

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

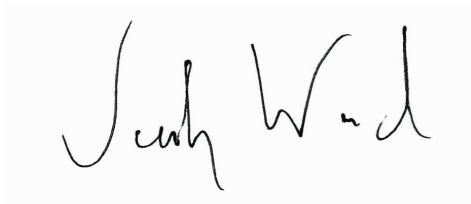
January 28, 2025

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Bockius 15-01 Facility
Work Order #2501242

Enclosed are the results of analyses for samples received by Summit Scientific on 01/16/25 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293

Project Manager: Paul Henchan

Reported:
01/28/25 09:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC01@1Ft	2501242-01	Soil	01/16/25 11:00	01/16/25 16:30

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 Golden, CO 80403
 303-277-9310

Lab ID	Page 1 of 1
2501242	

Client: Fremont		Send Data To: Project Manager: Paul Henehan		Send Invoice To: Company: Chemon/Noble	
Address:		E-Mail:		Project Name/Location: UWRWE-A2413-ENV	
City/State/Zip:		Project Name: Beckius 15-01 Facility		AFE#:	
Phone:		Project Number: C023-304		PO/Billing Codes:	
Sampler Name: Aaron O'Flaherty		Contact: Dan Peterson			

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			
1	WC01 @ 1 Ft	11/16/25	1100	2			X			X						
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

Relinquished by: <i>Aaron O'Flaherty</i>	Date/Time: 11/16/25 1616	Received by: Summit North Office	Date/Time: 11/16/25 1616	TAT Business Days	Field DO	Notes:
Relinquished by: <i>52</i>	Date/Time: 11/16/25 1630	Received by: <i>[Signature]</i>	Date/Time: 11/16/25 1630	Same Day <input checked="" type="checkbox"/>	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: 0.7	Corrected Temperature: 0	IR gun #:		Standard	Field Turb.	
			HNO3 lot #:			

S₂

S2 Work Order# 2501242

Sample Receipt Checklist

Client: Fremont Client Project ID: Backius 15-01 Facility

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

Matrix (Circle all that apply) Air Soil Water Other Temp (°C) 6.7 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.	-			once
If custody seals are present, are they intact? ⁽¹⁾	-			
Are samples due within 48 hours?	-			Same day
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⁾	AS	✓		
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	✓			
Were all samples received intact? ⁽¹⁾	✓			
Was adequate sample volume provided? ⁽¹⁾	✓			
Were samples provided in appropriate bottle ware?	✓			
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	✓			
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾		✓		no sample times
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
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.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Are there requested analysis that cannot be performed by S2? Note analysis in the comments column		✓	AS	
<u>Additional Comments (if any):</u>				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Control Form #: SRC-001

AS
Custodian Printed Name

1/16/25
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility
Project Number: UWRWE-A2413-ABN CO23-293
Project Manager: Paul Henchan

Reported:
01/28/25 09:44

WC01@1Ft
2501242-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIA0744	01/16/25	01/16/25	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.015	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0497	124 %		50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0408	102 %		50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0420	105 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIA0784	01/16/25	01/16/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: o-Terphenyl</i>	8.45	67.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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2501242-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIA0803	01/17/25	01/22/25	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	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	"	"	"	"	"	"	

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0250	75.0 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0256	76.7 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIA0825	01/17/25	01/20/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.64	0.200	mg/kg dry	1	BIA0805	01/17/25	01/19/25	EPA 6020B
Barium	160	0.400	"	"	"	"	"	"
Cadmium	0.361	0.200	"	"	"	"	"	"
Copper	10.7	0.400	"	"	"	"	"	"
Lead	12.6	0.200	"	"	"	"	"	"
Nickel	7.57	0.400	"	"	"	"	"	"
Silver	0.0867	0.0200	"	"	"	"	"	"
Zinc	27.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIA0813	01/17/25	01/17/25	EPA 7196A	

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

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	175	0.0500	mg/L dry	1	BIA0785	01/16/25	01/18/25	EPA 6020B	
Magnesium	29.5	0.0500	"	"	"	"	"	"	
Sodium	120	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.21	0.00100	units	1	BIA0840	01/19/25	01/19/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	76.7	%	1	BIA0809	01/17/25	01/17/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/16/25 11:00**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.457	0.0100	mmhos/cm	1	BIA0786	01/16/25	01/17/25	EPA 120.1	

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

Date Sampled: **01/16/25 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.93		pH Units	1	BIA0787	01/16/25	01/17/25	EPA 9045D	

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Project Manager: Paul Henchan

Reported:
01/28/25 09:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BIA0744 - EPA 5030 Soil MS

Blank (BIA0744-BLK1)

Prepared: 01/16/25 Analyzed: 01/17/25

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0469		"	0.0400		117	50-150				
<i>Surrogate: Toluene-d8</i>	0.0400		"	0.0400		100	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0420		"	0.0400		105	50-150				

LCS (BIA0744-BS1)

Prepared: 01/16/25 Analyzed: 01/17/25

Benzene	0.0895	0.0020	mg/kg	0.100		89.5	70-130				
Toluene	0.0874	0.0050	"	0.100		87.4	70-130				
Ethylbenzene	0.0833	0.0050	"	0.100		83.3	70-130				
m,p-Xylene	0.163	0.010	"	0.200		81.5	70-130				
o-Xylene	0.0835	0.0050	"	0.100		83.5	70-130				
1,2,4-Trimethylbenzene	0.0840	0.0050	"	0.100		84.0	70-130				
1,3,5-Trimethylbenzene	0.0824	0.0050	"	0.100		82.4	70-130				
Naphthalene	0.0978	0.0038	"	0.100		97.8	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0460		"	0.0400		115	50-150				
<i>Surrogate: Toluene-d8</i>	0.0402		"	0.0400		100	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0409		"	0.0400		102	50-150				

Matrix Spike (BIA0744-MS1)

Source: 2501243-01

Prepared: 01/16/25 Analyzed: 01/17/25

Benzene	0.0791	0.0020	mg/kg	0.100	ND	79.1	70-130				
Toluene	0.0781	0.0050	"	0.100	ND	78.1	70-130				
Ethylbenzene	0.0736	0.0050	"	0.100	ND	73.6	70-130				
m,p-Xylene	0.146	0.010	"	0.200	ND	72.9	70-130				
o-Xylene	0.0737	0.0050	"	0.100	ND	73.7	70-130				
1,2,4-Trimethylbenzene	0.0729	0.0050	"	0.100	ND	72.9	70-130				
1,3,5-Trimethylbenzene	0.0724	0.0050	"	0.100	ND	72.4	70-130				
Naphthalene	0.0829	0.0038	"	0.100	ND	82.9	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0479		"	0.0400		120	50-150				
<i>Surrogate: Toluene-d8</i>	0.0395		"	0.0400		98.8	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0411		"	0.0400		103	50-150				

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Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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 BIA0744 - EPA 5030 Soil MS

Matrix Spike Dup (BIA0744-MSD1)	Source: 2501243-01			Prepared: 01/16/25 Analyzed: 01/17/25						
Benzene	0.0803	0.0020	mg/kg	0.100	ND	80.3	70-130	1.54	30	
Toluene	0.0782	0.0050	"	0.100	ND	78.2	70-130	0.0384	30	
Ethylbenzene	0.0770	0.0050	"	0.100	ND	77.0	70-130	4.58	30	
m,p-Xylene	0.154	0.010	"	0.200	ND	77.1	70-130	5.66	30	
o-Xylene	0.0773	0.0050	"	0.100	ND	77.3	70-130	4.73	30	
1,2,4-Trimethylbenzene	0.0769	0.0050	"	0.100	ND	76.9	70-130	5.33	30	
1,3,5-Trimethylbenzene	0.0763	0.0050	"	0.100	ND	76.3	70-130	5.33	30	
Naphthalene	0.0874	0.0038	"	0.100	ND	87.4	70-130	5.36	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0470</i>		<i>"</i>	<i>0.0400</i>		<i>117</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			

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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BIA0784 - EPA 3550A

Blank (BIA0784-BLK1)

Prepared: 01/16/25 Analyzed: 01/17/25

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5		86.5	30-150			

LCS (BIA0784-BS1)

Prepared: 01/16/25 Analyzed: 01/17/25

C10-C28 (DRO)	609	50	mg/kg	500		122	70-130			
Surrogate: <i>o</i> -Terphenyl	13.4		"	12.5		107	30-150			

Matrix Spike (BIA0784-MS1)

Source: 2501242-01

Prepared: 01/16/25 Analyzed: 01/17/25

C10-C28 (DRO)	526	50	mg/kg	500	31.0	98.9	70-130			
Surrogate: <i>o</i> -Terphenyl	11.1		"	12.5		88.7	30-150			

Matrix Spike Dup (BIA0784-MSD1)

Source: 2501242-01

Prepared: 01/16/25 Analyzed: 01/17/25

C10-C28 (DRO)	524	50	mg/kg	500	31.0	98.7	70-130	0.244	20	
Surrogate: <i>o</i> -Terphenyl	10.9		"	12.5		87.4	30-150			

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01/28/25 09:44

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 BIA0803 - EPA 5030 Soil MS

Blank (BIA0803-BLK1)

Prepared: 01/17/25 Analyzed: 01/22/25

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>0.0331</i>		"	<i>0.0333</i>		<i>99.2</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0284</i>		"	<i>0.0333</i>		<i>85.3</i>	<i>40-140</i>			

LCS (BIA0803-BS1)

Prepared: 01/17/25 Analyzed: 01/22/25

Acenaphthene	0.0306	0.00500	mg/kg	0.0333		91.8	40-140			
Anthracene	0.0307	0.00500	"	0.0333		92.1	40-140			
Benzo (a) anthracene	0.0324	0.00500	"	0.0333		97.3	40-140			
Benzo (a) pyrene	0.0307	0.00500	"	0.0333		92.1	40-140			
Benzo (b) fluoranthene	0.0303	0.00500	"	0.0333		90.9	40-140			
Benzo (k) fluoranthene	0.0286	0.00500	"	0.0333		85.7	40-140			
Chrysene	0.0300	0.00500	"	0.0333		89.9	40-140			
Dibenz (a,h) anthracene	0.0291	0.00500	"	0.0333		87.2	40-140			
Fluoranthene	0.0311	0.00500	"	0.0333		93.4	40-140			
Fluorene	0.0268	0.00500	"	0.0333		80.5	40-140			
Indeno (1,2,3-cd) pyrene	0.0218	0.00500	"	0.0333		65.5	40-140			
Pyrene	0.0281	0.00500	"	0.0333		84.4	40-140			
1-Methylnaphthalene	0.0314	0.00500	"	0.0333		94.2	40-140			
2-Methylnaphthalene	0.0320	0.00500	"	0.0333		96.1	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0321</i>		"	<i>0.0333</i>		<i>96.4</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0326</i>		"	<i>0.0333</i>		<i>97.7</i>	<i>40-140</i>			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility
Project Number: UWRWE-A2413-ABN CO23-293
Project Manager: Paul Henchan

Reported:
01/28/25 09:44

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 BIA0803 - EPA 5030 Soil MS

Matrix Spike (BIA0803-MS1)	Source: 2501118-01			Prepared: 01/17/25 Analyzed: 01/22/25						
Acenaphthene	0.0225	0.00500	mg/kg	0.0333	ND	67.4	40-140			
Anthracene	0.0242	0.00500	"	0.0333	ND	72.5	40-140			
Benzo (a) anthracene	0.0219	0.00500	"	0.0333	ND	65.8	40-140			
Benzo (a) pyrene	0.0209	0.00500	"	0.0333	ND	62.7	40-140			
Benzo (b) fluoranthene	0.0201	0.00500	"	0.0333	ND	60.3	40-140			
Benzo (k) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.5	40-140			
Chrysene	0.0202	0.00500	"	0.0333	ND	60.7	40-140			
Dibenz (a,h) anthracene	0.0197	0.00500	"	0.0333	ND	59.0	40-140			
Fluoranthene	0.0257	0.00500	"	0.0333	ND	77.1	40-140			
Fluorene	0.0185	0.00500	"	0.0333	ND	55.4	40-140			
Indeno (1,2,3-cd) pyrene	0.0146	0.00500	"	0.0333	ND	43.9	40-140			
Pyrene	0.0218	0.00500	"	0.0333	ND	65.3	40-140			
1-Methylnaphthalene	0.0231	0.00500	"	0.0333	ND	69.3	40-140			
2-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.8	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0224</i>		<i>"</i>	<i>0.0333</i>		<i>67.1</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0212</i>		<i>"</i>	<i>0.0333</i>		<i>63.7</i>	<i>40-140</i>			

Matrix Spike Dup (BIA0803-MSD1)	Source: 2501118-01			Prepared: 01/17/25 Analyzed: 01/22/25						
Acenaphthene	0.0288	0.00500	mg/kg	0.0333	ND	86.3	40-140	24.6	30	
Anthracene	0.0400	0.00500	"	0.0333	ND	120	40-140	49.3	30	QR-02
Benzo (a) anthracene	0.0313	0.00500	"	0.0333	ND	93.8	40-140	35.1	30	QR-02
Benzo (a) pyrene	0.0275	0.00500	"	0.0333	ND	82.4	40-140	27.2	30	
Benzo (b) fluoranthene	0.0285	0.00500	"	0.0333	ND	85.4	40-140	34.5	30	QR-02
Benzo (k) fluoranthene	0.0251	0.00500	"	0.0333	ND	75.3	40-140	32.1	30	QR-02
Chrysene	0.0300	0.00500	"	0.0333	ND	90.1	40-140	39.1	30	QR-02
Dibenz (a,h) anthracene	0.0249	0.00500	"	0.0333	ND	74.6	40-140	23.3	30	
Fluoranthene	0.0383	0.00500	"	0.0333	ND	115	40-140	39.4	30	QR-02
Fluorene	0.0281	0.00500	"	0.0333	ND	84.3	40-140	41.3	30	QR-02
Indeno (1,2,3-cd) pyrene	0.0194	0.00500	"	0.0333	ND	58.2	40-140	28.1	30	
Pyrene	0.0314	0.00500	"	0.0333	ND	94.3	40-140	36.3	30	QR-02
1-Methylnaphthalene	0.0303	0.00500	"	0.0333	ND	91.0	40-140	27.1	30	
2-Methylnaphthalene	0.0289	0.00500	"	0.0333	ND	86.8	40-140	27.5	30	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0301</i>		<i>"</i>	<i>0.0333</i>		<i>90.3</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0285</i>		<i>"</i>	<i>0.0333</i>		<i>85.6</i>	<i>40-140</i>			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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

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

Batch BIA0825 - EPA 3050B

Blank (BIA0825-BLK1)

Prepared: 01/17/25 Analyzed: 01/20/25

Boron ND 2.00 mg/L

LCS (BIA0825-BS1)

Prepared: 01/17/25 Analyzed: 01/20/25

Boron 5.33 2.00 mg/L 5.00 107 80-120

Duplicate (BIA0825-DUP1)

Source: 2501242-01

Prepared: 01/17/25 Analyzed: 01/20/25

Boron 0.669 2.00 mg/L 0.674 0.796 20

Matrix Spike (BIA0825-MS1)

Source: 2501242-01

Prepared: 01/17/25 Analyzed: 01/20/25

Boron 5.86 2.00 mg/L 5.00 0.674 104 75-125

Matrix Spike Dup (BIA0825-MSD1)

Source: 2501242-01

Prepared: 01/17/25 Analyzed: 01/20/25

Boron 5.70 2.00 mg/L 5.00 0.674 101 75-125 2.84 25

Summit Scientific

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Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility
Project Number: UWRWE-A2413-ABN CO23-293
Project Manager: Paul Henchan

Reported:
01/28/25 09:44

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIA0805 - EPA 3050B

Blank (BIA0805-BLK1)

Prepared: 01/17/25 Analyzed: 01/19/25

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 (BIA0805-BS1)

Prepared: 01/17/25 Analyzed: 01/19/25

Arsenic	42.9	0.200	mg/kg wet	41.3	104	80-120
Barium	42.3	0.400	"	41.3	102	80-120
Cadmium	2.05	0.200	"	2.07	99.3	80-120
Copper	42.7	0.400	"	41.3	103	80-120
Lead	20.4	0.200	"	20.7	98.6	80-120
Nickel	43.3	0.400	"	41.3	105	80-120
Silver	2.03	0.0200	"	2.07	98.5	80-120
Zinc	42.8	0.400	"	41.3	104	80-120
Selenium	4.15	0.260	"	4.13	100	80-120

Duplicate (BIA0805-DUP1)

Source: 2501242-01

Prepared: 01/17/25 Analyzed: 01/19/25

Arsenic	5.45	0.200	mg/kg dry	5.64	3.32	20
Barium	159	0.400	"	160	0.467	20
Cadmium	0.360	0.200	"	0.361	0.217	20
Copper	10.8	0.400	"	10.7	0.961	20
Lead	12.6	0.200	"	12.6	0.212	20
Nickel	7.59	0.400	"	7.57	0.314	20
Silver	0.0860	0.0200	"	0.0867	0.784	20
Zinc	27.5	0.400	"	27.3	0.847	20
Selenium	ND	0.260	"	ND		20

Summit Scientific

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 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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 BIA0805 - EPA 3050B

Matrix Spike (BIA0805-MS1)

Source: 2501242-01

Prepared: 01/17/25 Analyzed: 01/19/25

Arsenic	60.4	0.200	mg/kg dry	53.9	5.64	102	75-125			
Barium	242	0.400	"	53.9	160	152	75-125			QM-05
Cadmium	3.06	0.200	"	2.69	0.361	100	75-125			
Copper	40.8	0.400	"	53.9	10.7	55.8	75-125			QM-05
Lead	38.9	0.200	"	26.9	12.6	97.9	75-125			
Nickel	38.5	0.400	"	53.9	7.57	57.4	75-125			QM-05
Silver	2.74	0.0200	"	2.69	0.0867	98.6	75-125			
Zinc	60.0	0.400	"	53.9	27.3	60.7	75-125			QM-05
Selenium	4.18	0.260	"	5.39	ND	77.6	75-125			

Matrix Spike Dup (BIA0805-MSD1)

Source: 2501242-01

Prepared: 01/17/25 Analyzed: 01/19/25

Arsenic	60.6	0.200	mg/kg dry	53.4	5.64	103	75-125	0.346	25	
Barium	241	0.400	"	53.4	160	151	75-125	0.482	25	QM-05
Cadmium	3.03	0.200	"	2.67	0.361	99.9	75-125	1.12	25	
Copper	40.5	0.400	"	53.4	10.7	55.7	75-125	0.727	25	QM-05
Lead	38.5	0.200	"	26.7	12.6	97.3	75-125	0.963	25	
Nickel	38.3	0.400	"	53.4	7.57	57.5	75-125	0.595	25	QM-05
Silver	2.71	0.0200	"	2.67	0.0867	98.3	75-125	1.16	25	
Zinc	59.5	0.400	"	53.4	27.3	60.3	75-125	0.872	25	QM-05
Selenium	4.13	0.260	"	5.34	ND	77.3	75-125	1.20	25	

Summit Scientific

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 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility
 Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BIA0813 - 3060A Mod

Blank (BIA0813-BLK1)

Prepared & Analyzed: 01/17/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIA0813-BS1)

Prepared & Analyzed: 01/17/25

Chromium, Hexavalent 26.1 0.30 mg/kg wet 26.0 100 80-120

Duplicate (BIA0813-DUP1)

Source: 2501085-01

Prepared & Analyzed: 01/17/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIA0813-MS1)

Source: 2501085-01

Prepared & Analyzed: 01/17/25

Chromium, Hexavalent 26.1 0.30 mg/kg dry 29.0 ND 90.2 75-125

Matrix Spike Dup (BIA0813-MSD1)

Source: 2501085-01

Prepared & Analyzed: 01/17/25

Chromium, Hexavalent 26.8 0.30 mg/kg dry 29.0 ND 92.6 75-125 2.63 20

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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 BIA0785 - General Preparation

Blank (BIA0785-BLK1)

Prepared: 01/16/25 Analyzed: 01/17/25

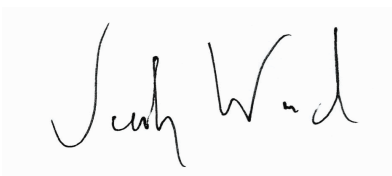
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BIA0785-BS1)

Prepared: 01/16/25 Analyzed: 01/17/25

Calcium	5.66	0.0500	mg/L wet	5.00		113	70-130			
Magnesium	4.94	0.0500	"	5.00		98.8	70-130			
Sodium	4.68	0.0500	"	5.00		93.6	70-130			

Summit Scientific



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 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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

Summit Scientific

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

Batch BIA0809 - General Preparation

Duplicate (BIA0809-DUP1)

Source: 2501242-01

Prepared & Analyzed: 01/17/25

% Solids	75.7		%		76.7			1.33	20	
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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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

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

Batch BIA0786 - General Preparation

Blank (BIA0786-BLK1)

Prepared: 01/16/25 Analyzed: 01/17/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIA0786-BS1)

Prepared: 01/16/25 Analyzed: 01/17/25

Specific Conductance (EC) 1.40 0.0100 mmhos/cm 1.41 99.0 95-105

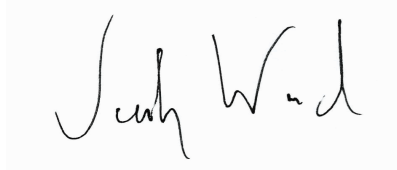
Duplicate (BIA0786-DUP1)

Source: 2501242-01

Prepared: 01/16/25 Analyzed: 01/17/25

Specific Conductance (EC) 0.456 0.0100 mmhos/cm 0.457 0.216 20

Summit Scientific



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 PO Box 1289
 Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
 Project Manager: Paul Henchan

Reported:
 01/28/25 09:44

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

Summit Scientific

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

Batch BIA0787 - General Preparation

LCS (BIA0787-BS1)

Prepared: 01/16/25 Analyzed: 01/17/25

pH	9.29	pH Units	9.18	101	95-105
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Duplicate (BIA0787-DUP1)

Source: 2501242-01

Prepared: 01/16/25 Analyzed: 01/17/25

pH	8.91	pH Units	8.93	0.227	20
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Bockius 15-01 Facility

Project Number: UWRWE-A2413-ABN CO23-293
Project Manager: Paul Henchan

Reported:
01/28/25 09:44

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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