Chl a	TSS / SSC	TOC / DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Toxicity	VOAs
Sub/Surface													
Sub/Surface													
COMMENTS: Rich stated he will calculate flow velocity.													

Run:										Sample Processing Date:									
Sample ID #:																			
Site Code:																			
# Small Wells																			
# Large Wells																			
Empty Wells																			
MPN																			
# Small Wells																			
# Large Wells																			
False Positives																			
MPN																			
Temp/Time																			
Start										4 Hr. Check									
										14 Hr. Check									
										18 Hr. Check									
										22 Hr. Check, if needed									
FIELD DUPLICATES										LAB DUPLICATES									
Normal Sample #										Normal Sample #									
Duplicate Sample #										Duplicate Sample #									
MPN										MPN									
95% CI										95% CI									
Lower										Lower									
Upper										Upper									
TOTAL COLIFORM										TOTAL COLIFORM									
Normal Duplicate Mean										Normal Duplicate Mean									
Pass										Pass									
Needs Review										Needs Review									
E. COLI										E. COLI									
Normal Duplicate Mean										Normal Duplicate Mean									
Pass										Pass									
Needs Review										Needs Review									
BLANKS										BLANKS									
Field Sample #										Lab Sample #									
Pass										Pass									
Needs Review										Needs Review									
Mean = Mean of Normal and Duplicate, which is then compared to the individual corresponding CI's to determine acceptability of data																			
Sampler Signature / Date / Time Arrived:										Placed in Incubator By / Date / Time:									
Processor / Date / Time:										Pulled from Incubator By / Date / Time:									
Trays Read By:										Entered into database:									

SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - EventType=WQ										Entered into Database (Print Date)		Pg	of	Pgs			
*StationID: 2022-01		*Date (mm/dd/yyyy): 06/02/2022		*Group:		*Agency:		*Funding:		*ArrivalTime: 9:15		*DepartureTime: 10:00am		*SampleTime (1st sample): 9:50am		*Protocol:	
*Personnel: BM, TC		*Purpose (circle all that apply): WaterChem WaterTox FieldObs FieldMeasure		*PurposeFailure:													
*Location: Bank Thalweg Midchannel OpenWater		*GPS/DGPS		Lat (dd.ddddd)		Long (ddd.ddddd)		OCCUPATION METHOD: (Walk-in) Bridge RV Other									
GPS Device:		Target:						STARTING BANK (facing downstream): LB / RB / NA									
Datum: NAD83		Accuracy (ft/m):		*Actual: 39.978998		-105.575810		Point of Sample (if Integrated, then -88 in dbase)									
Field Observations (SampleType = FieldObs)		SITE ODOR: (None, Sulfides, Sewage, Petroleum, Mixed, Other)		WAVEABILITY: Y / N / Unk		BEAUFORT SCALE (see attachment): 3		DISTANCE FROM BANK (m):		STREAM WIDTH (m): 25'		WATER DEPTH (m): 21'					
SKY CODE: (Clear, Partly Cloudy, Overcast, Fog)		WIND DIRECTION (from):		HYDROMODIFICATION: (None, Bridge, Pipes, ConcreteChannel, GradeControl, Culvert, AerialZipline, Other)		LOCATION (to sample): US / DS / WI /											
OTHERPRESENCE: (Vascular, Nonvascular, OilySheen, Foam, Trash, Other)		DOMINANTSUBSTRATE: (Bedrock, Concrete, Cobble, Gravel, Sand, Mud, Unk, Other)		PHOTOS (RB & LB assigned when facing downstream; RENAME to StationCode yyyy_mm_dd_uniquecode):		1: (RB / LB / BB / US / DS / ##)											
WATERCLARITY: (Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis))		PRECIPITATION: (None, Fog, Drizzle, Rain, Snow)		2: (RB / LB / BB / US / DS / ##)													
WATERODOR: (None, Sulfides, Sewage, Petroleum, Mixed, Other)		PRECIPITATION (last 24 hrs): (Unknown, <1", >1", None)		3: (RB / LB / BB / US / DS / ##)													
WATERCOLOR: (Colorless, Green, Yellow, Brown)		OBSERVED FLOW: (NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs)															
Field Measurements (SampleType = FieldMeasure; Method = Field)																	
	DepthCollec (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O ₂ (mg/L)	O ₂ (%)	Specific Conductivity (uS/cm)	Salinity (ppt)	Turbidity (ntu)	Stage Ht (units)						
SUBSURF/MID/ BOTTOM/REP	0.025	1.76	12°C	2°C	6.8			0.4									
SUBSURF/MID/ BOTTOM/REP																	
SUBSURF/MID/ BOTTOM/REP																	
Instrument:																	
Calib. Date:																	
Samples Taken (# of containers filled) - Method=Water_Grab																	
Field Dup YES/NO: (SampleType = Grab / Integrated; LABEL_ID = FieldQA; create collection record upon data entry)																	
SAMPLE TYPE: Grab / Integrated																	
COLLECTION EQUIPMENT: (Indiv bottle (by hand, by pole, by bucket); Teflon tubing; Kemmer; Pole & Beaker; Other)																	
	DepthCollec (m)	Inorganics	Bacteria	Chl a	TSS / SSC	TOC / DOC	Total Hg	Dissolved Mercury	Total Metals	Dissolved Metals	Organics	Toxicity	VOAs				
Sub/Surface																	
Sub/Surface																	
COMMENTS:																	

Run:										Sample Processing Date:									
Sample ID #:																			
Site Code:																			
# Small Wells # Large Wells Empty Wells MPN # Small Wells # Large Wells False Positives MPN																			
Temp/Time: Start 4Hr. Check 14 Hr. Check 18 Hr. Check 22 Hr. Check, if needed																			
FIELD DUPLICATES										LAB DUPLICATES									
Normal Sample # Duplicate Sample #										Normal Sample # Duplicate Sample #									
MPN										MPN									
95% CI										95% CI									
Lower Upper										Lower Upper									
TOTAL COLIFORM										TOTAL COLIFORM									
E. COLI										E. COLI									
BLANKS										BLANKS									
Pass Needs Review										Pass Needs Review									
Lab Sample #										Lab Sample #									
Pass Needs Review										Pass Needs Review									
Mean = Mean of Normal and Duplicate, which is then compared to the individual corresponding CI's to determine acceptability of data																			
Sampler Signature / Date / Time Arrived:										Placed in Incubator By / Date / Time:									
Processor / Date / Time:										Trays Read By:									
Pulled from Incubator By / Date / Time:										Entered into database:									
NOTES:																			

SURFACE WATER SAMPLING DATA SHEET

SWAMP Field Data Sheet (Water Chemistry & Discrete Probe) - EventType=WQ				TRC BOARD 1/6/14/2008		Pg of Pgs	
*StationID: <u>2022-02</u>		*Date (mm/dd/yyyy): <u>26/02/2022</u>		*Group:		*Agency:	
*Funding:		ArrivalTime: <u>10:05</u>		DepartureTime: <u>10:50</u>		*SampleTime (1st sample): <u>10:15 am</u>	
*Personnel:		*Purpose (circle all that apply): WaterChem WaterTox FieldObs FieldMeasure				*PurposeFailure:	
*Location: Bank Thalweg Midchannel OpenWater		*GPS/DGPS		Lat (dd.ddddd):		Long (ddd.ddddd):	
GPS Device:		Target:		-		OCCUPATION METHOD: Walk-in Bridge RV Other	
Datum: NAD83		Accuracy (ft/m):		*Actual: <u>29.975873</u>		-165.569305	
Field Observations (SampleType = FieldObs)				BEAUFORT SCALE (see attachment):		DISTANCE FROM BANK (m):	
SITE ODOR: <u>None</u> Sulfides, Sewage, Petroleum, Mixed, Other				WADEABILITY: Y / N / Unk		STREAM WIDTH (m):	
SKY CODE: <u>Clear</u> Partly Cloudy, Overcast, Fog <u>few clouds</u>				WIND DIRECTION (from):		WATER DEPTH (m):	
OTHER PRESENCE: Vascular, Nonvascular, Oily Sheen, Foam, Trash, Other				HYDROMODIFICATION: None, Bridge, Pipes, Concrete Channel, Grade Control, Culvert, Aerial Zipline, Other		LOCATION (to sample): US / DS / WM /	
DOMINANT SUBSTRATE: Bedrock, Concrete, Cobble, Gravel, Sand, Mud, Unk, Other				PHOTOS (RB & LB assigned when facing downstream; RENAME to StationCode yyyy_mm_dd_uniquecode):		1: (RB / LB / BB / US / DS / ##)	
WATER CLARITY: Clear (see bottom), Cloudy (>4" vis), Murky (<4" vis)				PRECIPITATION: None, Fog, Drizzle, Rain, Snow		2: (RB / LB / BB / US / DS / ##)	
WATER ODOR: None, Sulfides, Sewage, Petroleum, Mixed, Other				PRECIPITATION (last 24 hrs): Unknown, <1", >1", None		3: (RB / LB / BB / US / DS / ##)	
WATER COLOR: Colorless, Green, Yellow, Brown							
OBSERVED FLOW: NA, Dry Waterbody Bed, No Obs Flow, Isolated Pool, Trickle (<0.1cfs), 0.1-1cfs, 1-5cfs, 5-20cfs, 20-50cfs, 50-200cfs, >200cfs							
Field Measurements (SampleType = FieldMeasure; Method = Field)							
	Depth Collec (m)	Velocity (fps)	Air Temp (°C)	Water Temp (°C)	pH	O ₂ (mg/L)	O ₂ (%)
SUBSURF/MID/ BOTTOM/REP	<u>0.025</u>	<u>3.97</u>	<u>12.0</u>	<u>7.0</u>	<u>7.6</u>		
SUBSURF/MID/ BOTTOM/REP							
SUBSURF/MID/ BOTTOM/REP							
Instrument:							
Calib. Date:							
Samples Taken (# of containers filled) - Method=Water_Grab				Field Dup YES/NO: (SampleType = Grab / Integrated; LABEL_ID = FieldQA; create collection record upon data entry)			
SAMPLE TYPE: Grab / Integrated		COLLECTION EQUIPMENT:		Indiv bottle (by hand, by pole, by bucket); Teflon tubing; Kemmer; Pole & Beaker; Other			
	Depth Collec (m)	Inorganics	Bacteria	Chl a	TSS / SSC	TOC / DOC	Total Hg
Sub/Surface							
Sub/Surface							
COMMENTS:							

Run:		Sample Processing Date:									
Sample ID #:											
Site Code:											
Yellow +	# Small Wells										
	# Large Wells										
	Empty Wells										
	MPN										
Yellow + Fluorescence (+)	# Small Wells										
	# Large Wells										
	False Positives										
	MPN										
Temp/Time	Start	4 Hr. Check	14 Hr. Check	18 Hr. Check	22 Hr. Check, if needed						
TOTAL COLIFORM	Normal Sample #	FIELD DUPLICATES				LAB DUPLICATES					
	Duplicate Sample #										
	MPN										
	95% CI										
E. COLI	Normal Sample #										
	Duplicate Sample #										
	MPN										
	95% CI										
BLANKS	Normal Sample #										
	Duplicate Sample #										
	MPN										
	95% CI										

Mean = Mean of Normal and Duplicate, which is then compared to the individual corresponding CI's to determine acceptability of data

Sampler Signature / Date / Time Arrived:	Placed in Incubator By / Date / Time:	Trays Read By:
Processor / Date / Time:	Pulled from Incubator By / Date / Time:	Entered into database:

NOTES:

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-162328-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney



Authorized for release by:

5/20/2022 2:42:58 PM

Dylan Bieniulis, Project Manager I
(303)736-0138

Dylan.Bieniulis@et.eurofinsus.com

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results through



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

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
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Job ID: 280-162328-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-162328-1

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 05/13/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.7 C.

Per client request on 5/13/2022, the requested 1631E LL Mercury analysis was cancelled.

TOTAL RECOVERABLE METALS (ICP)

Sample OUTFALL-001 (280-162328-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 05/17/2022 and analyzed on 05/19/2022.

Iron was detected in method blank MB 280-575219/1-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 (280-162328-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 05/18/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Sample OUTFALL-001 (280-162328-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 05/17/2022.

Zinc was detected in method blank MB 280-575092/1-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.

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Job ID: 280-162328-1 (Continued)

Laboratory: Eurofins Denver (Continued)

TOTAL MERCURY (CVAA)

Sample UTFALL-001 (280-162328-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 05/17/2022 and analyzed on 05/18/2022.

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 (280-162328-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500_CR3_B. The samples were analyzed on 05/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Sample UTFALL-001 (280-162328-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500_CR3_B. The samples were analyzed on 05/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTIVITY

Sample UTFALL-001 (280-162328-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 05/18/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Sample UTFALL-001 (280-162328-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 05/18/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Sample UTFALL-001 (280-162328-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 05/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Sample UTFALL-001 (280-162328-1) was analyzed for hexavalent chromium in accordance with 3500_CR_B. The samples were analyzed on 05/13/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)

Sample UTFALL-001 (280-162328-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 05/19/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE

Sample UTFALL-001 (280-162328-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 05/16/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HYDROGEN SULFIDE

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Job ID: 280-162328-1 (Continued)

Laboratory: Eurofins Denver (Continued)

Sample OUTFALL-001 (280-162328-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 05/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-162328-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	300	B	100	9.1	ug/L	1			200.7 Rev 4.4	Total
Copper	2.1		2.0	0.71	ug/L	1			200.8	Recoverable
Lead	3.2		1.0	0.23	ug/L	1			200.8	Total
Zinc	6.3	J B	10	2.0	ug/L	1			200.8	Recoverable
Copper	1.5	J	2.0	0.71	ug/L	1			200.8	Total
Lead	3.0		1.0	0.23	ug/L	1			200.8	Recoverable
Manganese	2.4		2.0	0.51	ug/L	1			200.8	Total
Zinc	7.8	J	10	2.0	ug/L	1			200.8	Recoverable
Specific Conductance	190		2.0	2.0	umhos/cm	1			SM 2510B	Potentially Dissolved
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU	1			SM 4500 H+ B	Potentially Dissolved
Temperature	20.8	HF	1.0	1.0	Degrees C	1			SM 4500 H+ B	Potentially Dissolved
Field pH	7.9		1.0	1.0	SU	1			SM4500 S2 H	Total/NA
Field Temperature	21		1.0	1.0	Celsius	1			SM4500 S2 H	Total/NA
Specific Conductance	190		2.0	2.0	umhos/cm	1			SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 3500 CR B	Chromium, Hexavalent	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM 4500 S2 D	Sulfide, Total	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	TAL DEN
200.7	Preparation, Total Recoverable Metals	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
245.1	Preparation, Mercury	EPA	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-162328-1	OUTFALL-001	Water	05/13/22 13:00	05/13/22 14:45

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 05/13/22 13:00
Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	300	B	100	9.1	ug/L		05/17/22 09:00	05/19/22 00:22	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 05/13/22 13:00
Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		05/17/22 10:04	05/17/22 22:59	1
Cadmium	ND		1.0	0.088	ug/L		05/17/22 10:04	05/17/22 22:59	1
Chromium	ND		3.0	0.88	ug/L		05/17/22 10:04	05/17/22 22:59	1
Copper	2.1		2.0	0.71	ug/L		05/17/22 10:04	05/17/22 22:59	1
Lead	3.2		1.0	0.23	ug/L		05/17/22 10:04	05/17/22 22:59	1
Zinc	6.3	J B	10	2.0	ug/L		05/17/22 10:04	05/17/22 22:59	1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001
Date Collected: 05/13/22 13:00
Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		05/18/22 08:41	05/18/22 22:30	1
Cadmium	ND		1.0	0.088	ug/L		05/18/22 08:41	05/18/22 22:30	1
Chromium	ND		3.0	0.88	ug/L		05/18/22 08:41	05/18/22 22:30	1
Copper	1.5	J	2.0	0.71	ug/L		05/18/22 08:41	05/18/22 22:30	1
Lead	3.0		1.0	0.23	ug/L		05/18/22 08:41	05/18/22 22:30	1
Manganese	2.4		2.0	0.51	ug/L		05/18/22 08:41	05/18/22 22:30	1
Nickel	ND		2.0	0.28	ug/L		05/18/22 08:41	05/18/22 22:30	1
Selenium	ND		5.0	1.0	ug/L		05/18/22 08:41	05/18/22 22:30	1
Silver	ND		0.50	0.045	ug/L		05/18/22 08:41	05/18/22 22:30	1
Zinc	7.8	J	10	2.0	ug/L		05/18/22 08:41	05/18/22 22:30	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: OUTFALL-001
Date Collected: 05/13/22 13:00
Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		05/17/22 18:02	05/18/22 16:13	1

General Chemistry

Client Sample ID: OUTFALL-001
Date Collected: 05/13/22 13:00
Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	190		2.0	2.0	umhos/cm			05/18/22 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			05/18/22 13:21	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			05/13/22 16:08	1
pH adj. to 25 deg C	7.9	HF	0.1	0.1	SU			05/19/22 17:10	1
Temperature	20.8	HF	1.0	1.0	Degrees C			05/19/22 17:10	1

Eurofins Denver

Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

General Chemistry (Continued)

Client Sample ID: OUTFALL-001

Date Collected: 05/13/22 13:00

Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			05/16/22 12:42	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			05/20/22 14:08	1
Field pH	7.9		1.0	1.0	SU			05/20/22 14:08	1
Field Temperature	21		1.0	1.0	Celsius			05/20/22 14:08	1
Specific Conductance	190		2.0	2.0	umhos/cm			05/20/22 14:08	1
Sulfide	ND		4.0	4.0	mg/L			05/20/22 14:08	1

General Chemistry - Total Recoverable

Client Sample ID: OUTFALL-001

Date Collected: 05/13/22 13:00

Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			05/20/22 10:40	1

General Chemistry - Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 05/13/22 13:00

Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			05/13/22 16:09	1

General Chemistry - Potentially Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 05/13/22 13:00

Date Received: 05/13/22 14:45

Lab Sample ID: 280-162328-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			05/20/22 10:42	1

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-575219/1-A

Matrix: Water

Analysis Batch: 575492

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 575219

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	32.7	J	100	9.1	ug/L		05/17/22 09:00	05/18/22 23:54	1

Lab Sample ID: LCS 280-575219/2-A

Matrix: Water

Analysis Batch: 575492

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 575219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	10200		ug/L		102	85 - 115

Lab Sample ID: LCSD 280-575219/3-A

Matrix: Water

Analysis Batch: 575492

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 575219

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	10000	10300		ug/L		103	85 - 115	1	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-575092/1-A

Matrix: Water

Analysis Batch: 575342

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 575092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		05/17/22 10:04	05/17/22 17:21	1
Cadmium	ND		1.0	0.088	ug/L		05/17/22 10:04	05/17/22 17:21	1
Chromium	ND		3.0	0.88	ug/L		05/17/22 10:04	05/17/22 17:21	1
Copper	ND		2.0	0.71	ug/L		05/17/22 10:04	05/17/22 17:21	1
Lead	ND		1.0	0.23	ug/L		05/17/22 10:04	05/17/22 17:21	1
Zinc	2.56	J	10	2.0	ug/L		05/17/22 10:04	05/17/22 17:21	1

Lab Sample ID: LCS 280-575092/2-A

Matrix: Water

Analysis Batch: 575342

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 575092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	40.3		ug/L		101	89 - 111
Cadmium	40.0	42.3		ug/L		106	89 - 111
Chromium	40.0	39.7		ug/L		99	86 - 115
Copper	40.0	40.1		ug/L		100	90 - 115
Lead	40.0	40.6		ug/L		101	88 - 115
Zinc	40.0	42.8		ug/L		107	88 - 115

Lab Sample ID: MB 280-574945/1-B

Matrix: Water

Analysis Batch: 575481

Client Sample ID: Method Blank

Prep Type: Potentially Dissolved

Prep Batch: 575231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		05/18/22 08:41	05/18/22 22:22	1
Cadmium	ND		1.0	0.088	ug/L		05/18/22 08:41	05/18/22 22:22	1
Chromium	ND		3.0	0.88	ug/L		05/18/22 08:41	05/18/22 22:22	1

Eurofins Denver

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-574945/1-B

Matrix: Water

Analysis Batch: 575481

Client Sample ID: Method Blank

Prep Type: Potentially Dissolved

Prep Batch: 575231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		05/18/22 08:41	05/18/22 22:22	1
Lead	ND		1.0	0.23	ug/L		05/18/22 08:41	05/18/22 22:22	1
Manganese	ND		2.0	0.51	ug/L		05/18/22 08:41	05/18/22 22:22	1
Nickel	ND		2.0	0.28	ug/L		05/18/22 08:41	05/18/22 22:22	1
Selenium	ND		5.0	1.0	ug/L		05/18/22 08:41	05/18/22 22:22	1
Silver	ND		0.50	0.045	ug/L		05/18/22 08:41	05/18/22 22:22	1
Zinc	ND		10	2.0	ug/L		05/18/22 08:41	05/18/22 22:22	1

Lab Sample ID: LCS 280-574945/2-B

Matrix: Water

Analysis Batch: 575481

Client Sample ID: Lab Control Sample

Prep Type: Potentially Dissolved

Prep Batch: 575231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	38.5		ug/L		96	89 - 111
Cadmium	40.0	39.0		ug/L		97	89 - 111
Chromium	40.0	38.9		ug/L		97	86 - 115
Copper	40.0	39.2		ug/L		98	90 - 115
Lead	40.0	39.3		ug/L		98	88 - 115
Manganese	40.0	38.7		ug/L		97	87 - 115
Nickel	40.0	39.0		ug/L		97	86 - 115
Selenium	40.0	42.1		ug/L		105	85 - 114
Silver	40.0	40.2		ug/L		100	90 - 114
Zinc	40.0	41.1		ug/L		103	88 - 115

Lab Sample ID: 280-162328-1 MS

Matrix: Water

Analysis Batch: 575481

Client Sample ID: OUTFALL-001

Prep Type: Potentially Dissolved

Prep Batch: 575231

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		40.0	39.3		ug/L		98	79 - 120
Cadmium	ND		40.0	39.9		ug/L		100	89 - 111
Chromium	ND		40.0	39.1		ug/L		98	86 - 115
Copper	1.5	J	40.0	40.4		ug/L		97	90 - 115
Lead	3.0		40.0	42.3		ug/L		98	88 - 115
Manganese	2.4		40.0	41.6		ug/L		98	87 - 115
Nickel	ND		40.0	37.5		ug/L		94	86 - 115
Selenium	ND		40.0	40.9		ug/L		102	85 - 114
Silver	ND		40.0	39.5		ug/L		99	70 - 130
Zinc	7.8	J	40.0	49.0		ug/L		103	88 - 115

Lab Sample ID: 280-162328-1 MSD

Matrix: Water

Analysis Batch: 575481

Client Sample ID: OUTFALL-001

Prep Type: Potentially Dissolved

Prep Batch: 575231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		40.0	37.3		ug/L		93	79 - 120	5	20
Cadmium	ND		40.0	39.9		ug/L		100	89 - 111	0	20
Chromium	ND		40.0	38.7		ug/L		97	86 - 115	1	20
Copper	1.5	J	40.0	39.1		ug/L		94	90 - 115	3	20

Eurofins Denver

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-162328-1 MSD

Matrix: Water

Analysis Batch: 575481

Client Sample ID: OUTFALL-001

Prep Type: Potentially Dissolved

Prep Batch: 575231

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	3.0		40.0	41.5		ug/L		96	88 - 115	2	20
Manganese	2.4		40.0	41.6		ug/L		98	87 - 115	0	20
Nickel	ND		40.0	36.9		ug/L		92	86 - 115	2	20
Selenium	ND		40.0	40.1		ug/L		100	85 - 114	2	20
Silver	ND		40.0	39.5		ug/L		99	70 - 130	0	20
Zinc	7.8	J	40.0	46.5		ug/L		97	88 - 115	5	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-575238/1-A

Matrix: Water

Analysis Batch: 575468

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 575238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		05/17/22 18:02	05/18/22 15:14	1

Lab Sample ID: LCS 280-575238/2-A

Matrix: Water

Analysis Batch: 575468

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 575238

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.74		ug/L		95	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-575348/5

Matrix: Water

Analysis Batch: 575348

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			05/18/22 09:41	1

Lab Sample ID: LCS 280-575348/4

Matrix: Water

Analysis Batch: 575348

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 280-575404/2

Matrix: Water

Analysis Batch: 575404

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			05/18/22 13:21	1

Eurofins Denver

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 280-575404/1
Matrix: Water
Analysis Batch: 575404

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	100	80.0		mg/L		80	79 - 114

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-574921/9
Matrix: Water
Analysis Batch: 574921

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			05/13/22 11:04	1

Lab Sample ID: LCS 280-574921/8
Matrix: Water
Analysis Batch: 574921

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	0.103		mg/L		103	91 - 112

Lab Sample ID: MB 280-574915/2-A
Matrix: Water
Analysis Batch: 574921

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			05/13/22 16:09	1

Lab Sample ID: LCS 280-574915/1-A
Matrix: Water
Analysis Batch: 574921

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	0.103		mg/L		103	91 - 112

Lab Sample ID: 280-162328-1 MS
Matrix: Water
Analysis Batch: 574921

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	0.106		mg/L		106	91 - 112

Lab Sample ID: 280-162328-1 MSD
Matrix: Water
Analysis Batch: 574921

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	0.106		mg/L		106	91 - 112	0	20

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-162328-1 DU
Matrix: Water
Analysis Batch: 574921

Client Sample ID: OUTFALL-001
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chromium, hexavalent	ND		0.00423	J	mg/L		NC	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-575633/4
Matrix: Water
Analysis Batch: 575633

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	7.0		SU		101	99 - 101

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-575103/11
Matrix: Water
Analysis Batch: 575103

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			05/16/22 12:33	1

Lab Sample ID: LCS 280-575103/9
Matrix: Water
Analysis Batch: 575103

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	0.491		mg/L		98	81 - 122

Lab Sample ID: LCSD 280-575103/10
Matrix: Water
Analysis Batch: 575103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Sulfide	0.501	0.497		mg/L		99	81 - 122	1	10

Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-575711/1
Matrix: Water
Analysis Batch: 575711

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			05/20/22 14:08	1
Field pH	ND		1.0	1.0	SU			05/20/22 14:08	1
Field Temperature	ND		1.0	1.0	Celsius			05/20/22 14:08	1
Specific Conductance	ND		2.0	2.0	umhos/cm			05/20/22 14:08	1
Sulfide	ND		4.0	4.0	mg/L			05/20/22 14:08	1

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Metals

Filtration Batch: 574945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-574945/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-574945/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	
280-162328-1 MS	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
280-162328-1 MSD	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	

Prep Batch: 575092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-575092/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-575092/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Prep Batch: 575219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total Recoverable	Water	200.7	
MB 280-575219/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-575219/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-575219/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Prep Batch: 575231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Potentially Dissolved	Water	200.8	574945
MB 280-574945/1-B	Method Blank	Potentially Dissolved	Water	200.8	574945
LCS 280-574945/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	574945
280-162328-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	574945
280-162328-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	574945

Prep Batch: 575238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	245.1	
MB 280-575238/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-575238/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 575342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total Recoverable	Water	200.8	575092
MB 280-575092/1-A	Method Blank	Total Recoverable	Water	200.8	575092
LCS 280-575092/2-A	Lab Control Sample	Total Recoverable	Water	200.8	575092

Analysis Batch: 575468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	245.1	575238
MB 280-575238/1-A	Method Blank	Total/NA	Water	245.1	575238
LCS 280-575238/2-A	Lab Control Sample	Total/NA	Water	245.1	575238

Analysis Batch: 575481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Potentially Dissolved	Water	200.8	575231
MB 280-574945/1-B	Method Blank	Potentially Dissolved	Water	200.8	575231
LCS 280-574945/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	575231
280-162328-1 MS	OUTFALL-001	Potentially Dissolved	Water	200.8	575231

Eurofins Denver

QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Metals (Continued)

Analysis Batch: 575481 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1 MSD	OUTFALL-001	Potentially Dissolved	Water	200.8	575231

Analysis Batch: 575492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	575219
MB 280-575219/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	575219
LCS 280-575219/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	575219
LCSD 280-575219/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	575219

General Chemistry

Filtration Batch: 574915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Dissolved	Water	FILTRATION	
MB 280-574915/2-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-574915/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
280-162328-1 MS	OUTFALL-001	Dissolved	Water	FILTRATION	
280-162328-1 MSD	OUTFALL-001	Dissolved	Water	FILTRATION	
280-162328-1 DU	OUTFALL-001	Dissolved	Water	FILTRATION	

Analysis Batch: 574921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Dissolved	Water	SM 3500 CR B	574915
280-162328-1	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
MB 280-574915/2-A	Method Blank	Dissolved	Water	SM 3500 CR B	574915
MB 280-574921/9	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-574915/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	574915
LCS 280-574921/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
280-162328-1 MS	OUTFALL-001	Dissolved	Water	SM 3500 CR B	574915
280-162328-1 MSD	OUTFALL-001	Dissolved	Water	SM 3500 CR B	574915
280-162328-1 DU	OUTFALL-001	Dissolved	Water	SM 3500 CR B	574915

Analysis Batch: 575103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
MB 280-575103/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-575103/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-575103/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 575348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	SM 2510B	
MB 280-575348/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-575348/4	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 575404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	SM 2540D	
MB 280-575404/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-575404/1	Lab Control Sample	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

General Chemistry

Analysis Batch: 575633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	SM 4500 H+ B	
LCS 280-575633/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 575670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total Recoverable	Water	SM3500 CR B	

Analysis Batch: 575671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Potentially Dissolved	Water	SM3500 CR B	

Analysis Batch: 575711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162328-1	OUTFALL-001	Total/NA	Water	SM4500 S2 H	
MB 280-575711/1	Method Blank	Total/NA	Water	SM4500 S2 H	

Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-162328-1

Date Collected: 05/13/22 13:00

Matrix: Water

Date Received: 05/13/22 14:45

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	575219	05/17/22 09:00	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			575492	05/19/22 00:22	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	574945	05/13/22 21:30	LRD	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	575231	05/18/22 08:41	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			575481	05/18/22 22:30	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	575092	05/17/22 10:04	PFM	TAL DEN
Total Recoverable	Analysis	200.8		1			575342	05/17/22 22:59	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	575238	05/17/22 18:02	CEH	TAL DEN
Total/NA	Analysis	245.1		1			575468	05/18/22 16:13	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			575348	05/18/22 09:41	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	575404	05/18/22 13:21	CAI	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	574915	05/13/22 15:39	MMP	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	574921	05/13/22 16:09	MMP	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	574921	05/13/22 16:08	MMP	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			575633	05/19/22 17:10	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	575103	05/16/22 12:42	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			575671	05/20/22 10:42	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			575670	05/20/22 10:40	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			575711	05/20/22 14:08	SAH	TAL DEN

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162328-1

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22
California	State	2513	01-09-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-20 *
New Jersey	NELAP	190002	06-30-22
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-08-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-162328-1

Login Number: 162328

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

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	

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-162851-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney



Authorized for release by:

6/15/2022 12:35:47 PM

Dylan Bieniulis, Project Manager I
(303)736-0138

Dylan.Bieniulis@et.eurofinsus.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Job ID: 280-162851-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-162851-1

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 05/27/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 10.5 C.

TOTAL RECOVERABLE METALS (ICP)

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared and analyzed on 06/07/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POTENTIALLY DISSOLVED METALS (ICPMS)

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 06/06/2022.

Due to scheduling error the following samples were filtered approximately 100 hours after collection/preservation, which is outside of the required 8-96 hours for potentially dissolved metals: 2022-01 (280-162851-1) and 2022-02 (280-162851-2). The client was notified on 6/13/2022 and instructed the laboratory to proceed with reporting of the qualified data.

Cadmium and Zinc were detected in method blank MB 280-576483/1-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 06/02/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY (CVAA)

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for total mercury (CVAA) in accordance with EPA Method

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Job ID: 280-162851-1 (Continued)

Laboratory: Eurofins Denver (Continued)

245.1. The samples were prepared and analyzed on 05/31/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500_CR3_B. The samples were analyzed on 06/09/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500_CR3_B. The samples were analyzed on 06/09/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTIVITY

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 06/02/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 06/02/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 05/27/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DISSOLVED HEXAVALENT CHROMIUM

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for dissolved hexavalent chromium in accordance with 3500_CR_B. The samples were analyzed on 05/27/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 06/03/2022 and 06/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 06/01/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HYDROGEN SULFIDE

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 06/13/2022.

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Job ID: 280-162851-1 (Continued)

Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

LOW LEVEL MERCURY

Samples 2022-01 (280-162851-1) and 2022-02 (280-162851-2) were analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 06/01/2022 and analyzed on 06/02/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Client Sample ID: 2022-01

Lab Sample ID: 280-162851-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	4.9		0.50	0.20	ng/L	1			1631E	Total/NA
Iron	330		100	9.1	ug/L	1			200.7 Rev 4.4	Total Recoverable
Copper	2.6		2.0	0.71	ug/L	1			200.8	Total Recoverable
Lead	0.53	J	1.0	0.23	ug/L	1			200.8	Total Recoverable
Zinc	14		10	2.0	ug/L	1			200.8	Total Recoverable
Copper	2.4	H	2.0	0.71	ug/L	1			200.8	Potentially Dissolved
Lead	0.46	J H	1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Manganese	15	H	2.0	0.51	ug/L	1			200.8	Potentially Dissolved
Zinc	8.8	J H B	10	2.0	ug/L	1			200.8	Potentially Dissolved
Specific Conductance	39		2.0	2.0	umhos/cm	1			SM 2510B	Total/NA
Total Suspended Solids	2.0	J	4.0	1.1	mg/L	1			SM 2540D	Total/NA
pH adj. to 25 deg C	7.0	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA
Temperature	18.1	HF	1.0	1.0	Degrees C	1			SM 4500 H+ B	Total/NA
Field pH	7.0		1.0	1.0	SU	1			SM4500 S2 H	Total/NA
Field Temperature	18		1.0	1.0	Celsius	1			SM4500 S2 H	Total/NA
Specific Conductance	39		2.0	2.0	umhos/cm	1			SM4500 S2 H	Total/NA

Client Sample ID: 2022-02

Lab Sample ID: 280-162851-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	19		0.50	0.20	ng/L	1			1631E	Total/NA
Iron	2000		100	9.1	ug/L	1			200.7 Rev 4.4	Total Recoverable
Cadmium	0.15	J	1.0	0.088	ug/L	1			200.8	Total Recoverable
Chromium	1.3	J	3.0	0.88	ug/L	1			200.8	Total Recoverable
Copper	6.6		2.0	0.71	ug/L	1			200.8	Total Recoverable
Lead	19		1.0	0.23	ug/L	1			200.8	Total Recoverable
Zinc	36		10	2.0	ug/L	1			200.8	Total Recoverable
Cadmium	0.23	J H B	1.0	0.088	ug/L	1			200.8	Potentially Dissolved
Copper	4.4	H	2.0	0.71	ug/L	1			200.8	Potentially Dissolved
Lead	17	H	1.0	0.23	ug/L	1			200.8	Potentially Dissolved
Manganese	56	H	2.0	0.51	ug/L	1			200.8	Potentially Dissolved
Nickel	0.43	J H	2.0	0.28	ug/L	1			200.8	Potentially Dissolved
Zinc	37	H B	10	2.0	ug/L	1			200.8	Potentially Dissolved
Specific Conductance	60		2.0	2.0	umhos/cm	1			SM 2510B	Total/NA
Total Suspended Solids	35		4.0	1.1	mg/L	1			SM 2540D	Total/NA
pH adj. to 25 deg C	7.4	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Client Sample ID: 2022-02 (Continued)

Lab Sample ID: 280-162851-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Temperature	19.1	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.4		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	19		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	60		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL PEN
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 3500 CR B	Chromium, Hexavalent	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM 4500 S2 D	Sulfide, Total	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	TAL DEN
1631E	Preparation, Mercury, Low Level	EPA	TAL PEN
200.7	Preparation, Total Recoverable Metals	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
245.1	Preparation, Mercury	EPA	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-162851-1	2022-01	Water	05/27/22 12:20	05/27/22 15:43
280-162851-2	2022-02	Water	05/27/22 13:05	05/27/22 15:43

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: 1631E - Mercury, Low Level (CVAFS)

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.9		0.50	0.20	ng/L		06/01/22 15:15	06/02/22 11:39	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	19		0.50	0.20	ng/L		06/01/22 15:15	06/02/22 11:47	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	330		100	9.1	ug/L		06/07/22 10:04	06/07/22 21:52	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2000		100	9.1	ug/L		06/07/22 10:04	06/07/22 21:56	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/02/22 08:45	06/02/22 18:50	1
Cadmium	ND		1.0	0.088	ug/L		06/02/22 08:45	06/02/22 18:50	1
Chromium	ND		3.0	0.88	ug/L		06/02/22 08:45	06/02/22 18:50	1
Copper	2.6		2.0	0.71	ug/L		06/02/22 08:45	06/02/22 18:50	1
Lead	0.53	J	1.0	0.23	ug/L		06/02/22 08:45	06/02/22 18:50	1
Zinc	14		10	2.0	ug/L		06/02/22 08:45	06/02/22 18:50	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/02/22 08:45	06/02/22 18:53	1
Cadmium	0.15	J	1.0	0.088	ug/L		06/02/22 08:45	06/02/22 18:53	1
Chromium	1.3	J	3.0	0.88	ug/L		06/02/22 08:45	06/02/22 18:53	1
Copper	6.6		2.0	0.71	ug/L		06/02/22 08:45	06/02/22 18:53	1
Lead	19		1.0	0.23	ug/L		06/02/22 08:45	06/02/22 18:53	1
Zinc	36		10	2.0	ug/L		06/02/22 08:45	06/02/22 18:53	1

Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	H	5.0	0.50	ug/L		06/06/22 09:57	06/06/22 17:31	1
Cadmium	ND	H	1.0	0.088	ug/L		06/06/22 09:57	06/06/22 17:31	1
Chromium	ND	H	3.0	0.88	ug/L		06/06/22 09:57	06/06/22 17:31	1
Copper	2.4	H	2.0	0.71	ug/L		06/06/22 09:57	06/06/22 17:31	1
Lead	0.46	J H	1.0	0.23	ug/L		06/06/22 09:57	06/06/22 17:31	1
Manganese	15	H	2.0	0.51	ug/L		06/06/22 09:57	06/06/22 17:31	1
Nickel	ND	H	2.0	0.28	ug/L		06/06/22 09:57	06/06/22 17:31	1
Selenium	ND	H	5.0	1.0	ug/L		06/06/22 09:57	06/06/22 17:31	1
Silver	ND	H	0.50	0.045	ug/L		06/06/22 09:57	06/06/22 17:31	1
Zinc	8.8	J H B	10	2.0	ug/L		06/06/22 09:57	06/06/22 17:31	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	H	5.0	0.50	ug/L		06/06/22 09:57	06/06/22 17:35	1
Cadmium	0.23	J H B	1.0	0.088	ug/L		06/06/22 09:57	06/06/22 17:35	1
Chromium	ND	H	3.0	0.88	ug/L		06/06/22 09:57	06/06/22 17:35	1
Copper	4.4	H	2.0	0.71	ug/L		06/06/22 09:57	06/06/22 17:35	1
Lead	17	H	1.0	0.23	ug/L		06/06/22 09:57	06/06/22 17:35	1
Manganese	56	H	2.0	0.51	ug/L		06/06/22 09:57	06/06/22 17:35	1
Nickel	0.43	J H	2.0	0.28	ug/L		06/06/22 09:57	06/06/22 17:35	1
Selenium	ND	H	5.0	1.0	ug/L		06/06/22 09:57	06/06/22 17:35	1
Silver	ND	H	0.50	0.045	ug/L		06/06/22 09:57	06/06/22 17:35	1
Zinc	37	H B	10	2.0	ug/L		06/06/22 09:57	06/06/22 17:35	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		05/31/22 16:09	05/31/22 20:41	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		05/31/22 16:09	05/31/22 20:49	1

General Chemistry

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	39		2.0	2.0	umhos/cm			06/02/22 10:16	1
Total Suspended Solids	2.0	J	4.0	1.1	mg/L			06/02/22 11:11	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			05/27/22 17:55	1
pH adj. to 25 deg C	7.0	HF	0.1	0.1	SU			06/10/22 11:04	1
Temperature	18.1	HF	1.0	1.0	Degrees C			06/10/22 11:04	1

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

General Chemistry (Continued)

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			06/01/22 14:14	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			06/13/22 08:19	1
Field pH	7.0		1.0	1.0	SU			06/13/22 08:19	1
Field Temperature	18		1.0	1.0	Celsius			06/13/22 08:19	1
Specific Conductance	39		2.0	2.0	umhos/cm			06/13/22 08:19	1
Sulfide	ND		4.0	4.0	mg/L			06/13/22 08:19	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	60		2.0	2.0	umhos/cm			06/02/22 10:16	1
Total Suspended Solids	35		4.0	1.1	mg/L			06/02/22 11:11	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			05/27/22 17:57	1
pH adj. to 25 deg C	7.4	HF	0.1	0.1	SU			06/03/22 13:40	1
Temperature	19.1	HF	1.0	1.0	Degrees C			06/03/22 13:40	1
Sulfide	ND		0.050	0.022	mg/L			06/01/22 14:14	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			06/13/22 08:19	1
Field pH	7.4		1.0	1.0	SU			06/13/22 08:19	1
Field Temperature	19		1.0	1.0	Celsius			06/13/22 08:19	1
Specific Conductance	60		2.0	2.0	umhos/cm			06/13/22 08:19	1
Sulfide	ND		4.0	4.0	mg/L			06/13/22 08:19	1

General Chemistry - Total Recoverable

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			06/09/22 18:38	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			06/09/22 18:38	1

General Chemistry - Dissolved

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			05/27/22 18:18	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			05/27/22 18:20	1

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

General Chemistry - Potentially Dissolved

Client Sample ID: 2022-01
Date Collected: 05/27/22 12:20
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			06/09/22 18:40	1

Client Sample ID: 2022-02
Date Collected: 05/27/22 13:05
Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			06/09/22 18:40	1

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-579767/3-A
Matrix: Water
Analysis Batch: 579807

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 579767

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L		06/01/22 16:00	06/02/22 10:08	1

Lab Sample ID: LCS 400-579767/4-A
Matrix: Water
Analysis Batch: 579807

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 579767

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.11		ng/L		102	79 - 121

Lab Sample ID: LCSD 400-579767/5-A
Matrix: Water
Analysis Batch: 579807

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 579767

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	5.08		ng/L		102	79 - 121	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-577207/1-A
Matrix: Water
Analysis Batch: 577415

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 577207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100	9.1	ug/L		06/07/22 10:04	06/07/22 20:15	1

Lab Sample ID: LCS 280-577207/2-A
Matrix: Water
Analysis Batch: 577415

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 577207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	10300		ug/L		103	85 - 115

Lab Sample ID: LCSD 280-577207/3-A
Matrix: Water
Analysis Batch: 577415

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 577207

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	10000	10200		ug/L		102	85 - 115	1	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-576739/1-A
Matrix: Water
Analysis Batch: 577000

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/02/22 08:45	06/02/22 17:53	1
Cadmium	ND		1.0	0.088	ug/L		06/02/22 08:45	06/02/22 17:53	1
Chromium	ND		3.0	0.88	ug/L		06/02/22 08:45	06/02/22 17:53	1
Copper	ND		2.0	0.71	ug/L		06/02/22 08:45	06/02/22 17:53	1

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-576739/1-A
Matrix: Water
Analysis Batch: 577000

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.23	ug/L		06/02/22 08:45	06/02/22 17:53	1
Zinc	ND		10	2.0	ug/L		06/02/22 08:45	06/02/22 17:53	1

Lab Sample ID: LCS 280-576739/2-A
Matrix: Water
Analysis Batch: 577000

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	39.2		ug/L		98	89 - 111
Cadmium	40.0	40.3		ug/L		101	89 - 111
Chromium	40.0	40.3		ug/L		101	86 - 115
Copper	40.0	40.7		ug/L		102	90 - 115
Lead	40.0	40.8		ug/L		102	88 - 115
Zinc	40.0	40.9		ug/L		102	88 - 115

Lab Sample ID: MB 280-576483/1-B
Matrix: Water
Analysis Batch: 577288

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved
Prep Batch: 577059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/06/22 09:57	06/06/22 17:16	1
Cadmium	0.128	J	1.0	0.088	ug/L		06/06/22 09:57	06/06/22 17:16	1
Chromium	ND		3.0	0.88	ug/L		06/06/22 09:57	06/06/22 17:16	1
Copper	ND		2.0	0.71	ug/L		06/06/22 09:57	06/06/22 17:16	1
Lead	ND		1.0	0.23	ug/L		06/06/22 09:57	06/06/22 17:16	1
Manganese	ND		2.0	0.51	ug/L		06/06/22 09:57	06/06/22 17:16	1
Nickel	ND		2.0	0.28	ug/L		06/06/22 09:57	06/06/22 17:16	1
Selenium	ND		5.0	1.0	ug/L		06/06/22 09:57	06/06/22 17:16	1
Silver	ND		0.50	0.045	ug/L		06/06/22 09:57	06/06/22 17:16	1
Zinc	2.06	J	10	2.0	ug/L		06/06/22 09:57	06/06/22 17:16	1

Lab Sample ID: LCS 280-576483/2-B
Matrix: Water
Analysis Batch: 577288

Client Sample ID: Lab Control Sample
Prep Type: Potentially Dissolved
Prep Batch: 577059

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	37.8		ug/L		95	89 - 111
Cadmium	40.0	39.0		ug/L		98	89 - 111
Chromium	40.0	37.9		ug/L		95	86 - 115
Copper	40.0	38.0		ug/L		95	90 - 115
Lead	40.0	37.9		ug/L		95	88 - 115
Manganese	40.0	37.1		ug/L		93	87 - 115
Nickel	40.0	37.7		ug/L		94	86 - 115
Selenium	40.0	40.4		ug/L		101	85 - 114
Silver	40.0	39.4		ug/L		98	90 - 114
Zinc	40.0	45.8		ug/L		115	88 - 115

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 280-576483/3-B

Matrix: Water

Analysis Batch: 577288

Client Sample ID: Lab Control Sample Dup

Prep Type: Potentially Dissolved

Prep Batch: 577059

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	40.0	37.4		ug/L		94	89 - 111	1	20
Cadmium	40.0	39.3		ug/L		98	89 - 111	1	20
Chromium	40.0	38.1		ug/L		95	86 - 115	0	20
Copper	40.0	36.9		ug/L		92	90 - 115	3	20
Lead	40.0	37.5		ug/L		94	88 - 115	1	20
Manganese	40.0	37.0		ug/L		92	87 - 115	0	20
Nickel	40.0	36.4		ug/L		91	86 - 115	4	20
Selenium	40.0	40.1		ug/L		100	85 - 114	1	20
Silver	40.0	39.1		ug/L		98	90 - 114	1	20
Zinc	40.0	44.4		ug/L		111	88 - 115	3	20

Lab Sample ID: 280-162851-2 MS

Matrix: Water

Analysis Batch: 577288

Client Sample ID: 2022-02

Prep Type: Potentially Dissolved

Prep Batch: 577059

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND	H	40.0	38.4		ug/L		96	79 - 120		
Cadmium	0.23	J H B	40.0	40.2		ug/L		100	89 - 111		
Chromium	ND	H	40.0	39.0		ug/L		97	86 - 115		
Copper	4.4	H	40.0	42.7		ug/L		96	90 - 115		
Lead	17	H	40.0	55.0		ug/L		96	88 - 115		
Manganese	56	H	40.0	92.4		ug/L		91	87 - 115		
Nickel	0.43	J H	40.0	36.2		ug/L		89	86 - 115		
Selenium	ND	H	40.0	39.5		ug/L		99	85 - 114		
Silver	ND	H	40.0	39.4		ug/L		99	70 - 130		
Zinc	37	H B	40.0	80.1		ug/L		108	88 - 115		

Lab Sample ID: 280-162851-2 MSD

Matrix: Water

Analysis Batch: 577288

Client Sample ID: 2022-02

Prep Type: Potentially Dissolved

Prep Batch: 577059

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND	H	40.0	38.4		ug/L		96	79 - 120	0	20
Cadmium	0.23	J H B	40.0	39.1		ug/L		97	89 - 111	3	20
Chromium	ND	H	40.0	38.3		ug/L		96	86 - 115	2	20
Copper	4.4	H	40.0	42.8		ug/L		96	90 - 115	0	20
Lead	17	H	40.0	54.6		ug/L		95	88 - 115	1	20
Manganese	56	H	40.0	93.4		ug/L		94	87 - 115	1	20
Nickel	0.43	J H	40.0	37.2		ug/L		92	86 - 115	3	20
Selenium	ND	H	40.0	40.0		ug/L		100	85 - 114	1	20
Silver	ND	H	40.0	39.7		ug/L		99	70 - 130	1	20
Zinc	37	H B	40.0	80.8		ug/L		110	88 - 115	1	20

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-576330/1-A
Matrix: Water
Analysis Batch: 576777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 576330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		05/31/22 16:09	05/31/22 20:18	1

Lab Sample ID: LCS 280-576330/2-A
Matrix: Water
Analysis Batch: 576777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 576330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.09		ug/L		102	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-576887/5
Matrix: Water
Analysis Batch: 576887

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			06/02/22 10:16	1

Lab Sample ID: LCS 280-576887/4
Matrix: Water
Analysis Batch: 576887

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		105	90 - 110

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-576903/2
Matrix: Water
Analysis Batch: 576903

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			06/02/22 11:11	1

Lab Sample ID: LCS 280-576903/1
Matrix: Water
Analysis Batch: 576903

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	100	91.2		mg/L		91	79 - 114

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-576481/10
Matrix: Water
Analysis Batch: 576481

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			05/27/22 17:54	1

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 280-576481/8

Matrix: Water

Analysis Batch: 576481

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	0.103		mg/L		103	91 - 112

Lab Sample ID: LCSD 280-576481/9

Matrix: Water

Analysis Batch: 576481

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	0.104		mg/L		104	91 - 112	2	20

Lab Sample ID: 280-162851-1 MS

Matrix: Water

Analysis Batch: 576481

Client Sample ID: 2022-01

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	0.101		mg/L		101	91 - 112

Lab Sample ID: 280-162851-1 MSD

Matrix: Water

Analysis Batch: 576481

Client Sample ID: 2022-01

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	0.102		mg/L		102	91 - 112	1	20

Lab Sample ID: 280-162851-1 DU

Matrix: Water

Analysis Batch: 576481

Client Sample ID: 2022-01

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 280-576466/3-A

Matrix: Water

Analysis Batch: 576481

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			05/27/22 18:18	1

Lab Sample ID: LCS 280-576466/1-A

Matrix: Water

Analysis Batch: 576481

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	0.103		mg/L		103	91 - 112

Lab Sample ID: LCSD 280-576466/2-A

Matrix: Water

Analysis Batch: 576481

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	0.104		mg/L		104	91 - 112	0	20

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: 280-162851-1 MS

Matrix: Water

Analysis Batch: 576481

Client Sample ID: 2022-01

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chromium, hexavalent	ND		0.100	0.100		mg/L		100	91 - 112		

Lab Sample ID: 280-162851-1 MSD

Matrix: Water

Analysis Batch: 576481

Client Sample ID: 2022-01

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	0.107		mg/L		107	91 - 112	7	20

Lab Sample ID: 280-162851-1 DU

Matrix: Water

Analysis Batch: 576481

Client Sample ID: 2022-01

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

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-577102/4

Matrix: Water

Analysis Batch: 577102

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	7.0		SU		100	99 - 101		

Lab Sample ID: LCS 280-577757/4

Matrix: Water

Analysis Batch: 577757

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	7.0		SU		99	99 - 101		

Lab Sample ID: 280-162851-1 DU

Matrix: Water

Analysis Batch: 577757

Client Sample ID: 2022-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH adj. to 25 deg C	7.0	HF		7.0		SU				0	5
Temperature	18.1	HF		18.0		Degrees C				0.6	10

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-576788/11

Matrix: Water

Analysis Batch: 576788

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			06/01/22 13:42	1

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: LCS 280-576788/9

Matrix: Water

Analysis Batch: 576788

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	0.525		mg/L		105	81 - 122

Lab Sample ID: LCSD 280-576788/10

Matrix: Water

Analysis Batch: 576788

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	0.513		mg/L		102	81 - 122	2	10

Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-577856/1

Matrix: Water

Analysis Batch: 577856

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			06/13/22 08:19	1
Field pH	ND		1.0	1.0	SU			06/13/22 08:19	1
Field Temperature	ND		1.0	1.0	Celsius			06/13/22 08:19	1
Specific Conductance	ND		2.0	2.0	umhos/cm			06/13/22 08:19	1
Sulfide	ND		4.0	4.0	mg/L			06/13/22 08:19	1

QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Metals

Prep Batch: 576330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	245.1	
280-162851-2	2022-02	Total/NA	Water	245.1	
MB 280-576330/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-576330/2-A	Lab Control Sample	Total/NA	Water	245.1	

Filtration Batch: 576483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-576483/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-576483/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	
LCSD 280-576483/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	Poten_Diss_Met	

Filtration Batch: 576664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Potentially Dissolved	Water	Poten_Diss_Met	
280-162851-2	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	
280-162851-2 MS	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	
280-162851-2 MSD	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	

Prep Batch: 576739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total Recoverable	Water	200.8	
280-162851-2	2022-02	Total Recoverable	Water	200.8	
MB 280-576739/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-576739/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Analysis Batch: 576777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	245.1	576330
280-162851-2	2022-02	Total/NA	Water	245.1	576330
MB 280-576330/1-A	Method Blank	Total/NA	Water	245.1	576330
LCS 280-576330/2-A	Lab Control Sample	Total/NA	Water	245.1	576330

Analysis Batch: 577000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total Recoverable	Water	200.8	576739
280-162851-2	2022-02	Total Recoverable	Water	200.8	576739
MB 280-576739/1-A	Method Blank	Total Recoverable	Water	200.8	576739
LCS 280-576739/2-A	Lab Control Sample	Total Recoverable	Water	200.8	576739

Prep Batch: 577059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Potentially Dissolved	Water	200.8	576664
280-162851-2	2022-02	Potentially Dissolved	Water	200.8	576664
MB 280-576483/1-B	Method Blank	Potentially Dissolved	Water	200.8	576483
LCS 280-576483/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	576483
LCSD 280-576483/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	576483
280-162851-2 MS	2022-02	Potentially Dissolved	Water	200.8	576664
280-162851-2 MSD	2022-02	Potentially Dissolved	Water	200.8	576664

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Metals

Prep Batch: 577207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total Recoverable	Water	200.7	
280-162851-2	2022-02	Total Recoverable	Water	200.7	
MB 280-577207/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-577207/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-577207/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Analysis Batch: 577288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Potentially Dissolved	Water	200.8	577059
280-162851-2	2022-02	Potentially Dissolved	Water	200.8	577059
MB 280-576483/1-B	Method Blank	Potentially Dissolved	Water	200.8	577059
LCS 280-576483/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	577059
LCSD 280-576483/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	577059
280-162851-2 MS	2022-02	Potentially Dissolved	Water	200.8	577059
280-162851-2 MSD	2022-02	Potentially Dissolved	Water	200.8	577059

Analysis Batch: 577415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total Recoverable	Water	200.7 Rev 4.4	577207
280-162851-2	2022-02	Total Recoverable	Water	200.7 Rev 4.4	577207
MB 280-577207/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	577207
LCS 280-577207/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	577207
LCSD 280-577207/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	577207

Prep Batch: 579767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	1631E	
280-162851-2	2022-02	Total/NA	Water	1631E	
MB 400-579767/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-579767/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-579767/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 579807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	1631E	579767
280-162851-2	2022-02	Total/NA	Water	1631E	579767
MB 400-579767/3-A	Method Blank	Total/NA	Water	1631E	579767
LCS 400-579767/4-A	Lab Control Sample	Total/NA	Water	1631E	579767
LCSD 400-579767/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	579767

General Chemistry

Filtration Batch: 576466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Dissolved	Water	FILTRATION	
280-162851-2	2022-02	Dissolved	Water	FILTRATION	
MB 280-576466/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-576466/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-576466/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-162851-1 MS	2022-01	Dissolved	Water	FILTRATION	
280-162851-1 MSD	2022-01	Dissolved	Water	FILTRATION	

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

General Chemistry (Continued)

Filtration Batch: 576466 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1 DU	2022-01	Dissolved	Water	FILTRATION	

Analysis Batch: 576481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Dissolved	Water	SM 3500 CR B	576466
280-162851-1	2022-01	Total/NA	Water	SM 3500 CR B	
280-162851-2	2022-02	Dissolved	Water	SM 3500 CR B	576466
280-162851-2	2022-02	Total/NA	Water	SM 3500 CR B	
MB 280-576466/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	576466
MB 280-576481/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-576466/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	576466
LCS 280-576481/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-576466/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	576466
LCSD 280-576481/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-162851-1 MS	2022-01	Dissolved	Water	SM 3500 CR B	576466
280-162851-1 MS	2022-01	Total/NA	Water	SM 3500 CR B	
280-162851-1 MSD	2022-01	Dissolved	Water	SM 3500 CR B	576466
280-162851-1 MSD	2022-01	Total/NA	Water	SM 3500 CR B	
280-162851-1 DU	2022-01	Dissolved	Water	SM 3500 CR B	576466
280-162851-1 DU	2022-01	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 576788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	SM 4500 S2 D	
280-162851-2	2022-02	Total/NA	Water	SM 4500 S2 D	
MB 280-576788/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-576788/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-576788/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 576887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	SM 2510B	
280-162851-2	2022-02	Total/NA	Water	SM 2510B	
MB 280-576887/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-576887/4	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 576903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	SM 2540D	
280-162851-2	2022-02	Total/NA	Water	SM 2540D	
MB 280-576903/2	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-576903/1	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 577102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-2	2022-02	Total/NA	Water	SM 4500 H+ B	
LCS 280-577102/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 577668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total Recoverable	Water	SM3500 CR B	

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

General Chemistry (Continued)

Analysis Batch: 577668 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-2	2022-02	Total Recoverable	Water	SM3500 CR B	

Analysis Batch: 577669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Potentially Dissolved	Water	SM3500 CR B	
280-162851-2	2022-02	Potentially Dissolved	Water	SM3500 CR B	

Analysis Batch: 577757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	SM 4500 H+ B	
LCS 280-577757/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
280-162851-1 DU	2022-01	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 577856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162851-1	2022-01	Total/NA	Water	SM4500 S2 H	
280-162851-2	2022-02	Total/NA	Water	SM4500 S2 H	
MB 280-577856/1	Method Blank	Total/NA	Water	SM4500 S2 H	

Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Client Sample ID: 2022-01

Date Collected: 05/27/22 12:20

Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	579767	06/01/22 15:15	VLC	TAL PEN
Total/NA	Analysis	1631E		1			579807	06/02/22 11:39	VLC	TAL PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	577207	06/07/22 10:04	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			577415	06/07/22 21:52	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	576664	05/31/22 17:16	KMS	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	577059	06/06/22 09:57	MCR	TAL DEN
Potentially Dissolved	Analysis	200.8		1			577288	06/06/22 17:31	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	576739	06/02/22 08:45	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			577000	06/02/22 18:50	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	576330	05/31/22 16:09	CEH	TAL DEN
Total/NA	Analysis	245.1		1			576777	05/31/22 20:41	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			576887	06/02/22 10:16	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	576903	06/02/22 11:11	CAI	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576466	05/27/22 16:56	SJD	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	576481	05/27/22 18:18	SJD	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	576481	05/27/22 17:55	SJD	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			577757	06/10/22 11:04	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	576788	06/01/22 14:14	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			577669	06/09/22 18:40	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			577668	06/09/22 18:38	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			577856	06/13/22 08:19	SAH	TAL DEN

Client Sample ID: 2022-02

Date Collected: 05/27/22 13:05

Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	579767	06/01/22 15:15	VLC	TAL PEN
Total/NA	Analysis	1631E		1			579807	06/02/22 11:47	VLC	TAL PEN
Total Recoverable	Prep	200.7			50 mL	50 mL	577207	06/07/22 10:04	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			577415	06/07/22 21:56	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	576664	05/31/22 17:16	KMS	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	577059	06/06/22 09:57	MCR	TAL DEN
Potentially Dissolved	Analysis	200.8		1			577288	06/06/22 17:35	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	576739	06/02/22 08:45	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			577000	06/02/22 18:53	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	576330	05/31/22 16:09	CEH	TAL DEN
Total/NA	Analysis	245.1		1			576777	05/31/22 20:49	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			576887	06/02/22 10:16	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	576903	06/02/22 11:11	CAI	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	576466	05/27/22 16:56	SJD	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	576481	05/27/22 18:20	SJD	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	576481	05/27/22 17:57	SJD	TAL DEN

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Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Client Sample ID: 2022-02

Date Collected: 05/27/22 13:05

Date Received: 05/27/22 15:43

Lab Sample ID: 280-162851-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1			577102	06/03/22 13:40	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	576788	06/01/22 14:14	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			577669	06/09/22 18:40	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			577668	06/09/22 18:38	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			577856	06/13/22 08:19	SAH	TAL DEN

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162851-1

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-09-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22 *
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-20 *
New Jersey	NELAP	190002	06-30-22
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-22
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

Accreditation/Certification Summary

Client: GS Mining Company LLC

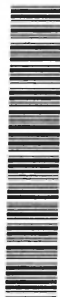
Job ID: 280-162851-1

Project/Site: Wastewater Discharge - Nederland, CO

Laboratory: Eurofins Pensacola (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	03-31-23

[illegible]

159469-434 MTW EXP 09/22



Testing

TestAmo

0.0121

ORIGIN ID:WHHA (303) 736-0100
EUROFINS
EUROFINS TESTAMERICA DENVER
4955 YARROW ST

SHIP DATE: 31 MAY 22
ACTWGT: 13.25 LB
CAD: 290884/CAFE3512

ARVADA, CO 80002
UNITED STATES US

BILL SENDER

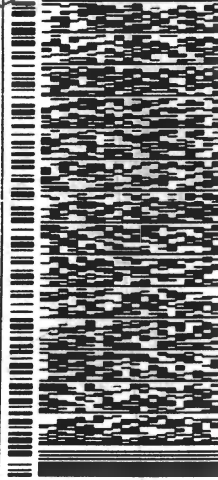
TO SHIPPING/RECEIVING

**EUROFINS ENVIRONMENT TESTING SOUTHEAST
3355 MCLEMORE DRIVE**

PENSACOLA FL 32514

(850) 474-1001
PO: YES
REF: 8280-120243
DEPT:

DEPT: BOTTLER PREP



FedEx
Express



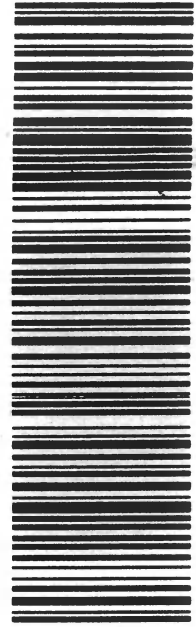
AN 1011210201121

WED - 01 JUN 10:30A
PRIORITY OVERNIGHT

TRK# 5708 4889 4620
0201

XH PNSA

32514
FL-US BFM



Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-162851-1

Login Number: 162851

List Source: Eurofins Denver

List Number: 1

Creator: Rystrom, Joshua R

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	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-162851-1

Login Number: 162851

List Number: 2

Creator: DeKlerk, Michaela

List Source: Eurofins Pensacola

List Creation: 06/01/22 12:31 PM

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	1.0°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	

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-163315-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney



Authorized for release by:

6/24/2022 9:58:57 AM

Dylan Bieniulis, Project Manager I
(303)736-0138

Dylan.Bieniulis@et.eurofinsus.com

LINKS

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results through



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

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
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Job ID: 280-163315-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-163315-1

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 06/10/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 11.9 C.

Receipt temperature is considered acceptable as the samples were collected and submitted to the laboratory on the same date.

TOTAL RECOVERABLE METALS (ICP)

Sample UTFALL-001 (280-163315-1) was analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 06/20/2022 and analyzed on 06/21/2022.

Iron was detected in method blank MB 280-578373/1-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 UTFALL-001 (280-163315-1) was analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 06/17/2022 and analyzed on 06/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL RECOVERABLE METALS (ICPMS)

Sample UTFALL-001 (280-163315-1) was analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared and analyzed on 06/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY (CVAA)

Sample UTFALL-001 (280-163315-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 06/13/2022 and analyzed on 06/14/2022.

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Job ID: 280-163315-1 (Continued)

Laboratory: Eurofins Denver (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Sample UTFALL-001 (280-163315-1) was analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500_CR3_B. The samples were analyzed on 06/23/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Sample UTFALL-001 (280-163315-1) was analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500_CR3_B. The samples were analyzed on 06/23/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTIVITY

Sample UTFALL-001 (280-163315-1) was analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 06/14/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Sample UTFALL-001 (280-163315-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 06/15/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Sample UTFALL-001 (280-163315-1) was analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 06/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Sample UTFALL-001 (280-163315-1) was analyzed for hexavalent chromium in accordance with 3500_CR_B. The samples were analyzed on 06/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)

Sample UTFALL-001 (280-163315-1) was analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 06/20/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE

Sample UTFALL-001 (280-163315-1) was analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 06/17/2022.

Sulfide exceeded the RPD limit for the MSD of sample UTFALL-001 (280-163315-1) in batch 280-578440. Sample matrix interference is suspected. Refer to the QC report for details.

The initial calibration verification (ICV) result for batch 280-578440 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.

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Job ID: 280-163315-1 (Continued)

Laboratory: Eurofins Denver (Continued)

HYDROGEN SULFIDE

Sample OUTFALL-001 (280-163315-1) was analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 06/24/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-163315-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	55	J B	100	9.1	ug/L	1			200.7 Rev 4.4	Total
Copper	1.3	J	2.0	0.71	ug/L	1			200.8	Recoverable
Lead	2.1		1.0	0.23	ug/L	1			200.8	Total
Zinc	4.2	J	10	2.0	ug/L	1			200.8	Recoverable
Copper	1.2	J	2.0	0.71	ug/L	1			200.8	Total
Lead	1.6		1.0	0.23	ug/L	1			200.8	Potentially
Manganese	0.95	J	2.0	0.51	ug/L	1			200.8	Dissolved
Zinc	6.8	J	10	2.0	ug/L	1			200.8	Potentially
Specific Conductance	89		2.0	2.0	umhos/cm	1			SM 2510B	Dissolved
pH adj. to 25 deg C	7.1	HF	0.1	0.1	SU	1			SM 4500 H+ B	Total/NA
Temperature	19.8	HF	1.0	1.0	Degrees C	1			SM 4500 H+ B	Total/NA
Field pH	7.1		1.0	1.0	SU	1			SM4500 S2 H	Total/NA
Field Temperature	20		1.0	1.0	Celsius	1			SM4500 S2 H	Total/NA
Specific Conductance	89		2.0	2.0	umhos/cm	1			SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 3500 CR B	Chromium, Hexavalent	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM 4500 S2 D	Sulfide, Total	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	TAL DEN
200.7	Preparation, Total Recoverable Metals	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
245.1	Preparation, Mercury	EPA	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-163315-1	OUTFALL-001	Water	06/10/22 13:10	06/10/22 15:07

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 06/10/22 13:10
Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	55	J B	100	9.1	ug/L		06/20/22 08:27	06/21/22 21:27	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: OUTFALL-001
Date Collected: 06/10/22 13:10
Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/20/22 08:20	06/20/22 23:15	1
Cadmium	ND		1.0	0.088	ug/L		06/20/22 08:20	06/20/22 23:15	1
Chromium	ND		3.0	0.88	ug/L		06/20/22 08:20	06/20/22 23:15	1
Copper	1.3	J	2.0	0.71	ug/L		06/20/22 08:20	06/20/22 23:15	1
Lead	2.1		1.0	0.23	ug/L		06/20/22 08:20	06/20/22 23:15	1
Zinc	4.2	J	10	2.0	ug/L		06/20/22 08:20	06/20/22 23:15	1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: OUTFALL-001
Date Collected: 06/10/22 13:10
Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/17/22 08:32	06/20/22 16:31	1
Cadmium	ND		1.0	0.088	ug/L		06/17/22 08:32	06/20/22 16:31	1
Chromium	ND		3.0	0.88	ug/L		06/17/22 08:32	06/20/22 16:31	1
Copper	1.2	J	2.0	0.71	ug/L		06/17/22 08:32	06/20/22 16:31	1
Lead	1.6		1.0	0.23	ug/L		06/17/22 08:32	06/20/22 16:31	1
Manganese	0.95	J	2.0	0.51	ug/L		06/17/22 08:32	06/20/22 16:31	1
Nickel	ND		2.0	0.28	ug/L		06/17/22 08:32	06/20/22 16:31	1
Selenium	ND		5.0	1.0	ug/L		06/17/22 08:32	06/20/22 16:31	1
Silver	ND		0.50	0.045	ug/L		06/17/22 08:32	06/20/22 16:31	1
Zinc	6.8	J	10	2.0	ug/L		06/17/22 08:32	06/20/22 16:31	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: OUTFALL-001
Date Collected: 06/10/22 13:10
Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		06/13/22 20:30	06/14/22 16:56	1

General Chemistry

Client Sample ID: OUTFALL-001
Date Collected: 06/10/22 13:10
Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	89		2.0	2.0	umhos/cm			06/14/22 08:59	1
Total Suspended Solids	ND		4.0	1.1	mg/L			06/15/22 17:17	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			06/10/22 17:16	1
pH adj. to 25 deg C	7.1	HF	0.1	0.1	SU			06/20/22 16:39	1
Temperature	19.8	HF	1.0	1.0	Degrees C			06/20/22 16:39	1

Eurofins Denver

Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

General Chemistry (Continued)

Client Sample ID: OUTFALL-001

Date Collected: 06/10/22 13:10

Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND	F2 ^1+	0.050	0.022	mg/L			06/17/22 21:25	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			06/24/22 07:29	1
Field pH	7.1		1.0	1.0	SU			06/24/22 07:29	1
Field Temperature	20		1.0	1.0	Celsius			06/24/22 07:29	1
Specific Conductance	89		2.0	2.0	umhos/cm			06/24/22 07:29	1
Sulfide	ND		4.0	4.0	mg/L			06/24/22 07:29	1

General Chemistry - Total Recoverable

Client Sample ID: OUTFALL-001

Date Collected: 06/10/22 13:10

Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			06/23/22 12:35	1

General Chemistry - Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 06/10/22 13:10

Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			06/10/22 17:19	1

General Chemistry - Potentially Dissolved

Client Sample ID: OUTFALL-001

Date Collected: 06/10/22 13:10

Date Received: 06/10/22 15:07

Lab Sample ID: 280-163315-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			06/23/22 12:37	1

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-578373/1-A
Matrix: Water
Analysis Batch: 578742

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578373

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	57.0	J	100	9.1	ug/L		06/20/22 08:27	06/21/22 21:15	1

Lab Sample ID: LCS 280-578373/2-A
Matrix: Water
Analysis Batch: 578742

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578373

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	9470		ug/L		95	85 - 115

Lab Sample ID: LCSD 280-578373/3-A
Matrix: Water
Analysis Batch: 578742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 578373

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	10000	10100		ug/L		101	85 - 115	6	20

Lab Sample ID: 280-163315-1 MS
Matrix: Water
Analysis Batch: 578742

Client Sample ID: OUTFALL-001
Prep Type: Total Recoverable
Prep Batch: 578373

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	55	J B	10000	9830		ug/L		98	70 - 130

Lab Sample ID: 280-163315-1 MSD
Matrix: Water
Analysis Batch: 578742

Client Sample ID: OUTFALL-001
Prep Type: Total Recoverable
Prep Batch: 578373

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	55	J B	10000	10200		ug/L		101	70 - 130	3	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-578359/1-A
Matrix: Water
Analysis Batch: 578598

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 578359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/20/22 08:20	06/20/22 23:08	1
Cadmium	ND		1.0	0.088	ug/L		06/20/22 08:20	06/20/22 23:08	1
Chromium	ND		3.0	0.88	ug/L		06/20/22 08:20	06/20/22 23:08	1
Copper	ND		2.0	0.71	ug/L		06/20/22 08:20	06/20/22 23:08	1
Lead	ND		1.0	0.23	ug/L		06/20/22 08:20	06/20/22 23:08	1
Zinc	ND		10	2.0	ug/L		06/20/22 08:20	06/20/22 23:08	1

Lab Sample ID: LCS 280-578359/2-A
Matrix: Water
Analysis Batch: 578598

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 578359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	36.7		ug/L		92	89 - 111

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-578359/2-A

Matrix: Water

Analysis Batch: 578598

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 578359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	40.0	38.3		ug/L		96	89 - 111
Chromium	40.0	38.6		ug/L		97	86 - 115
Copper	40.0	40.8		ug/L		102	90 - 115
Lead	40.0	39.2		ug/L		98	88 - 115
Zinc	40.0	42.2		ug/L		106	88 - 115

Lab Sample ID: 280-163315-1 MS

Matrix: Water

Analysis Batch: 578598

Client Sample ID: OUTFALL-001

Prep Type: Total Recoverable

Prep Batch: 578359

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		40.0	39.7		ug/L		99	79 - 120
Cadmium	ND		40.0	38.5		ug/L		96	89 - 111
Chromium	ND		40.0	39.4		ug/L		99	86 - 115
Copper	1.3	J	40.0	40.5		ug/L		98	90 - 115
Lead	2.1		40.0	42.8		ug/L		102	88 - 115
Zinc	4.2	J	40.0	44.6		ug/L		101	88 - 115

Lab Sample ID: 280-163315-1 MSD

Matrix: Water

Analysis Batch: 578598

Client Sample ID: OUTFALL-001

Prep Type: Total Recoverable

Prep Batch: 578359

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	ND		40.0	38.1		ug/L		95	79 - 120	4	20
Cadmium	ND		40.0	38.1		ug/L		95	89 - 111	1	20
Chromium	ND		40.0	39.7		ug/L		99	86 - 115	1	20
Copper	1.3	J	40.0	41.0		ug/L		99	90 - 115	1	20
Lead	2.1		40.0	42.2		ug/L		100	88 - 115	1	20
Zinc	4.2	J	40.0	45.1		ug/L		102	88 - 115	1	20

Lab Sample ID: MB 280-577817/1-B

Matrix: Water

Analysis Batch: 578570

Client Sample ID: Method Blank

Prep Type: Potentially Dissolved

Prep Batch: 578261

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/17/22 08:32	06/20/22 15:41	1
Cadmium	ND		1.0	0.088	ug/L		06/17/22 08:32	06/20/22 15:41	1
Chromium	ND		3.0	0.88	ug/L		06/17/22 08:32	06/20/22 15:41	1
Copper	ND		2.0	0.71	ug/L		06/17/22 08:32	06/20/22 15:41	1
Lead	ND		1.0	0.23	ug/L		06/17/22 08:32	06/20/22 15:41	1
Manganese	ND		2.0	0.51	ug/L		06/17/22 08:32	06/20/22 15:41	1
Nickel	ND		2.0	0.28	ug/L		06/17/22 08:32	06/20/22 15:41	1
Selenium	ND		5.0	1.0	ug/L		06/17/22 08:32	06/20/22 15:41	1
Silver	ND		0.50	0.045	ug/L		06/17/22 08:32	06/20/22 15:41	1
Zinc	ND		10	2.0	ug/L		06/17/22 08:32	06/20/22 15:41	1

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-577817/2-B
Matrix: Water
Analysis Batch: 578570

Client Sample ID: Lab Control Sample
Prep Type: Potentially Dissolved
Prep Batch: 578261

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	40.8		ug/L		102	89 - 111
Cadmium	40.0	40.7		ug/L		102	89 - 111
Chromium	40.0	40.5		ug/L		101	86 - 115
Copper	40.0	41.3		ug/L		103	90 - 115
Lead	40.0	38.0		ug/L		95	88 - 115
Manganese	40.0	39.3		ug/L		98	87 - 115
Nickel	40.0	40.6		ug/L		102	86 - 115
Selenium	40.0	42.0		ug/L		105	85 - 114
Silver	40.0	40.1		ug/L		100	90 - 114
Zinc	40.0	41.0		ug/L		103	88 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-577883/1-A
Matrix: Water
Analysis Batch: 578022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 577883

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		06/13/22 20:30	06/14/22 15:45	1

Lab Sample ID: LCS 280-577883/2-A
Matrix: Water
Analysis Batch: 578022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 577883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.67		ug/L		93	90 - 110

Lab Sample ID: LCSD 280-577883/3-A
Matrix: Water
Analysis Batch: 578022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 577883

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.80		ug/L		96	90 - 110	3	10

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-577924/5
Matrix: Water
Analysis Batch: 577924

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			06/14/22 08:58	1

Lab Sample ID: LCS 280-577924/4
Matrix: Water
Analysis Batch: 577924

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

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-578154/3
Matrix: Water
Analysis Batch: 578154

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			06/15/22 17:17	1

Lab Sample ID: LCS 280-578154/1
Matrix: Water
Analysis Batch: 578154

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	100	80.0		mg/L		80	79 - 114

Lab Sample ID: LCSD 280-578154/2
Matrix: Water
Analysis Batch: 578154

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	100	89.6		mg/L		90	79 - 114	11	20

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-577801/10
Matrix: Water
Analysis Batch: 577801

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			06/10/22 17:16	1

Lab Sample ID: LCS 280-577801/8
Matrix: Water
Analysis Batch: 577801

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	0.102		mg/L		102	91 - 112

Lab Sample ID: LCSD 280-577801/9
Matrix: Water
Analysis Batch: 577801

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	0.102		mg/L		102	91 - 112	0	20

Lab Sample ID: 280-163315-1 MS
Matrix: Water
Analysis Batch: 577801

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	0.102		mg/L		102	91 - 112

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-163315-1 MSD

Matrix: Water

Analysis Batch: 577801

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	0.102		mg/L					

Lab Sample ID: 280-163315-1 DU

Matrix: Water

Analysis Batch: 577801

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 280-577791/3-A

Matrix: Water

Analysis Batch: 577801

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			06/10/22 17:19	1

Lab Sample ID: LCS 280-577791/1-A

Matrix: Water

Analysis Batch: 577801

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	0.102		mg/L		102	91 - 112

Lab Sample ID: LCSD 280-577791/2-A

Matrix: Water

Analysis Batch: 577801

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	0.102		mg/L		102	91 - 112	0	20

Lab Sample ID: 280-163315-1 MS

Matrix: Water

Analysis Batch: 577801

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: 280-163315-1 MSD

Matrix: Water

Analysis Batch: 577801

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	0.104		mg/L		104	91 - 112	2	20

Lab Sample ID: 280-163315-1 DU

Matrix: Water

Analysis Batch: 577801

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

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-578603/4
Matrix: Water
Analysis Batch: 578603

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	7.0		SU		100	99 - 101

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-578440/11
Matrix: Water
Analysis Batch: 578440

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			06/17/22 21:25	1

Lab Sample ID: LCS 280-578440/9
Matrix: Water
Analysis Batch: 578440

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	0.541	^1+	mg/L		108	81 - 122

Lab Sample ID: LCSD 280-578440/10
Matrix: Water
Analysis Batch: 578440

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	0.564	^1+	mg/L		113	81 - 122	4	10

Lab Sample ID: 280-163315-1 MS
Matrix: Water
Analysis Batch: 578440

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
Sulfide	ND	F2 ^1+	0.501	0.425	^1+	mg/L		85	81 - 122

Lab Sample ID: 280-163315-1 MSD
Matrix: Water
Analysis Batch: 578440

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
Sulfide	ND	F2 ^1+	0.501	0.553	F2 ^1+	mg/L		110	81 - 122	26	10

Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-579003/1
Matrix: Water
Analysis Batch: 579003

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			06/24/22 07:29	1
Field pH	ND		1.0	1.0	SU			06/24/22 07:29	1
Field Temperature	ND		1.0	1.0	Celsius			06/24/22 07:29	1
Specific Conductance	ND		2.0	2.0	umhos/cm			06/24/22 07:29	1

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Method: SM4500 S2 H - Unionized Hydrogen Sulfide (Continued)

Lab Sample ID: MB 280-579003/1

Matrix: Water

Analysis Batch: 579003

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		4.0	4.0	mg/L			06/24/22 07:29	1

QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Metals

Filtration Batch: 577817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-577817/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-577817/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	

Prep Batch: 577883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	245.1	
MB 280-577883/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-577883/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 280-577883/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

Analysis Batch: 578022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	245.1	577883
MB 280-577883/1-A	Method Blank	Total/NA	Water	245.1	577883
LCS 280-577883/2-A	Lab Control Sample	Total/NA	Water	245.1	577883
LCSD 280-577883/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	577883

Prep Batch: 578261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Potentially Dissolved	Water	200.8	577817
MB 280-577817/1-B	Method Blank	Potentially Dissolved	Water	200.8	577817
LCS 280-577817/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	577817

Prep Batch: 578359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total Recoverable	Water	200.8	
MB 280-578359/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-578359/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
280-163315-1 MS	OUTFALL-001	Total Recoverable	Water	200.8	
280-163315-1 MSD	OUTFALL-001	Total Recoverable	Water	200.8	

Prep Batch: 578373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total Recoverable	Water	200.7	
MB 280-578373/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-578373/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-578373/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	
280-163315-1 MS	OUTFALL-001	Total Recoverable	Water	200.7	
280-163315-1 MSD	OUTFALL-001	Total Recoverable	Water	200.7	

Analysis Batch: 578570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Potentially Dissolved	Water	200.8	578261
MB 280-577817/1-B	Method Blank	Potentially Dissolved	Water	200.8	578261
LCS 280-577817/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	578261

Analysis Batch: 578598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total Recoverable	Water	200.8	578359
MB 280-578359/1-A	Method Blank	Total Recoverable	Water	200.8	578359

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Metals (Continued)

Analysis Batch: 578598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-578359/2-A	Lab Control Sample	Total Recoverable	Water	200.8	578359
280-163315-1 MS	OUTFALL-001	Total Recoverable	Water	200.8	578359
280-163315-1 MSD	OUTFALL-001	Total Recoverable	Water	200.8	578359

Analysis Batch: 578742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	578373
MB 280-578373/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	578373
LCS 280-578373/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	578373
LCSD 280-578373/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	578373
280-163315-1 MS	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	578373
280-163315-1 MSD	OUTFALL-001	Total Recoverable	Water	200.7 Rev 4.4	578373

General Chemistry

Filtration Batch: 577791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Dissolved	Water	FILTRATION	
MB 280-577791/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-577791/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-577791/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-163315-1 MS	OUTFALL-001	Dissolved	Water	FILTRATION	
280-163315-1 MSD	OUTFALL-001	Dissolved	Water	FILTRATION	
280-163315-1 DU	OUTFALL-001	Dissolved	Water	FILTRATION	

Analysis Batch: 577801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Dissolved	Water	SM 3500 CR B	577791
280-163315-1	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
MB 280-577791/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	577791
MB 280-577801/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-577791/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	577791
LCS 280-577801/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-577791/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	577791
LCSD 280-577801/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-163315-1 MS	OUTFALL-001	Dissolved	Water	SM 3500 CR B	577791
280-163315-1 MS	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-163315-1 MSD	OUTFALL-001	Dissolved	Water	SM 3500 CR B	577791
280-163315-1 MSD	OUTFALL-001	Total/NA	Water	SM 3500 CR B	
280-163315-1 DU	OUTFALL-001	Dissolved	Water	SM 3500 CR B	577791
280-163315-1 DU	OUTFALL-001	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 577924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	SM 2510B	
MB 280-577924/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-577924/4	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 578154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

General Chemistry (Continued)

Analysis Batch: 578154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-578154/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-578154/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-578154/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Analysis Batch: 578440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
MB 280-578440/11	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-578440/9	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-578440/10	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	
280-163315-1 MS	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	
280-163315-1 MSD	OUTFALL-001	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 578603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	SM 4500 H+ B	
LCS 280-578603/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 578940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total Recoverable	Water	SM3500 CR B	

Analysis Batch: 578941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Potentially Dissolved	Water	SM3500 CR B	

Analysis Batch: 579003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163315-1	OUTFALL-001	Total/NA	Water	SM4500 S2 H	
MB 280-579003/1	Method Blank	Total/NA	Water	SM4500 S2 H	

Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Client Sample ID: OUTFALL-001

Lab Sample ID: 280-163315-1

Date Collected: 06/10/22 13:10

Matrix: Water

Date Received: 06/10/22 15:07

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	578373	06/20/22 08:27	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			578742	06/21/22 21:27	MAB	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	577817	06/10/22 21:15	LRD	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	578261	06/17/22 08:32	KMS	TAL DEN
Potentially Dissolved	Analysis	200.8		1			578570	06/20/22 16:31	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	578359	06/20/22 08:20	KMS	TAL DEN
Total Recoverable	Analysis	200.8		1			578598	06/20/22 23:15	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	577883	06/13/22 20:30	CEH	TAL DEN
Total/NA	Analysis	245.1		1			578022	06/14/22 16:56	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			577924	06/14/22 08:59	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	578154	06/15/22 17:17	CAI	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	577791	06/10/22 16:31	SVC	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	577801	06/10/22 17:19	SVC	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	577801	06/10/22 17:16	SVC	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			578603	06/20/22 16:39	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	578440	06/17/22 21:25	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			578941	06/23/22 12:37	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			578940	06/23/22 12:35	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			579003	06/24/22 07:29	SAH	TAL DEN

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163315-1

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-09-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22 *
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-20 *
New Jersey	NELAP	190002	06-30-22
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-163315-1

Login Number: 163315

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

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.	False	Refer to Job Narrative for details.
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	

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-162999-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney



Authorized for release by:

6/17/2022 5:16:44 PM

Dylan Bieniulis, Project Manager I
(303)736-0138

Dylan.Bieniulis@et.eurofinsus.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

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
H	Sample was prepped or analyzed beyond the specified holding time
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Job ID: 280-162999-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-162999-1

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 06/02/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.0 C.

There were no Low Level Mercury Kit containers received for 2022-01 (280-162999-1) and 2022-02 (280-162999-2) for the requested Low Level Mercury analysis. As such the laboratory did not log the requested analysis. The client was notified on 6/3/2022.

The sample collection time on the container labels of sample volume received for 2022-02 (280-162999-2) did not match the information on the chain of custody. The container labels list a collection time of 1050 while the chain of custody lists a collection time of 1015. The laboratory logged the sample collection time per the chain of custody. The client was notified on 6/3/2022.

One out of the six containers received for sample 2022-02 (280-162999-2) had a collection time recorded on the container label that was illegible due to ink smearing. The collection time of the container was logged per the information on the chain of custody. The client was notified on 6/3/2022.

TOTAL RECOVERABLE METALS (ICP)

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for Total Recoverable Metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 06/10/2022 and analyzed on 06/14/2022.

Iron was detected in method blank MB 280-577622/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

POTENTIALLY DISSOLVED METALS (ICPMS)

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for potentially dissolved metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 06/13/2022 and analyzed on 06/15/2022.

Silver was detected in method blank MB 280-577133/1-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.

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Job ID: 280-162999-1 (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 RECOVERABLE METALS (ICPMS)

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for total recoverable metals (ICPMS) in accordance with EPA Method 200.8. The samples were prepared on 06/09/2022 and 06/14/2022 and analyzed on 06/10/2022 and 06/16/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL MERCURY (CVAA)

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The samples were prepared on 06/08/2022 and analyzed on 06/09/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - POTENTIALLY DISSOLVED

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for Trivalent Chromium - Potentially Dissolved in accordance with SM3500_CR3_B. The samples were analyzed on 06/16/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TRIVALENT CHROMIUM - TOTAL RECOVERABLE

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for Trivalent Chromium - Total Recoverable in accordance with SM3500_CR3_B. The samples were analyzed on 06/16/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SPECIFIC CONDUCTIVITY

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for specific conductivity in accordance with SM20 2510B. The samples were analyzed on 06/14/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL SUSPENDED SOLIDS

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 06/08/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HEXAVALENT CHROMIUM

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for hexavalent chromium in accordance with SM 3500 CR B. The samples were analyzed on 06/02/2022.

Chromium, hexavalent was detected in method blank MB 280-576979/3-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.

HEXAVALENT CHROMIUM

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for hexavalent chromium in accordance with 3500_CR_B. The samples were analyzed on 06/02/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Job ID: 280-162999-1 (Continued)

Laboratory: Eurofins Denver (Continued)

CORROSIVITY (PH)

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for corrosivity (pH) in accordance with SM20 4500 H+ B. The samples were analyzed on 06/10/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for sulfide in accordance with SM20 4500 S2 D. The samples were analyzed on 06/07/2022.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HYDROGEN SULFIDE

Samples 2022-01 (280-162999-1) and 2022-02 (280-162999-2) were analyzed for Hydrogen Sulfide in accordance with SM20 4500 S2 H. The samples were analyzed on 06/17/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Client Sample ID: 2022-01

Lab Sample ID: 280-162999-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	160	B	100	9.1	ug/L	1		200.7 Rev 4.4	Total
Copper	2.0		2.0	0.71	ug/L	1		200.8	Recoverable
Lead	0.24	J	1.0	0.23	ug/L	1		200.8	Total
Zinc	8.2	J	10	2.0	ug/L	1		200.8	Recoverable
Copper	2.2		2.0	0.71	ug/L	1		200.8	Total
Manganese	4.7		2.0	0.51	ug/L	1		200.8	Potentially
Nickel	0.36	J	2.0	0.28	ug/L	1		200.8	Dissolved
Silver	0.25	J B	0.50	0.045	ug/L	1		200.8	Potentially
Zinc	9.7	J	10	2.0	ug/L	1		200.8	Dissolved
Specific Conductance	39		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
pH adj. to 25 deg C	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.7	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.2		1.0	1.0	SU	1		SM4500 S2 H	Total/NA
Field Temperature	19		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	39		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

Client Sample ID: 2022-02

Lab Sample ID: 280-162999-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	310	B	100	9.1	ug/L	1		200.7 Rev 4.4	Total
Cadmium	0.15	J	1.0	0.088	ug/L	1		200.8	Recoverable
Copper	3.7		2.0	0.71	ug/L	1		200.8	Total
Lead	4.5		1.0	0.23	ug/L	1		200.8	Recoverable
Zinc	18		10	2.0	ug/L	1		200.8	Total
Cadmium	0.17	J	1.0	0.088	ug/L	1		200.8	Recoverable
Copper	2.5		2.0	0.71	ug/L	1		200.8	Potentially
Lead	3.9		1.0	0.23	ug/L	1		200.8	Dissolved
Manganese	10		2.0	0.51	ug/L	1		200.8	Potentially
Nickel	1.8	J	2.0	0.28	ug/L	1		200.8	Dissolved
Silver	0.20	J B	0.50	0.045	ug/L	1		200.8	Potentially
Zinc	24		10	2.0	ug/L	1		200.8	Dissolved
Specific Conductance	79		2.0	2.0	umhos/cm	1		SM 2510B	Total/NA
Total Suspended Solids	2.0	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA
pH adj. to 25 deg C	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.9	HF	1.0	1.0	Degrees C	1		SM 4500 H+ B	Total/NA
Field pH	7.6		1.0	1.0	SU	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Client Sample ID: 2022-02 (Continued)

Lab Sample ID: 280-162999-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Temperature	19		1.0	1.0	Celsius	1		SM4500 S2 H	Total/NA
Specific Conductance	79		2.0	2.0	umhos/cm	1		SM4500 S2 H	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
245.1	Mercury (CVAA)	EPA	TAL DEN
SM 2510B	Conductivity, Specific Conductance	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 3500 CR B	Chromium, Hexavalent	SM	TAL DEN
SM 4500 H+ B	pH	SM	TAL DEN
SM 4500 S2 D	Sulfide, Total	SM	TAL DEN
SM3500 CR B	Chromium, Trivalent	SM	TAL DEN
SM4500 S2 H	Unionized Hydrogen Sulfide	SM	TAL DEN
200.7	Preparation, Total Recoverable Metals	EPA	TAL DEN
200.8	Preparation, Total Recoverable Metals	EPA	TAL DEN
245.1	Preparation, Mercury	EPA	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN
Poten_Diss_Met	Filtration for Potentially Dissolved Metals	EPA	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-162999-1	2022-01	Water	06/02/22 09:50	06/02/22 16:10
280-162999-2	2022-02	Water	06/02/22 10:15	06/02/22 16:10

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	160	B	100	9.1	ug/L		06/10/22 08:39	06/14/22 23:21	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	310	B	100	9.1	ug/L		06/10/22 08:39	06/14/22 23:25	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/09/22 08:15	06/10/22 01:30	1
Cadmium	ND		1.0	0.088	ug/L		06/09/22 08:15	06/10/22 01:30	1
Chromium	ND		3.0	0.88	ug/L		06/09/22 08:15	06/10/22 01:30	1
Copper	2.0		2.0	0.71	ug/L		06/14/22 07:07	06/16/22 08:53	1
Lead	0.24	J	1.0	0.23	ug/L		06/09/22 08:15	06/10/22 01:30	1
Zinc	8.2	J	10	2.0	ug/L		06/09/22 08:15	06/10/22 01:30	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/09/22 08:15	06/10/22 01:34	1
Cadmium	0.15	J	1.0	0.088	ug/L		06/09/22 08:15	06/10/22 01:34	1
Chromium	ND		3.0	0.88	ug/L		06/09/22 08:15	06/10/22 01:34	1
Copper	3.7		2.0	0.71	ug/L		06/14/22 07:07	06/16/22 08:57	1
Lead	4.5		1.0	0.23	ug/L		06/09/22 08:15	06/10/22 01:34	1
Zinc	18		10	2.0	ug/L		06/09/22 08:15	06/10/22 01:34	1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/13/22 08:30	06/15/22 00:30	1
Cadmium	ND		1.0	0.088	ug/L		06/13/22 08:30	06/15/22 00:30	1
Chromium	ND		3.0	0.88	ug/L		06/13/22 08:30	06/15/22 00:30	1
Copper	2.2		2.0	0.71	ug/L		06/13/22 08:30	06/15/22 00:30	1
Lead	ND		1.0	0.23	ug/L		06/13/22 08:30	06/15/22 00:30	1
Manganese	4.7		2.0	0.51	ug/L		06/13/22 08:30	06/15/22 00:30	1
Nickel	0.36	J	2.0	0.28	ug/L		06/13/22 08:30	06/15/22 00:30	1
Selenium	ND		5.0	1.0	ug/L		06/13/22 08:30	06/15/22 00:30	1
Silver	0.25	J B	0.50	0.045	ug/L		06/13/22 08:30	06/15/22 00:30	1
Zinc	9.7	J	10	2.0	ug/L		06/13/22 08:30	06/15/22 00:30	1

Eurofins Denver

Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: 200.8 - Metals (ICP/MS) - Potentially Dissolved

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/13/22 08:30	06/15/22 00:33	1
Cadmium	0.17	J	1.0	0.088	ug/L		06/13/22 08:30	06/15/22 00:33	1
Chromium	ND		3.0	0.88	ug/L		06/13/22 08:30	06/15/22 00:33	1
Copper	2.5		2.0	0.71	ug/L		06/13/22 08:30	06/15/22 00:33	1
Lead	3.9		1.0	0.23	ug/L		06/13/22 08:30	06/15/22 00:33	1
Manganese	10		2.0	0.51	ug/L		06/13/22 08:30	06/15/22 00:33	1
Nickel	1.8	J	2.0	0.28	ug/L		06/13/22 08:30	06/15/22 00:33	1
Selenium	ND		5.0	1.0	ug/L		06/13/22 08:30	06/15/22 00:33	1
Silver	0.20	J B	0.50	0.045	ug/L		06/13/22 08:30	06/15/22 00:33	1
Zinc	24		10	2.0	ug/L		06/13/22 08:30	06/15/22 00:33	1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		06/08/22 16:33	06/09/22 15:35	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		06/08/22 16:33	06/09/22 15:37	1

General Chemistry

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	39		2.0	2.0	umhos/cm			06/14/22 08:58	1
Total Suspended Solids	ND		4.0	1.1	mg/L			06/08/22 16:05	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			06/02/22 19:15	1
pH adj. to 25 deg C	7.2	HF	0.1	0.1	SU			06/10/22 12:06	1
Temperature	18.7	HF	1.0	1.0	Degrees C			06/10/22 12:06	1
Sulfide	ND		0.050	0.022	mg/L			06/07/22 20:08	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			06/17/22 16:55	1
Field pH	7.2		1.0	1.0	SU			06/17/22 16:55	1
Field Temperature	19		1.0	1.0	Celsius			06/17/22 16:55	1
Specific Conductance	39		2.0	2.0	umhos/cm			06/17/22 16:55	1
Sulfide	ND		4.0	4.0	mg/L			06/17/22 16:55	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	79		2.0	2.0	umhos/cm			06/14/22 08:58	1
Total Suspended Solids	2.0	J	4.0	1.1	mg/L			06/08/22 16:05	1
Chromium, hexavalent	ND		0.020	0.0040	mg/L			06/02/22 19:17	1
pH adj. to 25 deg C	7.6	HF	0.1	0.1	SU			06/10/22 12:11	1

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

General Chemistry (Continued)

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	18.9	HF	1.0	1.0	Degrees C			06/10/22 12:11	1
Sulfide	ND		0.050	0.022	mg/L			06/07/22 20:09	1
Un-ionized Hydrogen Sulfide	ND		1.0	1.0	mg/L			06/17/22 16:55	1
Field pH	7.6		1.0	1.0	SU			06/17/22 16:55	1
Field Temperature	19		1.0	1.0	Celsius			06/17/22 16:55	1
Specific Conductance	79		2.0	2.0	umhos/cm			06/17/22 16:55	1
Sulfide	ND		4.0	4.0	mg/L			06/17/22 16:55	1

General Chemistry - Total Recoverable

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			06/16/22 08:29	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent	ND	H	0.020	0.020	mg/L			06/16/22 08:29	1

General Chemistry - Dissolved

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			06/02/22 19:19	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.020	0.0040	mg/L			06/02/22 19:21	1

General Chemistry - Potentially Dissolved

Client Sample ID: 2022-01
Date Collected: 06/02/22 09:50
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			06/16/22 08:31	1

Client Sample ID: 2022-02
Date Collected: 06/02/22 10:15
Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, trivalent (dissolved)	ND		0.020	0.020	mg/L			06/16/22 08:31	1

Eurofins Denver

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 280-577622/1-A

Matrix: Water

Analysis Batch: 578102

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 577622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	34.7	J	100	9.1	ug/L		06/10/22 08:39	06/14/22 22:52	1

Lab Sample ID: LCS 280-577622/2-A

Matrix: Water

Analysis Batch: 578102

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 577622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	10000	9740		ug/L		97	85 - 115

Lab Sample ID: LCSD 280-577622/3-A

Matrix: Water

Analysis Batch: 578102

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 577622

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	10000	9540		ug/L		95	85 - 115	2	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-577465/1-A

Matrix: Water

Analysis Batch: 577695

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 577465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/09/22 08:15	06/09/22 22:55	1
Cadmium	ND		1.0	0.088	ug/L		06/09/22 08:15	06/09/22 22:55	1
Chromium	ND		3.0	0.88	ug/L		06/09/22 08:15	06/09/22 22:55	1
Lead	ND		1.0	0.23	ug/L		06/09/22 08:15	06/09/22 22:55	1
Zinc	ND		10	2.0	ug/L		06/09/22 08:15	06/09/22 22:55	1

Lab Sample ID: LCS 280-577465/2-A

Matrix: Water

Analysis Batch: 577695

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 577465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	40.0		ug/L		100	89 - 111
Cadmium	40.0	38.5		ug/L		96	89 - 111
Chromium	40.0	39.2		ug/L		98	86 - 115
Lead	40.0	38.2		ug/L		96	88 - 115
Zinc	40.0	41.7		ug/L		104	88 - 115

Lab Sample ID: MB 280-577878/1-A

Matrix: Water

Analysis Batch: 578226

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 577878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		2.0	0.71	ug/L		06/14/22 07:07	06/16/22 08:00	1

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-577878/2-A
Matrix: Water
Analysis Batch: 578226

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 577878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	40.0	41.7		ug/L		104	90 - 115

Lab Sample ID: 280-162999-2 MS
Matrix: Water
Analysis Batch: 578226

Client Sample ID: 2022-02
Prep Type: Total Recoverable
Prep Batch: 577878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	3.7		40.0	44.9		ug/L		103	90 - 115

Lab Sample ID: 280-162999-2 MSD
Matrix: Water
Analysis Batch: 578226

Client Sample ID: 2022-02
Prep Type: Total Recoverable
Prep Batch: 577878

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Copper	3.7		40.0	47.7		ug/L		110	90 - 115	6	20

Lab Sample ID: MB 280-577133/1-B
Matrix: Water
Analysis Batch: 578046

Client Sample ID: Method Blank
Prep Type: Potentially Dissolved
Prep Batch: 577751

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		06/13/22 08:30	06/15/22 00:19	1
Cadmium	ND		1.0	0.088	ug/L		06/13/22 08:30	06/15/22 00:19	1
Chromium	ND		3.0	0.88	ug/L		06/13/22 08:30	06/15/22 00:19	1
Copper	ND		2.0	0.71	ug/L		06/13/22 08:30	06/15/22 00:19	1
Lead	ND		1.0	0.23	ug/L		06/13/22 08:30	06/15/22 00:19	1
Manganese	ND		2.0	0.51	ug/L		06/13/22 08:30	06/15/22 00:19	1
Nickel	ND		2.0	0.28	ug/L		06/13/22 08:30	06/15/22 00:19	1
Selenium	ND		5.0	1.0	ug/L		06/13/22 08:30	06/15/22 00:19	1
Silver	0.252	J	0.50	0.045	ug/L		06/13/22 08:30	06/15/22 00:19	1
Zinc	ND		10	2.0	ug/L		06/13/22 08:30	06/15/22 00:19	1

Lab Sample ID: LCS 280-577133/2-B
Matrix: Water
Analysis Batch: 578046

Client Sample ID: Lab Control Sample
Prep Type: Potentially Dissolved
Prep Batch: 577751

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	40.0	40.8		ug/L		102	89 - 111
Cadmium	40.0	39.9		ug/L		100	89 - 111
Chromium	40.0	42.5		ug/L		106	86 - 115
Copper	40.0	43.1		ug/L		108	90 - 115
Lead	40.0	39.9		ug/L		100	88 - 115
Manganese	40.0	41.3		ug/L		103	87 - 115
Nickel	40.0	41.9		ug/L		105	86 - 115
Selenium	40.0	42.3		ug/L		106	85 - 114
Silver	40.0	40.7		ug/L		102	90 - 114
Zinc	40.0	44.0		ug/L		110	88 - 115

Eurofins Denver

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 280-577133/3-B

Matrix: Water

Analysis Batch: 578046

Client Sample ID: Lab Control Sample Dup

Prep Type: Potentially Dissolved

Prep Batch: 577751

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	40.0	42.1		ug/L		105	89 - 111	3	20
Cadmium	40.0	42.5		ug/L		106	89 - 111	6	20
Chromium	40.0	42.8		ug/L		107	86 - 115	1	20
Copper	40.0	44.0		ug/L		110	90 - 115	2	20
Lead	40.0	40.0		ug/L		100	88 - 115	0	20
Manganese	40.0	42.4		ug/L		106	87 - 115	3	20
Nickel	40.0	42.6		ug/L		107	86 - 115	2	20
Selenium	40.0	43.5		ug/L		109	85 - 114	3	20
Silver	40.0	41.6		ug/L		104	90 - 114	2	20
Zinc	40.0	43.3		ug/L		108	88 - 115	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 280-577503/1-A

Matrix: Water

Analysis Batch: 577670

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 577503

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.061	ug/L		06/08/22 16:33	06/09/22 15:15	1

Lab Sample ID: LCS 280-577503/2-A

Matrix: Water

Analysis Batch: 577670

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 577503

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.71		ug/L		94	90 - 110

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 280-577924/5

Matrix: Water

Analysis Batch: 577924

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			06/14/22 08:58	1

Lab Sample ID: LCS 280-577924/4

Matrix: Water

Analysis Batch: 577924

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

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-577523/3
Matrix: Water
Analysis Batch: 577523

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			06/08/22 16:05	1

Lab Sample ID: LCS 280-577523/1
Matrix: Water
Analysis Batch: 577523

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	100	94.4		mg/L		94	79 - 114

Lab Sample ID: LCSD 280-577523/2
Matrix: Water
Analysis Batch: 577523

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	100	85.6		mg/L		86	79 - 114	10	20

Method: SM 3500 CR B - Chromium, Hexavalent

Lab Sample ID: MB 280-576981/10
Matrix: Water
Analysis Batch: 576981

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			06/02/22 19:15	1

Lab Sample ID: LCS 280-576981/8
Matrix: Water
Analysis Batch: 576981

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	0.102		mg/L		102	91 - 112

Lab Sample ID: LCSD 280-576981/9
Matrix: Water
Analysis Batch: 576981

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	1	20

Lab Sample ID: 280-162999-1 MS
Matrix: Water
Analysis Batch: 576981

Client Sample ID: 2022-01
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	0.0984		mg/L		98	91 - 112

Eurofins Denver

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: SM 3500 CR B - Chromium, Hexavalent (Continued)

Lab Sample ID: 280-162999-1 MSD

Matrix: Water

Analysis Batch: 576981

Client Sample ID: 2022-01

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	0.0991		mg/L		99	91 - 112	1	20

Lab Sample ID: 280-162999-1 DU

Matrix: Water

Analysis Batch: 576981

Client Sample ID: 2022-01

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 280-576979/3-A

Matrix: Water

Analysis Batch: 576981

Client Sample ID: Method Blank

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	0.0106	J	0.020	0.0040	mg/L			06/02/22 19:18	1

Lab Sample ID: LCS 280-576979/1-A

Matrix: Water

Analysis Batch: 576981

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	0.101		mg/L		101	91 - 112

Lab Sample ID: LCSD 280-576979/2-A

Matrix: Water

Analysis Batch: 576981

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	0.101		mg/L		101	91 - 112	1	20

Lab Sample ID: 280-162999-1 MS

Matrix: Water

Analysis Batch: 576981

Client Sample ID: 2022-01

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND		0.100	0.0983		mg/L		98	91 - 112

Lab Sample ID: 280-162999-1 MSD

Matrix: Water

Analysis Batch: 576981

Client Sample ID: 2022-01

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	0.0982		mg/L		98	91 - 112	0	20

Lab Sample ID: 280-162999-1 DU

Matrix: Water

Analysis Batch: 576981

Client Sample ID: 2022-01

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

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QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 280-577757/4

Matrix: Water

Analysis Batch: 577757

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	7.0		SU		99	99 - 101

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-577406/36

Matrix: Water

Analysis Batch: 577406

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050	0.022	mg/L			06/07/22 20:05	1

Lab Sample ID: LCS 280-577406/34

Matrix: Water

Analysis Batch: 577406

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	0.500	0.520		mg/L		104	81 - 122

Lab Sample ID: LCSD 280-577406/35

Matrix: Water

Analysis Batch: 577406

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	0.500	0.517		mg/L		104	81 - 122	0	10

Method: SM4500 S2 H - Unionized Hydrogen Sulfide

Lab Sample ID: MB 280-578420/1

Matrix: Water

Analysis Batch: 578420

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			06/17/22 16:55	1
Field pH	ND		1.0	1.0	SU			06/17/22 16:55	1
Field Temperature	ND		1.0	1.0	Celsius			06/17/22 16:55	1
Specific Conductance	ND		2.0	2.0	umhos/cm			06/17/22 16:55	1
Sulfide	ND		4.0	4.0	mg/L			06/17/22 16:55	1

QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Metals

Filtration Batch: 577133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Potentially Dissolved	Water	Poten_Diss_Met	
280-162999-2	2022-02	Potentially Dissolved	Water	Poten_Diss_Met	
MB 280-577133/1-B	Method Blank	Potentially Dissolved	Water	Poten_Diss_Met	
LCS 280-577133/2-B	Lab Control Sample	Potentially Dissolved	Water	Poten_Diss_Met	
LCSD 280-577133/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	Poten_Diss_Met	

Prep Batch: 577465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	200.8	
280-162999-2	2022-02	Total Recoverable	Water	200.8	
MB 280-577465/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-577465/2-A	Lab Control Sample	Total Recoverable	Water	200.8	

Prep Batch: 577503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	245.1	
280-162999-2	2022-02	Total/NA	Water	245.1	
MB 280-577503/1-A	Method Blank	Total/NA	Water	245.1	
LCS 280-577503/2-A	Lab Control Sample	Total/NA	Water	245.1	

Prep Batch: 577622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	200.7	
280-162999-2	2022-02	Total Recoverable	Water	200.7	
MB 280-577622/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 280-577622/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
LCSD 280-577622/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7	

Analysis Batch: 577670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	245.1	577503
280-162999-2	2022-02	Total/NA	Water	245.1	577503
MB 280-577503/1-A	Method Blank	Total/NA	Water	245.1	577503
LCS 280-577503/2-A	Lab Control Sample	Total/NA	Water	245.1	577503

Analysis Batch: 577695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-577465/1-A	Method Blank	Total Recoverable	Water	200.8	577465
LCS 280-577465/2-A	Lab Control Sample	Total Recoverable	Water	200.8	577465

Analysis Batch: 577696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	200.8	577465
280-162999-2	2022-02	Total Recoverable	Water	200.8	577465

Prep Batch: 577751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Potentially Dissolved	Water	200.8	577133
280-162999-2	2022-02	Potentially Dissolved	Water	200.8	577133
MB 280-577133/1-B	Method Blank	Potentially Dissolved	Water	200.8	577133
LCS 280-577133/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	577133

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Metals (Continued)

Prep Batch: 577751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-577133/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	577133

Prep Batch: 577878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	200.8	
280-162999-2	2022-02	Total Recoverable	Water	200.8	
MB 280-577878/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 280-577878/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
280-162999-2 MS	2022-02	Total Recoverable	Water	200.8	
280-162999-2 MSD	2022-02	Total Recoverable	Water	200.8	

Analysis Batch: 578046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Potentially Dissolved	Water	200.8	577751
280-162999-2	2022-02	Potentially Dissolved	Water	200.8	577751
MB 280-577133/1-B	Method Blank	Potentially Dissolved	Water	200.8	577751
LCS 280-577133/2-B	Lab Control Sample	Potentially Dissolved	Water	200.8	577751
LCSD 280-577133/3-B	Lab Control Sample Dup	Potentially Dissolved	Water	200.8	577751

Analysis Batch: 578102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	200.7 Rev 4.4	577622
280-162999-2	2022-02	Total Recoverable	Water	200.7 Rev 4.4	577622
MB 280-577622/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	577622
LCS 280-577622/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	577622
LCSD 280-577622/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.7 Rev 4.4	577622

Analysis Batch: 578226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	200.8	577878
280-162999-2	2022-02	Total Recoverable	Water	200.8	577878
MB 280-577878/1-A	Method Blank	Total Recoverable	Water	200.8	577878
LCS 280-577878/2-A	Lab Control Sample	Total Recoverable	Water	200.8	577878
280-162999-2 MS	2022-02	Total Recoverable	Water	200.8	577878
280-162999-2 MSD	2022-02	Total Recoverable	Water	200.8	577878

General Chemistry

Filtration Batch: 576979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Dissolved	Water	FILTRATION	
280-162999-2	2022-02	Dissolved	Water	FILTRATION	
MB 280-576979/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-576979/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 280-576979/2-A	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
280-162999-1 MS	2022-01	Dissolved	Water	FILTRATION	
280-162999-1 MSD	2022-01	Dissolved	Water	FILTRATION	
280-162999-1 DU	2022-01	Dissolved	Water	FILTRATION	

QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

General Chemistry

Analysis Batch: 576981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Dissolved	Water	SM 3500 CR B	576979
280-162999-1	2022-01	Total/NA	Water	SM 3500 CR B	
280-162999-2	2022-02	Dissolved	Water	SM 3500 CR B	576979
280-162999-2	2022-02	Total/NA	Water	SM 3500 CR B	
MB 280-576979/3-A	Method Blank	Dissolved	Water	SM 3500 CR B	576979
MB 280-576981/10	Method Blank	Total/NA	Water	SM 3500 CR B	
LCS 280-576979/1-A	Lab Control Sample	Dissolved	Water	SM 3500 CR B	576979
LCS 280-576981/8	Lab Control Sample	Total/NA	Water	SM 3500 CR B	
LCSD 280-576979/2-A	Lab Control Sample Dup	Dissolved	Water	SM 3500 CR B	576979
LCSD 280-576981/9	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR B	
280-162999-1 MS	2022-01	Dissolved	Water	SM 3500 CR B	576979
280-162999-1 MS	2022-01	Total/NA	Water	SM 3500 CR B	
280-162999-1 MSD	2022-01	Dissolved	Water	SM 3500 CR B	576979
280-162999-1 MSD	2022-01	Total/NA	Water	SM 3500 CR B	
280-162999-1 DU	2022-01	Dissolved	Water	SM 3500 CR B	576979
280-162999-1 DU	2022-01	Total/NA	Water	SM 3500 CR B	

Analysis Batch: 577406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	SM 4500 S2 D	
280-162999-2	2022-02	Total/NA	Water	SM 4500 S2 D	
MB 280-577406/36	Method Blank	Total/NA	Water	SM 4500 S2 D	
LCS 280-577406/34	Lab Control Sample	Total/NA	Water	SM 4500 S2 D	
LCSD 280-577406/35	Lab Control Sample Dup	Total/NA	Water	SM 4500 S2 D	

Analysis Batch: 577523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	SM 2540D	
280-162999-2	2022-02	Total/NA	Water	SM 2540D	
MB 280-577523/3	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-577523/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-577523/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Analysis Batch: 577757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	SM 4500 H+ B	
280-162999-2	2022-02	Total/NA	Water	SM 4500 H+ B	
LCS 280-577757/4	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 577924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	SM 2510B	
280-162999-2	2022-02	Total/NA	Water	SM 2510B	
MB 280-577924/5	Method Blank	Total/NA	Water	SM 2510B	
LCS 280-577924/4	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 578206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total Recoverable	Water	SM3500 CR B	
280-162999-2	2022-02	Total Recoverable	Water	SM3500 CR B	

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QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

General Chemistry

Analysis Batch: 578207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Potentially Dissolved	Water	SM3500 CR B	
280-162999-2	2022-02	Potentially Dissolved	Water	SM3500 CR B	

Analysis Batch: 578420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-162999-1	2022-01	Total/NA	Water	SM4500 S2 H	
280-162999-2	2022-02	Total/NA	Water	SM4500 S2 H	
MB 280-578420/1	Method Blank	Total/NA	Water	SM4500 S2 H	

Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Client Sample ID: 2022-01

Date Collected: 06/02/22 09:50

Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-1

Matrix: Water

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	577622	06/10/22 08:39	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			578102	06/14/22 23:21	LMT	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	577133	06/03/22 23:00	LRD	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	577751	06/13/22 08:30	PFM	TAL DEN
Potentially Dissolved	Analysis	200.8		1			578046	06/15/22 00:30	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	577465	06/09/22 08:15	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			577696	06/10/22 01:30	LRD	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	577878	06/14/22 07:07	PFM	TAL DEN
Total Recoverable	Analysis	200.8		1			578226	06/16/22 08:53	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	577503	06/08/22 16:33	CEH	TAL DEN
Total/NA	Analysis	245.1		1			577670	06/09/22 15:35	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			577924	06/14/22 08:58	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	577523	06/08/22 16:05	CAI	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	576979	06/02/22 18:31	SVC	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	576981	06/02/22 19:19	SVC	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	576981	06/02/22 19:15	SVC	TAL DEN
Total/NA	Analysis	SM 4500 H+ B		1			577757	06/10/22 12:06	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	577406	06/07/22 20:08	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			578207	06/16/22 08:31	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			578206	06/16/22 08:29	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			578420	06/17/22 16:55	ZPM	TAL DEN

Client Sample ID: 2022-02

Date Collected: 06/02/22 10:15

Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2

Matrix: Water

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	577622	06/10/22 08:39	PFM	TAL DEN
Total Recoverable	Analysis	200.7 Rev 4.4		1			578102	06/14/22 23:25	LMT	TAL DEN
Potentially Dissolved	Filtration	Poten_Diss_Met			250 mL	250 mL	577133	06/03/22 23:00	LRD	TAL DEN
Potentially Dissolved	Prep	200.8			50 mL	50 mL	577751	06/13/22 08:30	PFM	TAL DEN
Potentially Dissolved	Analysis	200.8		1			578046	06/15/22 00:33	LMT	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	577465	06/09/22 08:15	MCR	TAL DEN
Total Recoverable	Analysis	200.8		1			577696	06/10/22 01:34	LRD	TAL DEN
Total Recoverable	Prep	200.8			50 mL	50 mL	577878	06/14/22 07:07	PFM	TAL DEN
Total Recoverable	Analysis	200.8		1			578226	06/16/22 08:57	LMT	TAL DEN
Total/NA	Prep	245.1			30 mL	50 mL	577503	06/08/22 16:33	CEH	TAL DEN
Total/NA	Analysis	245.1		1			577670	06/09/22 15:37	CEH	TAL DEN
Total/NA	Analysis	SM 2510B		1			577924	06/14/22 08:58	KEG	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	577523	06/08/22 16:05	CAI	TAL DEN
Dissolved	Filtration	FILTRATION			2 mL	2 mL	576979	06/02/22 18:31	SVC	TAL DEN
Dissolved	Analysis	SM 3500 CR B		1	2 mL	2 mL	576981	06/02/22 19:21	SVC	TAL DEN
Total/NA	Analysis	SM 3500 CR B		1	2 mL	2 mL	576981	06/02/22 19:17	SVC	TAL DEN

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Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Client Sample ID: 2022-02

Date Collected: 06/02/22 10:15

Date Received: 06/02/22 16:10

Lab Sample ID: 280-162999-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 H+ B		1			577757	06/10/22 12:11	KEG	TAL DEN
Total/NA	Analysis	SM 4500 S2 D		1	2 mL	2 mL	577406	06/07/22 20:09	LRB	TAL DEN
Potentially Dissolved	Analysis	SM3500 CR B		1			578207	06/16/22 08:31	DNM	TAL DEN
Total Recoverable	Analysis	SM3500 CR B		1			578206	06/16/22 08:29	DNM	TAL DEN
Total/NA	Analysis	SM4500 S2 H		1			578420	06/17/22 16:55	ZPM	TAL DEN

Laboratory References:

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-162999-1

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-23
Arizona	State	AZ0713	12-20-22
Arkansas DEQ	State	19-047-0	06-01-22 *
California	State	2513	01-09-23
Connecticut	State	PH-0686	09-30-22
Florida	NELAP	E87667-57	06-30-22
Georgia	State	4025-011	01-08-23
Illinois	NELAP	2000172019-1	04-30-23
Iowa	State	IA#370	12-02-22
Kansas	NELAP	E-10166	05-31-22 *
Kentucky (WW)	State	KY98047	12-31-22
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-22
Minnesota	NELAP	1788752	12-31-22
Nevada	State	CO000262020-1	07-31-22
New Hampshire	NELAP	205319	04-28-20 *
New Jersey	NELAP	190002	06-30-22
New York	NELAP	59923	04-01-23
North Carolina (WW/SW)	State	358	12-31-22
North Dakota	State	R-034	01-08-23
Oklahoma	NELAP	8614	08-31-22
Oregon	NELAP	4025-011	01-09-23
Pennsylvania	NELAP	013	07-31-22
South Carolina	State	72002001	01-08-23
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	10-01-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-20-00065	03-06-23
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-22
Virginia	NELAP	10490	06-14-23
Washington	State	C583-19	08-03-22
West Virginia DEP	State	354	11-30-22
Wisconsin	State	999615430	08-31-22
Wyoming (UST)	A2LA	2907.01	10-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Denver

Chain of Custody Record

Client Information Client Contact: Patrick Delaney Phone: 303-736-0100		Lab PMT: Bienuilis, Dylan T E-Mail: Dylan.Bienulis@Eurofinset.com		Carrier Tracking No(s): State of Origin:		COC No: Page: Job #:			
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		PWSID: 315-414-6986 Project Name: Wastewater Discharge - Nederland, CO Site: Surface Water Sampling		Analysis Requested Due Date Requested: TAT Requested (days): Compliance Project: ☐ Yes ☒ No PO #: Advance Payment Required WO #: Project #: 28022821 SSOW#:				Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - H2SO4 H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Identification Sample Date: 6/12/22 Sample Time: 9:50am Sample Type: G (C=Comp, G=grab) Matrix: W (Water, S=Solid, O=Sludge, A=Air) Preservation Code: W		Sample Date: 6/12/22 Sample Time: 10:15am Sample Type: G Matrix: W		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 2510B - Specific Conductance, 2540D - TSS, SM4500_H+ 3500_CR_B - Total Hexavalent Cr and Trivalent Cr (calc) 3500_CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc) SM4500_S2_D - Sulfide and SM3500_S2_H - Un-ionized Hydrogen Sulfide (calc) 1631E - Low Level Mercury (ETA Pensacola) 200.8 - Potentially Dissolved Metals (First half of the month permit list) 200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list) Total Number of containers				Special Instructions/Note: * Surface water potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn) * Surface water total recoverable metals list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg) 2022-01: pH = 6.8 temp = 20°C 2022-02: pH = 7.6 temp = 20°C	
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Date: 6/12/22 4:00pm Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:		Date: 6/12/22 4:00pm Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:				Date: 6/12/22 4:00pm Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:	
Empty Kit Relinquished by:		Date: 6/12/22 4:00pm Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:		Date: 6/12/22 4:00pm Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:				Date: 6/12/22 4:00pm Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by:	
Custody Seals Intact: A Yes A No Custody Seal No.: N/A		IR # 12		IR # 12				IR # 12	

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-162999-1

Login Number: 162999

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

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.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	False	Refer to Job Narrative for details.
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	False	Refer to Job Narrative for details.
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	

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-163355-1

Client Project/Site: Wastewater Discharge - Nederland, CO

For:

GS Mining Company LLC
422 Gregory Street
Central City, Colorado 80427

Attn: Patrick Delaney



Authorized for release by:

6/17/2022 12:00:10 PM

Dylan Bieniulis, Project Manager I
(303)736-0138

Dylan.Bieniulis@et.eurofinsus.com

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results through



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: GS Mining Company LLC

Job ID: 280-163355-1

Project/Site: Wastewater Discharge - Nederland, CO

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Job ID: 280-163355-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: GS Mining Company LLC

Project: Wastewater Discharge - Nederland, CO

Report Number: 280-163355-1

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 06/11/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 11.9 C.

A field blank was received but was not listed on the chain of custody. The field blank was logged for storage but not for analysis. The client was notified on 6/13/2022 and instructed the laboratory not to proceed with analysis of the trip blank.

LOW LEVEL MERCURY

Samples 2022-01 (280-163355-1) and 2022-02 (280-163355-2) were analyzed for Low Level Mercury in accordance with EPA 1631. The samples were prepared on 06/15/2022 and analyzed on 06/16/2022.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Client Sample ID: 2022-01

Lab Sample ID: 280-163355-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	4.4		0.50	0.20	ng/L	1		1631E	Total/NA

Client Sample ID: 2022-02

Lab Sample ID: 280-163355-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	5.8		0.50	0.20	ng/L	1		1631E	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL PEN
1631E	Preparation, Mercury, Low Level	EPA	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-163355-1	2022-01	Water	06/10/22 12:45	06/11/22 15:07
280-163355-2	2022-02	Water	06/10/22 13:00	06/11/22 15:07

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Client Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Method: 1631E - Mercury, Low Level (CVAFS)

Client Sample ID: 2022-01
Date Collected: 06/10/22 12:45
Date Received: 06/11/22 15:07

Lab Sample ID: 280-163355-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.4		0.50	0.20	ng/L		06/15/22 14:40	06/16/22 12:38	1

Client Sample ID: 2022-02
Date Collected: 06/10/22 13:00
Date Received: 06/11/22 15:07

Lab Sample ID: 280-163355-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.8		0.50	0.20	ng/L		06/15/22 14:40	06/16/22 12:45	1

QC Sample Results

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 400-581526/12-A
Matrix: Water
Analysis Batch: 581635

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 581526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L		06/15/22 16:00	06/16/22 12:07	1

Lab Sample ID: LCS 400-581526/13-A
Matrix: Water
Analysis Batch: 581635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 581526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.43		ng/L		89	79 - 121

Lab Sample ID: LCSD 400-581526/14-A
Matrix: Water
Analysis Batch: 581635

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 581526

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.40		ng/L		88	79 - 121	1	20

QC Association Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Metals

Prep Batch: 581526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163355-1	2022-01	Total/NA	Water	1631E	
280-163355-2	2022-02	Total/NA	Water	1631E	
MB 400-581526/12-A	Method Blank	Total/NA	Water	1631E	
LCS 400-581526/13-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-581526/14-A	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 581635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-163355-1	2022-01	Total/NA	Water	1631E	581526
280-163355-2	2022-02	Total/NA	Water	1631E	581526
MB 400-581526/12-A	Method Blank	Total/NA	Water	1631E	581526
LCS 400-581526/13-A	Lab Control Sample	Total/NA	Water	1631E	581526
LCSD 400-581526/14-A	Lab Control Sample Dup	Total/NA	Water	1631E	581526

Lab Chronicle

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

Client Sample ID: 2022-01

Date Collected: 06/10/22 12:45

Date Received: 06/11/22 15:07

Lab Sample ID: 280-163355-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	581526	06/15/22 14:40	VLC	TAL PEN
Total/NA	Analysis	1631E		1			581635	06/16/22 12:38	VLC	TAL PEN

Client Sample ID: 2022-02

Date Collected: 06/10/22 13:00

Date Received: 06/11/22 15:07

Lab Sample ID: 280-163355-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	581526	06/15/22 14:40	VLC	TAL PEN
Total/NA	Analysis	1631E		1			581635	06/16/22 12:45	VLC	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: GS Mining Company LLC
Project/Site: Wastewater Discharge - Nederland, CO

Job ID: 280-163355-1

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	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Chain of Custody Record

Client Information Client Contact: Patrick Delaney Phone: 303-506-1618 Email: pdelaney@blackfoxmining.com		Lab PM: Bienilius, Dylan T E-Mail: Dylan.Bienilius@Eurofinset.com		Carrier Tracking No(s): State of Origin:		COC No: Page:	
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: Waste Water Discharge - Neenah, WI Site: First discharge point		PWSID: Due Date Requested: TAT Requested (days): Compliance Project: ☐ Yes ☒ No PO #: 28022821 WO #: ining-con Project #: 28022821 SSOW#:		Analysis Requested pH / Temp 3500 CR_B - Dissolved Hexavalent Cr and Trivalent Cr (calc) 3500 CR_B - Total Hexavalent Cr and Trivalent Cr (calc) 3500 CR_B - Dissolved Hexavalent Cr (LAB FILTER) and Potentially Dissolved Trivalent Cr (calc) SM4500_S2_D - Sulfide and SM3500_S2_H - Un-ionized Hydrogen Sulfide (calc) 1631E - Low Level Mercury (EPA Persulfate) 200.8 - Potentially Dissolved Metals (First half of the month permit list) 200.7 / 200.8 / 245.1 - Total Recoverable Metals and Mercury (First half of the month permit list)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor 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)	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air) Preservation Code:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)		Total Number of Containers Special Instructions/Note:		Special Instructions/Note:	
2022-01 12:45pm G W		X N		X D		*First half of the month potentially dissolved metals permit list = 200.8 (As, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Zn)	
2022-02 1:00pm G W		N N		D D		*First half of the month total recoverable metals permit list = 200.7 (Fe), 200.8 (As, Cd, Cr, Cu, Pb, Zn), and 245.1 (Hg)	
Barcode: 280-163355 Chain of Custody							
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by: Patrick Delaney Relinquished by: Blackfox Relinquished by: Blackfox Relinquished by:		Date: 6/10/2022 Date: 6/10/2022 Date: 6/10/2022 Date:		Time: 1:507 Time: 1:507 Time: 1:507 Time:		Method of Shipment:	
Custody Seals Intact: ☒ Yes ☐ No		Cooler Temperature(s) °C and Other Remarks: 11.8 12.12 CF to 1		Company: Blackfox Company: Blackfox Company: Blackfox Company:		Date/Time: 6/10/2022 1:507 Date/Time: 6/10/2022 1:507 Date/Time: 6/10/2022 1:507 Date/Time:	

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: GS Mining Company LLC

Job Number: 280-163355-1

Login Number: 163355

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

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.	False	
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.	False	Received extra samples not listed on COC.
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: 280-163355-1

Login Number: 163355

List Number: 2

Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

List Creation: 06/15/22 11:20 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	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0°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	



2022 2nd Quarter Groundwater Report

rmittasch@nedmining.com <rmittasch@nedmining.com>

Mon, Aug 15, 2022 at 11:51 AM

To: "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>

Cc: Daniel Takami <danieltakami@gmail.com>, Sergio Rivera <sergio.rivera@novametallix.com>, pdelaney@blackfoxmining.com

Patrick

here is our second quarter groundwater monitoring report, we also have included all the lab data in a separate zip file.

If you need any help or clarification please let me know.

Kind Regards,

Richard Mittasch, Vice President

Nederland Mining Consultants, Inc.

Phone: 720-893-3749

Mobile: 516 582-0833

Email: Rmittasch@nedmining.com

[4415 Caribou Rd](#), PO Box 3395, Nederland, CO 80466

2 attachments



2022 2nd Quarter Groundwater Report GIR-1.pdf
1803K



2022 2nd Quarter Groundwater Lab Data.zip
9140K

August 10, 2022

Mr. Patrick Lennberg
Colorado Division of Reclamation Mining and Safety
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, Colorado 80203
VIA EMAIL

SECOND QUARTERLY EVENT 2022 GROUNDWATER SAMPLING AT CROSS-CARIBOU MINES

Dear Mr. Lennberg,

On behalf of Grand Island Resources LLC (“GIR”), Black Fox Mining LLC (“Black Fox”) is pleased to submit analytical laboratory results for the 2nd quarter 2022 groundwater sampling event at the Cross-Caribou Mine in Nederland, Colorado. Attached are Tables 1 through 5, summarizing the results and a copy of all of the laboratory reports (Attachment 1). Field sheets from those sampling events on May 27th and June 2nd are attached (Attachment 2). This is the first quarter these locations were sampled per Colorado Division of Reclamation Mining and Safety’s request.

Five (5) groundwater locations were sampled. These include the Cabin (Compliance) Well, Cross Well, Caribou Well, Cross Portal, and Caribou Portal. All locations are shown on Figure 1. The Cross Portal and Caribou Portal are mine effluent representative samples taken as surface water. The groundwater elevation versus time is shown on Figure 2.

After receiving the analytical results from the laboratory reports, Black Fox reviewed the Chain of Custodies provided and the results. This review concluded the following:

- The required analyses were performed.
- All of the samples were received at the laboratories at the correct temperature.
- All analyses were completed within the United States Environmental Protection Agency recommended hold times. pH, conductivity and temperature were taken at the field during the sampling events.

There is not enough data to analyze a trend in the analytical results at this time. Only two (2) sample sets have been conducted from May and June 2022 as this started the six (6) quarter request of groundwater sampling. The 3rd quarter 2022 report will provide an analysis of the data and identify any trends that are found.

Black Fox Mining LLC
1508 Ridge Road, Nederland, CO 80466
(303) 570-6269



Sincerely,



Patrick Delaney
Environmental Manager
(315) 414-6986

Attachments: Table 1 – Cabin (Compliance) Well Results
Table 2 – Cross Well Results
Table 3 – Caribou Well Results
Table 4 – Cross Portal Results
Table 5 – Caribou Portal Results
Figure 1 – Q2 Groundwater Monitoring Well Water Levels
Figure 2 – Groundwater Elevations vs. Time
Attachment 1 – Laboratory Reports
Attachment 2 – Field Sheets

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Tables 1-5: Summary Results

Table 1: 2nd Quarter 2022 Cabin (Compliance) Well Results

Cabin (Compliance) Well		5/31/2022	6/2/2022
Parameter	Units		
Abestos	million struct/L	ND	ND
Bicarbonate	mg/L as CaCO ₃	37.4	40.1
Calcium as CaCO ₃	mg/L	23.1	22.9
Carbonate	mg/L as CaCO ₃	<0.2	<0.2
Hydroxide	mg/L as CaCO ₃	<0.2	<0.2
Landerlier Index	units	-2.37	-2.36
pH	SU	6.4	6.39
Temp	Degrees C	20	20
Total Alkalinity	mg/L as CaCO ₃	37.4	40.1
TDS	mg/L	62	63
Lithium	mg/L	<0.1	<0.1
Gross Alpha	pCi/L	0.2	1.1
Gross Beta	pCi/L	<2.7	<3.2
Apparent Color	CU	<3	<3
Foaming Agents	mg/L	<0.1	<0.1
Odor Threshold	ton	<1	<1
Chloride	mg/L	0.67	0.55
Cyanide-Free	mg/L	<0.005	<0.005
Fluoride	mg/L	0.33	<0.1
Nitrate Nitrogen	mg/L	0.18	0.15
Nitrate/Nitrite Nitrogen	mg/L	0.18	0.15
Nitrite Nitrogen	mg/L	<0.3	<0.03
Phenols - Total	mg/L	<15	<15
Sulfate	mg/L	4.05	3.91
Total Coliform	mpn/100mL	<1	<1
Silver (Diss)	mg/L	<0.0005	<0.0005
Mercury (Tot)	mg/L	<0.0002	<0.0002
Aluminum (Tot)	mg/L	0.074	0.061
Antimony (Tot)	mg/L	<0.0012	<0.0012
Arsenic (Tot)	mg/L	<0.0006	<0.0006
Barium (Tot)	mg/L	0.0246	0.0298

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Beryllium (Tot)	mg/L	<0.0001	<0.0001
Cadmium (Tot)	mg/L	<0.0001	<0.0001
Chromium (Tot)	mg/L	<0.0015	<0.0015
Cobalt (Tot)	mg/L	<0.0002	<0.0002
Copper (Tot)	mg/L	<0.0008	0.0012
Lead (Tot)	mg/L	0.0006	0.0017
Manganese (Tot)	mg/L	0.0109	0.0178
Molybdenum (Tot)	mg/L	0.0036	0.0046
Nickel (Tot)	mg/L	<0.0009	<0.0009
Selenium (Tot)	mg/L	<0.0008	<0.0008
Silver (Tot)	mg/L	<0.0005	<0.0005
Thallium (Tot)	mg/L	<0.0002	<0.0002
Uranium (Tot)	mg/L	<0.0002	<0.0002
Vanadium (Tot)	mg/L	<0.001	<0.001
Zinc (Tot)	mg/L	0.139	0.166
Boron (Tot)	mg/L	<0.01	0.02
Calcium (Tot)	mg/L	8.7	9.0
Iron (Tot)	mg/L	0.059	0.088
1,2,4-Trichlorobenzene	ug/L	<10	<10
1,2-Dichlorobenzene	ug/L	<2.5	<2.5
1,2-Diphenylhydrazine (as Azobenzene)	ug/L	<5	<5
1,3-Dichlorobenzene	ug/L	<2.5	<2.5
1,4-Dichlorobenzene	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	ug/L	<20	<20
2,4-Dichlorobenzene	ug/L	<10	<10
2,4-Dimethylphenol	ug/L	<10	<10
2,4-Dinitrophenol	ug/L	<60	<60
2,4-Dinitrotoluene	ug/L	<10	<10
2,6-Dinitrotoluene	ug/L	<10	<10
2-Chloronaphthalene	ug/L	<10	<10
2-Chlorophenol	ug/L	<10	<10
2-Nitrophenol	ug/L	<20	<20
3,3-Dichlorobenzidine	ug/L	<18	<18
4,6-Dinitro-2-methylphenol	ug/L	<10	<10
4-Bromophenyl phenyl ether	ug/L	<10	<10
4-Chloro-3-methylphenol	ug/L	<10	<10
4-Chlorophenyl phenyl ether	ug/L	<10	<10
4-Nitrophenol	ug/L	<25	<25
Acenaphthene	ug/L	<10	<10
Acenaphthylene	ug/L	<10	<10
Anthracene	ug/L	<10	<10

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Benzidine	ug/L	<150	<150
Benzo(a)anthracene	ug/L	<10	<10
Benzo(a)pyrene	ug/L	<10	<10
Benzo(b)fluoranthene	ug/L	<10	<10
Benzo(g,h,i)perylene	ug/L	<10	<10
Benzo(k)fluoranthene	ug/L	<10	<10
Bis(2-chlorethoxy)methane	ug/L	<10	<10
Bis(2-chloroethyl)ether	ug/L	<10	<10
Bis(2-chloroisopropyl)ether	ug/L	<10	<10
Bis(2-ethylhexyl)phthalate	ug/L	<10	<10
Butylbenzylphthalate	ug/L	<10	<10
Chrysene	ug/L	<10	<10
Dibenzo(a,h)anthracene	ug/L	<10	<10
Diethyl phthalate	ug/L	<10	<10
Dimethyl phthalate	ug/L	<10	<10
Di-n-butyl phthalate	ug/L	<10	<10
Di-n-octyl phthalate	ug/L	<10	<10
Fluoranthene	ug/L	<10	<10
Fluorene	ug/L	<10	<10
Hexachlorobenzene	ug/L	<10	<10
Hexachlorobutadiene	ug/L	<9	<9
Hexachlorocyclopentadiene	ug/L	<50	<50
Hexachloroethane	ug/L	<10	<10
Indeno(1,2,3-cd)pyrene	ug/L	<10	<10
Isophorone	ug/L	<10	<10
Napthalene	ug/L	<10	<10
Nitrobenzene	ug/L	<10	<10
n-Nitrosodimethylamine	ug/L	<10	<10
n-Nitroso-di-n-propylamine	ug/L	<10	<10
n-Nitrosodiphenylamine (as Diphenylamine)	ug/L	<10	<10
Pentachlorophenol	ug/L	<36	<36
Phenanthrene	ug/L	<10	<10
Phenol	ug/L	<10	<10
Pyrene	ug/L	<10	<10

Table 2: 2nd Quarter 2022 Cross Well Results

Cross Well		5/31/20022	6/2/2022
Parameter	Units		
Abestos	million struct/L	ND	ND

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Bicarbonate	mg/L as CaCO ₃	81	66
Calcium as CaCO ₃	mg/L	43.6	47.6
Carbonate	mg/L as CaCO ₃	<0.2	<0.2
Hydroxide	mg/L as CaCO ₃	<0.2	<0.2
Landerlier Index	units	-1.55	-2.29
pH	SU	6.68	5.99
Temp	Degrees C	20	20
Total Alkalinity	mg/L as CaCO ₃	81	66
TDS	mg/L	159	137
Lithium	mg/L	<0.1	<0.1
Gross Alpha	pCi/L	1.5	0.1
Gross Beta	pCi/L	<2.7	<3.2
Apparent Color	CU	<3	<3
Foaming Agents	mg/L	<0.1	<0.1
Odor Threshold	ton	<1	<1
Chloride	mg/L	26.54	9.72
Cyanide-Free	mg/L	<0.005	<0.005
Fluoride	mg/L	0.32	<0.1
Nitrate Nitrogen	mg/L	<0.05	0.39
Nitrate/Nitrite Nitrogen	mg/L	<0.05	0.39
Nitrite Nitrogen	mg/L	<0.03	<0.03
Phenols - Total	mg/L	<15	<15
Sulfate	mg/L	9.69	9.98
Total Coliform	mpn/100mL	<1	<1
Silver (Diss)	mg/L	<0.0005	<0.0005
Mercury (Tot)	mg/L	<0.0002	<0.0002
Aluminum (Tot)	mg/L	0.008	0.002
Antimony (Tot)	mg/L	0.1885	<0.0012
Arsenic (Tot)	mg/L	<0.0006	<0.0006
Barium (Tot)	mg/L	0.0289	0.0327
Beryllium (Tot)	mg/L	<0.0001	<0.0001
Cadmium (Tot)	mg/L	<0.0001	0.0002
Chromium (Tot)	mg/L	<0.0015	<0.0015
Cobalt (Tot)	mg/L	<0.0002	<0.0002
Copper (Tot)	mg/L	0.0019	0.0087
Lead (Tot)	mg/L	0.0034	0.0017
Manganese (Tot)	mg/L	0.0146	0.0037
Molybdenum (Tot)	mg/L	<0.0005	0.0009

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Nickel (Tot)	mg/L	<0.0009	<0.0009
Selenium (Tot)	mg/L	<0.0008	<0.0008
Silver (Tot)	mg/L	<0.0005	<0.0005
Thallium (Tot)	mg/L	0.0003	<0.0002
Uranium (Tot)	mg/L	<0.0002	<0.0002
Vanadium (Tot)	mg/L	<0.001	<0.001
Zinc (Tot)	mg/L	13.106	1.197
Boron (Tot)	mg/L	<0.01	0.04
Calcium (Tot)	mg/L	18.6	19.1
Iron (Tot)	mg/L	0.136	0.021
1,2,4-Trichlorobenzene	ug/L	<10	<10
1,2-Dichlorobenzene	ug/L	<2.5	<2.5
1,2-Diphenylhydrazine (as Azobenzene)	ug/L	<5	<5
1,3-Dichlorobenzene	ug/L	<2.5	<2.5
1,4-Dichlorobenzene	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	ug/L	<20	<20
2,4-Dichlorobenzene	ug/L	<10	<10
2,4-Dimethylphenol	ug/L	<10	<10
2,4-Dinitrophenol	ug/L	<60	<60
2,4-Dinitrotoluene	ug/L	<10	<10
2,6-Dinitrotoluene	ug/L	<10	<10
2-Chloronaphthalene	ug/L	<10	<10
2-Chlorophenol	ug/L	<10	<10
2-Nitrophenol	ug/L	<20	<20
3,3-Dichlorobenzidine	ug/L	<18	<18
4,6-Dinitro-2-methylphenol	ug/L	<10	<10
4-Bromophenyl phenyl ether	ug/L	<10	<10
4-Chloro-3-methylphenol	ug/L	<10	<10
4-Chlorophenyl phenyl ether	ug/L	<10	<10
4-Nitrophenol	ug/L	<25	<25
Acenaphthene	ug/L	<10	<10
Acenaphthylene	ug/L	<10	<10
Anthracene	ug/L	<10	<10
Benzidine	ug/L	<150	<150
Benzo(a)anthracene	ug/L	<10	<10
Benzo(a)pyrene	ug/L	<10	<10
Benzo(b)fluoranthene	ug/L	<10	<10
Benzo(g,h,i)perylene	ug/L	<10	<10
Benzo(k)fluranthene	ug/L	<10	<10
Bis(2-chlorethoxy)methane	ug/L	<10	<10
Bis(2-chloroethyl)ether	ug/L	<10	<10

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Bis(2-chloroisopropyl)ether	ug/L	<10	<10
Bis(2-ethylhexyl)phthalate	ug/L	<10	<10
Butylbenzylphthalate	ug/L	<10	<10
Chrysene	ug/L	<10	<10
Dibenzo(a,h)anthracene	ug/L	<10	<10
Diethyl phthalate	ug/L	<10	<10
Dimethyl phthalate	ug/L	<10	<10
Di-n-butyl phthalate	ug/L	<10	<10
Di-n-octyl phthalate	ug/L	<10	<10
Fluoranthene	ug/L	<10	<10
Fluorene	ug/L	<10	<10
Hexachlorobenzene	ug/L	<10	<10
Hexachlorobutadiene	ug/L	<9	<9
Hexachlorocyclopentadiene	ug/L	<50	<50
Hexachloroethane	ug/L	<10	<10
Indeno(1,2,3-cd)pyrene	ug/L	<10	<10
Isophorone	ug/L	<10	<10
Napthalene	ug/L	<10	<10
Nitrobenzene	ug/L	<10	<10
n-Nitrosodimethylamine	ug/L	<10	<10
n-Nitroso-di-n-propylamine	ug/L	<10	<10
n-Nitrosodiphenylamine (as Diphenylamine)	ug/L	<10	<10
Pentachlorophenol	ug/L	<36	<36
Phenanthrene	ug/L	<10	<10
Phenol	ug/L	<10	<10
Pyrene	ug/L	<10	<10

Table 3: 2nd Quarter 2022 Caribou Well Results

Caribou Well		5/31/20022	6/2/2022
Parameter	Units		
Abestos	million struct/L	ND	ND
Bicarbonate	mg/L as CaCO ₃	18.6	19
Calcium as CaCO ₃	mg/L	9.9	9.3
Carbonate	mg/L as CaCO ₃	<0.2	<0.2
Hydroxide	mg/L as CaCO ₃	<0.2	<0.2

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Landerlier Index	units	-3.75	-4.04
pH	SU	5.69	5.42
Temp	Degrees C	20	20
Total Alkalinity	mg/L as CaCO ₃	18.6	19
TDS	mg/L	39	45
Lithium	mg/L	<0.1	<0.1
Gross Alpha	pCi/L	0.5	0.3
Gross Beta	pCi/L	<3.0	<2.9
Apparent Color	CU	<3	<3
Foaming Agents	mg/L	<0.1	<0.1
Odor Threshold	ton	<1	<1
Chloride	mg/L	0.51	0.52
Cyanide-Free	mg/L	<0.005	<0.005
Fluoride	mg/L	0.3	<0.1
Nitrate Nitrogen	mg/L	0.12	0.13
Nitrate/Nitrite Nitrogen	mg/L	0.12	0.13
Nitrite Nitrogen	mg/L	<0.03	<0.03
Phenols - Total	mg/L	<15	<15
Sulfate	mg/L	2.72	2.78
Total Coliform	mpn/100mL	<1	<1
Silver (Diss)	mg/L	<0.0005	<0.0005
Mercury (Tot)	mg/L	<0.0002	<0.0002
Aluminum (Tot)	mg/L	0.079	0.043
Antimony (Tot)	mg/L	<0.0012	<0.0012
Arsenic (Tot)	mg/L	<0.0006	<0.0006
Barium (Tot)	mg/L	0.0065	0.006
Beryllium (Tot)	mg/L	<0.0001	<0.0001
Cadmium (Tot)	mg/L	<0.0001	<0.0001
Chromium (Tot)	mg/L	<0.0015	<0.0015
Cobalt (Tot)	mg/L	<0.0002	<0.0002
Copper (Tot)	mg/L	0.4211	0.2793
Lead (Tot)	mg/L	0.0006	0.0003
Manganese (Tot)	mg/L	0.0022	0.002
Molybdenum (Tot)	mg/L	<0.0005	<0.0005
Nickel (Tot)	mg/L	<0.0009	<0.0009
Selenium (Tot)	mg/L	<0.0008	<0.0008
Silver (Tot)	mg/L	<0.0005	<0.0005
Thallium (Tot)	mg/L	<0.0002	<0.0002
Uranium (Tot)	mg/L	<0.0002	<0.0002
Vanadium (Tot)	mg/L	<0.001	<0.001
Zinc (Tot)	mg/L	0.069	0.067

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Boron (Tot)	mg/L	<0.01	0.01
Calcium (Tot)	mg/L	4.0	3.7
Iron (Tot)	mg/L	0.057	0.033
1,2,4-Trichlorobenzene	ug/L	<10	<10
1,2-Dichlorobenzene	ug/L	<2.5	<2.5
1,2-Diphenylhydrazine (as Azobenzene)	ug/L	<5	<5
1,3-Dichlorobenzene	ug/L	<2.5	<2.5
1,4-Dichlorobenzene	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	ug/L	<20	<20
2,4-Dichlorobenzene	ug/L	<10	<10
2,4-Dimethylphenol	ug/L	<10	<10
2,4-Dinitrophenol	ug/L	<60	<60
2,4-Dinitrotoluene	ug/L	<10	<10
2,6-Dinitrotoluene	ug/L	<10	<10
2-Chloronaphthalene	ug/L	<10	<10
2-Chlorophenol	ug/L	<10	<10
2-Nitrophenol	ug/L	<20	<20
3,3-Dichlorobenzidine	ug/L	<18	<18
4,6-Dinitro-2-methylphenol	ug/L	<10	<10
4-Bromophenyl phenyl ether	ug/L	<10	<10
4-Chloro-3-methylphenol	ug/L	<10	<10
4-Chlorophenyl phenyl ether	ug/L	<10	<10
4-Nitrophenol	ug/L	<25	<25
Acenaphthene	ug/L	<10	<10
Acenaphthylene	ug/L	<10	<10
Anthracene	ug/L	<10	<10
Benzidine	ug/L	<150	<150
Benzo(a)anthracene	ug/L	<10	<10
Benzo(a)pyrene	ug/L	<10	<10
Benzo(b)fluoranthene	ug/L	<10	<10
Benzo(g,h,i)perylene	ug/L	<10	<10
Benzo(k)fluoranthene	ug/L	<10	<10
Bis(2-chlorethoxy)methane	ug/L	<10	<10
Bis(2-chloroethyl)ether	ug/L	<10	<10
Bis(2-chloroisopropyl)ether	ug/L	<10	<10
Bis(2-ethylhexyl)phthalate	ug/L	<10	<10
Butylbenzylphthalate	ug/L	<10	<10
Chrysene	ug/L	<10	<10
Dibenzo(a,h)anthracene	ug/L	<10	<10
Diethyl phthalate	ug/L	<10	<10
Dimethyl phthalate	ug/L	<10	<10

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Di-n-butyl phthalate	ug/L	<10	<10
Di-n-octyl phthalate	ug/L	<10	<10
Fluoranthene	ug/L	<10	<10
Fluorene	ug/L	<10	<10
Hexachlorobenzene	ug/L	<10	<10
Hexachlorobutadiene	ug/L	<9	<9
Hexachlorocyclopentadiene	ug/L	<50	<50
Hexachloroethane	ug/L	<10	<10
Indeno(1,2,3-cd)pyrene	ug/L	<10	<10
Isophorone	ug/L	<10	<10
Napthalene	ug/L	<10	<10
Nitrobenzene	ug/L	<10	<10
n-Nitrosodimethylamine	ug/L	<10	<10
n-Nitroso-di-n-propylamine	ug/L	<10	<10
n-Nitrosodiphenylamine (as Diphenylamine)	ug/L	<10	<10
Pentachlorophenol	ug/L	<36	<36
Phenanthrene	ug/L	<10	<10
Phenol	ug/L	<10	<10
Pyrene	ug/L	<10	<10

Table 4: 2nd Quarter 2022 Cross Portal Results

Cross Portal		5/31/20022	6/2/2022
Parameter	Units		
Abestos	million struct/L	ND	ND
Bicarbonate	mg/L as CaCO ₃	75.7	53.8
Calcium as CaCO ₃	mg/L	56.1	46.3
Carbonate	mg/L as CaCO ₃	13.2	17.4
Hydroxide	mg/L as CaCO ₃	<0.2	<0.2
Landerlier Index	units	0.52	0.84
pH	SU	8.6	9.1
Temp	Degrees C	20	20
Total Alkalinity	mg/L as CaCO ₃	88.9	71.2
TDS	mg/L	116	103
Lithium	mg/L	<0.1	<0.1
Gross Alpha	pCi/L	1.6	1.6

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Gross Beta	pCi/L	<3.1	<3.0
Apparent Color	CU	<3	5
Foaming Agents	mg/L	<0.1	<0.1
Odor Threshold	ton	<1	<1
Chloride	mg/L	1.8	1.67
Cyanide-Free	mg/L	<0.005	<0.005
Fluoride	mg/L	0.32	<0.1
Nitrate Nitrogen	mg/L	0.32	0.25
Nitrate/Nitrite Nitrogen	mg/L	0.32	0.25
Nitrite Nitrogen	mg/L	<0.03	<0.03
Phenols - Total	mg/L	<15	<15
Sulfate	mg/L	10.68	10.24
Total Coliform	mpn/100mL	<1	<1
Silver (Diss)	mg/L	<0.0005	<0.0005
Mercury (Tot)	mg/L	<0.0002	<0.0002
Aluminum (Tot)	mg/L	0.101	0.39
Antimony (Tot)	mg/L	<0.0012	<0.0012
Arsenic (Tot)	mg/L	<0.0006	<0.0006
Barium (Tot)	mg/L	0.0542	0.0408
Beryllium (Tot)	mg/L	<0.0001	<0.0001
Cadmium (Tot)	mg/L	0.0011	0.0008
Chromium (Tot)	mg/L	<0.0015	<0.0015
Cobalt (Tot)	mg/L	0.0002	<0.0002
Copper (Tot)	mg/L	0.0049	0.0059
Lead (Tot)	mg/L	0.017	0.0122
Manganese (Tot)	mg/L	0.0254	0.0145
Molybdenum (Tot)	mg/L	0.0101	0.0138
Nickel (Tot)	mg/L	<0.0009	<0.0009
Selenium (Tot)	mg/L	<0.0008	<0.0008
Silver (Tot)	mg/L	<0.0005	<0.0005
Thallium (Tot)	mg/L	<0.0002	<0.0002
Uranium (Tot)	mg/L	0.0025	0.0013
Vanadium (Tot)	mg/L	<0.001	<0.001
Zinc (Tot)	mg/L	0.192	0.181
Boron (Tot)	mg/L	<0.01	<0.01
Calcium (Tot)	mg/L	23.1	18.3
Iron (Tot)	mg/L	0.233	0.141
1,2,4-Trichlorobenzene	ug/L	<10	<10
1,2-Dichlorobenzene	ug/L	<2.5	<2.5
1,2-Diphenylhydrazine (as Azobenzene)	ug/L	<5	<5
1,3-Dichlorobenzene	ug/L	<2.5	<2.5

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1,4-Dichlorobenzene	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	ug/L	<20	<20
2,4-Dichlorobenzene	ug/L	<10	<10
2,4-Dimethylphenol	ug/L	<10	<10
2,4-Dinitrophenol	ug/L	<60	<60
2,4-Dinitrotoluene	ug/L	<10	<10
2,6-Dinitrotoluene	ug/L	<10	<10
2-Chloronaphthalene	ug/L	<10	<10
2-Chlorophenol	ug/L	<10	<10
2-Nitrophenol	ug/L	<20	<20
3,3-Dichlorobenzidine	ug/L	<18	<18
4,6-Dinitro-2-methylphenol	ug/L	<10	<10
4-Bromophenyl phenyl ether	ug/L	<10	<10
4-Chloro-3-methylphenol	ug/L	<10	<10
4-Chlorophenyl phenyl ether	ug/L	<10	<10
4-Nitrophenol	ug/L	<25	<25
Acenaphthene	ug/L	<10	<10
Acenaphthylene	ug/L	<10	<10
Anthracene	ug/L	<10	<10
Benzidine	ug/L	<150	<150
Benzo(a)anthracene	ug/L	<10	<10
Benzo(a)pyrene	ug/L	<10	<10
Benzo(b)fluoranthene	ug/L	<10	<10
Benzo(g,h,i)perylene	ug/L	<10	<10
Benzo(k)fluoranthene	ug/L	<10	<10
Bis(2-chlorethoxy)methane	ug/L	<10	<10
Bis(2-chloroethyl)ether	ug/L	<10	<10
Bis(2-chloroisopropyl)ether	ug/L	<10	<10
Bis(2-ethylhexyl)phthalate	ug/L	<10	<10
Butylbenzylphthalate	ug/L	<10	<10
Chrysene	ug/L	<10	<10
Dibenzo(a,h)anthracene	ug/L	<10	<10
Diethyl phthalate	ug/L	<10	<10
Dimethyl phthalate	ug/L	<10	<10
Di-n-butyl phthalate	ug/L	<10	<10
Di-n-octyl phthalate	ug/L	<10	<10
Fluoranthene	ug/L	<10	<10
Fluorene	ug/L	<10	<10
Hexachlorobenzene	ug/L	<10	<10
Hexachlorobutadiene	ug/L	<9	<9
Hexachlorocyclopentadiene	ug/L	<50	<50
Hexachloroethane	ug/L	<10	<10

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Indeno(1,2,3-cd)pyrene	ug/L	<10	<10
Isophorone	ug/L	<10	<10
Napthalene	ug/L	<10	<10
Nitrobenzene	ug/L	<10	<10
n-Nitrosodimethylamine	ug/L	<10	<10
n-Nitroso-di-n-propylamine	ug/L	<10	<10
n-Nitrosodiphenylamine (as Diphenylamine)	ug/L	<10	<10
Pentachlorophenol	ug/L	<36	<36
Phenanthrene	ug/L	<10	<10
Phenol	ug/L	<10	<10
Pyrene	ug/L	<10	<10

Table 5: 2nd Quarter 2022 Caribou Portal Results

Caribou Portal		5/31/20022	6/2/2022
Parameter	Units		
Abestos	million struct/L	ND	ND
Bicarbonate	mg/L as CaCO3	118.1	116
Calcium as CaCO3	mg/L	64.1	62.8
Carbonate	mg/L as CaCO3	<0.2	<0.2
Hydroxide	mg/L as CaCO3	<0.2	<0.2
Landerlier Index	units	-0.18	0.03
pH	SU	7.72	7.95
Temp	Degrees C	20	20
Total Alkalinity	mg/L as CaCO3	118.1	116
TDS	mg/L	135	141
Lithium	mg/L	<0.1	<0.1
Gross Alpha	pCi/L	5.5	6
Gross Beta	pCi/L	<3.1	<3.1
Apparent Color	CU	<3	5
Foaming Agents	mg/L	<0.1	<0.1
Odor Threshold	ton	<1	<1
Chloride	mg/L	0.47	0.46
Cyanide-Free	mg/L	<0.005	<0.005
Fluoride	mg/L	0.32	<0.1
Nitrate Nitrogen	mg/L	0.24	0.23

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Nitrate/Nitrite Nitrogen	mg/L	0.24	0.23
Nitrite Nitrogen	mg/L	<0.03	<0.03
Phenols - Total	mg/L	<15	<15
Sulfate	mg/L	10.09	9.79
Total Coliform	mpn/100mL	<1	<1
Silver (Diss)	mg/L	<0.0005	<0.0005
Mercury (Tot)	mg/L	<0.0002	<0.0002
Aluminum (Tot)	mg/L	0.005	<0.008
Antimony (Tot)	mg/L	<0.0012	<0.0012
Arsenic (Tot)	mg/L	0.0008	0.0009
Barium (Tot)	mg/L	0.0614	0.0628
Beryllium (Tot)	mg/L	<0.0001	<0.0001
Cadmium (Tot)	mg/L	0.0002	0.0002
Chromium (Tot)	mg/L	<0.0015	<0.0015
Cobalt (Tot)	mg/L	<0.0002	<0.0002
Copper (Tot)	mg/L	0.0022	0.0019
Lead (Tot)	mg/L	0.0111	0.0086
Manganese (Tot)	mg/L	0.0368	0.0326
Molybdenum (Tot)	mg/L	0.0059	0.0056
Nickel (Tot)	mg/L	<0.0009	<0.0009
Selenium (Tot)	mg/L	0.001	<0.0008
Silver (Tot)	mg/L	<0.0005	<0.0005
Thallium (Tot)	mg/L	<0.0002	<0.0002
Uranium (Tot)	mg/L	0.0058	0.0049
Vanadium (Tot)	mg/L	<0.001	<0.001
Zinc (Tot)	mg/L	0.101	0.082
Boron (Tot)	mg/L	<0.01	<0.01
Calcium (Tot)	mg/L	27.2	27
Iron (Tot)	mg/L	0.251	0.218
1,2,4-Trichlorobenzene	ug/L	<10	<10
1,2-Dichlorobenzene	ug/L	<2.5	<2.5
1,2-Diphenylhydrazine (as Azobenzene)	ug/L	<5	<5
1,3-Dichlorobenzene	ug/L	<2.5	<2.5
1,4-Dichlorobenzene	ug/L	<2.5	<2.5
2,4,6-Trichlorophenol	ug/L	<20	<20
2,4-Dichlorobenzene	ug/L	<10	<10
2,4-Dimethylphenol	ug/L	<10	<10
2,4-Dinitrophenol	ug/L	<60	<60
2,4-Dinitrotoluene	ug/L	<10	<10
2,6-Dinitrotoluene	ug/L	<10	<10
2-Chloronaphthalene	ug/L	<10	<10

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2-Chlorophenol	ug/L	<10	<10
2-Nitrophenol	ug/L	<20	<20
3,3-Dichlorobenzidine	ug/L	<18	<18
4,6-Dinitro-2-methylphenol	ug/L	<10	<10
4-Bromophenyl phenyl ether	ug/L	<10	<10
4-Chloro-3-methylphenol	ug/L	<10	<10
4-Chlorophenyl phenyl ether	ug/L	<10	<10
4-Nitrophenol	ug/L	<25	<25
Acenaphthene	ug/L	<10	<10
Acenaphthylene	ug/L	<10	<10
Anthracene	ug/L	<10	<10
Benzidine	ug/L	<150	<150
Benzo(a)anthracene	ug/L	<10	<10
Benzo(a)pyrene	ug/L	<10	<10
Benzo(b)fluoranthene	ug/L	<10	<10
Benzo(g,h,i)perylene	ug/L	<10	<10
Benzo(k)fluoranthene	ug/L	<10	<10
Bis(2-chlorethoxy)methane	ug/L	<10	<10
Bis(2-chloroethyl)ether	ug/L	<10	<10
Bis(2-chloroisopropyl)ether	ug/L	<10	<10
Bis(2-ethylhexyl)phthalate	ug/L	<10	<10
Butylbenzylphthalate	ug/L	<10	<10
Chrysene	ug/L	<10	<10
Dibenzo(a,h)anthracene	ug/L	<10	<10
Diethyl phthalate	ug/L	<10	<10
Dimethyl phthalate	ug/L	<10	<10
Di-n-butyl phthalate	ug/L	<10	<10
Di-n-octyl phthalate	ug/L	<10	<10
Fluoranthene	ug/L	<10	<10
Fluorene	ug/L	<10	<10
Hexachlorobenzene	ug/L	<10	<10
Hexachlorobutadiene	ug/L	<9	<9
Hexachlorocyclopentadiene	ug/L	<50	<50
Hexachloroethane	ug/L	<10	<10
Indeno(1,2,3-cd)pyrene	ug/L	<10	<10
Isophorone	ug/L	<10	<10
Napthalene	ug/L	<10	<10
Nitrobenzene	ug/L	<10	<10
n-Nitrosodimethylamine	ug/L	<10	<10
n-Nitroso-di-n-propylamine	ug/L	<10	<10
n-Nitrosodiphenylamine (as Diphenylamine)	ug/L	<10	<10

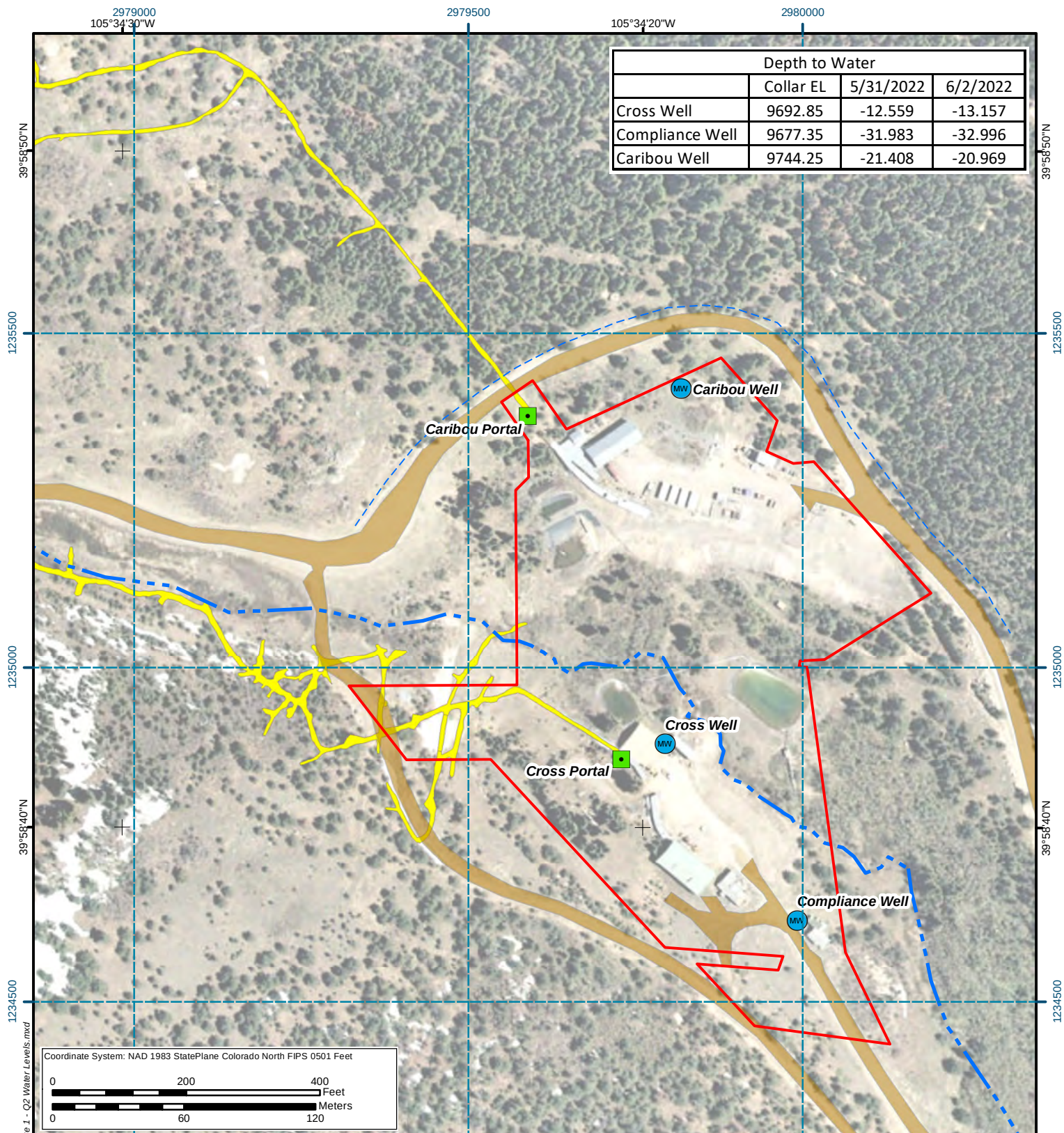
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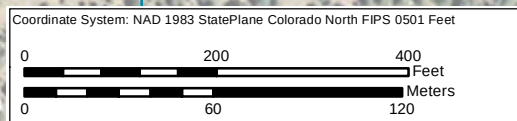
Pentachlorophenol	ug/L	<36	<36
Phenanthrene	ug/L	<10	<10
Phenol	ug/L	<10	<10
Pyrene	ug/L	<10	<10

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Path: G:\Projects\Nederland\ArcMap\GWR\Monitoring\Figure 1 - Q2 Water Levels.mxd

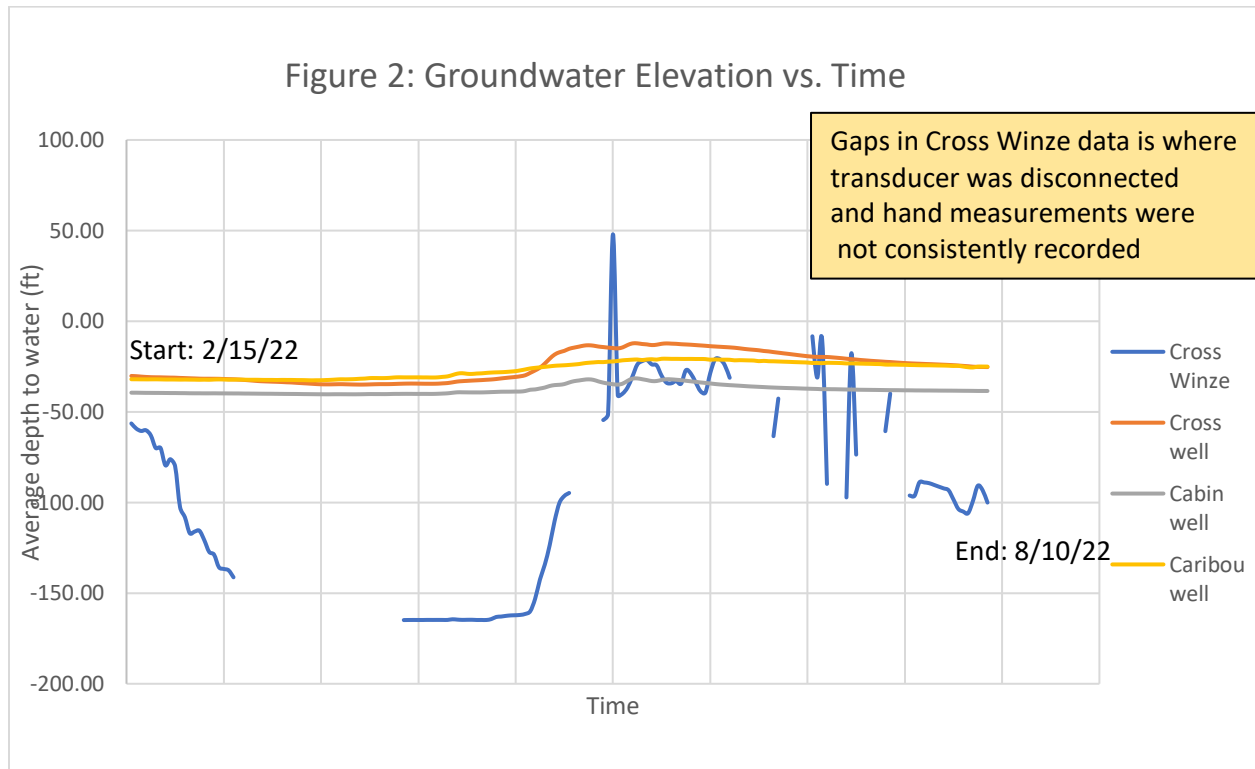


- Permit Boundary (9.6 ac)
- Existing Roads
- Underground Workings
- Mine Effluent (Groundwater) Sampled as Surface Water
- MW Groundwater Sampling Location (Caribou, Cross & Cabin wells)



Project Quarterly Groundwater Monitoring	Title Q2 Groundwater Monitoring Well Water Levels																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3">Project No. US 0801</td> <td colspan="2">File No.</td> </tr> <tr> <td>GIS:</td> <td>JST</td> <td>08/04/22</td> <td>Scale As Shown</td> <td>Rev 0</td> </tr> <tr> <td>Check:</td> <td>JST</td> <td>08/04/22</td> <td colspan="2"></td> </tr> <tr> <td>Review:</td> <td>JST</td> <td>08/04/22</td> <td colspan="2"></td> </tr> </table>		Project No. US 0801			File No.		GIS:	JST	08/04/22	Scale As Shown	Rev 0	Check:	JST	08/04/22			Review:	JST	08/04/22		
Project No. US 0801			File No.																		
GIS:	JST	08/04/22	Scale As Shown	Rev 0																	
Check:	JST	08/04/22																			
Review:	JST	08/04/22																			
Figure 1																					

Figure 2 – Groundwater Elevation vs. Time



IDENTIFICATION

WEATHER CONDITIONS

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

FINAL WELL MEASUREMENTS

INSTRUMENT CALIBRATION

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measu red ☐		
5/31/22	12:55pm		7.4	0.5	4 $^{\circ}$ C	clear		

Notes:

Sampler's Signature

IDENTIFICATION

WEATHER CONDITIONS

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

FINAL WELL MEASUREMENTS

INSTRUMENT CALIBRATION

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FINAL SAMPLE PARAMETERS

Sampler's Signature

IDENTIFICATION

Sample Location Caribou Well Date 5/31/22 Start Time 1:30pm Stop time 1:50 pm Project Number: _____
 Sample Control Number _____ Samplers BM & TC Page 1 of 1
WEATHER CONDITIONS

WEATHER CONDITIONS

Ambient Air Temperature: 41.0 °C ☐ °F ☒ Not Measured ☐ **Wind:** Heavy ☐ Moderate ☐ Light ☒
Precipitation: None ☐ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☐
INITIAL WELL MEASUREMENTS (see

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level _____ Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches)
 2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons
 Well Casing ID _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water
 Well purged with _____

FINAL WELL MEASUREMENTS

Static Water Level___ Total Depth___ Total Volume Purged___ Saturated Borehole Volume (gal)___ Max Pumping Rate___

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____
Buffer _____ Measured Value _____ Temp. _____ °C
Buffer _____ Measured Value _____ Temp. _____ °C

Conductivity Meter: Meter Number _____
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURCHASING

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measu red ☐		
5/31/22	1:45 pm		6.2	0.2	9 $^{\circ}$ C	clear		

Duplicate Sample-02	(sample control number/time _____)
Field Blank-03	(sample control number/time _____)
Rinsate Sample-04	(sample control number/time _____)
Matrix Spike-MS	(sample control number/time _____)
_____	(sample control number/time _____)

Notes:

Sampler's Signature

IDENTIFICATION

Sample Location Cross Portal Date 5/31/22 Start Time 9:30am Stop time 9:47 am Project Number: _____
 Sample Control Number _____ Samplers BM & TC Page ___ of ____
WEATHER CONDITIONS

WEATHER CONDITIONS

Ambient Air Temperature: 41.0 °C ☐ °F ☒ Not Measured ☐ Wind: Heavy ☐ Moderate ☐ Light ☒
Precipitation: None ☒ Rain ☐ Snow ☐ Heavy ☐ Moderate ☐ Light ☐ Sunny ☐ Partly Cloudy ☒
INITIAL WELL MEASUREMENTS (m)

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Static Water Level _____ Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches)
2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons
Well Casing ID _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water
Well purged with: _____

FINAL WELL MEASUREMENTS

Static Water Level____ Total Depth____ Total Volume Purged____ Saturated Borehole Volume (gal)____ Max Pumping Rate____

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____
Buffer _____ Measured Value _____ Temp. _____ °C
Buffer _____ Measured Value _____ Temp. _____ °C

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU

Conductivity Meter: Meter Number _____
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C
Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

FIELD PARAMETER MEASUREMENTS DURING PURGING

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
5/31/22	9:35 am		9.0	0.4	9 $^{\circ}$ C	slightly cloudy		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time _____)

Rinsate Sample-04 (sample control number/time _____)

Matrix Spike-MS (sample control number/time _____)

_____ (sample control number/time _____)

Notes:

Sampler's Signature

IDENTIFICATION

WEATHER CONDITIONS

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Well purged with: _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water

Static Water Level___ Total Depth___ Total Volume Purged___ Saturated Borehole Volume (gal)___ Max Pumping Rate___

pH Meter: Meter Number

Buffer _____ Measured Value _____ Temp. _____ °C
Turbidity _____ Measured Value _____ Temp. _____ °C

Standard

NTU Measured Value

37.1

—mS/cm

red Value

m.SA

100

WATER MEASUREMENTS DURING PURGING

FINAL SAMPLE PARAMETERS

Duplicate Sample-02	(sample control number/time					
Field Blank-03	(sample control number/time					
Rinsate Sample-04	(sample control number/time					
Matrix Spike-MS	(sample control number/time					
	(sample control number/time					
Notes:						

Sampler's Signature

GROUND WATER SAMPLING DATA SHEET

Project Number:

IDENTIFICATION

Sample Location Cross Well Date 6/2/22 Start Time 12:10 Stop time 12:25 Page of
Sample Control Number Samplers pm pm

Sample Control Number

WEATHER CONDITIONS

Ambient Air Temperature: 52° °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 _____ Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons

Well Casing ID _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with:

FINAL WELL MEASUREMENTS

Static Water Level _____ Total Depth _____ Total Volume Purged _____ Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: Standard _____ NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
6/2/22	12:10pm		6.2	0.3	8 $^{\circ}$ C	clear		

Duplicate Sample-02 (sample control number/time_____)

Field Blank-03 (sample control number/time_____)

Rinsate Sample-04 (sample control number/time_____)

Matrix Spike-MS (sample control number/time_____)

(sample control number/time _____)

Notes:

Sampler's Signature

IDENTIFICATION

Sample Control Number

Samplers

WEATHER CONDITIONS

Ambient Air Temperature: 52° °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 _____ Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches)

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons

Well Casing ID _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with:

FINAL WELL MEASUREMENTS

Static Water Level___ Total Depth___ Total Volume Purged___ Saturated Borehole Volume (gal)___ Max Pumping Rate___

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number

Buffer _____ Measured Value _____ Temp. _____ °C

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
6/2/22	12:30pm		7.5	0.3	7 $^{\circ}$ C	clear		

Duplicate Sample-02 (sample control number/time _____)

Field Blank-03 (sample control number/time_____)

Rinsate Sample-04 (sample control number/time_____)

Matrix Spike-MS (sample control number/time_____)

(sample control number/time_____)

Notes:

Sampler's Signature

GROUND WATER SAMPLING DATA SHEET

IDENTIFICATION

IDENTIFICATION Project Number: _____
 Sample Location Caribou Well Date 6/2/22 Start Time 2:00 Stop time 2:15 Page of
 Sample Control Number _____ Samplers pm pm

WEATHER CONDITIONS

Ambient Air Temperature: 52° °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 _____ Total Depth _____ Top of Screen _____ Filter Pack Interval _____ Borehole Diameter(inches) _____

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: _____ gallons

Well Casing ID _____ Well Casing OD _____ Protective Casing Stickup _____ Well Casing Stickup _____ Feet of Water _____

Well purged with:

FINAL WELL MEASUREMENTS

Static Water Level _____ Total Depth _____ Total Volume Purged _____ Saturated Borehole Volume (gal) _____ Max Pumping Rate _____

INSTRUMENT CALIBRATION

pH Meter: Meter Number

Conductivity Meter: Meter Number

Buffer _____ Measured Value _____ Temp. _____ °C

Buffer _____ Measured Value _____ Temp. _____ °C Standard _____ mS/cm Measured Value _____ mS/cm Temp. _____ °C

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measured ☐		
6/2/22	2:00pm		5.9	0.1	13 $^{\circ}$ C	clear		

Duplicate Sample-02 (sample control number/time_____)

Field Blank-03 (sample control number/time_____)

Rinsate Sample-04 (sample control number/time_____)

Matrix Spike-MS (sample control number/time_____)

(sample control number/time _____)

Notes:

Sampler's Signature

IDENTIFICATION

WEATHER CONDITIONS

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	Total Depth	Top of Screen	Filter Pack Interval	Borehole Diameter(inches)
--------------------	-------------	---------------	----------------------	---------------------------

2-inch = 0.1632 gal/ft 4-inch = 0.6528 gal/ft 6-inch = 1.4688 gal/ft Casing Volume: gallons

<u>Well Casing ID</u>	<u>Well Casing OD</u>	<u>Protective Casing Stickup</u>	<u>Well Casing Stickup</u>	<u>Feet of Water</u>

Well purged with:

FINAL WELL MEASUREMENTS

Static Water Level___ Total Depth___ Total Volume Purged___ Saturated Borehole Volume (gal)___ Max Pumping Rate

INSTRUMENT CALIBRATION

pH Meter: Meter Number _____

Conductivity Meter: Meter Number _____

Buffer _____	Measured Value _____	Temp. °C _____
--------------	----------------------	-------------------

Buffer	Measured Value	Temp.	°C
--------	----------------	-------	----

Turbidity Meter: _____ Standard _____ NTU Measured Value _____ NTU Standard _____ NTU Measured Value _____ NTU

FIELD PARAMETER MEASUREMENTS DURING PURGING

[illegible]

FINAL SAMPLE PARAMETERS

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☒ Measured ☐		
6/2/22	11:45am		9.2	0.3	6 $^{\circ}$ C	clear		

Duplicate Sample-02 (sample control number/time)

Field Blank-03 (sample control number/time)

Rinsate Sample-04 (sample control number/time

Matrix Spike-MS (sample control number/time _____)

(sample control number/time _____)

Notes:

Sampler's Signature

IDENTIFICATION

WEATHER CONDITIONS

INITIAL WELL MEASUREMENTS (Measurements in feet made from top of well casing)

Well purged with:

Static Water Level	Total Depth	Total Volume Purged	Saturated Borehole Volume (gal)	Max Pumping Rate

pH Meter: Meter Number _____

Turbidity Meter:	Standard	NTU	Measured Value	NTU	Standard	NTU	Measured Value	NTU
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[illegible]

Sample Date	Sample Time	Discharge cfs ☐ gpm ☐	pH	Cond. (μ S/cm)	Temp. ($^{\circ}$ C)	Turbidity Visual Est. ☐ Measu red ☐		
6/2/22	1:00pm		8.2	0.5	5 $^{\circ}$ C	clear		

(sample control number/time _____)

Sampler's Signature



Built Environment Reservoirs

June 02, 2022

Subcontractor Number:

Laboratory Report: RES 526680-1

Project #/P.O. #: 220531086

Project Description: Grand Island Resources

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

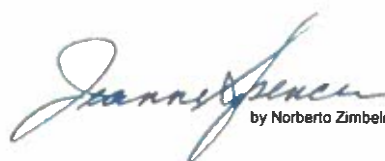
Dear Jessi,

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

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

RES 526680-1 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 526680-1
Client: Colorado Analytical Laboratories, Inc.
Client Project/P.O.: 220531086
Client Project Description: Grand Island Resources
Date Samples Received: June 01, 2022
Analysis Type: REI TEM SOP / USEPA 100.2-M
Turnaround: Standard 10
Date Samples Analyzed: June 02, 2022

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

Laboratory Sample ID	Client ID Number	Aliquot Deposited on Filter (ml)	Dilution Factor	Total Number of Asbestos Structures Detected	Greater than 10 Micron Length Asbestos Structures Detected	Analytical Sensitivity (million struct/L)	Asbestos Concentration	Total Asbestos Concentration	Greater than 10 Micron Length Asbestos Concentration
526680 - 220531086-01G Compliance Well		20	1	ND	ND	0.17	BAS	BAS	BAS
526680 - 220531086-02G Cross Well		20	1	ND	ND	0.17	BAS	BAS	BAS
526680 - 220531086-03G Caribou Well		20	1	ND	ND	0.17	BAS	BAS	BAS
526680 - 220531086-04G Caribou Portal		20	1	ND	ND	0.14	BAS	BAS	BAS
526680 - 220531086-05G Cross Portal		20	1	ND	ND	0.14	BAS	BAS	BAS

Filter Material = Mixed Cellulose Ester

Filter Diameter = 25mm

Effective Filter Area = 0mm²

Average Grid Opening = 0.010mm²

N. Zimbelman
Norberto Zimbelman
Analyst

Built Environment
Reservoirs

RES Job #: 526680

SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES	
Company:	Colorado Analytical Laboratories, Inc.	Company:	Colorado Analytical Laboratories, Inc.	Contact:	Jessi Lupfer	-1	TEM Standard 10
Address:	10411 Heinz Way	Address:	10411 Heinz Way	Phone:	(303) 659-2313		
				Fax:			
				Cell:			
Project Number and/or P.O. #:	220531086	Final Data Deliverable Email Address: jessilupfer@coloradolab.com (+ 4 ADDNL CONTACTS)					
Project Description/Location:	Grand Island Resources						

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm		DTL RUSH PRIORITY STANDARD		REQUESTED ANALYSIS		VALID MATRIX CODES		LAB NOTES	
PLM / PCM / TEM									
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm									
Dust	RUSH PRIORITY STANDARD								
Metals	RUSH PRIORITY STANDARD								
Organics*	SAME DAY RUSH PRIORITY STANDARD								
MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm									
Viable Analysis**	PRIORITY STANDARD								
Medical Device Analysis	RUSH STANDARD								
Mold Analysis	RUSH PRIORITY STANDARD								
Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.									
Special Instructions:									
Client Sample ID Number	(Sample ID's must be unique)								
1	220531086-01G Compliance Well	ASBESTOS	TEM - Drinking Water (EPA 100.3)	PCB - 7400A 7400B OSHA	DUST - Total Respirable	METALS - Analytes	CHEMISTRY	MICROBIOLOGY	LABORATORY ANALYSIS INSTRUCTIONS
2	220531086-02G Cross Well	X							
3	220531086-03G Caribou Well	X							
4	220531086-04G Caribou Portal	X							
5	220531086-05G Cross Portal	X							

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 in this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days. Failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By:	Jessi Lupfer	Date/Time: 06/01/2022 10:35:21	Sample Condition: Acceptable - On Ice
Received By:	Mira Wolf	Date/Time: 06/01/2022 14:14:10	Carrier: Courier

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope		Sample Type	Water	Analysis Date	06/02/2022
Voltage	0KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526680-1	Date Received	06/01/2022
Primary Filter Area (mm ²)		Sec. Filter Area (mm ²)	346	Grid Opening Area (mm ²)	0.01
Sample ID	220531086-01G Compliance Well	Method	EPA 100.2	Scope Align	06/02/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	H5-3	ND									
	G5-3	ND								Yes	
	F5-3	ND									
	E5-3	ND								Yes	
	C5-3	ND									
B	C5-6	ND									
	E4-4	ND									
	E4-1	ND									
	C4-4	ND								Yes	
	C4-1	ND									

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs				Client	Colorado Analytical Laboratories, Inc.		Analyzed By	NZ
Primary Scope					Sample Type	Water		Analysis Date	06/02/2022
Voltage	0KV				Volume (L)	1		Prep Method	Direct
Magnification	20000				Res Number	526680-1		Date Received	06/01/2022
Primary Filter Area (mm ²)					Sec. Filter Area (mm ²)	346		Grid Opening Area (mm ²)	0.01
Sample ID	220531086-02G Cross Well				Method	EPA 100.2		Scope Align	06/02/2022
Suspension					Alliquot	20		Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	H4-1	ND								Yes	
	G4-1	ND									
	F4-4	ND									
	F4-1	ND									
	E4-4	ND									
	E4-1	ND									
	C4-1	ND									
A	F4-3	ND								Yes	
	E4-6	ND								Yes	
	C4-6	ND								Yes	

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope		Sample Type	Water	Analysis Date	06/02/2022
Voltage	0KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526680-1	Date Received	06/01/2022
Primary Filter Area (mm²)		Sec. Filter Area (mm²)	346	Grid Opening Area (mm²)	0.01
Sample ID	220531086-03G Caribou Well	Method	EPA 100.2	Scope Align	06/02/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	F5-4	ND								Yes	
	E5-4	ND									
	E5-1	ND									
	C5-1	ND									
B	E6-4	ND								Yes	
	F3-1	ND									
	E3-1	ND									
	C3-1	ND									
	B3-1	ND									
	C4-4	ND									

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	06/02/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526680-1	Date Received	06/01/2022
Primary Filter Area (mm ²)		Sec. Filter Area (mm ²)	346	Grid Opening Area (mm ²)	0.01
Sample ID	220531086-04G Caribou Portal	Method	EPA 100.2	Scope Align	06/02/2022
Suspension		Allquot	20	Grid Openings	12

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	F5-1	ND									
	E5-4	ND									
	E5-1	ND								Yes	
	E3-3	F		4.50µm	0.06µm		NAM	NAM		Yes	
	F3-3	ND									
	E3-6	ND									
	E3-3	ND								Yes	
	C3-6	ND									
	C3-3	ND									
B	E4-1	ND									
	C4-4	ND									
	C4-1	ND									

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	06/02/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526680-1	Date Received	06/01/2022
Primary Filter Area (mm²)		Sec. Filter Area (mm²)	346	Grid Opening Area (mm²)	0.01
Sample ID	220531086-05G Cross Portal	Method	EPA 100.2	Scope Align	06/02/2022
Suspension		Aliquot	20	Grid Openings	12

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	E3-6	ND								Yes	
	C3-6	ND									
	C3-3	ND									
	B3-6	ND									
	B3-3	ND									
A	G3-1	ND									
	F3-4	ND									
	F3-1	ND									
	E3-4	ND									
	E4-1	ND								Yes	
	G2-4	ND									
	G2-1	ND								Yes	

*NAM = Non Asbestos Material

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Compliance Well

Sample Date/Time: 5/31/22 11:30 AM

Lab Number: 220531086-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	37.4 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Calcium as CaCO ₃	23.1 mg/L	EPA 200.7	0.1 mg/L	6/3/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Langelier Index	-2.37 units	SM 2330-B	units	6/7/22	-	SAN
pH	6.40 units	SM 4500-H-B	0.01 units	5/31/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	5/31/22	-	AKF
Total Alkalinity	37.4 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/1/22	QC57269	DEK
Total Dissolved Solids	62 mg/L	SM 2540-C	5 mg/L	6/6/22	QC57294	DEK

Abbreviations/ References:

RL = Reporting Limit = Minimum Level

mg/L = Milligrams Per Liter or PPM

ug/L = Micrograms Per Liter or PPB

mpv/100 ml = Most Probable Number Index/ 100 ml

Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.

(s) Spike amount low relative to the sample amount.

ND = Not Detected at Reporting Limit.

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Page 1 of 9

220531086

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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Well
Sample Date/Time: 5/31/22 12:55 PM
Lab Number: 220531086-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	81.0 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Calcium as CaCO ₃	43.6 mg/L	EPA 200.7	0.1 mg/L	6/3/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Langelier Index	-1.55 units	SM 2330-B	units	6/7/22	-	SAN
pH	6.68 units	SM 4500-H-B	0.01 units	5/31/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	5/31/22	-	AKF
Total Alkalinity	81.0 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/1/22	QC57269	DEK
Total Dissolved Solids	159 mg/L	SM 2540-C	5 mg/L	6/6/22	QC57294	DEK

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	18.6 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Calcium as CaCO ₃	9.9 mg/L	EPA 200.7	0.1 mg/L	6/3/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Langelier Index	-3.75 units	SM 2330-B	units	6/7/22	-	SAN
pH	5.69 units	SM 4500-H-B	0.01 units	5/31/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	5/31/22	-	AKF
Total Alkalinity	18.6 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/1/22	QC57269	DEK
Total Dissolved Solids	39 mg/L	SM 2540-C	5 mg/L	6/6/22	QC57294	DEK

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

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	118.1 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Calcium as CaCO ₃	64.1 mg/L	EPA 200.7	0.1 mg/L	6/3/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Langelier Index	-0.18 units	SM 2330-B	units	6/7/22	-	SAN
pH	7.72 units	SM 4500-H-B	0.01 units	5/31/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	5/31/22	-	AKF
Total Alkalinity	118.1 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/1/22	QC57269	DEK
Total Dissolved Solids	135 mg/L	SM 2540-C	5 mg/L	6/6/22	QC57294	DEK

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 5/31/22 9:35 AM
Lab Number: 220531086-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	75.7 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Calcium as CaCO ₃	56.1 mg/L	EPA 200.7	0.1 mg/L	6/3/22	-	MBN
Carbonate	13.2 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/1/22	-	DEK
Langelier Index	0.52 units	SM 2330-B	units	6/7/22	-	SAN
pH	8.60 units	SM 4500-H-B	0.01 units	5/31/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	5/31/22	-	AKF
Total Alkalinity	88.9 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/1/22	QC57269	DEK
Total Dissolved Solids	116 mg/L	SM 2540-C	5 mg/L	6/6/22	QC57294	DEK

Abbreviations/References:

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

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

**Analytical QC
Summary**
TASK NO: 220531086

Report To: Patrick Delaney
Company: Grand Island Resources LLC

Receive Date: 5/31/22
Project Name:

Test	QC Batch ID	QC Type	Result	Method
Total Alkalinity	QC57269	Blank	ND	SM 2320-B
Total Dissolved Solids	QC57294	Blank	ND	SM 2540-C

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC57269	Duplicate	0 - 20	-	8.7	SM 2320-B
		LCS	90 - 110	106.2	-	
		LCS-2	90 - 110	104.1	-	
Total Dissolved Solids	QC57294	Duplicate	0 - 20	-	0.0	SM 2540-C
		LCS	85 - 115	100.7	-	

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

Colorado
Analytical
LABORATORIES, INC.

[illegible]

CAL Task
220531086

JML

Colorado
Analytical
LABORATORIES, INC.

Quotation for Analytical Service

Quote ID: QBO22050014

Prepared For: Grand Island Resources LLC
12567 W Cedar Dr
Suite 250
Lakewood, CO 80228

Quote Date: Wednesday, May 4, 2022
Turn Around Time: 10 Working Days

Attn: Brooke Molson-Moran

Project:

Matrix	Description	Method	Qty	Price - each	Total
Water - Ground	Langelier Index	N/A	5	\$60.00	\$300.00
Water - Ground	Alkalinity	SM 2320-B	5	Incl.	Incl.
Water - Ground	Ca as CaCO ₃	EPA 200.7	5	Incl.	Incl.
Water - Ground	Carb/ Bicarb	SM 2320-B	5	Incl.	Incl.
Water - Ground	Lang Index	SM 2330-B	5	Incl.	Incl.
Water - Ground	pH/ Temp	SM 4500-H-B	5	Incl.	Incl.
Water - Ground	TDS	SM 2540-C	5	Incl.	Incl.
Water - Ground	Nitrate/ Nitrite Nitrogen	Calculation	5	\$0.00	\$0.00
Water - Ground	B - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Ca - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Fe - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Ag - Dis	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ag - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Al - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	As - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ba - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Be - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cd - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Co - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cr - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cu - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Mn - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Mo - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ni - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Pb - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Sb - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Se - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Tl - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	V - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Zn - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Chloride	EPA 300.0	5	\$18.00	\$90.00

Page 1 of 5

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

JAK

CAL Task

220531086

JML

Colorado Analytical

LABORATORIES, INC.

Quotation for Analytical Services

Quote ID: QBO22050014

Water - Ground	Fluoride	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Nitrate Nitrogen	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Nitrite Nitrogen	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Sulfate	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	U - Total	EPA 200.8	5	\$23.00	\$115.00
Water - Ground	Hg	EPA 245.7	5	\$27.00	\$135.00
Water - Ground	Total Coliform	SM 9221-B	5	\$27.00	\$135.00
Water - Ground	Cyanide - Free	ASTM D4282-15	5	\$40.00	\$200.00
Water - Ground	Phenols	EPA 420.4	5	\$55.00	\$275.00
Water - Ground	Metals (Sub)	EPA 200.7/EPA 200.8	5	\$67.20	\$336.00
Water - Ground	Gross Alpha/Beta (Sub)	SM 7110-B	5	\$68.40	\$342.00
Water - Ground	Asbestos (Sub)	TEM	5	\$120.00	\$600.00
Water - Ground	625 SOC's	EPA 625	5	\$225.00	\$1,125.00
Shipping	Sample Shipment to Outside Lab	UPS	2	\$30.00	\$60.00
Shipping	Ext. Sample Shipment to Outside Lab	UPS or FedEx	1	\$50.00	\$50.00

Metals (sub) for lithium

\$5,838.00

****Samples should be shipped or hand delivered the same day they are collected.****

Colorado Analytical Laboratory maintains certification by the Colorado Department of Health (CDPHE) and EPA Region 8 for Wyoming and Tribal Public Water Systems to analyze drinking water for organic contaminants (SOC's VOC's), inorganic contaminants (metals), nitrate nitrite, cyanide, fluoride and coliform bacteria.

Sub-Contract analysis pricing subject to change. Sub-Contract radiological analysis turn-around time is 4 to 8 weeks depending on sample matrix. Due to time, distance and other constraints outside of the control of CAL shipments to sub labs are not guranteed. All shipment charges will be billed to the client regardless of shipment outcome.

Billing terms are Net 30 on approved accounts, all other accounts are COD. Additional charges may apply for accelerated turn around.

We appreciate the opportunity to be of service to you. If you have questions please call us at 303-659-2313 or visit us at www.coloradolab.com



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Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 888.886.7175 • Helena, MT 877.472.0711

ANALYTICAL SUMMARY REPORT

June 20, 2022

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

Work Order: C22060096

Project Name: 220531086

Energy Laboratories, Inc. Casper WY received the following 5 samples for Colorado Analytical Laboratories Inc on 6/2/2022 for analysis.

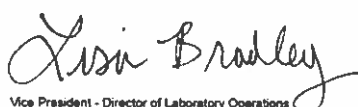
Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C22060096-001	220531086-01F-Compliance Well	05/31/22 11:30	06/02/22	Groundwater	Metals by ICP/ICPMS, Total Metals Preparation by EPA 200.2
C22060096-002	220531086-02F-Cross Well	05/31/22 12:55	06/02/22	Groundwater	Same As Above
C22060096-003	220531086-03F-Caribou Well	05/31/22 13:45	06/02/22	Groundwater	Same As Above
C22060096-004	220531086-04F-Caribou Portal	05/31/22 10:15	06/02/22	Groundwater	Same As Above
C22060096-005	220531086-05F-Cross Portal	05/31/22 9:35	06/02/22	Groundwater	Same As Above

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

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

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

Report Approved By:


Vice President - Director of Laboratory Operations

Digitally signed by
Lisa Bradley
Date: 2022.06.20 14:53:59 -06:00



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Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

CLIENT: Colorado Analytical Laboratories Inc
Project: 220531086
Work Order: C22060096

Report Date: 06/20/22

CASE NARRATIVE

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220531086
Lab ID: C22060096-001
Client Sample ID: 220531086-01F- Compliance Well

Report Date: 06/20/22
Collection Date: 05/31/22 11:30
Date Received: 06/02/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/11/22 01:24 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220531086
Lab ID: C22060096-002
Client Sample ID: 220531086-02F-Cross Well

Report Date: 06/20/22
Collection Date: 05/31/22 12:55
Date Received: 06/02/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1	E200.7		06/11/22 01:44 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220531086
Lab ID: C22060096-003
Client Sample ID: 220531086-03F-Caribou Well

Report Date: 06/20/22
Collection Date: 05/31/22 13:45
Date Received: 06/02/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/11/22 01:57 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220531086
Lab ID: C22060096-004
Client Sample ID: 220531086-04F-Caribou Portal

Report Date: 06/20/22
Collection Date: 05/31/22 10:15
Date Received: 06/02/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/11/22 02:01 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220531086
Lab ID: C22060096-005
Client Sample ID: 220531086-05F-Cross Portal

Report Date: 06/20/22
Collection Date: 05/31/22 09:35
Date Received: 06/02/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/11/22 02:05 / eli-b

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

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



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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C22060096

Report Date: 06/13/22

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Analytical Run: ICP204-B_220610A
Lab ID: ICV		Continuing Calibration Verification Standard								06/10/22 14:51
Lithium		1.26	mg/L	0.10	101	95	105			
Lab ID: CCV		Continuing Calibration Verification Standard								06/11/22 00:59
Lithium		1.23	mg/L	0.10	98	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard								06/11/22 01:49
Lithium		1.27	mg/L	0.10	101	90	110			
Method: E200.7										Batch: 167212
Lab ID: MB-167212		Method Blank								Run: ICP204-B_220610A 06/11/22 01:16
Lithium		ND	mg/L	0.006						
Lab ID: LCS3-167212		Laboratory Control Sample								Run: ICP204-B_220610A 06/11/22 01:20
Lithium		1.03	mg/L	0.10	103	85	115			
Lab ID: C22060096-001ADIL		Serial Dilution								Run: ICP204-B_220610A 06/11/22 01:28
Lithium		ND	mg/L	0.25		0	0			10
Lab ID: C22060096-001APDS		Post Digestion/Distillation Spike								Run: ICP204-B_220610A 06/11/22 01:33
Lithium		1.07	mg/L	0.10	104	70	130			
Lab ID: C22060096-001AMS3		Sample Matrix Spike								Run: ICP204-B_220610A 06/11/22 01:37
Lithium		1.03	mg/L	0.10	103	70	130			
Lab ID: C22060096-001AMSD		Sample Matrix Spike Duplicate								Run: ICP204-B_220610A 06/11/22 01:41
Lithium		1.02	mg/L	0.10	102	70	130	0.4	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C22060096

Login completed by: Ciara M. Leis

Date Received: 6/2/2022

Reviewed by: Chantel S. Johnson

Received by: cml

Reviewed Date: 6/3/2022

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☒	Not Applicable ☐
Container/Temp Blank temperature:	5.8°C Melted Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Standard Reporting Procedures:

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

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

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

Contact and Corrective Action Comments:

None



Ship To: Energy Labs

LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Report To Information		Bill To Information (if different from report to)		Project Name	
Company Name: Colorado Analytical Laboratory				-	
Report To: Stuart Nielson					
E-Mail: stuartnielson@coloradolab.com					
Address: 10411 Heinz Way Commerce City, CO 80640		Address: CAL TASK 220531086 JML		Compliance Samples: Yes ☐ No ☒ Submit Data to CDPHE: Yes ☐ No ☒	
Phone: 303-658-2313					

Tests Requested

Metals (Sub)

Sample Date/Time	Sample ID	Matrix											Container Type
5/31/22	220531086-01F - Compliance Well	Water - Ground	X										500 ml Cylinder - HNO3
5/31/22	220531086-02F - Cross Well	Water - Ground	X										500 ml Cylinder - HNO3
5/31/22	220531086-03F - Carbon Well	Water - Ground	X										500 ml Cylinder - HNO3
5/31/22	220531086-04F - Carbon Well	Water - Ground	X										500 ml Cylinder - HNO3
5/31/22	220531086-05F - Carbon Well	Water - Ground	X										500 ml Cylinder - HNO3
5/31/22	220531086-05F - Cross Portal	Water - Ground	X										500 ml Cylinder - HNO3
5/31/22	220531086-05F - Cross Portal	Water - Ground	X										500 ml Cylinder - HNO3

Comment: 220531086-01F - Please report Lithium.
220531086-02F - Please report Lithium.
220531086-03F - Please report Lithium.
220531086-04F - Please report Lithium.
220531086-05F - Please report Lithium.

Relinquished by: (Signature)	Date: Time: 6/1/22 1500	Received by: (Signature)	Date: Time: 6/2/22 1142	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

Customer ID: 20040H
Account ID: Z01034

Lab Control ID: 22M02015
Received: Jun 02, 2022
Reported: Jun 07, 2022
Purchase Order No.
None Received

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: 22M02015
Received: Jun 02, 2022
Reported: Jun 07, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID		22M02015-001						
Customer Sample ID		220531086-01H - Compliance Well sampled on 05/31/22 @ 1130						
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	0.2	1.0	0.1	SM 7110 B	6/6/22 @ 1115	AS
Gross Beta	pCi/L	T	<2.7	2.1	2.7	SM 7110 B	6/6/22 @ 1115	AS

Certification ID's: CO/EPA CO00008

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

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

Customer ID: 20040H
 Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
 Colorado Analytical Laboratories, Inc.

Lab Sample ID			22M02015-002					
Customer Sample ID			220531086-02H - Cross Well					
			sampled on 05/31/22 @ 1255					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	1.5	1.6	0.1	SM 7110 B	6/6/22 @ 1116	AS
Gross Beta	pCi/L	T	<2.8	2.2	2.8	SM 7110 B	6/6/22 @ 1116	AS

Certification ID's: CO/EPA CO00008

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

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



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

Lab Control ID: 22M02015
Received: Jun 02, 2022
Reported: Jun 07, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID		22M02015-003						
Customer Sample ID		220531086-03H - Caribou Well sampled on 05/31/22 @ 1345						
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	0.5	1.0	0.1	SM 7110 B	6/6/22 @ 1117	AS
Gross Beta	pCi/L	T	<3.0	2.0	3.0	SM 7110 B	6/6/22 @ 1117	AS

Certification ID's: CO/EPA CO00008

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

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



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

Lab Control ID: 22M02015
Received: Jun 02, 2022
Reported: Jun 07, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID		22M02015-004						
Customer Sample ID		220531086-04H - Caribou Portal sampled on 05/31/22 @ 1015						
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	5.5	2.2	0.1	SM 7110 B	6/6/22 @ 1118	AS
Gross Beta	pCi/L	T	<3.1	2.3	3.1	SM 7110 B	6/6/22 @ 1118	AS

Certification ID's: CO/EPA CO00008

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

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



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4601 Indiana Street
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Lab Control ID: 22M02015
Received: Jun 02, 2022
Reported: Jun 07, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID		22M02015-005						
Customer Sample ID		220531086-05H - Cross Portal sampled on 05/31/22 @ 0935						
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	1.6	1.4	0.1	SM 7110 B	6/6/22 @ 1119	AS
Gross Beta	pCi/L	T	<3.1	2.3	3.1	SM 7110 B	6/6/22 @ 1119	AS

Certification ID's: CO/EPA CO00008

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

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

HAZEN RESEARCH, INC.
RADIOCHEMISTRY LABORATORY

Date: 06/06/2022

Batch QC Summary Form

Analyte: Gross Alpha

Control Standard/LFB: ID: C-11a_001 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11a_001 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap*

Calculation:
$$\frac{(51.9) (1.000) - (0.7) (0.200)}{57.4} \times 100 = 90\%$$

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>22M01978</u>	<u>22M01914</u>
<u>22M01568</u>	<u>22M02015</u>
<u>22M01979</u>	<u>22M02016</u>
<u>22M01980</u>	<u>22M01998</u>
<u>22M01990</u>	<u>22M01951</u>
<u>22M01991</u>	<u>22M01922</u>
<u>22M01993</u>	_____
<u>22M01995</u>	_____
<u>22M01996</u>	_____
<u>22M02007</u>	_____

Evaluator:

Roxane Sullivan _____

06/08/2022

Date

HAZEN RESEARCH, INC.
RADIOCHEMISTRY LABORATORY

Date: 06/06/2022

Batch QC Summary Form

Analyte: Gross Beta

Control Standard/LFB: ID: C-11a_001 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11a_001 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap*

Calculation: $\frac{(37.1) - (1.000)}{44} \times 100 = 84\%$

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:

22M01978	22M01914
22M01568	22M02015
22M01979	22M02016
22M01980	22M01998
22M01990	22M01951
22M01991	22M01922
22M01993	_____
22M01995	_____
22M01996	_____
22M02007	_____

Evaluator:

 _____

06/08/2022

Date

22NOV2015



Ship To: Hazen Research

Preserved: Y ^(N)

HNO3 Lot #: N/A

Date Preserved: N/A

Report To Information Company Name: Colorado Analytical Laboratory Report To: Stuart Nielson E-Mail: stuartnielson@coloradolab.com	Bill To Information (if different from report to) Address: 10411 Heinz Way Commerce City, CO 80640 Phone: 303-659-2313	Project Name CAL TASK 220531086 JML	Compliance Samples: Yes ☐ No ☒ Submit Data to CDPHE: Yes ☐ No ☒
--	---	---	--

Tests Requested

Sample Date/Time	W	Sample ID	Matrix	Gross Alpha/Beta (Sub)												Container Type
5/31/22 4:45 PM 11:30		220531086-01H - Compliance Well	Water - Ground	X												1L - Unpreserved
5/31/22 4:49 PM 12:55		220531086-02H - Cross Well	Water - Ground	X												1L - Unpreserved
5/31/22 4:49 PM 1:41 S		220531086-03H - Caribou Well	Water - Ground	X												1L - Unpreserved
5/31/22 4:49 PM 1:01 S		220531086-04H - Caribou Portal	Water - Ground	X												1L - Unpreserved
5/31/22 4:49 PM 1:32 S		220531086-05H - Cross Portal	Water - Ground	X												1L - Unpreserved

Comment:

Preserved ~~check~~ 6/2/22 JS
A04 6/2/22 0737 JS

PHV: RG 6/3/22 1006 RG

Relinquished by:	Date: 6/1/22	Received by:	Date: 6/2/22
1030		0723	

FedEx 5816 52918740

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 5/31/22 11:30 AM
Lab Number: 220531086-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.67 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57257	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/8/22	QC57409	ECM
Fluoride	0.33 mg/L	EPA 300.0	0.10 mg/L	6/1/22	QC57258	AMJ
Nitrate Nitrogen	0.18 mg/L	EPA 300.0	0.05 mg/L	6/1/22	QC57259	AMJ
Nitrate/ Nitrite Nitrogen	0.18 mg/L	Calculation	0.05 mg/L	6/3/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/1/22	QC57260	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	4.05 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57261	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/1/22	-	ECM
<u>Dissolved</u>						
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
<u>Total</u>						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.074 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/2/22	QC57302	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/2/22	QC57302	MBN
Barium	0.0246 mg/L	EPA 200.8	0.0007 mg/L	6/2/22	QC57302	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/2/22	QC57302	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Copper	ND	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Lead	0.0006 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml's = Most Probable Number Index/ 100 ml's
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: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 5/31/22 11:30 AM
Lab Number: 220531086-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0109 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Molybdenum	0.0036 mg/L	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/2/22	QC57302	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Zinc	0.139 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/3/22	QC57310	MBN
Calcium	8.7 mg/L	EPA 200.7	0.1 mg/L	6/3/22	QC57310	MBN
Iron	0.059 mg/L	EPA 200.7	0.005 mg/L	6/3/22	QC57310	MBN

Abbreviations/ References:

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

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

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

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Well
Sample Date/Time: 5/31/22 12:55 PM
Lab Number: 220531086-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	26.54 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57257	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/8/22	QC57409	ECM
Fluoride	0.32 mg/L	EPA 300.0	0.10 mg/L	6/1/22	QC57258	AMJ
Nitrate Nitrogen	ND	EPA 300.0	0.05 mg/L	6/1/22	QC57259	AMJ
Nitrate/ Nitrite Nitrogen	ND	Calculation	0.05 mg/L	6/3/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/1/22	QC57260	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	9.69 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57261	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/1/22	-	ECM
Dissolved						
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Total						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.008 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Antimony	0.1885 mg/L	EPA 200.8	0.0012 mg/L	6/2/22	QC57302	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/2/22	QC57302	MBN
Barium	0.0289 mg/L	EPA 200.8	0.0007 mg/L	6/2/22	QC57302	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/2/22	QC57302	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Copper	0.0019 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Lead	0.0034 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 5/31/22 12:55 PM

Lab Number: 220531086-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0146 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/2/22	QC57302	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Thallium	0.0003 mg/L	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Zinc	13.106 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/3/22	QC57310	MBN
Calcium	18.6 mg/L	EPA 200.7	0.1 mg/L	6/3/22	QC57310	MBN
Iron	0.136 mg/L	EPA 200.7	0.005 mg/L	6/3/22	QC57310	MBN

Abbreviations/ References:

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

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID: Caribou Well
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.51 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57257	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/8/22	QC57409	ECM
Fluoride	0.30 mg/L	EPA 300.0	0.10 mg/L	6/1/22	QC57258	AMJ
Nitrate Nitrogen	0.12 mg/L	EPA 300.0	0.05 mg/L	6/1/22	QC57259	AMJ
Nitrate/ Nitrite Nitrogen	0.12 mg/L	Calculation	0.05 mg/L	6/3/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/1/22	QC57260	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	2.72 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57261	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/1/22	-	ECM
<u>Dissolved</u>						
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
<u>Total</u>						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.079 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/2/22	QC57302	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/2/22	QC57302	MBN
Barium	0.0065 mg/L	EPA 200.8	0.0007 mg/L	6/2/22	QC57302	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/2/22	QC57302	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Copper	0.4211 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Lead	0.0006 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
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: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Well

Sample Date/Time: 5/31/22 1:45 PM

Lab Number: 220531086-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0022 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/2/22	QC57302	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Zinc	0.069 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/3/22	QC57310	MBN
Calcium	4.0 mg/L	EPA 200.7	0.1 mg/L	6/3/22	QC57310	MBN
Iron	0.057 mg/L	EPA 200.7	0.005 mg/L	6/3/22	QC57310	MBN

Abbreviations/References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
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: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.47 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57257	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/8/22	QC57409	ECM
Fluoride	0.32 mg/L	EPA 300.0	0.10 mg/L	6/1/22	QC57258	AMJ
Nitrate Nitrogen	0.24 mg/L	EPA 300.0	0.05 mg/L	6/1/22	QC57259	AMJ
Nitrate/ Nitrite Nitrogen	0.24 mg/L	Calculation	0.05 mg/L	6/3/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/1/22	QC57260	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	10.09 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57261	AMJ
Total Coliform	ND	SM 9221-B	1 mpr/100ml	6/1/22	-	ECM
Dissolved						
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Total						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.005 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/2/22	QC57302	MBN
Arsenic	0.0008 mg/L	EPA 200.8	0.0006 mg/L	6/2/22	QC57302	MBN
Barium	0.0614 mg/L	EPA 200.8	0.0007 mg/L	6/2/22	QC57302	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/2/22	QC57302	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Copper	0.0022 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Lead	0.0111 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN

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



Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Total						
Manganese	0.0368 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Molybdenum	0.0059 mg/L	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/2/22	QC57302	MBN
Selenium	0.0010 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Uranium	0.0058 mg/L	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Zinc	0.101 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/3/22	QC57310	MBN
Calcium	27.2 mg/L	EPA 200.7	0.1 mg/L	6/3/22	QC57310	MBN
Iron	0.251 mg/L	EPA 200.7	0.005 mg/L	6/3/22	QC57310	MBN

Abbreviations/References:

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mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpv/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: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 5/31/22 9:35 AM
Lab Number: 220531086-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	1.80 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57257	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/3/22	QC57322	ECM
Fluoride	0.32 mg/L	EPA 300.0	0.10 mg/L	6/1/22	QC57258	AMJ
Nitrate Nitrogen	0.32 mg/L	EPA 300.0	0.05 mg/L	6/1/22	QC57259	AMJ
Nitrate/ Nitrite Nitrogen	0.32 mg/L	Calculation	0.05 mg/L	6/3/22	-	AMJ
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/1/22	QC57260	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	10.68 mg/L	EPA 300.0	0.01 mg/L	6/1/22	QC57261	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/1/22	-	ECM
<u>Dissolved</u>						
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
<u>Total</u>						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.101 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/2/22	QC57302	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/2/22	QC57302	MBN
Barium	0.0542 mg/L	EPA 200.8	0.0007 mg/L	6/2/22	QC57302	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Cadmium	0.0011 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/2/22	QC57302	MBN
Cobalt	0.0002 mg/L	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Copper	0.0049 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Lead	0.0170 mg/L	EPA 200.8	0.0001 mg/L	6/2/22	QC57302	MBN

Abbreviations/ References:

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

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



Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Portal

Sample Date/Time: 5/31/22 9:35 AM

Lab Number: 220531086-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Total						
Manganese	0.0254 mg/L	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Molybdenum	0.0101 mg/L	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/2/22	QC57302	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/2/22	QC57302	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/2/22	QC57302	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Uranium	0.0025 mg/L	EPA 200.8	0.0002 mg/L	6/2/22	QC57302	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Zinc	0.192 mg/L	EPA 200.8	0.001 mg/L	6/2/22	QC57302	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/3/22	QC57310	MBN
Calcium	23.1 mg/L	EPA 200.7	0.1 mg/L	6/3/22	QC57310	MBN
Iron	0.233 mg/L	EPA 200.7	0.005 mg/L	6/3/22	QC57310	MBN

Abbreviations/ References:

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

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

Analytical QC Summary

TASK NO: 220531086

Report To: Patrick Delaney
Company: Grand Island Resources LLC

Receive Date: 5/31/22
Project Name:

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC57257	Blank	ND	EPA 300.0
Cyanide-Free	QC57322	Blank	ND	ASTM D4282-15
	QC57409	Blank	ND	ASTM D4282-15
Fluoride	QC57258	Blank	ND	EPA 300.0
Mercury	QC57364	Method Blank	ND	EPA 245.7
Aluminum	QC57302	Method Blank	ND	EPA 200.8
Antimony	QC57302	Method Blank	ND	EPA 200.8
Arsenic	QC57302	Method Blank	ND	EPA 200.8
Barium	QC57302	Method Blank	ND	EPA 200.8
Beryllium	QC57302	Method Blank	ND	EPA 200.8
Cadmium	QC57302	Method Blank	ND	EPA 200.8
Chromium	QC57302	Method Blank	ND	EPA 200.8
Cobalt	QC57302	Method Blank	ND	EPA 200.8
Copper	QC57302	Method Blank	ND	EPA 200.8
Lead	QC57302	Method Blank	ND	EPA 200.8
Manganese	QC57302	Method Blank	ND	EPA 200.8
Molybdenum	QC57302	Method Blank	ND	EPA 200.8
Nickel	QC57302	Method Blank	ND	EPA 200.8
Selenium	QC57302	Method Blank	ND	EPA 200.8
Silver	QC57302	Method Blank	ND	EPA 200.8
Thallium	QC57302	Method Blank	ND	EPA 200.8
Uranium	QC57302	Method Blank	ND	EPA 200.8
Vanadium	QC57302	Method Blank	ND	EPA 200.8
Zinc	QC57302	Method Blank	ND	EPA 200.8
Boron	QC57310	Method Blank	ND	EPA 200.7
Calcium	QC57310	Method Blank	ND	EPA 200.7
Iron	QC57310	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC57259	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC57260	Blank	ND	EPA 300.0
Phenols - Total	QC57384	Blank	ND	EPA 420.4
Sulfate	QC57261	Blank	ND	EPA 300.0

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC57257	Duplicate	0 - 20	-	1.8	EPA 300.0
		LCS	90 - 110	99.6	-	
		MS	75 - 125	99.0	-	
Cyanide-Free	QC57409	Duplicate	0 - 20	-	0.0	ASTM D4282-15
	QC57322	Duplicate	0 - 20	-	9.1	
	QC57409	LCS	90 - 110	101.9	-	
	QC57322	LCS	90 - 110	102.8	-	
	QC57409	MS	75 - 125	106.5	-	
		MS	75 - 125	112.0	-	

Abbreviations/ References:

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

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Fluoride	QC57322	MSD	0 - 30	-	0.9	EPA 300.0
		MSD	0 - 30	-	3.2	
	QC57258	Duplicate	0 - 20	-	0.5	
		LCS	90 - 110	93.8	-	
Mercury	QC57364	MS	75 - 125	93.2	-	EPA 245.7
		Duplicate	0 - 20	-	0.0	
	QC57302	LCS	90 - 110	93.6	-	
		MS	80 - 120	94.0	-	
Aluminum	QC57302	LCS	90 - 110	98.5	-	EPA 200.8
		MS	70 - 130	78.3	-	
		MSD	0 - 10	-	0.6	
Antimony	QC57302	LCS	90 - 110	105.3	-	EPA 200.8
		MS	70 - 130	104.2	-	
		MSD	0 - 10	-	1.3	
Arsenic	QC57302	LCS	90 - 110	103.7	-	EPA 200.8
		MS	70 - 130	116.7	-	
		MSD	0 - 10	-	4.5	
Barium	QC57302	LCS	90 - 110	101.7	-	EPA 200.8
		MS	70 - 130	87.3	-	
		MSD	0 - 10	-	2.6	
Beryllium	QC57302	LCS	90 - 110	100.9	-	EPA 200.8
		MS	70 - 130	112.6	-	
		MSD	0 - 10	-	2.2	
Cadmium	QC57302	LCS	90 - 110	100.6	-	EPA 200.8
		MS	70 - 130	102.5	-	
		MSD	0 - 10	-	1.5	
Chromium	QC57302	LCS	90 - 110	102.6	-	EPA 200.8
		MS	70 - 130	104.1	-	
		MSD	0 - 10	-	0.5	
Cobalt	QC57302	LCS	90 - 110	104.5	-	EPA 200.8
		MS	70 - 130	101.5	-	
		MSD	0 - 10	-	1.5	
Copper	QC57302	LCS	90 - 110	99.7	-	EPA 200.8
		MS	70 - 130	101.9	-	
		MSD	0 - 10	-	0.8	
Lead	QC57302	LCS	90 - 110	97.2	-	EPA 200.8
		MS	70 - 130	93.7	-	
		MSD	0 - 10	-	1.1	
Manganese	QC57302	LCS	90 - 110	103.6	-	EPA 200.8
		MS	70 - 130	92.4	-	
		MSD	0 - 10	-	0.2	
Molybdenum	QC57302	LCS	90 - 110	100.7	-	EPA 200.8
		MS	70 - 130	96.8	-	
		MSD	0 - 10	-	1.5	
Nickel	QC57302	LCS	90 - 110	102.6	-	EPA 200.8
		MS	70 - 130	100.4	-	
		MSD	0 - 10	-	1.1	
Selenium	QC57302	LCS	90 - 110	102.7	-	EPA 200.8
		MS	70 - 130	120.9	-	
		MSD	0 - 10	-	4.4	
Silver	QC57302	LCS	90 - 110	91.0	-	EPA 200.8

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Thallium	QC57302	MS	70 - 130	83.2	-	EPA 200.8
		MSD	0 - 10	-	1.5	
		LCS	90 - 110	102.4	-	
Uranium	QC57302	MS	70 - 130	97.7	-	EPA 200.8
		MSD	0 - 10	-	1.4	
		LCS	90 - 110	98.2	-	
Vanadium	QC57302	MS	70 - 130	102.0	-	EPA 200.8
		MSD	0 - 10	-	0.5	
		LCS	90 - 110	100.8	-	
Zinc	QC57302	MS	70 - 130	105.4	-	EPA 200.8
		MSD	0 - 10	-	3.7	
		LCS	90 - 110	103.8	-	
Boron	QC57310	MS	70 - 130	108.2	-	EPA 200.8
		MSD	0 - 10	-	3.2	
		LCS	90 - 110	103.8	-	
Calcium	QC57310	Duplicate	0 - 20	-	0.3	EPA 200.7
		LCS	90 - 110	97.9	-	
		MS	75 - 125	112.2	-	
Iron	QC57310	Duplicate	0 - 20	-	0.1	EPA 200.7
		LCS	90 - 110	103.8	-	
		MS	75 - 125	114.9	-	
Nitrate Nitrogen	QC57259	Duplicate	0 - 20	-	4.7	EPA 200.7
		LCS	90 - 110	90.5	-	
		MS	75 - 125	107.6	-	
Nitrite Nitrogen	QC57260	Duplicate	0 - 20	-	3.9	EPA 300.0
		LCS	90 - 110	92.5	-	
		MS	75 - 125	87.3	-	
Phenols - Total	QC57384	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	94.3	-	
		MS	75 - 125	93.6	-	
Sulfate	QC57261	Duplicate	0 - 20	-	0.0	EPA 420.4
		LCS	90 - 110	96.3	-	
		MS	75 - 125	86.1	-	
		Duplicate	0 - 20	-	2.9	EPA 300.0
		LCS	90 - 110	96.4	-	
		MS	75 - 125	87.5	-	

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 ml = Most Probable Number Index/ 100 ml
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.

Colorado
Analytical
LABORATORIES, INC.

Commerce City Lab
10411 Heinz Way
Commerce City CO 80640

Lakewood Service Center
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313

www.coloradolab.com

CIS Info:	Delivered:	Rel:
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eTime:		
3-22		
Page 14 of 16		

CAL Task

220531086

JML

Colorado
Analytical

LABORATORIES, INC.

Quotation for Analytical Services

Quote ID: QBO22050014

Prepared For: **Grand Island Resources LLC**

12567 W Cedar Dr

Suite 250

Lakewood, CO 80228

Quote Date: **Wednesday, May 4, 2022**

Turn Around Time: **10 Working Days**

Attn: **Brooke Molson-Moran**

Project:

Matrix	Description	Method	Qty.	Price - each	Total
Water - Ground	Langlier Index	N/A	5	\$60.00	\$300.00
Water - Ground	Alkalinity	SM 2320-B	5	Incl.	Incl.
Water - Ground	Ca as CaCO ₃	EPA 200.7	5	Incl.	Incl.
Water - Ground	Carb/ Bicarb	SM 2320-B	5	Incl.	Incl.
Water - Ground	Lang Index	SM 2330-B	5	Incl.	Incl.
Water - Ground	pH/ Temp	SM 4500-H-B	5	Incl.	Incl.
Water - Ground	TDS	SM 2540-C	5	Incl.	Incl.
Water - Ground	Nitrate/ Nitrite Nitrogen	Calculation	5	\$0.00	\$0.00
Water - Ground	B - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Ca - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Fe - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Ag - Dis	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ag - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Al - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	As - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ba - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Be - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cd - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Co - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cr - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cu - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Mn - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Mo - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ni - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Pb - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Sb - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Se - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ti - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	V - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Zn - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Chloride	EPA 300.0	5	\$18.00	\$90.00

Page 1 of 5

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

JAK

CAL Task
220531086

JML

**Colorado
Analytical**

LABORATORIES, INC.

Quotation for Analytical Services

Quote ID: QBO22050014

Water - Ground	Fluoride	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Nitrate Nitrogen	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Nitrite Nitrogen	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Sulfate	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	U - Total	EPA 200.8	5	\$23.00	\$115.00
Water - Ground	Hg	EPA 245.7	5	\$27.00	\$135.00
Water - Ground	Total Coliform	SM 9221-B	5	\$27.00	\$135.00
Water - Ground	Cyanide - Free	ASTM D4282-15	5	\$40.00	\$200.00
Water - Ground	Phenols	EPA 420.4	5	\$55.00	\$275.00
Water - Ground	Metals (Sub)	EPA 200.7/EPA 200.8	5	\$67.20	\$336.00
Water - Ground	Gross Alpha/Beta (Sub)	SM 7110-B	5	\$68.40	\$342.00
Water - Ground	Asbestos (Sub)	TEM	5	\$120.00	\$600.00
Water - Ground	625 SOC's	EPA 625	5	\$225.00	\$1,125.00
Shipping	Sample Shipment to Outside Lab	UPS	2	\$30.00	\$60.00
Shipping	Ext. Sample Shipment to Outside Lab	UPS or FedEx	1	\$50.00	\$50.00

Metals (sub) for lithium

\$5,838.00

****Samples should be shipped or hand delivered the same day they are collected.****

Colorado Analytical Laboratory maintains certification by the Colorado Department of Health (CDPHE) and EPA Region 8 for Wyoming and Tribal Public Water Systems to analyze drinking water for organic contaminants (SOC's VOC's), inorganic contaminants (metals), nitrate nitrite, cyanide, fluoride and coliform bacteria.

Sub-Contract analysis pricing subject to change. Sub-Contract radiological analysis turn-around time is 4 to 8 weeks depending on sample matrix. Due to time, distance and other constraints outside of the control of CAL shipments to sub labs are not guaranteed. All shipment charges will be billed to the client regardless of shipment outcome.

Billing terms are Net 30 on approved accounts, all other accounts are COD. Additional charges may apply for accelerated turn around.

We appreciate the opportunity to be of service to you. If you have questions please call us at 303-659-2313 or visit us at www.coloradolab.com

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 5/31/22 11:30 AM
Lab Number: 220531086-01

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

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 5/31/22 11:30 AM
Lab Number: 220531086-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Acenaphthylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Benzidine	< 150.0 ug/L	EPA 625	150.0 ug/L	6/2/22	MBS
Benzo(a)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Benzo(a)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Benzo(b)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Benzo(g,h,i)perylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Benzo(k)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Bis(2-chloroethoxy) methane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Bis(2-chloroethyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Bis(2-chloroisopropyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Bis(2-ethylhexyl) phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Butylbenzylphthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Chrysene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Dibenzo(a,h)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Diethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Dimethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Di-n-butyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Di-n-octyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Fluorene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Hexachlorobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 5/31/22 11:30 AM
Lab Number: 220531086-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Hexachlorobutadiene	< 9.0 ug/L	EPA 625	9.0 ug/L	6/2/22	MBS
Hexachlorocyclopentadiene	< 50.0 ug/L	EPA 625	50.0 ug/L	6/2/22	MBS
Hexachloroethane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Indeno(1,2,3-cd)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Isophorone	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Naphthalene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Nitrobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
n-Nitrosodimethylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
n-Nitroso-di-n-propylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Pentachlorophenol	< 36.0 ug/L	EPA 625	36.0 ug/L	6/2/22	MBS
Phenanthrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Phenol	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS
Pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/2/22	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	1.9	16 - 145
2-Fluorobiphenyl	90.3	60 - 140
2-Fluorophenol	91.9	60 - 140
Nitrobenzene-d5	99.9	15 - 314
Phenol-d5	96.3	8 - 424
p-Terphenyl-d14	90.8	44 - 135

Abbreviations/ References:

ML = Minimum Level = LRL = RL
 MCL = Maximum Contaminant Level per The EPA
 mg/L = Milligrams Per Liter or PPM
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 mpn/100 ml = Most Probable Number Index/ 100 ml
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 Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507
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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 5/31/22 12:55 PM

Lab Number: 220531086-02

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

Abbreviations/ References:

ML = Minimum Level = LRL = RL

MCL = Maximum Contaminant Level per The EPA

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mpn/100 mls = Most Probable Number Index/ 100 mls

Date Analyzed = Date Test Completed

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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 5/31/22 12:55 PM

Lab Number: 220531086-02

Test	Result	Method	ML	Date Analyzed	Analyzed By
Acenaphthylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benidine	< 150.0 ug/L	EPA 625	150.0 ug/L	6/3/22	MBS
Benzo(a)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(a)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(b)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(g,h,i)perylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(k)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethoxy) methane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroisopropyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-ethylhexyl) phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Butylbenzylphthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Chrysene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dibenzo(a,h)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Diethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dimethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-butyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-octyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluorene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Hexachlorobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Abbreviations/ References:

ML = Minimum Level = LRL = RL

MCL = Maximum Contaminant Level per The EPA

mg/L = Milligrams Per Liter or PPM

ug/L = Micrograms Per Liter or PPB

mpn/100 ml = Most Probable Number Index/ 100 ml

Date Analyzed = Date Test Completed



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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 5/31/22 12:55 PM

Lab Number: 220531086-02

Test	Result	Method	ML	Date Analyzed	Analyzed By
Hexachlorobutadiene	< 9.0 ug/L	EPA 625	9.0 ug/L	6/3/22	MBS
Hexachlorocyclopentadiene	< 50.0 ug/L	EPA 625	50.0 ug/L	6/3/22	MBS
Hexachloroethane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Indeno(1,2,3-cd)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Isophorone	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Naphthalene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Nitrobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodimethylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitroso-di-n-propylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pentachlorophenol	< 36.0 ug/L	EPA 625	36.0 ug/L	6/3/22	MBS
Phenanthrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Phenol	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	16.2	16 - 145
2-Fluorobiphenyl	90.4	60 - 140
2-Fluorophenol	92.0	60 - 140
Nitrobenzene-d5	99.1	15 - 314
Phenol-d5	95.0	8 - 424
p-Terphenyl-d14	89.3	44 - 135

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
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



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-03

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

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-03

Test	Result	Method	ML	Date Analyzed	Analyzed By
Acenaphthylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzidine	< 150.0 ug/L	EPA 625	150.0 ug/L	6/3/22	MBS
Benzo(a)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(a)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(b)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(g,h,i)perylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(k)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethoxy) methane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroisopropyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-ethylhexyl) phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Butylbenzylphthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Chrysene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dibenzo(a,h)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Diethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dimethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-butyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-octyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluorene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Hexachlorobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 5/31/22 1:45 PM
Lab Number: 220531086-03

Test	Result	Method	ML	Date Analyzed	Analyzed By
Hexachlorobutadiene	< 9.0 ug/L	EPA 625	9.0 ug/L	6/3/22	MBS
Hexachlorocyclopentadiene	< 50.0 ug/L	EPA 625	50.0 ug/L	6/3/22	MBS
Hexachloroethane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Indeno(1,2,3-cd)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Isophorone	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Naphthalene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Nitrobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodimethylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitroso-di-n-propylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pentachlorophenol	< 36.0 ug/L	EPA 625	36.0 ug/L	6/3/22	MBS
Phenanthrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Phenol	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	10.3	16 - 145
2-Fluorobiphenyl	91.4	60 - 140
2-Fluorophenol	98.2	60 - 140
Nitrobenzene-d5	103.9	15 - 314
Phenol-d5	103.6	8 - 424
p-Terphenyl-d14	91.1	44 - 135

Abbreviations/ References:

ML = Minimum Level = LRL = RL
 MCL = Maximum Contaminant Level per The EPA
 mg/L = Milligrams Per Liter or PPM
 ug/L = Micrograms Per Liter or PPB
 mpn/100 ml = Most Probable Number Index/ 100 ml
 Date Analyzed = Date Test Completed

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10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313
 Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507
 Page 9 of 18

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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 5/31/22 10:15 AM
Lab Number: 220531086-04

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

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpv/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

DATA APPROVED FOR RELEASE BY

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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507
Page 10 of 18

220531086
10 / 15

Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 5/31/22 10:15 AM
Lab Number: 220531086-04

Test	Result	Method	ML	Date Analyzed	Analyzed By
Acenaphthylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzidine	< 150.0 ug/L	EPA 625	150.0 ug/L	6/3/22	MBS
Benzo(a)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(a)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(b)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(g,h,i)perylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(k)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethoxy) methane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroisopropyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-ethylhexyl) phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Butylbenzylphthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Chrysene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dibenzo(a,h)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Diethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dimethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-butyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-octyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluorene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Hexachlorobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 5/31/22 10:15 AM
Lab Number: 220531086-04

Test	Result	Method	ML	Date Analyzed	Analyzed By
Hexachlorobutadiene	< 9.0 ug/L	EPA 625	9.0 ug/L	6/3/22	MBS
Hexachlorocyclopentadiene	< 50.0 ug/L	EPA 625	50.0 ug/L	6/3/22	MBS
Hexachloroethane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Indeno(1,2,3-cd)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Isophorone	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Naphthalene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Nitrobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodimethylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitroso-di-n-propylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pentachlorophenol	< 36.0 ug/L	EPA 625	36.0 ug/L	6/3/22	MBS
Phenanthrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Phenol	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	5.5	16 - 145
2-Fluorobiphenyl	93.7	60 - 140
2-Fluorophenol	94.3	60 - 140
Nitrobenzene-d5	101.4	15 - 314
Phenol-d5	99.5	8 - 424
p-Terphenyl-d14	93.3	44 - 135

Abbreviations/ References:

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MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 5/31/22 9:35 AM
Lab Number: 220531086-05

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

Abbreviations/ References:

ML = Minimum Level = LRL = RL
MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed



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Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Portal

Sample Date/Time: 5/31/22 9:35 AM

Lab Number: 220531086-05

Test	Result	Method	ML	Date Analyzed	Analyzed By
Acenaphthylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzidine	< 150.0 ug/L	EPA 625	150.0 ug/L	6/3/22	MBS
Benzo(a)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(a)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(b)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(g,h,i)perylene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Benzo(k)fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethoxy) methane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroethyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-chloroisopropyl) ether	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Bis(2-ethylhexyl) phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Butylbenzylphthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Chrysene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dibenzo(a,h)anthracene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Diethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Dimethyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-butyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Di-n-octyl phthalate	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluoranthene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Fluorene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Hexachlorobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Abbreviations/ References:

ML = Minimum Level = LRL = RL

MCL = Maximum Contaminant Level per The EPA

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

DATA APPROVED FOR RELEASE BY

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



Analytical Results

TASK NO: 220531086

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.: 220531086
Client PO:
Client Project:

Date Received: 5/31/22
Date Reported: 6/21/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 5/31/22 9:35 AM
Lab Number: 220531086-05

Test	Result	Method	ML	Date Analyzed	Analyzed By
Hexachlorobutadiene	< 9.0 ug/L	EPA 625	9.0 ug/L	6/3/22	MBS
Hexachlorocyclopentadiene	< 50.0 ug/L	EPA 625	50.0 ug/L	6/3/22	MBS
Hexachloroethane	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Indeno(1,2,3-cd)pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Isophorone	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Naphthalene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Nitrobenzene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodimethylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitroso-di-n-propylamine	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pentachlorophenol	< 36.0 ug/L	EPA 625	36.0 ug/L	6/3/22	MBS
Phenanthrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Phenol	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS
Pyrene	< 10.0 ug/L	EPA 625	10.0 ug/L	6/3/22	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	9.1	16 - 145
2-Fluorobiphenyl	94.7	60 - 140
2-Fluorophenol	97.3	60 - 140
Nitrobenzene-d5	102.9	15 - 314
Phenol-d5	103.2	8 - 424
p-Terphenyl-d14	93.7	44 - 135

Abbreviations/ References:

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MCL = Maximum Contaminant Level per The EPA
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
Date Analyzed = Date Test Completed

DATA APPROVED FOR RELEASE BY

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507
Page 15 of 18

220531086
15 / 15

Colorado
Analytical
LABORATORIES, INC.

Report To Information		Bill To Information (If different from report to)		Project Information	
Company Name: <u>Grand Island Resources</u>		Company Name: <u>Credit Card</u>		PWSID:	
Contact Name: <u>Patrick Delaney</u>		Contact Name:		System Name:	
Address: <u>12567 W. Cedar Dr</u>		Address:		Compliance Samples: Yes ☐ No ☐	
<u>Ste. 250</u>		City:		Send Results to CDPHE: Yes ☐ No ☐	
City: <u>Lakewood</u>		State: <u>NC</u>		Task Number	
Zip: <u>80228</u>		Zip:		(Lab Use Only)	
Phone: <u>315-414-6986</u>		Phone:		CAL Task	
Email: <u>pdelaney@blackfoxmining.com</u>		Email:		220531086	
Sample Collector: <u>BM</u>		Sample Collector:		JML	
Sample Collector Phone: <u>303-506-1618</u>		Sample Collector Phone:			

[illegible]

CAL Task

220531086

JML

Colorado
Analytical

LABORATORIES, INC.

Quotation for Analytical Services

Quote ID: QBO22050014

Prepared For: **Grand Island Resources LLC**
12567 W Cedar Dr
Suite 250
Lakewood, CO 80228

Quote Date: **Wednesday, May 4, 2022**
Turn Around Time: **10 Working Days**

Attn: **Brooke Molson-Moran**

Project:

Matrix	Description	Method	Qty.	Price - each	Total
Water - Ground	Langelier Index	N/A	5	\$60.00	\$300.00
Water - Ground	Alkalinity	SM 2320-B	5	Incl.	Incl.
Water - Ground	Ca as CaCO ₃	EPA 200.7	5	Incl.	Incl.
Water - Ground	Carb/ Bicarb	SM 2320-B	5	Incl.	Incl.
Water - Ground	Lang Index	SM 2330-B	5	Incl.	Incl.
Water - Ground	pH/ Temp	SM 4500-H-B	5	Incl.	Incl.
Water - Ground	TDS	SM 2540-C	5	Incl.	Incl.
Water - Ground	Nitrate/ Nitrite Nitrogen	Calculation	5	\$0.00	\$0.00
Water - Ground	B - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Ca - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Fe - Total	EPA 200.7	5	\$13.00	\$65.00
Water - Ground	Ag - Dis	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ag - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Al - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	As - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ba - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Be - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cd - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Co - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cr - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Cu - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Mn - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Mo - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Ni - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Pb - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Sb - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Se - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Tl - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	V - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Zn - Total	EPA 200.8	5	\$16.00	\$80.00
Water - Ground	Chloride	EPA 300.0	5	\$18.00	\$90.00

Page 1 of 5

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

JAK

CAL Task
220531086

JML



LABORATORIES, INC.

Quotation for Analytical Services

Quote ID: QBO22050014

Water - Ground	Fluoride	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Nitrate Nitrogen	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Nitrite Nitrogen	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	Sulfate	EPA 300.0	5	\$18.00	\$90.00
Water - Ground	U - Total	EPA 200.8	5	\$23.00	\$115.00
Water - Ground	Hg	EPA 245.7	5	\$27.00	\$135.00
Water - Ground	Total Coliform	SM 9221-B	5	\$27.00	\$135.00
Water - Ground	Cyanide - Free	ASTM D4282-15	5	\$40.00	\$200.00
Water - Ground	Phenols	EPA 420.4	5	\$55.00	\$275.00
Water - Ground	Metals (Sub)	EPA 200.7/EPA 200.8	5	\$67.20	\$336.00
Water - Ground	Gross Alpha/Beta (Sub)	SM 7110-B	5	\$68.40	\$342.00
Water - Ground	Asbestos (Sub)	TEM	5	\$120.00	\$600.00
Water - Ground	625 SOC's	EPA 625	5	\$225.00	\$1,125.00
Shipping	Sample Shipment to Outside Lab	UPS	2	\$30.00	\$60.00
Shipping	Ext. Sample Shipment to Outside Lab	UPS or FedEx	1	\$50.00	\$50.00

Metals (sub) for lithium

\$5,838.00

****Samples should be shipped or hand delivered the same day they are collected.****

Colorado Analytical Laboratory maintains certification by the Colorado Department of Health (CDPHE) and EPA Region 8 for Wyoming and Tribal Public Water Systems to analyze drinking water for organic contaminants (SOC's VOC's), inorganic contaminants (metals), nitrate nitrite, cyanide, fluoride and coliform bacteria.

Sub-Contract analysis pricing subject to change. Sub-Contract radiological analysis turn-around time is 4 to 8 weeks depending on sample matrix. Due to time, distance and other constraints outside of the control of CAL shipments to sub labs are not guaranteed. All shipment charges will be billed to the client regardless of shipment outcome.

Billing terms are Net 30 on approved accounts, all other accounts are COD. Additional charges may apply for accelerated turn around.

We appreciate the opportunity to be of service to you. If you have questions please call us at 303-659-2313 or visit us at www.coloradolab.com

Laboratory ID: 0055

National Testing Laboratories, Ltd

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

ANALYTICAL REPORTS

SAMPLE CODE: 432010

6/7/2022

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

Source: Cross Portal
Source City: Nederland
Source State: CO

Date/Time Received: 6/1/2022 09:02

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
1905	Apparent Color	2120B	15	CU	3	ND	1	5/31/2022 11:35		6/1/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	5/31/2022 11:35		6/1/2022 13:20
MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole										
1920	Odor Threshold	2150B	3	ton	1	ND	1	5/31/2022 11:35		6/1/2022 11:25

Analyst	Tests
SP	2120B,5540C,2150B



Sarah Buchanan, Project Manager

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laboratory ID: 0055

National Testing Laboratories, Ltd

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

ANALYTICAL REPORTS

SAMPLE CODE: 432011

6/7/2022

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

Source: Caribou Portal
Source City: Nederland
Source State: CO

Date/Time Received: 6/1/2022 09:02

Collected by: B. Moran

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

Legend:

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

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"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

ed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
905	Apparent Color	2120B	15	CU	3	ND	1	5/31/2022 12:15		6/1/2022 12:50
905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	5/31/2022 12:15		6/1/2022 13:20
			MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole							
920	Odor Threshold	2150B	3	ton	1	ND	1	5/31/2022 12:15		6/1/2022 11:25

Analyst	Tests
SP	2120B,5540C,2150B



Sarah Buchanan, Project Manager

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National Testing Laboratories, Ltd

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

ANALYTICAL REPORTS

SAMPLE CODE: 432012

6/7/2022

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

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

Date/Time Received: 6/1/2022 09:02

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
1905	Apparent Color	2120B	15	CU	3	ND	1	5/31/2022 13:30		6/1/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	5/31/2022 13:30		6/1/2022 13:20
MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole										
1920	Odor Threshold	2150B	3	ton	1	ND	1	5/31/2022 13:30		6/1/2022 11:25

Analyst	Tests
SP	2120B,5540C,2150B



Sarah Buchanan, Project Manager

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laboratory ID: 0055

National Testing Laboratories, Ltd

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

ANALYTICAL REPORTS

SAMPLE CODE: 432013

6/7/2022

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

Source: Cross Well
Source City: Nederland
Source State: CO

Date/Time Received: 6/1/2022 09:02

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

ed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
905	Apparent Color	2120B	15	CU	3	ND	1	5/31/2022 14:55		6/1/2022 12:50
905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	5/31/2022 14:55		6/1/2022 13:20
			MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole							
920	Odor Threshold	2150B	3	ton	1	ND	1	5/31/2022 14:55		6/1/2022 11:25

Analyst	Tests
SP	2120B,5540C,2150B



Sarah Buchanan, Project Manager

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Laboratory ID: 0055

National Testing Laboratories, Ltd

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

ANALYTICAL REPORTS

SAMPLE CODE: 432014

6/7/2022

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

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

Date/Time Received: 6/1/2022 09:02

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
1905	Apparent Color	2120B	15	CU	3	ND	1	5/31/2022 15:45		6/1/2022 12:50
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	5/31/2022 15:45		6/1/2022 13:20
		MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole								
1920	Odor Threshold	2150B	3	ton	1	ND	1	5/31/2022 15:45		6/1/2022 11:25

Analyst	Tests
SP	2120B,5540C,2150B



Sarah Buchanan, Project Manager

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Built Environment Reservoirs

June 11, 2022

Subcontractor Number:

Laboratory Report: RES 526920-1

Project #/P.O. #: 220602147

Project Description: Grand Island Resources

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

Dear Jessi,

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

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

RES 526920-1 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 Zimelman

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 526920-1
Client: Colorado Analytical Laboratories, Inc.
Client Project/P.O.: 220602147
Client Project Description: Grand Island Resources
Date Samples Received: June 03, 2022
Analysis Type: REI TEM SOP / USEPA 100.2-M
Turnaround: Standard 10
Date Samples Analyzed: June 11, 2022

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

Laboratory Sample ID	Client ID Number	Aliquot Deposited on Filter (ml)	Dilution Factor	Total Number of Asbestos Structures Detected	Greater than 10 Micron Length Asbestos Structures Detected	Analytical Sensitivity (million struct/L)	Asbestos Concentration	Greater than 10 Micron Length Asbestos Concentration
526920 -	220602147-01G Cross Portal	20	1	ND	ND	0.17	BAS	BAS
526920 -	220602147-02G Caribou Portal	20	1	ND	ND	0.17	BAS	BAS
526920 -	220602147-03G Compliance Well	20	1	ND	ND	0.17	BAS	BAS
526920 -	220602147-04G Cross Well	20	1	ND	ND	0.17	BAS	BAS
526920 -	220602147-05G Caribou Well	20	1	ND	ND	0.17	BAS	BAS

Filter Material = Mixed Cellulose Ester

Filter Diameter = 25mm

Effective Filter Area = 0mm²Average Grid Opening = 0.010mm²

Norberta Zimbelman

Analyst

RES Job #: 526920

SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES
Company:	Colorado Analytical Laboratories, Inc.	Company:	Colorado Analytical Laboratories, Inc.	Contact:	Jessi Lupfer	-1 TEM Standard 10
Address:	10411 Heinz Way	Address:	10411 Heinz Way	Phone:	(303) 659-2313	
				Fax:		
				Cell:		
Commerce City, CO 80640		Commerce City, CO 80640		Final Data Deliverable Email Address:		
Project Number and/or P.O. #		220602147		jessilupfer@coloradolab.com (~ 4 ADDNL CONTACTS)		
Project Description/Location:		Grand Island Resources				

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm				REQUESTED ANALYSIS				VALID MATRIX CODES				LAB NOTES	
PLM / PCM / TEM		DTL RUSH PRIORITY STANDARD		MICROBIOLOGY				CHEMISTRY				LABORATORY ANALYSIS INSTRUCTIONS	
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm				PLM - Short Report, Long Report, CARB 435 TEM - Drinking Water (EPA 100.2) PCM - 7400A, 7400B, OSHA DUST - Total, Respirable METALS - Arsenic(s) Lead Only (7052, 7420, Waste Water, Foodware, OSHA ID-1250) pH (Liquid or Non-Liquid), TCLP, NIOSH Scan, Wetting Furnace Scan, Full Metals Scan ORGANICS - Methylenetetrazine, TSS VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or T-2), Listeria, Count, Coliforms, colic (Stare Water, Drinking Water, Non-Drinking Water, +), E. coli O157 H7, E. coli Coliforms - Pooled, S aureus, Yeast & Mold, Aerobic Plate Count, Coliforms, colic (Stare Water, Drinking Water, Non-Drinking Water, +), Enterococcus (+/-) or Quantification), Legionella (P, NP, C) MEDICAL - (biohazard, LAL) MOLD - Spore Tap, Bulk Mold, Particulate Identification				Air = A Bulk = B Dust = D Food = F Paint = P Soil = S Surface = SU Swab = SW Tape = T Wipe = W Drinking Water = DW Waste Water = WW **ASTM E1792 approved wipe media only**					
Dust													
Metals													
Organics*													
MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm													
Viable Analysis**													
Medical Device Analysis													
Mold Analysis													
Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays. Special Instructions:													
Client Sample ID Number													
1 220602147-01G Cross Portal													
2 220602147-02G Caribou Portal													
3 220602147-03G Compliance Well													
4 220602147-04G Cross Well													
5 220602147-05G Caribou Well													

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

Relinquished By: 	Jessi Lupfer	Date/Time: 06/03/2022 9:32:11	Sample Condition: Acceptable
Received By: 	Jessica Shapiro	Date/Time: 06/03/2022 13:52:51	Carrier: Fed-Ex

5001 Logan St, Suite 100 Denver, CO 80216
 Page 1 of 1

(303) 954-1986
 (866) RES-ENV

<http://clients.zellab.com>
www.zellab.com

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water	Analysis Date	06/11/2022
Voltage	100KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526920-1	Date Received	06/03/2022
Primary Filter Area (mm²)		Sec. Filter Area (mm²)	346	Grid Opening Area (mm²)	0.01
Sample ID	220602147-01G Cross Portal	Method	EPA 100.2	Scope Align	06/11/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	G4-3	ND									
	F4-3	ND									
	E4-3	ND									
	C4-3	ND									
B	B4-6	ND								Yes	
	E4-3	ND									
	C4-6	ND									
	B4-6	ND									
	A4-6	ND									
	B3-3	ND									

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.			Analyzed By	NZ
Primary Scope	JEM-1200EX	Sample Type	Water			Analysis Date	06/11/2022
Voltage	100KV	Volume (L)	1			Prep Method	Direct
Magnification	20000	Res Number	526920-1			Date Received	06/03/2022
Primary Filter Area (mm ²)		Sec. Filter Area (mm ²)	346			Grid Opening Area (mm ²)	0.01
Sample ID	220602147-02G Caribou Portal	Method	EPA 100.2			Scope Align	06/11/2022
Suspension		Aliquot	20			Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	E3-1	ND								Yes	
	E4-4	ND									
	C4-4	ND									
	B4-4	ND									
	F4-4	ND									
B	G4-4	ND								Yes	
	F4-4	ND									
	E4-4	ND									
	C4-4	ND									
	B4-4	ND									

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs				Client	Colorado Analytical Laboratories, Inc.		Analyzed By	NZ
Primary Scope					Sample Type	Water		Analysis Date	06/11/2022
Voltage	0KV				Volume (L)	1		Prep Method	Direct
Magnification	20000				Res Number	526920-1		Date Received	06/03/2022
Primary Filter Area (mm²)					Sec. Filter Area (mm²)	346		Grid Opening Area (mm²)	0.01
Sample ID	220602147-03G Compliance Well				Method	EPA 100.2		Scope Align	06/11/2022
Suspension					Aliquot	20		Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	F4-4	ND									
	E4-4	ND									
	C4-4	ND									
	B4-4	ND									
	E5-4	ND								Yes	
	C5-4	ND									
B	E4-4	ND									
	C4-4	ND									
	B4-4	ND									
	F3-3	ND								Yes	

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope		Sample Type	Water	Analysis Date	06/11/2022
Voltage	0KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526920-1	Date Received	06/03/2022
Primary Filter Area (mm ²)		Sec. Filter Area (mm ²)	346	Grid Opening Area (mm ²)	0.01
Sample ID	220602147-04G Cross Well	Method	EPA 100.2	Scope Align	06/11/2022
Suspension		Alliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
B	H4-4	ND								Yes	
	H4-1	ND									
	G4-1	ND									
	F4-1	ND									
	F3-4	ND									
A	C4-1	ND									
	B4-4	ND									
	B4-1	ND									
	E2-3	ND									
	C2-3	ND								Yes	

*NAM = Non Asbestos Material

Lab Name	Eurofins Reservoirs	Client	Colorado Analytical Laboratories, Inc.	Analyzed By	NZ
Primary Scope		Sample Type	Water	Analysis Date	06/11/2022
Voltage	0KV	Volume (L)	1	Prep Method	Direct
Magnification	20000	Res Number	526920-1	Date Received	06/03/2022
Primary Filter Area (mm ²)		Sec. Filter Area (mm ²)	346	Grid Opening Area (mm ²)	0.01
Sample ID	220602147-05G Caribou Well	Method	EPA 100.2	Scope Align	06/11/2022
Suspension		Aliquot	20	Grid Openings	10

Grid	GO	Type	Count	Total	Length	Width	ID	Mineral Class	Comments	Photo	EDS
A	C3-3	ND									
	C3-6	ND									
	B3-6	ND									
	B3-3	ND									
	C4-3	ND								Yes	
	B4-3	ND									
B	F3-3	ND									
	E3-6	ND									
	C3-6	ND									
	B3-6	ND									

*NAM = Non Asbestos Material

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID: Cross Portal
Sample Date/Time: 6/2/22 11:45 AM
Lab Number: 220602147-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	53.8 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Calcium as CaCO ₃	46.3 mg/L	EPA 200.7	0.1 mg/L	6/7/22	-	MBN
Carbonate	17.4 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Langelier Index	0.84 units	SM 2330-B	units	6/9/22	-	SAN
pH	9.10 units	SM 4500-H-B	0.01 units	6/2/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	6/2/22	-	AKF
Total Alkalinity	71.2 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/7/22	QC57387	TAB
Total Dissolved Solids	103 mg/L	SM 2540-C	5 mg/L	6/7/22	QC57354	DEK

Abbreviations/References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
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: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID: Caribou Portal
Sample Date/Time: 6/2/22 1:00 PM
Lab Number: 220602147-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	116.0 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Calcium as CaCO ₃	62.8 mg/L	EPA 200.7	0.1 mg/L	6/7/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Langelier Index	0.03 units	SM 2330-B	units	6/9/22	-	SAN
pH	7.95 units	SM 4500-H-B	0.01 units	6/2/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	6/2/22	-	AKF
Total Alkalinity	116.0 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/7/22	QC57387	TAB
Total Dissolved Solids	141 mg/L	SM 2540-C	5 mg/L	6/7/22	QC57354	DEK

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 6/2/22 12:30 PM
Lab Number: 220602147-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	40.1 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Calcium as CaCO ₃	22.9 mg/L	EPA 200.7	0.1 mg/L	6/7/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Langelier Index	-2.36 units	SM 2330-B	units	6/9/22	-	SAN
pH	6.39 units	SM 4500-H-B	0.01 units	6/2/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	6/2/22	-	AKF
Total Alkalinity	40.1 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/7/22	QC57387	TAB
Total Dissolved Solids	63 mg/L	SM 2540-C	5 mg/L	6/7/22	QC57354	DEK

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 6/2/22 12:10 PM

Lab Number: 220602147-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	66.0 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Calcium as CaCO ₃	47.6 mg/L	EPA 200.7	0.1 mg/L	6/7/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Langelier Index	-2.29 units	SM 2330-B	units	6/9/22	-	SAN
pH	5.99 units	SM 4500-H-B	0.01 units	6/2/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	6/2/22	-	AKF
Total Alkalinity	66.0 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/7/22	QC57387	TAB
Total Dissolved Solids	137 mg/L	SM 2540-C	5 mg/L	6/8/22	QC57380	DEK

Abbreviations/References:

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

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



Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 6/2/22 2:00 PM
Lab Number: 220602147-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Bicarbonate	19.0 mg/L as CaCO ₃	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Calcium as CaCO ₃	9.3 mg/L	EPA 200.7	0.1 mg/L	6/7/22	-	MBN
Carbonate	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Hydroxide	ND	SM 2320-B	0.2 mg/L as CaCO ₃	6/7/22	-	TAB
Langelier Index	-4.04 units	SM 2330-B	units	6/9/22	-	SAN
pH	5.42 units	SM 4500-H-B	0.01 units	6/2/22	-	AKF
Temperature	20 °C	SM 4500-H-B	1 °C	6/2/22	-	AKF
Total Alkalinity	19.0 mg/L as CaCO ₃	SM 2320-B	4.0 mg/L as CaCO ₃	6/7/22	QC57387	TAB
Total Dissolved Solids	45 mg/L	SM 2540-C	5 mg/L	6/8/22	QC57380	DEK

Abbreviations/ References:

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

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

**Analytical QC
Summary**
TASK NO: 220602147

Report To: Patrick Delaney
Company: Grand Island Resources LLC

Receive Date: 6/2/22
Project Name:

Test	QC Batch ID	QC Type	Result	Method
Total Alkalinity	QC57387	Blank	ND	SM 2320-B
Total Dissolved Solids	QC57380	Blank	ND	SM 2540-C
	QC57354	Blank	ND	SM 2540-C

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Total Alkalinity	QC57387	Duplicate	0 - 20	-	0.8	SM 2320-B
		LCS	90 - 110	105.8	-	
		LCS-2	90 - 110	104.7	-	
Total Dissolved Solids	QC57354	Duplicate	0 - 20	-	3.3	SM 2540-C
	QC57380	Duplicate	0 - 20	-	3.0	
	QC57354	LCS	85 - 115	99.3	-	
	QC57380	LCS	85 - 115	99.1	-	

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

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



Commerce City Lab
10411 Heinz Way
Commerce City CO 80640

Lakewood Service Center
12860 W. Cedar Dr, Suite 1
Lakewood CO 80228

Phone: 303-659-2313

www.coloradolab.com

Report To Information	Bill To Information (if different from report to)	Project Name / Number
Company Name: <u>Grand Island Resources</u> Contact Name: <u>Patrick Delaney</u>	Company Name: <u>Credit Card</u> Contact Name: _____	Task Number (Lab Use Only) CAL Task 220602147 JML
Address: <u>12567 W. Cedar Dr. Ste 250</u> <u>CityLakeview</u> State <u>CO</u> Zip <u>80228</u> Phone: <u>315-414-6986</u> Email: <u>pdelaney@blackfoxmining.com</u> Sample Collector: <u>BM</u> Sample Collector Phone: <u>303-506-1618</u>	Address: _____ City _____ State _____ Zip _____ Phone: _____	

[illegible]



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Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

ANALYTICAL SUMMARY REPORT

June 23, 2022

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

Work Order: C22060310

Project Name: 220602147

Energy Laboratories, Inc. Casper WY received the following 5 samples for Colorado Analytical Laboratories Inc on 6/7/2022 for analysis.

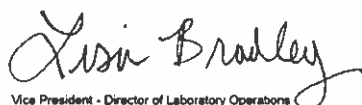
Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C22060310-001	220602147-01F-Cross Portal	06/02/22 11:45	06/07/22	Groundwater	Metals by ICP/ICPMS, Total Metals Preparation by EPA 200.2
C22060310-002	220602147-02F-Caribou Portal	06/02/22 13:00	06/07/22	Groundwater	Same As Above
C22060310-003	220602147-03F-Compliance Well	06/02/22 12:30	06/07/22	Groundwater	Same As Above
C22060310-004	220602147-04F-Cross Well	06/02/22 12:10	06/07/22	Groundwater	Same As Above
C22060310-005	220602147-05F-Caribou Well	06/02/22 14:00	06/07/22	Groundwater	Same As Above

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

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

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

Report Approved By:


Vice President - Director of Laboratory Operations

Digitally signed by
Lisa Bradley
Date: 2022.06.23 16:32:39 -06:00



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CLIENT: Colorado Analytical Laboratories Inc
Project: 220602147
Work Order: C22060310

Report Date: 06/23/22

CASE NARRATIVE

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220602147
Lab ID: C22060310-001
Client Sample ID: 220602147-01F-Cross Portal

Report Date: 06/23/22
Collection Date: 06/02/22 11:45
Date Received: 06/07/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/15/22 17:22 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220602147
Lab ID: C22060310-002
Client Sample ID: 220602147-02F-Caribou Portal

Report Date: 06/23/22
Collection Date: 06/02/22 13:00
Date Received: 06/07/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/15/22 17:26 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220602147
Lab ID: C22060310-003
Client Sample ID: 220602147-03F-Compliance Well

Report Date: 06/23/22
Collection Date: 06/02/22 12:30
Date Received: 06/07/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/15/22 17:31 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220602147
Lab ID: C22060310-004
Client Sample ID: 220602147-04F-Cross Well

Report Date: 06/23/22
Collection Date: 06/02/22 12:10
Date Received: 06/07/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/15/22 17:35 / eli-b

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

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



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Colorado Analytical Laboratories Inc
Project: 220602147
Lab ID: C22060310-005
Client Sample ID: 220602147-05F-Caribou Well

Report Date: 06/23/22
Collection Date: 06/02/22 14:00
Date Received: 06/07/22
Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Lithium	ND	mg/L		0.1		E200.7	06/15/22 18:03 / eli-b

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

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



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QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Colorado Analytical Laboratories Inc

Work Order: C22060310

Report Date: 06/16/22

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Analytical Run: ICP204-B_220615A
Lab ID: ICV		Continuing Calibration Verification Standard								06/15/22 11:17
Lithium		1.26	mg/L	0.10	100	95	105			
Lab ID: CCV		Continuing Calibration Verification Standard								06/15/22 16:54
Lithium		1.24	mg/L	0.10	99	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard								06/15/22 17:43
Lithium		1.24	mg/L	0.10	99	90	110			
Method: E200.7										Batch: 167371
Lab ID: MB-167371		Method Blank								Run: ICP204-B_220615A 06/15/22 16:41
Lithium		0.006	mg/L	0.006						
Lab ID: LCS3-167371		Laboratory Control Sample								Run: ICP204-B_220615A 06/15/22 16:46
Lithium		1.02	mg/L	0.10	102	85	115			
Lab ID: B22060851-001DMS3		Sample Matrix Spike								Run: ICP204-B_220615A 06/15/22 17:10
Lithium		1.04	mg/L	0.10	103	70	130			
Lab ID: B22060851-001DMSD		Sample Matrix Spike Duplicate								Run: ICP204-B_220615A 06/15/22 17:14
Lithium		1.07	mg/L	0.10	106	70	130	2.9	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Work Order Receipt Checklist

Colorado Analytical Laboratories Inc

C22060310

Login completed by: Kirsten L. Smith

Date Received: 6/7/2022

Reviewed by: Chantel S. Johnson

Received by: mar

Reviewed Date: 6/8/2022

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☒	Not Applicable ☐
Container/Temp Blank temperature:	5.2°C On Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Standard Reporting Procedures:

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

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

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

Contact and Corrective Action Comments:

None



LABORATORIES, INC.

Sub-Lab Chain of Custody Form

Ship To: Energy Labs

Project Name

C220602147

Bill To Information (if different from report to)

Report To Information
Company Name: Colorado Analytical Laboratory
Report To: Stuart Nielson
E-Mail: stuartnielson@coloradolab.com

Address:

10411 Heinz Way
Commerce City, CO 80640

Address:

CAL TASK
220602147
JML

Compliance Samples:

Yes ☐ No ☒
Submit Data to CDPHE: Yes ☐ No ☒

Phone: 303-659-2313

Tests Requested

Metals (Sub)

Sample Date/Time	Sample ID	Matrix															Container Type
6/2/22 11:45 AM	220602147-01F - Cross Portal	Water - Ground	X														500 ml Cylinder - HNO3
6/2/22 1:00 PM	220602147-02F - Caribou Portal	Water - Ground	X														500 ml Cylinder - HNO3
6/2/22 12:30 PM	220602147-03F - Compliance Well	Water - Ground	X														500 ml Cylinder - HNO3
6/2/22 12:10 PM	220602147-04F - Cross Well	Water - Ground	X														500 ml Cylinder - HNO3
6/2/22 2:00 PM	220602147-05F - Caribou Well	Water - Ground	X														500 ml Cylinder - HNO3

Comment 220602147-01F - Please report Lithium.

220602147-02F - Please report Lithium.

220602147-03F - Please report Lithium.

220602147-04F - Please report Lithium.

220602147-05F - Please report Lithium.

Relinquished by:
(Signature)

Date: Time:

Received by:
(Signature)

Date: Time:

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

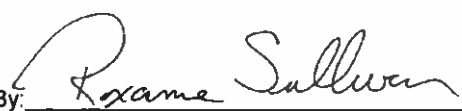
Customer ID: 20040H
Account ID: Z01034

Lab Control ID: 22M02051
Received: Jun 03, 2022
Reported: Jun 15, 2022
Purchase Order No.
None Received

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: 22M02051
Received: Jun 03, 2022
Reported: Jun 15, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID			22M02051-001					
Customer Sample ID			220602147-01H - Cross Portal sampled on 06/02/22 @ 1145					
			Precision* Detection			Analysis		
Parameter	Units	Code	Result	+/-	Limit	Method	Date / Time	Analyst
Gross Alpha	pCi/L	T	1.6	1.4	0.1	SM 7110 B	6/11/22 @ 0745	AS
Gross Beta	pCi/L	T	< 3.0	2.1	3.0	SM 7110 B	6/11/22 @ 0745	AS

Customer ID: 20040H
 Account ID: Z01034
ANALYTICAL REPORT

Stuart Nielson
 Colorado Analytical Laboratories, Inc.

Lab Sample ID			22M02051-002					
Customer Sample ID			220602147-02H - Caribou Portal sampled on 06/02/22 @ 1300					
Parameter	Units	Code	Precision*	Detection	Method	Analysis		
			Result	+/-	Limit	Date / Time	Analyst	
Gross Alpha	pCi/L	T	6.0	2.3	0.1	SM 7110 B	6/11/22 @ 0746	AS
Gross Beta	pCi/L	T	< 3.1	2.3	3.1	SM 7110 B	6/11/22 @ 0746	AS



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

Lab Control ID: 22M02051
Received: Jun 03, 2022
Reported: Jun 15, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034

ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID			22M02051-003					
Customer Sample ID			220602147-03H - Compliance Well sampled on 06/02/22 @ 1230					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	1.1	1.2	0.1	SM 7110 B	6/11/22 @ 0747	AS
Gross Beta	pCi/L	T	< 3.2	2.1	3.2	SM 7110 B	6/11/22 @ 0747	AS

Customer ID: 20040H
 Account ID: Z01034
ANALYTICAL REPORT

Stuart Nielson
 Colorado Analytical Laboratories, Inc.

Lab Sample ID			22M02051-004					
Customer Sample ID			220602147-04H - Cross Well sampled on 06/02/22 @ 1210					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	0.1	0.9	0.1	SM 7110 B	6/11/22 @ 0748	AS
Gross Beta	pCi/L	T	< 3.2	2.2	3.2	SM 7110 B	6/11/22 @ 0748	AS



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

Lab Control ID: 22M02051
Received: Jun 03, 2022
Reported: Jun 15, 2022
Purchase Order No.
None Received

Customer ID: 20040H
Account ID: Z01034
ANALYTICAL REPORT

Stuart Nielson
Colorado Analytical Laboratories, Inc.

Lab Sample ID			22M02051-005					
Customer Sample ID			220602147-05H - Caribou Well sampled on 06/02/22 @ 1400					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Gross Alpha	pCi/L	T	0.3	0.9	0.1	SM 7110 B	6/11/22 @ 0749	AS
Gross Beta	pCi/L	T	< 2.9	2.2	2.9	SM 7110 B	6/11/22 @ 0749	AS

HAZEN RESEARCH, INC.
RADIOCHEMISTRY LABORATORY

Date: 06/11/2022

Batch QC Summary Form

Analyte: Gross Alpha

Control Standard/LFB: ID: C-11a_001 pCi/mL: 57.4 (use 1 diluted)

Spike Solution: ID: C-11a_001 pCi/mL: 57.4 (use 1 mL)

Spike Recovery Calculation: Sample: Tap*

$$\text{Calculation: } \frac{(48.6) - (1.000) - (-0.4)}{57.4} \times 100 = 85\%$$

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:

22M02044	22M02041
22M02045	22M02051
22M02046	22M01901
22M02066	22M01965
22M02067	22M01966
22M02068	_____
22M02069	_____
22M01996	_____
22M02016	_____
22M02025	_____

Evaluator:

Roxanne Sullivan

6.15.22

Date

HAZEN RESEARCH, INC.
RADIOCHEMISTRY LABORATORY

Date: 06/11/2022

Batch QC Summary Form

Analyte: Gross Beta

Control Standard/LFB: ID: C-11a_001 pCi/mL: 44 (use 1 diluted)

Spike Solution: ID: C-11a_001 pCi/mL: 44 (use 1 mL)

Spike Recovery Calculation: Sample: Tap*

Calculation: $\frac{(37.5) (1.000) - (1.1) (0.200)}{44} \times 100 = 85\%$

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>22M02044</u>	<u>22M02041</u>
<u>22M02045</u>	<u>22M02051</u>
<u>22M02046</u>	<u>22M01901</u>
<u>22M02066</u>	<u>22M01965</u>
<u>22M02067</u>	<u>22M01966</u>
<u>22M02068</u>	_____
<u>22M02069</u>	_____
<u>22M01996</u>	_____
<u>22M02016</u>	_____
<u>22M02025</u>	_____

Evaluator:

Roxanne Sullivan _____

06/15/2022

Date



Ship To: Hazen Research

Preserved: Y (N)

HNO3 Lot #: N/A

Date Preserved: N/A

22MO2051

Report To Information Company Name: <u>Colorado Analytical Laboratory</u> Report To: <u>Stuart Nielson</u> E-Mail: <u>stuartnielson@coloradolab.com</u>		Bill To Information (if different from report to)		Project Name	
Address: <u>10411 Heinz Way</u> <u>Commerce City, CO 80640</u> Phone: <u>303-659-2313</u>		Address:		CAL TASK <u>220602147</u> <u>JML</u>	
		Compliance Samples: Yes ☐ No ☒		Submit Data to CDPHE: Yes ☐ No ☒	

Tests Requested

Gross Alpha/Beta (Sub)

Sample Date/Time	Sample ID	Matrix	Container Type
6/2/22 11:45 AM	220602147-01H - Cross Portal	Water - Ground	1L - Unpreserved
6/2/22 1:00 PM	220602147-02H - Caribou Portal	Water - Ground	1L - Unpreserved
6/2/22 12:30 PM	220602147-03H - Compliance Well	Water - Ground	1L - Unpreserved
6/2/22 12:10 PM	220602147-04H - Cross Well	Water - Ground	1L - Unpreserved
6/2/22 2:00 PM	220602147-05H - Caribou Well	Water - Ground	1L - Unpreserved

Comment:

Pres'd: (A04) 6/3/22 1520 AS

Pres ✓: 6/4/22 1416 AS

FeDEX 5816 5318 3349

Relinquished by: <u>Stuart Nielson</u>	Date: <u>6/3/22</u>	Received by: <u>AS</u>	Date: <u>6/3/22 1430</u>	Relinquished by: <u>AS</u>	Date: <u>6/3/22 1430</u>	Received by: <u>AS</u>	Date: <u>6/3/22 1430</u>
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Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 6/2/22 11:45 AM
Lab Number: 220602147-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	1.67 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57341	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/10/22	QC57481	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	6/3/22	QC57342	AMJ
Nitrate Nitrogen	0.25 mg/L	EPA 300.0	0.05 mg/L	6/3/22	QC57343	AMJ
Nitrate/ Nitrite Nitrogen	0.25 mg/L	Calculation	0.05 mg/L	6/6/22	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/3/22	QC57345	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	10.24 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57344	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/3/22	-	EMN
Dissolved						
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Total						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.039 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/7/22	QC57377	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/7/22	QC57377	MBN
Barium	0.0408 mg/L	EPA 200.8	0.0007 mg/L	6/7/22	QC57377	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Cadmium	0.0008 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/7/22	QC57377	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Copper	0.0059 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Lead	0.0122 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	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 concentration.
(s) Spike amount low relative to the sample amount.
ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 6/2/22 11:45 AM
Lab Number: 220602147-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0145 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Molybdenum	0.0138 mg/L	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/7/22	QC57377	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Uranium	0.0013 mg/L	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Zinc	0.181 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/7/22	QC57350	MBN
Calcium	18.3 mg/L	EPA 200.7	0.1 mg/L	6/7/22	QC57350	MBN
Iron	0.141 mg/L	EPA 200.7	0.005 mg/L	6/7/22	QC57350	MBN

Abbreviations/References:

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

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 6/2/22 1:00 PM
Lab Number: 220602147-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.46 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57341	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/10/22	QC57481	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	6/3/22	QC57342	AMJ
Nitrate Nitrogen	0.23 mg/L	EPA 300.0	0.05 mg/L	6/3/22	QC57343	AMJ
Nitrate/ Nitrite Nitrogen	0.23 mg/L	Calculation	0.05 mg/L	6/6/22	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/3/22	QC57345	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	9.79 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57344	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/3/22	-	EMN
<u>Dissolved</u>						
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
<u>Total</u>						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.008 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/7/22	QC57377	MBN
Arsenic	0.0009 mg/L	EPA 200.8	0.0006 mg/L	6/7/22	QC57377	MBN
Barium	0.0628 mg/L	EPA 200.8	0.0007 mg/L	6/7/22	QC57377	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/7/22	QC57377	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Copper	0.0019 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Lead	0.0086 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN

Abbreviations/ References:

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Date Analyzed = Date Test Completed

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 6/2/22 1:00 PM
Lab Number: 220602147-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0326 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Molybdenum	0.0056 mg/L	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/7/22	QC57377	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Uranium	0.0049 mg/L	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Zinc	0.082 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Boron	ND	EPA 200.7	0.01 mg/L	6/7/22	QC57350	MBN
Calcium	27.0 mg/L	EPA 200.7	0.1 mg/L	6/7/22	QC57350	MBN
Iron	0.218 mg/L	EPA 200.7	0.005 mg/L	6/7/22	QC57350	MBN

Abbreviations/ References:

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 6/2/22 12:30 PM
Lab Number: 220602147-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.55 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57341	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/10/22	QC57481	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	6/3/22	QC57342	AMJ
Nitrate Nitrogen	0.15 mg/L	EPA 300.0	0.05 mg/L	6/3/22	QC57343	AMJ
Nitrate/ Nitrite Nitrogen	0.15 mg/L	Calculation	0.05 mg/L	6/6/22	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/3/22	QC57345	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	3.91 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57344	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/3/22	-	EMN
<u>Dissolved</u>						
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
<u>Total</u>						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.061 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/7/22	QC57377	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/7/22	QC57377	MBN
Barium	0.0298 mg/L	EPA 200.8	0.0007 mg/L	6/7/22	QC57377	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/7/22	QC57377	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Copper	0.0012 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Lead	0.0017 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN

Abbreviations/ References:

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

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



Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 6/2/22 12:30 PM
Lab Number: 220602147-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0178 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Molybdenum	0.0046 mg/L	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/7/22	QC57377	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Zinc	0.166 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Boron	0.02 mg/L	EPA 200.7	0.01 mg/L	6/7/22	QC57350	MBN
Calcium	9.0 mg/L	EPA 200.7	0.1 mg/L	6/7/22	QC57350	MBN
Iron	0.088 mg/L	EPA 200.7	0.005 mg/L	6/7/22	QC57350	MBN

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID: Cross Well
Sample Date/Time: 6/2/22 12:10 PM
Lab Number: 220602147-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	9.72 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57341	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/10/22	QC57481	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	6/3/22	QC57342	AMJ
Nitrate Nitrogen	0.39 mg/L	EPA 300.0	0.05 mg/L	6/3/22	QC57343	AMJ
Nitrate/ Nitrite Nitrogen	0.39 mg/L	Calculation	0.05 mg/L	6/6/22	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/3/22	QC57345	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	9.98 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57344	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/3/22	-	EMN
Dissolved						
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Total						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.002 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/7/22	QC57377	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/7/22	QC57377	MBN
Barium	0.0327 mg/L	EPA 200.8	0.0007 mg/L	6/7/22	QC57377	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Cadmium	0.0002 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/7/22	QC57377	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Copper	0.0087 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Lead	0.0017 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN

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Date Analyzed = Date Test Completed

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 6/2/22 12:10 PM

Lab Number: 220602147-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
<i>Total</i>						
Manganese	0.0037 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Molybdenum	0.0009 mg/L	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/7/22	QC57377	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Zinc	1.197 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Boron	0.04 mg/L	EPA 200.7	0.01 mg/L	6/7/22	QC57350	MBN
Calcium	19.1 mg/L	EPA 200.7	0.1 mg/L	6/7/22	QC57350	MBN
Iron	0.021 mg/L	EPA 200.7	0.005 mg/L	6/7/22	QC57350	MBN

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 6/2/22 2:00 PM
Lab Number: 220602147-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Chloride	0.52 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57341	AMJ
Cyanide-Free	ND	ASTM D4282-15	0.005 mg/L	6/10/22	QC57481	ECM
Fluoride	ND	EPA 300.0	0.10 mg/L	6/3/22	QC57342	AMJ
Nitrate Nitrogen	0.13 mg/L	EPA 300.0	0.05 mg/L	6/3/22	QC57343	AMJ
Nitrate/ Nitrite Nitrogen	0.13 mg/L	Calculation	0.05 mg/L	6/6/22	-	MLT
Nitrite Nitrogen	ND	EPA 300.0	0.03 mg/L	6/3/22	QC57345	AMJ
Phenols - Total	ND	EPA 420.4	15.0 ug/L	6/7/22	QC57384	DPL
Sulfate	2.78 mg/L	EPA 300.0	0.01 mg/L	6/3/22	QC57344	AMJ
Total Coliform	ND	SM 9221-B	1 mpn/100ml	6/3/22	-	EMN
Dissolved						
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Total						
Mercury	ND	EPA 245.7	0.0002 mg/L	6/7/22	QC57364	MLT
Aluminum	0.043 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Antimony	ND	EPA 200.8	0.0012 mg/L	6/7/22	QC57377	MBN
Arsenic	ND	EPA 200.8	0.0006 mg/L	6/7/22	QC57377	MBN
Barium	0.0060 mg/L	EPA 200.8	0.0007 mg/L	6/7/22	QC57377	MBN
Beryllium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Cadmium	ND	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN
Chromium	ND	EPA 200.8	0.0015 mg/L	6/7/22	QC57377	MBN
Cobalt	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Copper	0.2793 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Lead	0.0003 mg/L	EPA 200.8	0.0001 mg/L	6/7/22	QC57377	MBN

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: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 6/2/22 2:00 PM
Lab Number: 220602147-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Total						
Manganese	0.0020 mg/L	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Molybdenum	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Nickel	ND	EPA 200.8	0.0009 mg/L	6/7/22	QC57377	MBN
Selenium	ND	EPA 200.8	0.0008 mg/L	6/7/22	QC57377	MBN
Silver	ND	EPA 200.8	0.0005 mg/L	6/7/22	QC57377	MBN
Thallium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Uranium	ND	EPA 200.8	0.0002 mg/L	6/7/22	QC57377	MBN
Vanadium	ND	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Zinc	0.067 mg/L	EPA 200.8	0.001 mg/L	6/7/22	QC57377	MBN
Boron	0.01 mg/L	EPA 200.7	0.01 mg/L	6/7/22	QC57350	MBN
Calcium	3.7 mg/L	EPA 200.7	0.1 mg/L	6/7/22	QC57350	MBN
Iron	0.033 mg/L	EPA 200.7	0.005 mg/L	6/7/22	QC57350	MBN

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Date Analyzed = Date Test Completed

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

Analytical QC Summary

TASK NO: 220602147

Report To: Patrick Delaney
Company: Grand Island Resources LLC

Receive Date: 6/2/22
Project Name:

Test	QC Batch ID	QC Type	Result	Method
Chloride	QC57341	Blank	ND	EPA 300.0
Cyanide-Free	QC57481	Blank	ND	ASTM D4282-15
Fluoride	QC57342	Blank	ND	EPA 300.0
Mercury	QC57364	Method Blank	ND	EPA 245.7
Aluminum	QC57377	Method Blank	ND	EPA 200.8
Antimony	QC57377	Method Blank	ND	EPA 200.8
Arsenic	QC57377	Method Blank	ND	EPA 200.8
Barium	QC57377	Method Blank	ND	EPA 200.8
Beryllium	QC57377	Method Blank	ND	EPA 200.8
Cadmium	QC57377	Method Blank	ND	EPA 200.8
Chromium	QC57377	Method Blank	ND	EPA 200.8
Cobalt	QC57377	Method Blank	ND	EPA 200.8
Copper	QC57377	Method Blank	ND	EPA 200.8
Lead	QC57377	Method Blank	ND	EPA 200.8
Manganese	QC57377	Method Blank	ND	EPA 200.8
Molybdenum	QC57377	Method Blank	ND	EPA 200.8
Nickel	QC57377	Method Blank	ND	EPA 200.8
Selenium	QC57377	Method Blank	ND	EPA 200.8
Silver	QC57377	Method Blank	ND	EPA 200.8
Thallium	QC57377	Method Blank	ND	EPA 200.8
Uranium	QC57377	Method Blank	ND	EPA 200.8
Vanadium	QC57377	Method Blank	ND	EPA 200.8
Zinc	QC57377	Method Blank	ND	EPA 200.8
Boron	QC57350	Method Blank	0.01 mg/L B	EPA 200.7
Calcium	QC57350	Method Blank	ND	EPA 200.7
Iron	QC57350	Method Blank	ND	EPA 200.7
Nitrate Nitrogen	QC57343	Blank	ND	EPA 300.0
Nitrite Nitrogen	QC57345	Blank	ND	EPA 300.0
Phenols - Total	QC57384	Blank	ND	EPA 420.4
Sulfate	QC57344	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 ≥ 5 times the background concentration found in the blank.

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Chloride	QC57341	Duplicate	0 - 20	-	0.1	EPA 300.0
		LCS	90 - 110	100.5	-	
		MS	75 - 125	99.7	-	
Cyanide-Free	QC57481	Duplicate	0 - 20	-	13.3	ASTM D4282-15
		LCS	90 - 110	102.3	-	
		MS	75 - 125	104.5	-	
		MSD	0 - 30	-	6.9	

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Date Analyzed = Date Test Completed

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

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Fluoride	QC57342	Duplicate	0 - 20	-	0.5	EPA 300.0
		LCS	90 - 110	94.0	-	
		MS	75 - 125	91.6	-	
Mercury	QC57364	Duplicate	0 - 20	-	0.0	EPA 245.7
		LCS	90 - 110	93.6	-	
		MS	80 - 120	94.0	-	
Aluminum	QC57377	LCS	90 - 110	108.8	-	EPA 200.8
		MS	70 - 130	73.7	-	
		MSD	0 - 10	-	0.1	
Antimony	QC57377	LCS	90 - 110	105.3	-	EPA 200.8
		MS	70 - 130	105.6	-	
		MSD	0 - 10	-	0.6	
Arsenic	QC57377	LCS	90 - 110	106.0	-	EPA 200.8
		MS	70 - 130	111.6	-	
		MSD	0 - 10	-	1.8	
Barium	QC57377	LCS	90 - 110	103.2	-	EPA 200.8
		MS	70 - 130	79.0	-	
		MSD	0 - 10	-	0.3	
Beryllium	QC57377	LCS	90 - 110	99.0	-	EPA 200.8
		MS	70 - 130	102.3	-	
		MSD	0 - 10	-	2.4	
Cadmium	QC57377	LCS	90 - 110	103.0	-	EPA 200.8
		MS	70 - 130	103.5	-	
		MSD	0 - 10	-	1.4	
Chromium	QC57377	LCS	90 - 110	107.2	-	EPA 200.8
		MS	70 - 130	106.3	-	
		MSD	0 - 10	-	0.4	
Cobalt	QC57377	LCS	90 - 110	109.0	-	EPA 200.8
		MS	70 - 130	104.3	-	
		MSD	0 - 10	-	0.4	
Copper	QC57377	LCS	90 - 110	105.6	-	EPA 200.8
		MS	70 - 130	93.7	-	
		MSD	0 - 10	-	0.9	
Lead	QC57377	LCS	90 - 110	99.9	-	EPA 200.8
		MS	70 - 130	95.0	-	
		MSD	0 - 10	-	1.3	
Manganese	QC57377	LCS	90 - 110	108.2	-	EPA 200.8
		MS	70 - 130	103.9	-	
		MSD	0 - 10	-	0.5	
Molybdenum	QC57377	LCS	90 - 110	99.0	-	EPA 200.8
		MS	70 - 130	97.8	-	
		MSD	0 - 10	-	0.7	
Nickel	QC57377	LCS	90 - 110	107.2	-	EPA 200.8
		MS	70 - 130	101.5	-	
		MSD	0 - 10	-	0.7	
Selenium	QC57377	LCS	90 - 110	108.3	-	EPA 200.8
		MS	70 - 130	117.4	-	
		MSD	0 - 10	-	6.7	
Silver	QC57377	LCS	90 - 110	92.0	-	EPA 200.8
		MS	70 - 130	75.9	-	
		MSD	0 - 10	-	0.2	

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Thallium	QC57377	LCS	90 - 110	102.1	-	EPA 200.8
		MS	70 - 130	96.5	-	
		MSD	0 - 10	-	1.4	
Uranium	QC57377	LCS	90 - 110	100.4	-	EPA 200.8
		MS	70 - 130	95.2	-	
		MSD	0 - 10	-	0.0	
Vanadium	QC57377	LCS	90 - 110	106.3	-	EPA 200.8
		MS	70 - 130	107.1	-	
		MSD	0 - 10	-	1.7	
Zinc	QC57377	LCS	90 - 110	107.9	-	EPA 200.8
		MS	70 - 130	98.1	-	
		MSD	0 - 10	-	0.4	
Boron	QC57350	Duplicate	0 - 20	-	8.7	EPA 200.7
		LCS	90 - 110	106.9	-	
		MS	75 - 125	99.9	-	
Calcium	QC57350	Duplicate	0 - 20	-	2.4	EPA 200.7
		LCS	90 - 110	97.4	-	
		MS	75 - 125	103.8	-	
Iron	QC57350	Duplicate	0 - 20	-	3.7	EPA 200.7
		LCS	90 - 110	90.8	-	
		MS	75 - 125	93.7	-	
Nitrate Nitrogen	QC57343	Duplicate	0 - 20	-	0.9	EPA 300.0
		LCS	90 - 110	93.3	-	
		MS	75 - 125	89.8	-	
Nitrite Nitrogen	QC57345	Duplicate	0 - 20	-	0.0	EPA 300.0
		LCS	90 - 110	94.4	-	
		MS	75 - 125	89.5	-	
Phenols - Total	QC57384	Duplicate	0 - 20	-	0.0	EPA 420.4
		LCS	90 - 110	96.3	-	
		MS	75 - 125	86.1	-	
Sulfate	QC57344	Duplicate	0 - 20	-	0.9	EPA 300.0
		LCS	90 - 110	96.9	-	
		MS	75 - 125	93.1	-	

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

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

Q802205014

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 6/2/22 11:45 AM
Lab Number: 220602147-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	6/8/22	QC57365	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	6/8/22	QC57365	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	6/8/22	QC57365	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/ References:

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

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

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 6/2/22 11:45 AM
Lab Number: 220602147-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benidine	ND	EPA 625	150.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Chrysene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluorene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	6/8/22	QC57365	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	6/8/22	QC57365	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpv/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: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Portal
Sample Date/Time: 6/2/22 11:45 AM
Lab Number: 220602147-01

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	6/8/22	QC57365	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Phenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	68.8	16 - 145
2-Fluorobiphenyl	88.6	60 - 140
2-Fluorophenol	94.8	60 - 140
Nitrobenzene-d5	97.8	15 - 314
Phenol-d5	97.0	8 - 424
p-Terphenyl-d14	103.3	44 - 135

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: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 6/2/22 1:00 PM
Lab Number: 220602147-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	6/8/22	QC57365	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	6/8/22	QC57365	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	6/8/22	QC57365	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

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

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 6/2/22 1:00 PM
Lab Number: 220602147-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Chrysene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluorene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	6/8/22	QC57365	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	6/8/22	QC57365	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
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(s) Spike amount low relative to the sample amount.
ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Portal
Sample Date/Time: 6/2/22 1:00 PM
Lab Number: 220602147-02

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	6/8/22	QC57365	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Phenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	53.4	16 - 145
2-Fluorobiphenyl	94.4	60 - 140
2-Fluorophenol	93.9	60 - 140
Nitrobenzene-d5	99.8	15 - 314
Phenol-d5	98.4	8 - 424
p-Terphenyl-d14	107.7	44 - 135

Abbreviations/ References:

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

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

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 6/2/22 12:30 PM
Lab Number: 220602147-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	6/8/22	QC57365	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	6/8/22	QC57365	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	6/8/22	QC57365	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/References:

RL = Reporting Limit = Minimum Level
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 ml = Most Probable Number Index/ 100 ml
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: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 6/2/22 12:30 PM
Lab Number: 220602147-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Chrysene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluorene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	6/8/22	QC57365	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	6/8/22	QC57365	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/ References:

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

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

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Compliance Well
Sample Date/Time: 6/2/22 12:30 PM
Lab Number: 220602147-03

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	6/8/22	QC57365	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Phenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	54.5	16 - 145
2-Fluorobiphenyl	88.4	60 - 140
2-Fluorophenol	91.1	60 - 140
Nitrobenzene-d5	95.4	15 - 314
Phenol-d5	94.6	8 - 424
p-Terphenyl-d14	111.6	44 - 135

Abbreviations/References:

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mg/L = Milligrams Per Liter or PPM
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mpr/100 mls = Most Probable Number Index/ 100 mls
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(d) RPD acceptable due to low duplicate and sample concentrations.
(s) Spike amount low relative to the sample amount.
ND = Not Detected at Reporting Limit.

Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Well
Sample Date/Time: 6/2/22 12:10 PM
Lab Number: 220602147-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	6/8/22	QC57365	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	6/8/22	QC57365	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	6/8/22	QC57365	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/ References:

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

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

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

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Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Well
Sample Date/Time: 6/2/22 12:10 PM
Lab Number: 220602147-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benzidine	ND	EPA 625	150.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Chrysene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluorene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	6/8/22	QC57365	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	6/8/22	QC57365	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/ References:

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Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Cross Well

Sample Date/Time: 6/2/22 12:10 PM

Lab Number: 220602147-04

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	6/8/22	QC57365	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Phenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	59.4	16 - 145
2-Fluorobiphenyl	88.4	60 - 140
2-Fluorophenol	92.2	60 - 140
Nitrobenzene-d5	96.2	15 - 314
Phenol-d5	94.7	8 - 424
p-Terphenyl-d14	110.2	44 - 135

Abbreviations/ References:

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

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Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 6/2/22 2:00 PM
Lab Number: 220602147-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
1,2,4-Trichlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
1,2-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,2-diphenylhydrazine (as Azobenzene)	ND	EPA 625	5.0 ug/L	6/8/22	QC57365	MBS
1,3-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
1,4-Dichlorobenzene	ND	EPA 625	2.5 ug/L	6/8/22	QC57365	MBS
2,4,6-Trichlorophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
2,4-Dichlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dimethylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrophenol	ND	EPA 625	60.0 ug/L	6/8/22	QC57365	MBS
2,4-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2,6-Dinitrotoluene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chloronaphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Chlorophenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
2-Nitrophenol	ND	EPA 625	20.0 ug/L	6/8/22	QC57365	MBS
3,3'-Dichlorobenzidine	ND	EPA 625	18.0 ug/L	6/8/22	QC57365	MBS
4,6-Dinitro-2-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Bromophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chloro-3-methylphenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Chlorophenyl phenyl ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
4-Nitrophenol	ND	EPA 625	25.0 ug/L	6/8/22	QC57365	MBS
Acenaphthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Acenaphthylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Abbreviations/References:

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

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

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 6/2/22 2:00 PM
Lab Number: 220602147-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Benidine	ND	EPA 625	150.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(a)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(b)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(g,h,i)perylene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Benzo(k)fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethoxy) methane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroethyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-chloroisopropyl) ether	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Bis(2-ethylhexyl) phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Butylbenzylphthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Chrysene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dibenzo(a,h)anthracene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Diethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Dimethyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-butyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Di-n-octyl phthalate	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluoranthene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Fluorene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Hexachlorobutadiene	ND	EPA 625	9.0 ug/L	6/8/22	QC57365	MBS
Hexachlorocyclopentadiene	ND	EPA 625	50.0 ug/L	6/8/22	QC57365	MBS
Hexachloroethane	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Indeno(1,2,3-cd)pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

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.

10411 Heinz Way / Commerce City, CO 80640 / 303-659-2313

Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

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Analytical Results

TASK NO: 220602147

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.: 220602147
Client PO:
Client Project:

Date Received: 6/2/22
Date Reported: 6/27/22
Matrix: Water - Ground

Customer Sample ID Caribou Well
Sample Date/Time: 6/2/22 2:00 PM
Lab Number: 220602147-05

Test	Result	Method	RL	Date Analyzed	QC Batch ID	Analyzed By
Isophorone	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Naphthalene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Nitrobenzene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodimethylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitroso-di-n-propylamine	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
n-Nitrosodiphenylamine (as Diphenylamine)	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pentachlorophenol	ND	EPA 625	36.0 ug/L	6/8/22	QC57365	MBS
Phenanthrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Phenol	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS
Pyrene	ND	EPA 625	10.0 ug/L	6/8/22	QC57365	MBS

Surrogate	Percent Recovery	Acceptance Limits
2,4,6-Tribromophenol	43.2	16 - 145
2-Fluorobiphenyl	93.9	60 - 140
2-Fluorophenol	96.1	60 - 140
Nitrobenzene-d5	101.8	15 - 314
Phenol-d5	100.0	8 - 424
p-Terphenyl-d14	117.4	44 - 135

Abbreviations/References:

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

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

Analytical QC Summary

TASK NO: 220602147

Report To: Patrick Delaney
Company: Grand Island Resources LLC

Receive Date: 6/2/22
Project Name:

Test	QC Batch ID	QC Type	Result	Method
1,2,4-Trichlorobenzene	QC57365	Method Blank	ND	EPA 625
1,2-Dichlorobenzene	QC57365	Method Blank	ND	EPA 625
1,2-diphenylhydrazine (as Azobenzene)	QC57365	Method Blank	ND	EPA 625
1,3-Dichlorobenzene	QC57365	Method Blank	ND	EPA 625
1,4-Dichlorobenzene	QC57365	Method Blank	ND	EPA 625
2,4,6-Trichlorophenol	QC57365	Method Blank	ND	EPA 625
2,4-Dichlorophenol	QC57365	Method Blank	ND	EPA 625
2,4-Dimethylphenol	QC57365	Method Blank	ND	EPA 625
2,4-Dinitrophenol	QC57365	Method Blank	ND	EPA 625
2,4-Dinitrotoluene	QC57365	Method Blank	ND	EPA 625
2,6-Dinitrotoluene	QC57365	Method Blank	ND	EPA 625
2-Chloronaphthalene	QC57365	Method Blank	ND	EPA 625
2-Chlorophenol	QC57365	Method Blank	ND	EPA 625
2-Nitrophenol	QC57365	Method Blank	ND	EPA 625
3,3'-Dichlorobenzidine	QC57365	Method Blank	ND	EPA 625
4,6-Dinitro-2-methylphenol	QC57365	Method Blank	ND	EPA 625
4-Bromophenyl phenyl ether	QC57365	Method Blank	ND	EPA 625
4-Chloro-3-methylphenol	QC57365	Method Blank	ND	EPA 625
4-Chlorophenyl phenyl ether	QC57365	Method Blank	ND	EPA 625
4-Nitrophenol	QC57365	Method Blank	ND	EPA 625
Acenaphthene	QC57365	Method Blank	ND	EPA 625
Acenaphthylene	QC57365	Method Blank	ND	EPA 625
Anthracene	QC57365	Method Blank	ND	EPA 625
Benzidine	QC57365	Method Blank	ND	EPA 625
Benzo(a)anthracene	QC57365	Method Blank	ND	EPA 625
Benzo(a)pyrene	QC57365	Method Blank	ND	EPA 625
Benzo(b)fluoranthene	QC57365	Method Blank	ND	EPA 625
Benzo(g,h,i)perylene	QC57365	Method Blank	ND	EPA 625
Benzo(k)fluoranthene	QC57365	Method Blank	ND	EPA 625
Bis(2-chloroethoxy) methane	QC57365	Method Blank	ND	EPA 625
Bis(2-chloroethyl) ether	QC57365	Method Blank	ND	EPA 625
Bis(2-chloroisopropyl) ether	QC57365	Method Blank	ND	EPA 625
Bis(2-ethylhexyl) phthalate	QC57365	Method Blank	ND	EPA 625
Butylbenzylphthalate	QC57365	Method Blank	ND	EPA 625
Chrysene	QC57365	Method Blank	ND	EPA 625
Dibenzo(a,h)anthracene	QC57365	Method Blank	ND	EPA 625
Diethyl phthalate	QC57365	Method Blank	ND	EPA 625
Dimethyl phthalate	QC57365	Method Blank	ND	EPA 625
Di-n-butyl phthalate	QC57365	Method Blank	ND	EPA 625
Di-n-octyl phthalate	QC57365	Method Blank	ND	EPA 625
Fluoranthene	QC57365	Method Blank	ND	EPA 625

Abbreviations/ References:

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Date Analyzed = Date Test Completed

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ND = Not Detected at Reporting Limit.

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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

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Fluorene	QC57365	Method Blank	ND	EPA 625
Hexachlorobenzene	QC57365	Method Blank	ND	EPA 625
Hexachlorobutadiene	QC57365	Method Blank	ND	EPA 625
Hexachlorocyclopentadiene	QC57365	Method Blank	ND	EPA 625
Hexachloroethane	QC57365	Method Blank	ND	EPA 625
Indeno(1,2,3-cd)pyrene	QC57365	Method Blank	ND	EPA 625
Isophorone	QC57365	Method Blank	ND	EPA 625
Naphthalene	QC57365	Method Blank	ND	EPA 625
Nitrobenzene	QC57365	Method Blank	ND	EPA 625
n-Nitrosodimethylamine	QC57365	Method Blank	ND	EPA 625
n-Nitroso-di-n-propylamine	QC57365	Method Blank	ND	EPA 625
n-Nitrosodiphenylamine (as Diphenyla	QC57365	Method Blank	ND	EPA 625
Pentachlorophenol	QC57365	Method Blank	ND	EPA 625
Phenanthrene	QC57365	Method Blank	ND	EPA 625
Phenol	QC57365	Method Blank	ND	EPA 625
Pyrene	QC57365	Method Blank	ND	EPA 625

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
1,2,4-Trichlorobenzene	QC57365	LCS	61 - 130	81.6	-	EPA 625
		LCS Dup	-	81.2	-	
		MS	44 - 142	83.4	-	
		MSD	0 - 50	-	0.6	
1,2-Dichlorobenzene	QC57365	LCS	65 - 135	82.0	-	EPA 625
		LCS Dup	-	80.5	-	
		MS	18 - 190	82.9	-	
		MSD	0 - 57	-	2.2	
1,2-diphenylhydrazine (as Azobenzene)	QC57365	LCS	67 - 114	87.6	-	EPA 625
		LCS Dup	-	87.2	-	
		MS	60 - 121	86.9	-	
		MSD	0 - 21	-	1.6	
1,3-Dichlorobenzene	QC57365	LCS	70 - 130	79.0	-	EPA 625
		LCS Dup	-	77.0	-	
		MS	59 - 156	80.6	-	
		MSD	0 - 43	-	2.4	
1,4-Dichlorobenzene	QC57365	LCS	56 - 135	80.0	-	EPA 625
		LCS Dup	-	78.6	-	
		MS	18 - 190	80.9	-	
		MSD	0 - 57	-	0.9	
2,4,6-Trichlorophenol	QC57365	LCS	69 - 130	73.1	-	EPA 625
		LCS Dup	-	72.1	-	
		MS	37 - 144	74.9	-	
		MSD	0 - 58	-	3.5	
2,4-Dichlorophenol	QC57365	LCS	64 - 130	84.0	-	EPA 625
		LCS Dup	-	83.0	-	
		MS	39 - 135	88.1	-	
		MSD	0 - 50	-	2.1	
2,4-Dimethylphenol	QC57365	LCS	58 - 130	102.1	-	EPA 625
		LCS Dup	-	102.3	-	
		MS	32 - 120	104.2	-	
		MSD	0 - 58	-	0.5	
2,4-Dinitrophenol	QC57365	LCS	39 - 173	44.9	-	EPA 625
		LCS Dup	-	41.4	-	

Abbreviations/ References:

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Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) Spike amount low relative to the sample amount.
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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
2,4-Dinitrotoluene	QC57365	MS	1 - 191	52.5	-	EPA 625
		MSD	0 - 132	-	11.6	
		LCS	53 - 130	95.7	-	
		LCS Dup	-	97.7	-	
		MS	39 - 139	95.0	-	
2,6-Dinitrotoluene	QC57365	MSD	0 - 42	-	0.8	EPA 625
		LCS	68 - 137	95.0	-	
		LCS Dup	-	97.5	-	
		MS	50 - 158	95.0	-	
		MSD	0 - 48	-	0.2	
2-Chloronaphthalene	QC57365	LCS	70 - 130	88.3	-	EPA 625
		LCS Dup	-	88.0	-	
		MS	60 - 120	88.2	-	
		MSD	0 - 24	-	0.0	
		LCS	55 - 130	88.8	-	EPA 625
2-Chlorophenol	QC57365	LCS Dup	-	88.8	-	
		MS	23 - 134	91.0	-	
		MSD	0 - 61	-	3.9	
		LCS	61 - 163	73.5	-	EPA 625
2-Nitrophenol	QC57365	LCS Dup	-	75.2	-	
		MS	29 - 182	88.3	-	
		MSD	0 - 55	-	8.5	
		LCS	18 - 213	54.6	-	EPA 625
3,3'-Dichlorobenzidine	QC57365	LCS Dup	-	55.2	-	
		MS	1 - 262	54.8	-	
		MSD	0 - 108	-	52.2	
		LCS	56 - 130	86.6	-	EPA 625
4,6-Dinitro-2-methylphenol	QC57365	LCS Dup	-	88.7	-	
		MS	1 - 181	93.7	-	
		MSD	0 - 203	-	7.1	
		LCS	70 - 130	88.0	-	EPA 625
4-Bromophenyl phenyl ether	QC57365	LCS Dup	-	89.4	-	
		MS	53 - 127	89.1	-	
		MSD	0 - 43	-	2.9	
		LCS	68 - 130	92.4	-	EPA 625
4-Chloro-3-methylphenol	QC57365	LCS Dup	-	92.5	-	
		MS	22 - 147	92.9	-	
		MSD	0 - 73	-	1.7	
		LCS	57 - 145	89.5	-	EPA 625
4-Chlorophenyl phenyl ether	QC57365	LCS Dup	-	89.6	-	
		MS	25 - 158	89.9	-	
		MSD	0 - 61	-	1.5	
		LCS	35 - 130	71.2	-	EPA 625
4-Nitrophenol	QC57365	LCS Dup	-	65.8	-	
		MS	1 - 132	64.4	-	
		MSD	0 - 131	-	3.3	
		LCS	70 - 130	92.9	-	EPA 625
Acenaphthene	QC57365	LCS Dup	-	92.5	-	
		MS	47 - 145	93.6	-	
		MSD	0 - 48	-	2.2	

Abbreviations/ References:

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

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

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Acenaphthylene	QC57365	LCS	60 - 130	84.9	-	EPA 625
		LCS Dup	-	85.2	-	
		MS	33 - 145	85.6	-	
		MSD	0 - 74	-	1.0	
Anthracene	QC57365	LCS	58 - 130	95.2	-	EPA 625
		LCS Dup	-	97.3	-	
		MS	27 - 133	96.2	-	
		MSD	0 - 81	-	1.8	
Benzidine	QC57365	LCS	1 - 231	28.5	-	EPA 625
		LCS Dup	-	32.3	-	
		MS	1 - 318	19.7	-	
		MSD	0 - 218	-	3.2	
Benzo(a)anthracene	QC57365	LCS	42 - 133	90.1	-	EPA 625
		LCS Dup	-	91.1	-	
		MS	33 - 143	88.6	-	
		MSD	0 - 53	-	3.2	
Benzo(a)pyrene	QC57365	LCS	32 - 148	94.3	-	EPA 625
		LCS Dup	-	96.4	-	
		MS	17 - 163	93.4	-	
		MSD	0 - 72	-	3.0	
Benzo(b)fluoranthene	QC57365	LCS	42 - 140	99.2	-	EPA 625
		LCS Dup	-	101.1	-	
		MS	24 - 159	99.2	-	
		MSD	0 - 71	-	2.1	
Benzo(g,h,i)perylene	QC57365	LCS	13 - 195	81.0	-	EPA 625
		LCS Dup	-	73.8	-	
		MS	1 - 219	78.9	-	
		MSD	0 - 97	-	7.6	
Benzo(k)fluoranthene	QC57365	LCS	25 - 146	98.1	-	EPA 625
		LCS Dup	-	96.4	-	
		MS	11 - 162	96.1	-	
		MSD	0 - 63	-	1.1	
Bis(2-chloroethoxy) methane	QC57365	LCS	52 - 164	94.3	-	EPA 625
		LCS Dup	-	92.6	-	
		MS	33 - 184	93.7	-	
		MSD	0 - 54	-	0.2	
Bis(2-chloroethyl) ether	QC57365	LCS	52 - 130	92.2	-	EPA 625
		LCS Dup	-	90.2	-	
		MS	12 - 158	91.6	-	
		MSD	0 - 108	-	1.1	
Bis(2-chloroisopropyl) ether	QC57365	LCS	63 - 139	84.9	-	EPA 625
		LCS Dup	-	81.3	-	
		MS	36 - 166	84.3	-	
		MSD	0 - 76	-	3.6	
Bis(2-ethylhexyl) phthalate	QC57365	LCS	43 - 137	90.2	-	EPA 625
		LCS Dup	-	92.7	-	
		MS	8 - 158	94.3	-	
		MSD	0 - 82	-	6.1	
Butylbenzylphthalate	QC57365	LCS	43 - 140	92.1	-	EPA 625
		LCS Dup	-	96.4	-	
		MS	1 - 152	95.1	-	

Abbreviations/ References:

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

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

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
		MSD	0 - 60	-	2.2	
Chrysene	QC57365	LCS	44 - 140	89.1	-	EPA 625
		LCS Dup	-	90.8	-	
		MS	17 - 168	88.8	-	
		MSD	0 - 87	-	0.7	
Dibenzo(a,h)anthracene	QC57365	LCS	13 - 200	77.8	-	EPA 625
		LCS Dup	-	67.2	-	
		MS	1 - 227	74.0	-	
		MSD	0 - 126	-	8.5	
Diethyl phthalate	QC57365	LCS	47 - 130	103.3	-	EPA 625
		LCS Dup	-	103.1	-	
		MS	1 - 120	102.9	-	
		MSD	0 - 100	-	2.3	
Dimethyl phthalate	QC57365	LCS	50 - 130	97.9	-	EPA 625
		LCS Dup	-	99.0	-	
		MS	1 - 120	99.7	-	
		MSD	0 - 183	-	1.9	
Di-n-butyl phthalate	QC57365	LCS	52 - 130	102.6	-	EPA 625
		LCS Dup	-	105.4	-	
		MS	1 - 120	106.2	-	
		MSD	0 - 47	-	2.6	
Di-n-octyl phthalate	QC57365	LCS	21 - 132	90.9	-	EPA 625
		LCS Dup	-	91.9	-	
		MS	4 - 146	96.2	-	
		MSD	0 - 69	-	7.2	
Fluoranthene	QC57365	LCS	47 - 130	100.3	-	EPA 625
		LCS Dup	-	102.4	-	
		MS	26 - 137	103.1	-	
		MSD	0 - 66	-	3.6	
Fluorene	QC57365	LCS	70 - 130	90.5	-	EPA 625
		LCS Dup	-	91.1	-	
		MS	59 - 121	93.2	-	
		MSD	0 - 38	-	2.5	
Hexachlorobenzene	QC57365	LCS	38 - 142	89.4	-	EPA 625
		LCS Dup	-	92.2	-	
		MS	1 - 152	89.8	-	
		MSD	0 - 55	-	0.2	
Hexachlorobutadiene	QC57365	LCS	68 - 130	77.8	-	EPA 625
		LCS Dup	-	78.6	-	
		MS	24 - 120	80.8	-	
		MSD	0 - 62	-	0.9	
Hexachlorocyclopentadiene	QC57365	LCS	8 - 106	68.6	-	EPA 625
		LCS Dup	-	70.6	-	
		MS	1 - 111	57.1	-	
		MSD	0 - 41	-	17.9	
Hexachloroethane	QC57365	LCS	55 - 130	81.3	-	EPA 625
		LCS Dup	-	79.5	-	
		MS	40 - 120	82.9	-	
		MSD	0 - 52	-	1.9	
Indeno(1,2,3-cd)pyrene	QC57365	LCS	13 - 151	79.7	-	EPA 625

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Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Isophorone	QC57365	LCS Dup	-	74.0	-	EPA 625
		MS	1 - 171	79.7	-	
		MSD	0 - 99	-	8.7	
Naphthalene	QC57365	LCS	52 - 180	98.0	-	EPA 625
		LCS Dup	-	97.1	-	
		MS	21 - 196	97.2	-	
		MSD	0 - 93	-	0.7	
Nitrobenzene	QC57365	LCS	70 - 130	91.8	-	EPA 625
		LCS Dup	-	90.2	-	
		MS	21 - 133	92.5	-	
		MSD	0 - 65	-	0.2	
n-Nitrosodimethylamine	QC57365	LCS	54 - 158	93.3	-	EPA 625
		LCS Dup	-	91.9	-	
		MS	35 - 180	93.6	-	
		MSD	0 - 62	-	0.2	
n-Nitroso-di-n-propylamine	QC57365	LCS	57 - 141	77.8	-	EPA 625
		LCS Dup	-	68.9	-	
		MS	30 - 168	64.7	-	
		MSD	0 - 68	-	14.2	
n-Nitrosodiphenylamine (as Diphenylamine)	QC57365	LCS	59 - 170	94.0	-	EPA 625
		LCS Dup	-	91.6	-	
		MS	1 - 230	94.0	-	
		MSD	0 - 87	-	1.4	
Pentachlorophenol	QC57365	LCS	70 - 130	108.7	-	EPA 625
		LCS Dup	-	109.4	-	
		MS	65 - 135	109.1	-	
		MSD	0 - 20	-	3.1	
Phenanthrene	QC57365	LCS	42 - 152	22.3	-	EPA 625
		LCS Dup	-	22.4	-	
		MS	14 - 176	22.3	-	
		MSD	0 - 86	-	0.0	
Phenol	QC57365	LCS	67 - 130	94.9	-	EPA 625
		LCS Dup	-	95.8	-	
		MS	54 - 120	95.9	-	
		MSD	0 - 39	-	1.4	
Pyrene	QC57365	LCS	48 - 130	89.5	-	EPA 625
		LCS Dup	-	88.8	-	
		MS	5 - 120	88.5	-	
		MSD	0 - 64	-	1.5	
		LCS	70 - 130	99.9	-	EPA 625
		LCS Dup	-	101.7	-	
		MS	52 - 120	101.1	-	
		MSD	0 - 49	-	1.9	

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

Abbreviations/ References:

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ug/L = Micrograms Per Liter or PPB
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Date Analyzed = Date Test Completed

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DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

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Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507

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Colorado
Analytical
LABORATORIES, INC.

Commerce City Lab

10411 Heinz Way

Commerce City CO 80640

Lakewood Service Center

12860 W. Cedar Dr, Suite 100A

Lakewood CO 80228

Phone: 303-659-2313

www.coloradolab.com

Report To Information	Bill To Information (if different from report to)	Project Name / Number
Company Name: Grand Island Resources	Company Name: Credit Card	
Contact Name: Patrick Delaney	Contact Name:	
Address: 12567 W. Cedar Dr. Ste 250	Address:	Task Number (Lab Use Only)
City/Lakeview State CO Zip 80228	City State Zip	CAL Task
Phone: 315-414-6986	Phone:	220602147
Email: pdelaney@blackfoxmining.com	Email:	JML
Sample Collector: BM		
Sample Collector Phone: 303-506-1618	PO No.:	

[illegible]

Laboratory ID: 0055

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

ANALYTICAL REPORTS

SAMPLE CODE: 432132

6/14/2022

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

Source: Cross Portal
Source City: Nederland
Source State: CO

Date/Time Received: 6/3/2022 09:05

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
1905	Apparent Color	2120B	15	CU	3	5	1	6/2/2022 13:45		6/3/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	6/2/2022 13:45		6/3/2022 14:40
	MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole									
1920	Odor Threshold	2150B	3	ton	1	ND	1	6/2/2022 13:45		6/3/2022 12:30

Analyst	Tests
SP	2120B, 5540C, 2150B



Christine MacMillan, Technical Director

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laboratory ID: 0055

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ANALYTICAL REPORTS

SAMPLE CODE: 432133
6/14/2022

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

Source: Cross Well
Source City: Nederland
Source State: CO

Date/Time Received: 6/3/2022 09:05

Collected by: B. Moran

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"DF" This column indicates the contaminant dilution factor.

Report Notes:

ed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
905	Apparent Color	2120B	15	CU	3	ND	1	6/2/2022 14:10		6/3/2022 14:15
905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	6/2/2022 14:10		6/3/2022 14:40
	MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole									
920	Odor Threshold	2150B	3	ton	1	ND	1	6/2/2022 14:10		6/3/2022 12:30

Analyst	Tests
SP	2120B, 5540C, 2150B



Christine MacMillan, Technical Director

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National Testing Laboratories, Ltd

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ANALYTICAL REPORTS

SAMPLE CODE: 432134

6/14/2022

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

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

Date/Time Received: 6/3/2022 09:05

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
1905	Apparent Color	2120B	15	CU	3	ND	1	6/2/2022 14:30		6/3/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	6/2/2022 14:30		6/3/2022 14:40
	MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole									
1920	Odor Threshold	2150B	3	ton	1	ND	1	6/2/2022 14:30		6/3/2022 12:30

Analyst	Tests
SP	2120B,5540C,2150B



Christine MacMillan, Technical Director

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ANALYTICAL REPORTS

SAMPLE CODE: 432135
6/14/2022

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

Source: Caribou Portal
Source City: Nederland
Source State: CO

Date/Time Received: 6/3/2022 09:05

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

ed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
905	Apparent Color	2120B	15	CU	3	5	1	6/2/2022 15:00		6/3/2022 14:15
905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	6/2/2022 15:00		6/3/2022 14:40
MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole										
920	Odor Threshold	2150B	3	ton	1	ND	1	6/2/2022 15:00		6/3/2022 12:30

Analyst	Tests
SP	2120B, 5540C, 2150B



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ANALYTICAL REPORTS

SAMPLE CODE: 432136

6/14/2022

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

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

Date/Time Received: 6/3/2022 09:05

Collected by: B. Moran

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

Legend:

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

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

"NA" Not Analyzed

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

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

"DF" This column indicates the contaminant dilution factor.

Report Notes:

Fed Id #	Contaminant	Method	Standard	Units	LRL	Level Detected	DF	Date/Time Sampled	Date Prepped	Date/Time Analyzed
Physical Factors										
1905	Apparent Color	2120B	15	CU	3	ND	1	6/2/2022 16:00		6/3/2022 14:15
2905	Foaming Agents	5540C	0.5	mg/L	0.1	ND	1	6/2/2022 16:00		6/3/2022 14:40
MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole										
1920	Odor Threshold	2150B	3	ton	1	ND	1	6/2/2022 16:00		6/3/2022 12:30

Analyst	Tests
SP	2120B,5540C,2150B



Christine MacMillan, Technical Director

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