

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 10, 2025

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Grant Arens Reclamation

Work Order #2502203

Enclosed are the results of analyses for samples received by Summit Scientific on 02/11/25 09:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271

Project Manager: Paul Henchan

Reported:
04/10/25 08:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-01 2Ft	2502203-01	Soil	02/10/25 16:30	02/11/25 09:30

Summit Scientific

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2502203

Send Data To:		Send Invoice To:
Client: Fremont Environmental	Project Manager:	Company: <u>Chevron</u>
Address: 8305 6th St.	E-Mail: <u>Chevron Dist. List, PDC Dist. List, Civitas Dist. List, Fremont Dist. List, paulH, mikeC,</u>	Project Name/Location:
City/State/Zip: Wellington, CO	<u>mcbL, ethanB, jeffG, christL, stanG, aaronO, joahB, jordanS, tammyA, Reports (@fremontenv.com)</u>	AFE#:
Phone:	Project Name: <u>Noble - Grant Arens Reclamation</u>	PO/Billing Codes: <u>UWRWE - A2090 - ABN</u>
Sampler Name: <u>Black</u>	Project Number: <u>C023-271</u>	Contact: <u>Dan Peterson</u>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested							Special Instructions					
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Full Table 915-1 (Soil)	Full Table 915-1 (GW)	NBTEX, TMBs	TPH (C6-C36)	PAHs	SAR, EC,pH, Boron		Table 915-1 Metals	TDS, Chloride, Sulfate			
1	SS-01 2FT	2/10/25	1630	2			X			X			X											
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								

Relinquished by: <u>John Black</u>	Date/Time: <u>2/10/25 1704</u>	Received by: <u>Summit North</u>	Date/Time: <u>2/10/25 1704</u>	TAT Business Days	Field DO	Notes: Dist. Report to parties circled in the email line(s) only.
Relinquished by: <u>S2</u>	Date/Time: <u>2/12/25 0930</u>	Received by: <u>[Signature]</u>	Date/Time: <u>2/12/25 0930</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <u>4.7</u>	Corrected Temperature: <u>8</u>	IR gun #:	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S₂

S2 Work Order# 25022.03

Sample Receipt Checklist

Client: Fremont Client Project ID: Nide-Grant Arens Reclamation

Received Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____

Matrix (Circle all that apply) Air/Soil/Water/Other Temp (°C) 4.7 Thermometer # 1

Bottle ware (Circle all that apply) Glass Jar/Voa/Amber/Poly/Other

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on ice
If custody seals are present, are they intact? ⁽¹⁾	-			
Are samples due within 48 hours?		-		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/ Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD, Total Residual Chlorine (TRC)		-		
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	-			
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	-			
Were all samples received intact? ⁽¹⁾	X			
Was adequate sample volume provided? ⁽¹⁾	X			
Were samples provided in appropriate bottle ware?	X			
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	X			
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	X			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			X	
Are any samples/bottles preserved (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.			X	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
Are there requested analysis that cannot be performed by S2? Note analysis in the comments column		X		
Additional Comments (if any):				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

Control Form #: SRC-001

J. V. Vial
Custodian Printed Name

2/11/25 09:30
Date/Time



Fremont Environmental
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Wellington CO, 80549

Project: Noble - Grant Arens Reclamation
Project Number: UWRWE-A2090-ABN CO23-271
Project Manager: Paul Henchan

Reported:
04/10/25 08:00

SS-01 2Ft
2502203-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIB1228	02/21/25	03/02/25	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.0084	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	0.011	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0400	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0390	97.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	99.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIB1234	02/21/25	03/06/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	6.45	51.6 %	50-140		"	"	"	"	

PAH by EPA Method 8270D SIM

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SS-01 2Ft
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PAH by EPA Method 8270D SIM

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIB1222	02/21/25	02/27/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.00695	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00893	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.00796	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0150	0.00500	"	"	"	"	"	"	

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0238	71.4 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0260	77.9 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0501	03/10/25	03/19/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SS-01 2Ft
2502203-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.07	0.200	mg/kg dry	1	BIC1201	03/20/25	04/08/25	EPA 6020B
Barium	91.1	0.400	"	"	"	"	"	"
Cadmium	0.534	0.200	"	"	"	"	"	"
Copper	10.8	0.400	"	"	"	"	"	"
Lead	23.0	0.200	"	"	"	"	"	"
Nickel	5.65	0.400	"	"	"	"	"	"
Silver	0.172	0.0200	"	"	"	"	"	"
Zinc	47.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIB1154	02/20/25	02/24/25	EPA 7196A	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	113	0.0500	mg/L dry	1	BIC0466	03/09/25	03/24/25	EPA 6020B	
Magnesium	27.2	0.0500	"	"	"	"	"	"	
Sodium	92.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.03	0.00100	units	1	BIC1420	03/24/25	03/24/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SS-01 2Ft
2502203-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	86.8	%	1	BIB1168	02/20/25	02/21/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.14	0.0100	mmhos/cm	1	BIC0470	03/09/25	03/12/25	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **02/10/25 16:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.00		pH Units	1	BIC0468	03/09/25	03/12/25	EPA 9045D	

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04/10/25 08:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BIB1228 - EPA 5030 Soil MS

Blank (BIB1228-BLK1)

Prepared: 02/21/25 Analyzed: 03/01/25

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
Naphthalene	ND	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104		50-150			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2		50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0		50-150			

LCS (BIB1228-BS1)

Prepared: 02/21/25 Analyzed: 03/01/25

Benzene	0.110	0.0020	mg/kg	0.100		110		70-130			
Toluene	0.109	0.0050	"	0.100		109		70-130			
Ethylbenzene	0.114	0.0050	"	0.100		114		70-130			
m,p-Xylene	0.221	0.010	"	0.200		111		70-130			
o-Xylene	0.107	0.0050	"	0.100		107		70-130			
1,2,4-Trimethylbenzene	0.107	0.0050	"	0.100		107		70-130			
1,3,5-Trimethylbenzene	0.107	0.0050	"	0.100		107		70-130			
Naphthalene	0.107	0.0038	"	0.100		107		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104		50-150			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8		50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102		50-150			

Matrix Spike (BIB1228-MS1)

Source: 2502190-01

Prepared: 02/21/25 Analyzed: 03/01/25

Benzene	0.0821	0.0020	mg/kg	0.100	ND	82.1		70-130			
Toluene	0.0926	0.0050	"	0.100	ND	92.6		70-130			
Ethylbenzene	0.110	0.0050	"	0.100	ND	110		70-130			
m,p-Xylene	0.218	0.010	"	0.200	ND	109		70-130			
o-Xylene	0.105	0.0050	"	0.100	ND	105		70-130			
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103		70-130			
1,3,5-Trimethylbenzene	0.107	0.0050	"	0.100	ND	107		70-130			
Naphthalene	0.0927	0.0038	"	0.100	ND	92.7		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0430		"	0.0400		107		50-150			
Surrogate: Toluene-d8	0.0410		"	0.0400		103		50-150			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100		50-150			

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Reported:
 04/10/25 08:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BIB1228 - EPA 5030 Soil MS

Matrix Spike Dup (BIB1228-MSD1)	Source: 2502190-01			Prepared: 02/21/25 Analyzed: 03/01/25						
Benzene	0.0684	0.0020	mg/kg	0.100	ND	68.4	70-130	18.3	30	QM-05
Toluene	0.0811	0.0050	"	0.100	ND	81.1	70-130	13.2	30	
Ethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	0.627	30	
m,p-Xylene	0.224	0.010	"	0.200	ND	112	70-130	2.92	30	
o-Xylene	0.109	0.0050	"	0.100	ND	109	70-130	3.63	30	
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	2.95	30	
1,3,5-Trimethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130	3.88	30	
Naphthalene	0.0901	0.0038	"	0.100	ND	90.1	70-130	2.92	30	
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0400		104	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	50-150			

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIB1234 - EPA 3550A

Blank (BIB1234-BLK1)

Prepared: 02/21/25 Analyzed: 03/04/25

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.2		"	12.5		97.3	50-140				

LCS (BIB1234-BS1)

Prepared: 02/21/25 Analyzed: 03/04/25

C10-C28 (DRO)	604	50	mg/kg	500		121	50-140				
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		93.2	50-140				

Matrix Spike (BIB1234-MS1)

Source: 2502190-01

Prepared: 02/21/25 Analyzed: 03/04/25

C10-C28 (DRO)	523	50	mg/kg	500	ND	105	50-140				
Surrogate: <i>o</i> -Terphenyl	7.76		"	12.5		62.1	50-140				

Matrix Spike Dup (BIB1234-MSD1)

Source: 2502190-01

Prepared: 02/21/25 Analyzed: 03/04/25

C10-C28 (DRO)	435	50	mg/kg	500	ND	87.1	50-140	18.3	20		
Surrogate: <i>o</i> -Terphenyl	7.09		"	12.5		56.7	50-140				

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04/10/25 08:00

PAH by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch BIB1222 - EPA 5030 Soil MS

Blank (BIB1222-BLK1)

Prepared: 02/21/25 Analyzed: 02/26/25

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0183</i>		"	<i>0.0333</i>		<i>54.9</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0250</i>		"	<i>0.0333</i>		<i>75.1</i>	<i>40-140</i>			

LCS (BIB1222-BS1)

Prepared: 02/21/25 Analyzed: 02/26/25

Acenaphthene	0.0242	0.00500	mg/kg	0.0333		72.5	40-140			
Anthracene	0.0240	0.00500	"	0.0333		71.9	40-140			
Benzo (a) anthracene	0.0267	0.00500	"	0.0333		80.1	40-140			
Benzo (a) pyrene	0.0230	0.00500	"	0.0333		69.0	40-140			
Benzo (b) fluoranthene	0.0242	0.00500	"	0.0333		72.7	40-140			
Benzo (k) fluoranthene	0.0242	0.00500	"	0.0333		72.5	40-140			
Chrysene	0.0247	0.00500	"	0.0333		74.0	40-140			
Dibenz (a,h) anthracene	0.0265	0.00500	"	0.0333		79.5	40-140			
Fluoranthene	0.0268	0.00500	"	0.0333		80.3	40-140			
Fluorene	0.0249	0.00500	"	0.0333		74.6	40-140			
Indeno (1,2,3-cd) pyrene	0.0186	0.00500	"	0.0333		55.7	40-140			
Pyrene	0.0231	0.00500	"	0.0333		69.4	40-140			
1-Methylnaphthalene	0.0241	0.00500	"	0.0333		72.4	40-140			
2-Methylnaphthalene	0.0238	0.00500	"	0.0333		71.5	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0249</i>		"	<i>0.0333</i>		<i>74.6</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0281</i>		"	<i>0.0333</i>		<i>84.3</i>	<i>40-140</i>			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Grant Arens Reclamation
Project Number: UWRWE-A2090-ABN CO23-271
Project Manager: Paul Henchan

Reported:
04/10/25 08:00

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BIB1222 - EPA 5030 Soil MS

Matrix Spike (BIB1222-MS1)	Source: 2502199-01			Prepared: 02/21/25 Analyzed: 02/27/25						
Acenaphthene	0.0224	0.00500	mg/kg	0.0333	ND	67.1	40-140			
Anthracene	0.0217	0.00500	"	0.0333	ND	65.0	40-140			
Benzo (a) anthracene	0.0234	0.00500	"	0.0333	ND	70.1	40-140			
Benzo (a) pyrene	0.0199	0.00500	"	0.0333	ND	59.7	40-140			
Benzo (b) fluoranthene	0.0206	0.00500	"	0.0333	ND	61.7	40-140			
Benzo (k) fluoranthene	0.0198	0.00500	"	0.0333	ND	59.5	40-140			
Chrysene	0.0215	0.00500	"	0.0333	ND	64.6	40-140			
Dibenz (a,h) anthracene	0.0246	0.00500	"	0.0333	ND	73.7	40-140			
Fluoranthene	0.0234	0.00500	"	0.0333	ND	70.1	40-140			
Fluorene	0.0228	0.00500	"	0.0333	ND	68.3	40-140			
Indeno (1,2,3-cd) pyrene	0.0169	0.00500	"	0.0333	ND	50.7	40-140			
Pyrene	0.0215	0.00500	"	0.0333	ND	64.5	40-140			
1-Methylnaphthalene	0.0221	0.00500	"	0.0333	ND	66.2	40-140			
2-Methylnaphthalene	0.0223	0.00500	"	0.0333	ND	67.0	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0226</i>		<i>"</i>	<i>0.0333</i>		<i>67.9</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0246</i>		<i>"</i>	<i>0.0333</i>		<i>73.9</i>	<i>40-140</i>			

Matrix Spike Dup (BIB1222-MSD1)	Source: 2502199-01			Prepared: 02/21/25 Analyzed: 02/27/25						
Acenaphthene	0.0199	0.00500	mg/kg	0.0333	ND	59.6	40-140	11.9	30	
Anthracene	0.0189	0.00500	"	0.0333	ND	56.7	40-140	13.8	30	
Benzo (a) anthracene	0.0205	0.00500	"	0.0333	ND	61.5	40-140	13.0	30	
Benzo (a) pyrene	0.0171	0.00500	"	0.0333	ND	51.2	40-140	15.4	30	
Benzo (b) fluoranthene	0.0169	0.00500	"	0.0333	ND	50.7	40-140	19.7	30	
Benzo (k) fluoranthene	0.0162	0.00500	"	0.0333	ND	48.6	40-140	20.0	30	
Chrysene	0.0182	0.00500	"	0.0333	ND	54.6	40-140	16.8	30	
Dibenz (a,h) anthracene	0.0194	0.00500	"	0.0333	ND	58.1	40-140	23.7	30	
Fluoranthene	0.0192	0.00500	"	0.0333	ND	57.6	40-140	19.7	30	
Fluorene	0.0203	0.00500	"	0.0333	ND	60.9	40-140	11.4	30	
Indeno (1,2,3-cd) pyrene	0.0140	0.00500	"	0.0333	ND	42.0	40-140	18.8	30	
Pyrene	0.0200	0.00500	"	0.0333	ND	60.1	40-140	7.07	30	
1-Methylnaphthalene	0.0202	0.00500	"	0.0333	ND	60.7	40-140	8.69	30	
2-Methylnaphthalene	0.0204	0.00500	"	0.0333	ND	61.3	40-140	8.93	30	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0209</i>		<i>"</i>	<i>0.0333</i>		<i>62.6</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0197</i>		<i>"</i>	<i>0.0333</i>		<i>59.2</i>	<i>40-140</i>			

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control
Summit Scientific

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

Batch BIC0501 - EPA 3050B

Blank (BIC0501-BLK1)

Prepared: 03/10/25 Analyzed: 03/19/25

Boron ND 2.00 mg/L

LCS (BIC0501-BS1)

Prepared: 03/10/25 Analyzed: 03/19/25

Boron 5.34 2.00 mg/L 5.00 107 80-120

Duplicate (BIC0501-DUP1)

Source: 2502186-37

Prepared: 03/10/25 Analyzed: 03/19/25

Boron 0.339 2.00 mg/L 0.353 4.03 20

Matrix Spike (BIC0501-MS1)

Source: 2502186-37

Prepared: 03/10/25 Analyzed: 03/19/25

Boron 5.68 2.00 mg/L 5.01 0.353 106 75-125

Matrix Spike Dup (BIC0501-MSD1)

Source: 2502186-37

Prepared: 03/10/25 Analyzed: 03/19/25

Boron 6.19 2.00 mg/L 5.01 0.353 116 75-125 8.52 25

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Wellington CO, 80549

Project: Noble - Grant Arens Reclamation
Project Number: UWRWE-A2090-ABN CO23-271
Project Manager: Paul Henchan

Reported:
04/10/25 08:00

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIC1201 - EPA 3050B

Blank (BIC1201-BLK1)

Prepared: 03/20/25 Analyzed: 04/08/25

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BIC1201-BS1)

Prepared: 03/20/25 Analyzed: 04/08/25

Arsenic	36.4	0.200	mg/kg wet	38.5	94.6	80-120
Barium	38.4	0.400	"	38.5	99.8	80-120
Cadmium	1.80	0.200	"	1.92	93.6	80-120
Copper	39.1	0.400	"	38.5	102	80-120
Lead	18.2	0.200	"	19.2	94.7	80-120
Nickel	38.4	0.400	"	38.5	99.8	80-120
Silver	1.83	0.0200	"	1.92	94.9	80-120
Zinc	36.3	0.400	"	38.5	94.4	80-120
Selenium	3.54	0.260	"	3.85	92.2	80-120

Duplicate (BIC1201-DUP1)

Source: 2502199-20

Prepared: 03/20/25 Analyzed: 04/08/25

Arsenic	5.12	0.200	mg/kg dry	5.66	9.99	20	
Barium	99.9	0.400	"	137	31.3	20	QR-04
Cadmium	0.288	0.200	"	0.283	1.79	20	
Copper	5.79	0.400	"	5.45	6.13	20	
Lead	9.33	0.200	"	9.26	0.784	20	
Nickel	5.97	0.400	"	5.39	10.1	20	
Silver	0.0553	0.0200	"	0.0385	35.9	20	QR-04
Zinc	20.1	0.400	"	19.6	2.90	20	
Selenium	ND	0.260	"	0.179	200	20	QR-01

Summit Scientific

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Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIC1201 - EPA 3050B

Matrix Spike (BIC1201-MS1)	Source: 2502199-20			Prepared: 03/20/25 Analyzed: 04/08/25								
Arsenic	46.8	0.200	mg/kg dry	41.8	5.66	98.4	75-125					
Barium	183	0.400	"	41.8	137	111	75-125					
Cadmium	2.35	0.200	"	2.09	0.283	98.8	75-125					
Copper	26.3	0.400	"	41.8	5.45	49.8	75-125					QM-05
Lead	29.9	0.200	"	20.9	9.26	98.9	75-125					
Nickel	26.3	0.400	"	41.8	5.39	49.9	75-125					QM-05
Silver	2.05	0.0200	"	2.09	0.0385	96.4	75-125					
Zinc	42.0	0.400	"	41.8	19.6	53.6	75-125					QM-05
Selenium	3.19	0.260	"	4.18	0.179	72.1	75-125					QM-05

Matrix Spike Dup (BIC1201-MSD1)	Source: 2502199-20			Prepared: 03/20/25 Analyzed: 04/08/25								
Arsenic	45.7	0.200	mg/kg dry	42.8	5.66	93.4	75-125	2.46	25			
Barium	132	0.400	"	42.8	137	NR	75-125	32.2	25			QM-05
Cadmium	2.38	0.200	"	2.14	0.283	98.0	75-125	1.50	25			
Copper	27.6	0.400	"	42.8	5.45	51.8	75-125	5.08	25			QM-05
Lead	29.7	0.200	"	21.4	9.26	95.7	75-125	0.596	25			
Nickel	28.2	0.400	"	42.8	5.39	53.1	75-125	6.93	25			QM-05
Silver	2.13	0.0200	"	2.14	0.0385	97.8	75-125	3.74	25			
Zinc	43.2	0.400	"	42.8	19.6	55.3	75-125	2.98	25			QM-05
Selenium	3.31	0.260	"	4.28	0.179	73.1	75-125	3.67	25			QM-05

Summit Scientific

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 Wellington CO, 80549

Project: Noble - Grant Arens Reclamation
 Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BIB1154 - 3060A Mod

Blank (BIB1154-BLK1)

Prepared: 02/20/25 Analyzed: 02/24/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIB1154-BS1)

Prepared: 02/20/25 Analyzed: 02/24/25

Chromium, Hexavalent 25.4 0.30 mg/kg wet 26.0 97.6 80-120

Duplicate (BIB1154-DUP1)

Source: 2502201-01

Prepared: 02/20/25 Analyzed: 02/24/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIB1154-MS1)

Source: 2502201-01

Prepared: 02/20/25 Analyzed: 02/24/25

Chromium, Hexavalent 28.1 0.30 mg/kg dry 29.1 ND 96.6 75-125

Matrix Spike Dup (BIB1154-MSD1)

Source: 2502201-01

Prepared: 02/20/25 Analyzed: 02/24/25

Chromium, Hexavalent 29.0 0.30 mg/kg dry 29.4 ND 98.6 75-125 3.07 20

Summit Scientific

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Fremont Environmental
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 Wellington CO, 80549

Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BIC0466 - General Preparation

Blank (BIC0466-BLK1)

Prepared: 03/09/25 Analyzed: 03/24/25

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BIC0466-BS1)

Prepared: 03/09/25 Analyzed: 03/24/25

Calcium	4.82	0.0500	mg/L wet	5.00	96.4	70-130
Magnesium	4.77	0.0500	"	5.00	95.5	70-130
Sodium	4.83	0.0500	"	5.00	96.5	70-130

Summit Scientific

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 Wellington CO, 80549

Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BIB1168 - General Preparation

Duplicate (BIB1168-DUP1)

Source: 2502198-12

Prepared: 02/20/25 Analyzed: 02/21/25

% Solids	88.9		%		88.9			0.00193		20	
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Summit Scientific

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Fremont Environmental
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 Wellington CO, 80549

Project: Noble - Grant Arens Reclamation
 Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BIC0470 - General Preparation

Blank (BIC0470-BLK1)

Prepared: 03/09/25 Analyzed: 03/12/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIC0470-BS1)

Prepared: 03/09/25 Analyzed: 03/12/25

Specific Conductance (EC) 1.39 0.0100 mmhos/cm 1.41 98.9 95-105

Duplicate (BIC0470-DUP1)

Source: 2502198-31

Prepared: 03/09/25 Analyzed: 03/12/25

Specific Conductance (EC) 1.17 0.0100 mmhos/cm 1.17 0.358 20

Summit Scientific

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 PO Box 1289
 Wellington CO, 80549

Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271
 Project Manager: Paul Henchan

Reported:
 04/10/25 08:00

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BIC0468 - General Preparation

LCS (BIC0468-BS1)

Prepared: 03/09/25 Analyzed: 03/12/25

pH 9.13 pH Units 9.18 99.4 95-105

Duplicate (BIC0468-DUP1)

Source: 2502198-31

Prepared: 03/09/25 Analyzed: 03/12/25

pH 8.38 pH Units 8.38 0.0298 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Grant Arens Reclamation

Project Number: UWRWE-A2090-ABN CO23-271

Project Manager: Paul Henchan

Reported:
04/10/25 08:00

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values. Only applies to source/DUP and MS/MSD pairs.
- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference