

FREMONT ENVIRONMENTAL INC.

Feb 22, 2024

Mr. Daniel Peterson
Noble Energy Inc.
2115 117th Avenue
Greeley, CO 80634

Subject: **Flowline Closure Data Submittal**
 Lucci B1-23
 API # 05-123-21508
 CSE Sec. 1, T5N, R64W
 Weld County, Colorado
 Fremont Project No. C023-269
 Remediation # 30908

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline closure activities for the Noble Energy Inc. (Noble) Lucci B1-23. Impacted soil was not encountered during abandonment activities. Details of the Lucci B1-23 flowline closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

Please contact me at (336) 541-3048 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

FREMONT ENVIRONMENTAL INC.



Aaron Otillar
Consultant

Attachments:

- Facility Closure Checklist
- Tables
- Figures
- Photos
- Laboratory Report

Flowline Closure Checklist

COGCC Rule 911.a.(4) Environmental Site Closure Assessment Field Form

<i>Additional Attachments:</i>		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure
<i>Site Name & COGCC Facility Number:</i>		<i>Date:</i>						<i>Remediation Project #:</i>
<i>Associated Wells:</i>		<i>Age of Site:</i>						<i>Number of Photos Attached:</i>
<i>Starting point: (GPS coordinates and descriptions)</i>								
<i>End point: (GPS coordinates and descriptions)</i>								
<i>USCS Soil Type:</i>					<i>Estimated Depth to Groundwater:</i>			
<i>Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i>								
<i>Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)</i>								
Flowlines								
<i>Flowline type</i>								
<i>Depth</i>								
<i>Age</i>								
<i>Length</i>								
<i>Construction Material</i>								
<i>Were flowlines pulled?</i>								
<i>Visual Integrity of lines</i>								
<i>Visual impacts if trenched</i>								
<i>PID Readings if trenched</i>								
<i>Sample taken? Location/Sample ID#</i>								
<i>Photo Number(s)</i>								
<i>Other observations regarding on location flowlines:</i>								
Summary								
<i>Was impacted soil identified?</i> <div> <div>No</div> <div>Yes - less than 10 cubic yards</div> <div>Yes - more than 10 cubic yards</div> </div>								
<i>Total number of samples field screened:</i>					<i>Total number of samples collected:</i>			
<i>Highest PID Reading:</i>					<i>Total number of samples submitted to lab for analysis:</i>			
<i>If more than 10 cubic yards of impacted soil were observed:</i>								
<i>Vertical extent:</i>					<i>Estimated spill volume:</i>			
<i>Lateral extent:</i>					<i>Volume of soil removed:</i>			
<i>Is additional investigation required?</i>								
<i>Was groundwater encountered during the investigation?</i> <div> <div>No</div> <div>Yes - not impacted or in contact with impacted soils</div> <div>Yes - groundwater impacted and/or in contact with impacted soils</div> </div>								
<i>Measured depth to groundwater:</i>					<i>Was remedial groundwater removal conducted? Yes No</i>			
<i>Date Groundwater was encountered:</i>					<i>Commencement date of removal:</i>			
<i>Sheen on groundwater? Yes No</i>					<i>Volume of groundwater removed prior to sampling:</i>			
<i>Free product observed? Yes No</i>					<i>Volume of groundwater removed post sampling:</i>			
<i>Total number of samples collected:</i>					<i>Total Volume of groundwater removed:</i>			
<i>Total number of samples submitted to lab for analysis:</i>								

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
LUCCI B01-23 FLOWLINE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-269

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4- Trimethyl- Benzene (mg/kg)	1,3,5- Trimethyl- Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500**		
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500**		
FL01-02@4'	10/03/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50
FL01-03@4'	10/03/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50
FLR01@4'	10/03/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50
SEP01-FL@4'	10/03/2023	4'	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.50	<50

Bold faced values exceed the COGCC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

* Indicates laboratory minimum detection limit in excess of SSL

** Summation of GRO+DRO+ORO must be less than 500 mg/kg

NA - Not analyzed

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
LUCCI B01-23 FLOWLINE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-269

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3- cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
FL01-02@4'	10/03/2023	4'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-03@4'	10/03/2023	4'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FLR01@4'	10/03/2023	4'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-FL@4'	10/03/2023	4'	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Bold faced values exceed the COGCC Table 915-1 concentrations
Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)
* Indicates laboratory minimum detection limit in excess of SSL
NA - Not analyzed

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC.
LUCCI B01-23 FLOWLINE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-269

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
COGCC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
Max. Background Concentration			8.42	6.39	10.6	-
FL01-02@4'	10/03/2023	4'	8.06	4.23	11.0	<2.00
FL01-03@4'	10/03/2023	4'	8.65	0.578	3.44	<2.00
FLR01@4'	10/03/2023	4'	8.29	1.9	11.9	<2.00
SEP01-FL@4'	10/03/2023	4'	8.26	0.135	0.0205	<2.00
BKG01@4'	10/03/2023	4'	8.03	6.39	10.6	<2.00
BKG02@4'	10/03/2023	4'	8.25	2.050	8.26	<2.00
BKG03@4'	10/03/2023	4'	8.36	1.790	5.72	<2.00
BKG04@4'	10/03/2023	4'	8.42	2.170	10.6	<2.00
BKG05@4'	10/03/2023	4'	8.03	1.11	5.37	<2.00

Bold faced values exceed the COGCC Table 915-1 concentrations

Yellow highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

NA - Not analyzed

TABLE 4
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
LUCCI B01-23 FLOWLINE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-269

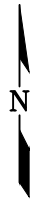
Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
Max. Background Concentration			2.61	92.8	-	-	-	-	-	0.302	-	-
FL01-02@4'	10/03/2023	4'	3.33	77.9	<0.200	<0.30	4.13	6.63	3.59	<0.260	<0.0200	16.8
FL01-03@4'	10/03/2023	4'	4.49	21.3	<0.200	<0.30	1.85	4.29	1.37	<0.260	<0.0200	6.46
FLR01@4'	10/03/2023	4'	3.87	96.4	0.253	<0.30	4.7	13	3.37	0.266	0.024	17.3
SEP01-FL@4'	10/03/2023	4'	2.36	37.1	<0.200	<0.30	2.28	4.99	1.73	<0.260	<0.0200	10.5
BKG01@4'	10/03/2023	4'	2.47	92.8	0.273	<0.30	4.6	7.36	3.5	0.302	0.0317	17.4
BKG02@4'	10/03/2023	4'	2.61	26.2	<0.200	<0.30	2.45	4.27	2.26	<0.260	<0.0200	12
BKG03@4'	10/03/2023	4'	1.95	33.6	<0.200	<0.30	1.96	3.74	1.63	<0.260	<0.0200	8.82
BKG04@4'	10/03/2023	4'	1.61	16.5	<0.200	<0.30	1.65	3.13	1.56	<0.260	<0.0200	7.76
BKG05@4'	10/03/2023	4'	2.38	32.7	<0.200	<0.30	2.77	5.34	2.2	<0.260	<0.0200	11.6

Bold faced values exceed the COGCC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed



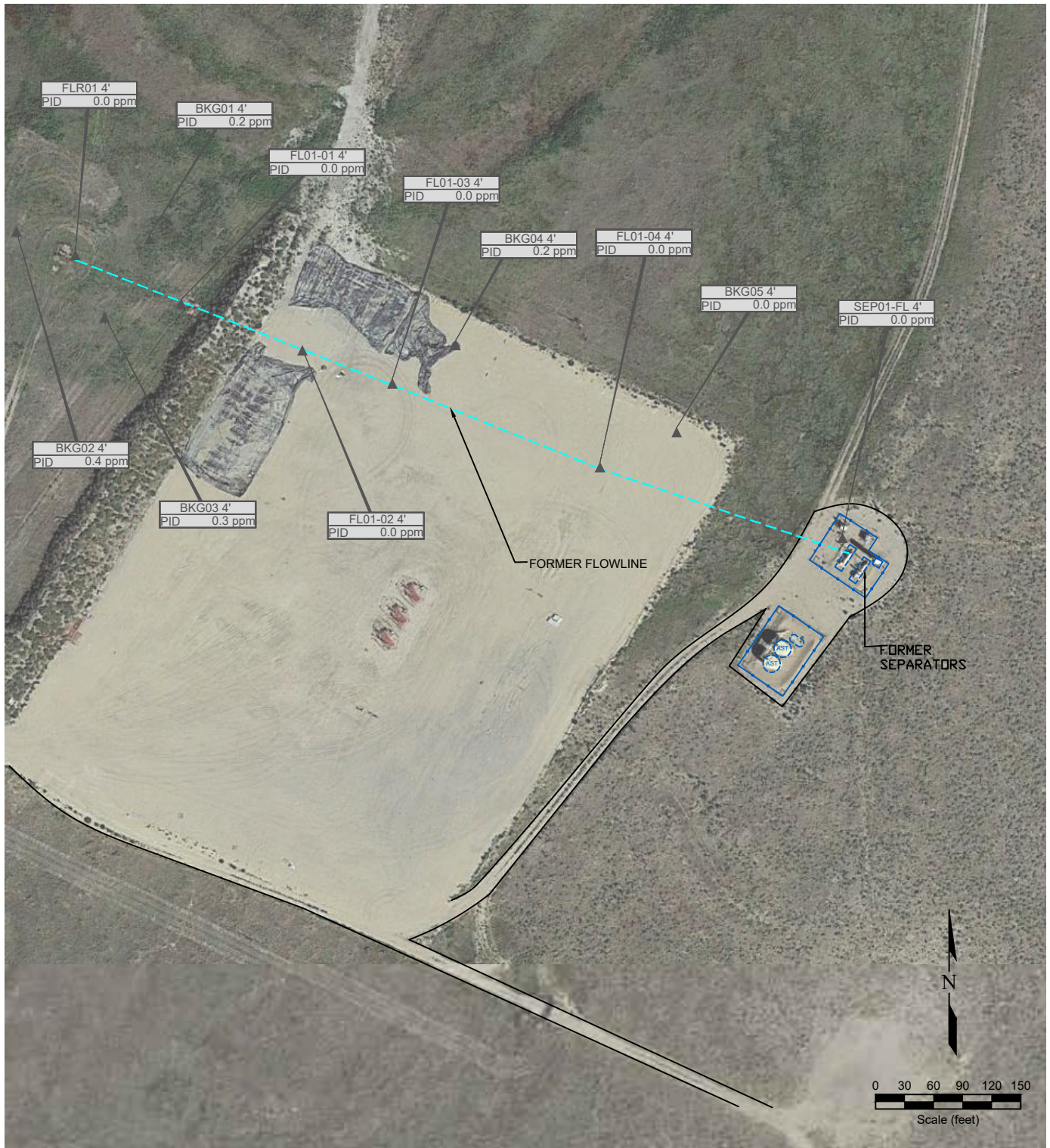


Figure 2
SITE MAP
LUCCI B 1-23 ~ NOBLE ENERGY INC

CSE Sec. 1, T5N, R64W, 6th PM
Weld County, Colorado
40.424910°, -104.493610°

Project No. C023-269	API # 123-21508	Facility #
Date 3/16/24	Remediation # 30908	Filename 23269Q



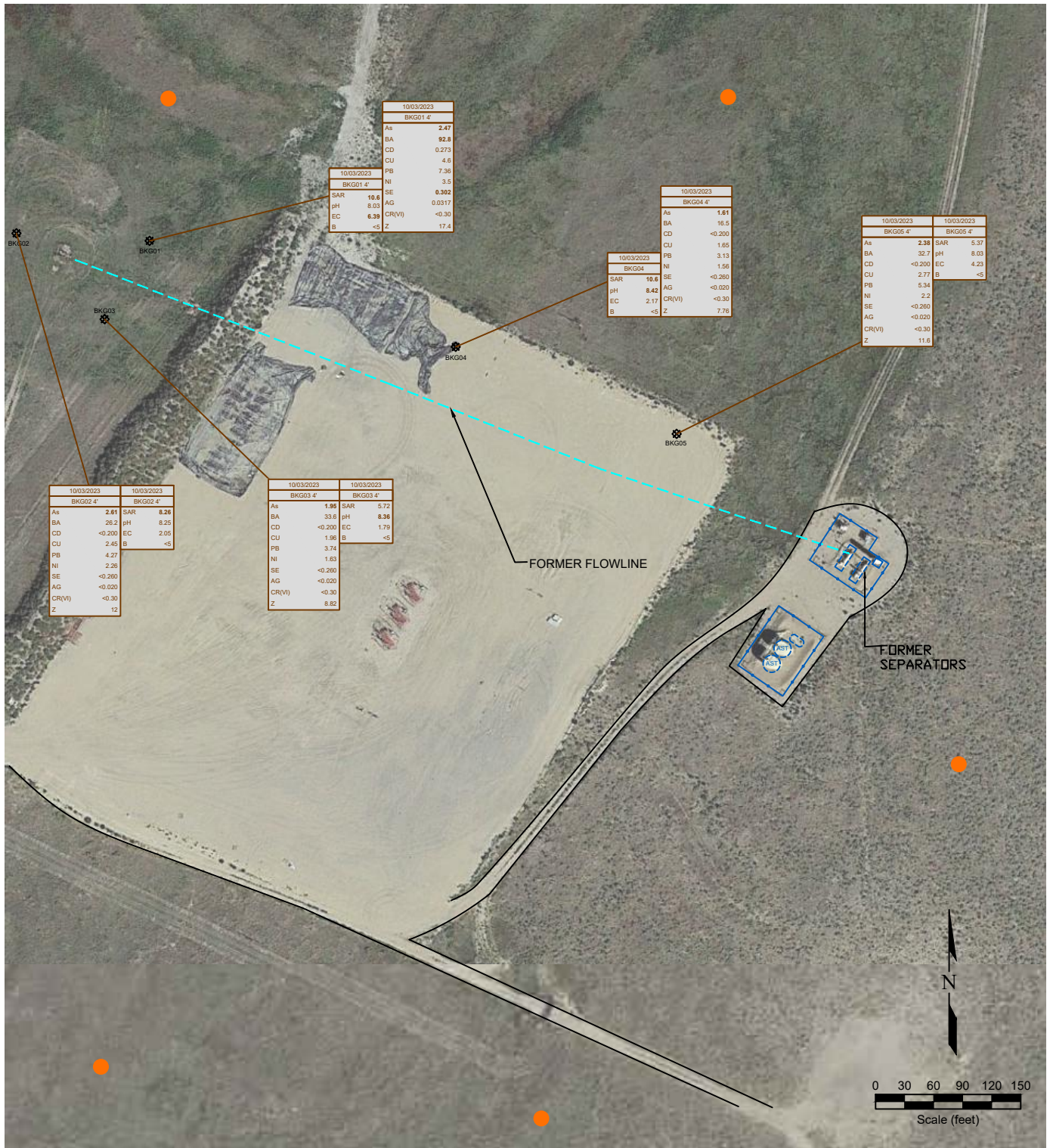


Figure 4
BACKGROUND SOIL CHEMISTRY MAP
LUCCI B 1-23 ~ NOBLE ENERGY INC

CSE Sec. 1, T5N, R64W, 6th PM
 Weld County, Colorado
 40.424910°, -104.493610°

Project No. C023-269	API # 05-123-21508	Facility #	
Date 3/16/24	Remediation # 30908	Filename 23269Q	

Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 12, 2023

Paul Henchan

Fremont Environmental

PO Box 1289

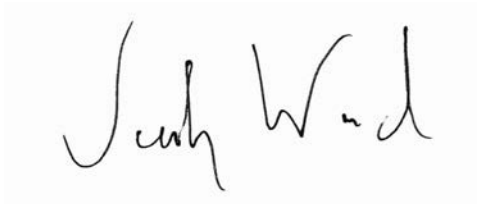
Wellington, CO 80549

RE: Noble - Lucci B01-23 Flowline

Work Order #2310049

Enclosed are the results of analyses for samples received by Summit Scientific on 10/03/23 16:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FLR01@4'	2310049-01	Soil	10/03/23 00:00	10/03/23 16:45
FL01-02@4'	2310049-02	Soil	10/03/23 00:00	10/03/23 16:45
FL01-03@4'	2310049-03	Soil	10/03/23 00:00	10/03/23 16:45
SEP01-FL@4'	2310049-04	Soil	10/03/23 00:00	10/03/23 16:45
BKG01@4'	2310049-05	Soil	10/03/23 00:00	10/03/23 16:45
BKG02@4'	2310049-06	Soil	10/03/23 00:00	10/03/23 16:45
BKG03@4'	2310049-07	Soil	10/03/23 00:00	10/03/23 16:45
BKG04@4'	2310049-08	Soil	10/03/23 00:00	10/03/23 16:45
BKG05@4'	2310049-09	Soil	10/03/23 00:00	10/03/23 16:45

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2310049	

Client: Fremont Environmental				Send Data To:				Send Invoice To:													
Address: 8305 6th Street				Project Manager: Paul Henehan				Company: Noble/Chevron													
City/State/Zip: Wellington, CO, 80549				E-Mail: Fremont Distribution List				Project Name/Location:													
Phone: 603-477-6907				Project Name: Lucci 301-23 Flowline				AFE#: UWRWE-A2077A13N													
Sampler Name: Aaron Otilar				Project Number: C023-256				PO/Billing Codes:													
Contact: Mike Montoya																					
				Preservative				Matrix				Analysis Requested				Special Instructions					
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 915	TPH (C6-C36)	PAH	SAR, EC, pH, Boron	Metals (915-1)	TDS, Cl, SO4	TMB's - 915		
1	FL01@4'	10/3/23		2			2			X			X	X	X	X	X		X		
2	FL01-02@4'																				
3	FL01-03@4'																				
4	SEP01-FL@4'																				
5	BKG01@4'															X	X				
6	BKG02@4'																				
7	BKG03@4'																				
8	BKG04@4'																				
9	BKG05@4'																				
10																					
11																					
12																					
13																					
14																					
15																					
Relinquished by:		Date/Time:		Received by:		Date/Time:		TAT Business Days		Field DO		Notes:									
<i>Aaron Otilar</i>		10/3/23 1630		Summit North Office		10/3/23 1630		Same Day		Field EC											
Relinquished by:		Date/Time:		Received by:		Date/Time:		1 Day		Field ORP											
S2		10323 10/4/23		<i>[Signature]</i>		10323 10/4/23		2 Days		Field pH											
Relinquished by:		Date/Time:		Received by:		Date/Time:		3 Days		Field Temp.											
								Standard		X Field Turb.											
Temperature Upon Receipt: 10.9				Corrected Temperature 0				IR gun #: 1				HNO3 lot #:									

S₂

Sample Receipt Checklist

S2 Work Order# 2310049Client: FremontClient Project ID: Lucci B01-23 FlawlineShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #:

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply)

Air

☐

Soil/Solid

☒

Water

☐

Other

☐

Temp (°C)

16.9

Thermometer #

1

	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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>on 20c</u>
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
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/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>no time stamps</u>
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS

Custodian Printed Name

10/3/23

Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FLR01@4'
2310049-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGJ0156	10/04/23	10/05/23	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0422	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0278	69.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0363	90.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGJ0163	10/04/23	10/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.51	76.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FLR01@4'
2310049-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0289	10/06/23	10/07/23	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: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0226	67.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0235	70.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FLR01@4'
2310049-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.87	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B
Barium	96.4	0.400	"	"	"	"	"	"
Cadmium	0.253	0.200	"	"	"	"	"	"
Copper	4.70	0.400	"	"	"	"	"	"
Lead	13.0	0.200	"	"	"	"	"	"
Nickel	3.37	0.400	"	"	"	"	"	"
Silver	0.0240	0.0200	"	"	"	"	"	"
Zinc	17.3	0.400	"	"	"	"	"	"
Selenium	0.266	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 10/03/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: 10/03/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	59.2	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	11.5	0.0500	"	"	"	"	"	"	
Sodium	382	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 10/03/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.9	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 10/03/23 00:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FLR01@4'
2310049-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	76.8	%	1	BGJ0381	10/10/23	10/10/23	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.90	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.29		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-02@4'
2310049-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGJ0156	10/04/23	10/05/23	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0447	112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0374	93.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0354	88.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGJ0163	10/04/23	10/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.6	101 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-02@4'
2310049-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0289	10/06/23	10/07/23	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: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0177	53.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0202	60.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-02@4'
2310049-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	3.33	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B
Barium	77.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	4.13	0.400	"	"	"	"	"	"
Lead	6.63	0.200	"	"	"	"	"	"
Nickel	3.59	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	16.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	140	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	69.2	0.0500	"	"	"	"	"	"	
Sodium	639	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.0	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-02@4'
2310049-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.4		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.23	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.06		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-03@4'
2310049-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGJ0156	10/04/23	10/05/23	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0518	129 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0365	91.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0363	90.8 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGJ0163	10/04/23	10/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.3	90.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-03@4'
2310049-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0289	10/06/23	10/07/23	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: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0244	73.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0231	69.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-03@4'
2310049-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.49	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B
Barium	21.3	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.85	0.400	"	"	"	"	"	"
Lead	4.29	0.200	"	"	"	"	"	"
Nickel	1.37	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	6.46	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	25.2	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	5.98	0.0500	"	"	"	"	"	"	
Sodium	73.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.44	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

FL01-03@4'
2310049-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.8		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.578	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.65		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

SEP01-FL@4'
2310049-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGJ0156	10/04/23	10/05/23	EPA 8260B	
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	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0434	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0281	70.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0356	89.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGJ0163	10/04/23	10/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	9.75	78.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

SEP01-FL@4'
2310049-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGJ0289	10/06/23	10/07/23	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: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0146	44.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0187	56.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

SEP01-FL@4'
2310049-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.36	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B
Barium	37.1	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	2.28	0.400	"	"	"	"	"	"
Lead	4.99	0.200	"	"	"	"	"	"
Nickel	1.73	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	10.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	175	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	17.4	0.0500	"	"	"	"	"	"	
Sodium	1.06	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0205	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

SEP01-FL@4'
2310049-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.0		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.135	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.26		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG01@4'
2310049-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.47	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B	
Barium	92.8	0.400	"	"	"	"	"	"	
Cadmium	0.273	0.200	"	"	"	"	"	"	
Copper	4.60	0.400	"	"	"	"	"	"	
Lead	7.36	0.200	"	"	"	"	"	"	
Nickel	3.50	0.400	"	"	"	"	"	"	
Silver	0.0317	0.0200	"	"	"	"	"	"	
Zinc	17.4	0.400	"	"	"	"	"	"	
Selenium	0.302	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	371	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	103	0.0500	"	"	"	"	"	"	
Sodium	895	0.0500	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG01@4'
2310049-05 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.6	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.0		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.39	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG02@4'
2310049-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.61	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B	
Barium	26.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.45	0.400	"	"	"	"	"	"	
Lead	4.27	0.200	"	"	"	"	"	"	
Nickel	2.26	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	64.4	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	29.1	0.0500	"	"	"	"	"	"	
Sodium	318	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG02@4'
2310049-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.26	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.2		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.05	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.25		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG03@4'
2310049-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.95	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B	
Barium	33.6	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.96	0.400	"	"	"	"	"	"	
Lead	3.74	0.200	"	"	"	"	"	"	
Nickel	1.63	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.82	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	59.4	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	24.7	0.0500	"	"	"	"	"	"	
Sodium	208	0.0500	"	"	"	"	"	"	

Summit Scientific

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Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG03@4'
2310049-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.72	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.9		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.79	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.36		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG04@4'
2310049-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	1.61	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B	
Barium	16.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.65	0.400	"	"	"	"	"	"	
Lead	3.13	0.200	"	"	"	"	"	"	
Nickel	1.56	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.76	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	37.7	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	22.9	0.0500	"	"	"	"	"	"	
Sodium	333	0.0500	"	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG04@4'
2310049-08 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.6	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.8		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.17	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.42		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG05@4'
2310049-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	ND	2.00	mg/L	1	BGJ0363	10/10/23	10/11/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	2.38	0.200	mg/kg dry	1	BGJ0323	10/09/23	10/10/23	EPA 6020B	
Barium	32.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.77	0.400	"	"	"	"	"	"	
Lead	5.34	0.200	"	"	"	"	"	"	
Nickel	2.20	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	11.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGJ0182	10/04/23	10/04/23	EPA 7196A	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	45.9	0.0500	mg/L dry	1	BGJ0333	10/09/23	10/11/23	EPA 6020B	
Magnesium	15.6	0.0500	"	"	"	"	"	"	
Sodium	165	0.0500	"	"	"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

BKG05@4'
2310049-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.37	0.00100	units	1	BGJ0515	10/12/23	10/12/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.2		%	1	BGJ0381	10/10/23	10/10/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.11	0.0100	mmhos/cm	1	BGJ0374	10/10/23	10/10/23	EPA 120.1	

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

Date Sampled: **10/03/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BGJ0373	10/10/23	10/10/23	EPA 9045D	

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BGJ0156 - EPA 5030 Soil MS

Blank (BGJ0156-BLK1)

Prepared: 10/04/23 Analyzed: 10/05/23

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	0.0396		"	0.0400		99.0	50-150			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0355		"	0.0400		88.7	50-150			

LCS (BGJ0156-BS1)

Prepared: 10/04/23 Analyzed: 10/05/23

Benzene	0.102	0.0020	mg/kg	0.100		102	70-130			
Toluene	0.0899	0.0050	"	0.100		89.9	70-130			
Ethylbenzene	0.0944	0.0050	"	0.100		94.4	70-130			
m,p-Xylene	0.188	0.010	"	0.200		94.0	70-130			
o-Xylene	0.0901	0.0050	"	0.100		90.1	70-130			
1,2,4-Trimethylbenzene	0.0915	0.0050	"	0.100		91.5	70-130			
1,3,5-Trimethylbenzene	0.0932	0.0050	"	0.100		93.2	70-130			
Naphthalene	0.0711	0.0038	"	0.100		71.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0400		103	50-150			
Surrogate: Toluene-d8	0.0369		"	0.0400		92.3	50-150			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		94.9	50-150			

Matrix Spike (BGJ0156-MS1)

Source: 2310049-01

Prepared: 10/04/23 Analyzed: 10/05/23

Benzene	0.125	0.0020	mg/kg	0.100	ND	125	70-130			
Toluene	0.0940	0.0050	"	0.100	ND	94.0	70-130			
Ethylbenzene	0.0940	0.0050	"	0.100	ND	94.0	70-130			
m,p-Xylene	0.189	0.010	"	0.200	ND	94.5	70-130			
o-Xylene	0.0915	0.0050	"	0.100	ND	91.5	70-130			
1,2,4-Trimethylbenzene	0.0909	0.0050	"	0.100	ND	90.9	70-130			
1,3,5-Trimethylbenzene	0.0917	0.0050	"	0.100	ND	91.7	70-130			
Naphthalene	0.0768	0.0038	"	0.100	ND	76.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0474		"	0.0400		118	50-150			
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.2	50-150			

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

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

Batch BGJ0156 - EPA 5030 Soil MS

Matrix Spike Dup (BGJ0156-MSD1)		Source: 2310049-01			Prepared: 10/04/23 Analyzed: 10/05/23					
Benzene	0.0938	0.0020	mg/kg	0.100	ND	93.8	70-130	28.4	30	
Toluene	0.0900	0.0050	"	0.100	ND	90.0	70-130	4.34	30	
Ethylbenzene	0.0865	0.0050	"	0.100	ND	86.5	70-130	8.35	30	
m,p-Xylene	0.175	0.010	"	0.200	ND	87.4	70-130	7.80	30	
o-Xylene	0.0830	0.0050	"	0.100	ND	83.0	70-130	9.70	30	
1,2,4-Trimethylbenzene	0.0868	0.0050	"	0.100	ND	86.8	70-130	4.62	30	
1,3,5-Trimethylbenzene	0.0877	0.0050	"	0.100	ND	87.7	70-130	4.45	30	
Naphthalene	0.0764	0.0038	"	0.100	ND	76.4	70-130	0.509	30	
Surrogate: 1,2-Dichloroethane-d4		0.0417	"	0.0400		104	50-150			
Surrogate: Toluene-d8		0.0394	"	0.0400		98.4	50-150			
Surrogate: 4-Bromofluorobenzene		0.0367	"	0.0400		91.7	50-150			

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGJ0163 - EPA 3550A

Blank (BGJ0163-BLK1)

Prepared: 10/04/23 Analyzed: 10/07/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	15.0		"	12.5		120	30-150			

LCS (BGJ0163-BS1)

Prepared: 10/04/23 Analyzed: 10/07/23

C10-C28 (DRO)	411	50	mg/kg	500		82.1	70-130			
Surrogate: o-Terphenyl	4.98		"	12.5		39.9	30-150			

Matrix Spike (BGJ0163-MS1)

Source: 2310049-01

Prepared: 10/04/23 Analyzed: 10/07/23

C10-C28 (DRO)	435	50	mg/kg	500	11.7	84.6	70-130			
Surrogate: o-Terphenyl	9.35		"	12.5		74.8	30-150			

Matrix Spike Dup (BGJ0163-MSD1)

Source: 2310049-01

Prepared: 10/04/23 Analyzed: 10/07/23

C10-C28 (DRO)	466	50	mg/kg	500	11.7	90.9	70-130	7.04	20	
Surrogate: o-Terphenyl	11.3		"	12.5		90.2	30-150			

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGJ0289 - EPA 5030 Soil MS

Blank (BGJ0289-BLK1)

Prepared: 10/06/23 Analyzed: 10/07/23

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	"								
Surrogate: 2-Methylnaphthalene-d10	0.0441		"	0.0333		132		40-150			
Surrogate: Fluoranthene-d10	0.0326		"	0.0333		97.9		40-150			

LCS (BGJ0289-BS1)

Prepared: 10/06/23 Analyzed: 10/07/23

Acenaphthene	0.0326	0.00500	mg/kg	0.0333		97.7		31-137			
Anthracene	0.0319	0.00500	"	0.0333		95.7		30-120			
Benzo (a) anthracene	0.0306	0.00500	"	0.0333		91.9		30-120			
Benzo (a) pyrene	0.0300	0.00500	"	0.0333		90.1		30-120			
Benzo (b) fluoranthene	0.0317	0.00500	"	0.0333		95.2		30-120			
Benzo (k) fluoranthene	0.0345	0.00500	"	0.0333		103		30-120			
Chrysene	0.0343	0.00500	"	0.0333		103		30-120			
Dibenz (a,h) anthracene	0.0246	0.00500	"	0.0333		73.9		30-120			
Fluoranthene	0.0319	0.00500	"	0.0333		95.7		30-120			
Fluorene	0.0326	0.00500	"	0.0333		97.7		30-120			
Indeno (1,2,3-cd) pyrene	0.0355	0.00500	"	0.0333		107		30-120			
Pyrene	0.0398	0.00500	"	0.0333		119		35-142			
1-Methylnaphthalene	0.0370	0.00500	"	0.0333		111		35-142			
2-Methylnaphthalene	0.0438	0.00500	"	0.0333		131		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0375		"	0.0333		112		40-150			
Surrogate: Fluoranthene-d10	0.0326		"	0.0333		97.8		40-150			

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGJ0289 - EPA 5030 Soil MS

Matrix Spike (BGJ0289-MS1)

Source: 2310022-01

Prepared: 10/06/23 Analyzed: 10/07/23

Acenaphthene	0.0207	0.00500	mg/kg	0.0333	ND	62.1	31-137				
Anthracene	0.0181	0.00500	"	0.0333	ND	54.2	30-120				
Benzo (a) anthracene	0.0202	0.00500	"	0.0333	ND	60.7	30-120				
Benzo (a) pyrene	0.0192	0.00500	"	0.0333	ND	57.7	30-120				
Benzo (b) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.3	30-120				
Benzo (k) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.6	30-120				
Chrysene	0.0211	0.00500	"	0.0333	ND	63.3	30-120				
Dibenz (a,h) anthracene	0.0140	0.00500	"	0.0333	ND	42.0	30-120				
Fluoranthene	0.0186	0.00500	"	0.0333	ND	55.7	30-120				
Fluorene	0.0200	0.00500	"	0.0333	ND	60.0	30-120				
Indeno (1,2,3-cd) pyrene	0.0149	0.00500	"	0.0333	ND	44.6	30-120				
Pyrene	0.0248	0.00500	"	0.0333	ND	74.3	35-142				
1-Methylnaphthalene	0.0281	0.00500	"	0.0333	ND	84.2	15-130				
2-Methylnaphthalene	0.0261	0.00500	"	0.0333	ND	78.2	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0240		"	0.0333		72.0	40-150				
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.3	40-150				

Matrix Spike Dup (BGJ0289-MSD1)

Source: 2310022-01

Prepared: 10/06/23 Analyzed: 10/07/23

Acenaphthene	0.0212	0.00500	mg/kg	0.0333	ND	63.7	31-137	2.53	30		
Anthracene	0.0198	0.00500	"	0.0333	ND	59.3	30-120	9.00	30		
Benzo (a) anthracene	0.0209	0.00500	"	0.0333	ND	62.6	30-120	3.09	30		
Benzo (a) pyrene	0.0199	0.00500	"	0.0333	ND	59.6	30-120	3.34	30		
Benzo (b) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.3	30-120	0.101	30		
Benzo (k) fluoranthene	0.0189	0.00500	"	0.0333	ND	56.8	30-120	4.75	30		
Chrysene	0.0208	0.00500	"	0.0333	ND	62.5	30-120	1.25	30		
Dibenz (a,h) anthracene	0.0167	0.00500	"	0.0333	ND	50.0	30-120	17.5	30		
Fluoranthene	0.0203	0.00500	"	0.0333	ND	60.8	30-120	8.67	30		
Fluorene	0.0208	0.00500	"	0.0333	ND	62.4	30-120	3.90	30		
Indeno (1,2,3-cd) pyrene	0.0161	0.00500	"	0.0333	ND	48.4	30-120	8.15	30		
Pyrene	0.0241	0.00500	"	0.0333	ND	72.4	35-142	2.59	30		
1-Methylnaphthalene	0.0257	0.00500	"	0.0333	ND	77.0	15-130	8.96	50		
2-Methylnaphthalene	0.0269	0.00500	"	0.0333	ND	80.7	15-130	3.16	50		
Surrogate: 2-Methylnaphthalene-d10	0.0245		"	0.0333		73.5	40-150				
Surrogate: Fluoranthene-d10	0.0203		"	0.0333		60.8	40-150				

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Fremont Environmental
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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

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

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

Batch BGJ0363 - EPA 3050B

Blank (BGJ0363-BLK1)

Prepared: 10/10/23 Analyzed: 10/11/23

Boron ND 2.00 mg/L

LCS (BGJ0363-BS1)

Prepared: 10/10/23 Analyzed: 10/11/23

Boron 4.98 2.00 mg/L 5.00 99.7 80-120

Duplicate (BGJ0363-DUP1)

Source: 2309279-01

Prepared: 10/10/23 Analyzed: 10/11/23

Boron 0.234 2.00 mg/L 0.256 9.24 20

Matrix Spike (BGJ0363-MS1)

Source: 2309279-01

Prepared: 10/10/23 Analyzed: 10/11/23

Boron 5.56 2.00 mg/L 5.00 0.256 106 75-125

Matrix Spike Dup (BGJ0363-MSD1)

Source: 2309279-01

Prepared: 10/10/23 Analyzed: 10/11/23

Boron 5.54 2.00 mg/L 5.00 0.256 106 75-125 0.210 25

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGJ0323 - EPA 3050B

Blank (BGJ0323-BLK1)

Prepared: 10/09/23 Analyzed: 10/10/23

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 (BGJ0323-BS1)

Prepared: 10/09/23 Analyzed: 10/10/23

Arsenic	38.0	0.200	mg/kg wet	40.0	95.1	80-120
Barium	43.0	0.400	"	40.0	107	80-120
Cadmium	2.07	0.200	"	2.00	104	80-120
Copper	38.6	0.400	"	40.0	96.6	80-120
Lead	20.9	0.200	"	20.0	104	80-120
Nickel	37.9	0.400	"	40.0	94.9	80-120
Silver	2.03	0.0200	"	2.00	102	80-120
Zinc	38.4	0.400	"	40.0	96.0	80-120
Selenium	4.13	0.260	"	4.00	103	80-120

Duplicate (BGJ0323-DUP1)

Source: 2310048-01

Prepared: 10/09/23 Analyzed: 10/11/23

Arsenic	1.80	0.200	mg/kg dry	1.85	2.79	20
Barium	82.9	0.400	"	80.5	2.93	20
Cadmium	0.194	0.200	"	0.183	5.55	20
Copper	3.76	0.400	"	3.54	6.06	20
Lead	8.35	0.200	"	8.01	4.27	20
Nickel	3.02	0.400	"	2.95	2.41	20
Silver	0.0309	0.0200	"	0.0337	8.45	20
Zinc	16.1	0.400	"	15.5	4.10	20
Selenium	ND	0.260	"	ND		20

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Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGJ0323 - EPA 3050B

Matrix Spike (BGJ0323-MS1)		Source: 2310048-01			Prepared: 10/09/23		Analyzed: 10/11/23			
Arsenic	36.0	0.200	mg/kg dry	45.5	1.85	74.9	75-125			QM-07
Barium	123	0.400	"	45.5	80.5	94.2	75-125			
Cadmium	1.99	0.200	"	2.28	0.183	79.3	75-125			
Copper	30.3	0.400	"	45.5	3.54	58.8	75-125			QM-07
Lead	26.0	0.200	"	22.8	8.01	79.0	75-125			
Nickel	29.8	0.400	"	45.5	2.95	58.9	75-125			QM-07
Silver	1.33	0.0200	"	2.28	0.0337	56.9	75-125			QM-07
Zinc	44.5	0.400	"	45.5	15.5	63.8	75-125			QM-07
Selenium	4.14	0.260	"	4.55	ND	91.1	75-125			

Matrix Spike Dup (BGJ0323-MSD1)		Source: 2310048-01			Prepared: 10/09/23		Analyzed: 10/11/23			
Arsenic	36.2	0.200	mg/kg dry	45.5	1.85	75.4	75-125	0.534	25	
Barium	125	0.400	"	45.5	80.5	97.1	75-125	1.06	25	
Cadmium	2.04	0.200	"	2.28	0.183	81.6	75-125	2.58	25	
Copper	31.1	0.400	"	45.5	3.54	60.6	75-125	2.68	25	QM-07
Lead	26.1	0.200	"	22.8	8.01	79.7	75-125	0.613	25	
Nickel	30.6	0.400	"	45.5	2.95	60.8	75-125	2.89	25	QM-07
Silver	1.37	0.0200	"	2.28	0.0337	58.5	75-125	2.84	25	QM-07
Zinc	45.8	0.400	"	45.5	15.5	66.5	75-125	2.76	25	QM-07
Selenium	4.06	0.260	"	4.55	ND	89.2	75-125	2.05	25	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGJ0182 - 3060A Mod

Blank (BGJ0182-BLK1)

Prepared & Analyzed: 10/04/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGJ0182-BS1)

Prepared & Analyzed: 10/04/23

Chromium, Hexavalent 23.2 0.30 mg/kg wet 25.0 93.0 80-120

Duplicate (BGJ0182-DUP1)

Source: 2310048-01

Prepared & Analyzed: 10/04/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGJ0182-MS1)

Source: 2310048-01

Prepared & Analyzed: 10/04/23

Chromium, Hexavalent 25.1 0.30 mg/kg dry 28.4 ND 88.2 75-125

Matrix Spike Dup (BGJ0182-MSD1)

Source: 2310048-01

Prepared & Analyzed: 10/04/23

Chromium, Hexavalent 25.0 0.30 mg/kg dry 28.4 ND 87.8 75-125 0.455 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

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

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

Batch BGJ0333 - General Preparation

Blank (BGJ0333-BLK1)

Prepared: 10/09/23 Analyzed: 10/11/23

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

LCS (BGJ0333-BS1)

Prepared: 10/09/23 Analyzed: 10/11/23

Calcium	5.37	0.0500	mg/L wet	5.00	107	70-130
Magnesium	5.08	0.0500	"	5.00	102	70-130
Sodium	5.21	0.0500	"	5.00	104	70-130

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline

Project Number: UWRWE-A2077-ABN CO23-256

Project Manager: Paul Henchan

Reported:
10/12/23 08:44

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

Summit Scientific

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

Batch BGJ0381 - General Preparation

Duplicate (BGJ0381-DUP1)

Source: 2310049-01

Prepared & Analyzed: 10/10/23

% Solids	77.4	%	76.8	0.821	20
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

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

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

Batch BGJ0374 - General Preparation

Blank (BGJ0374-BLK1)

Prepared & Analyzed: 10/10/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGJ0374-BS1)

Prepared & Analyzed: 10/10/23

Specific Conductance (EC) 0.149 0.0100 mmhos/cm 0.150 99.5 95-105

Duplicate (BGJ0374-DUP1)

Source: 2310048-01

Prepared & Analyzed: 10/10/23

Specific Conductance (EC) 0.274 0.0100 mmhos/cm 0.274 0.00 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline
Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

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

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

Batch BGJ0373 - General Preparation

LCS (BGJ0373-BS1)

Prepared & Analyzed: 10/10/23

pH	9.15	pH Units	9.18	99.7	95-105
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Duplicate (BGJ0373-DUP1)

Source: 2310048-01

Prepared & Analyzed: 10/10/23

pH	8.77	pH Units	8.77	0.00	20
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Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Lucci B01-23 Flowline

Project Number: UWRWE-A2077-ABN CO23-256
Project Manager: Paul Henchan

Reported:
10/12/23 08:44

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
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