

FREMONT ENVIRONMENTAL INC.

April 1, 2024

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

Subject: **Flowline Closure Data Submittal**
 Jepsen G21-25
 API # 05-123-24295
 SESW Sec. 21, T4N, R65W
 Weld County, Colorado
 Fremont Project No. C023-235
 Remediation # 25472

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline closure activities for the Noble Energy Inc. (Noble) Jepsen G21-25. Impacted soil was not encountered during abandonment activities. Details of the Jepsen G21-25 closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

Please contact me at (303) 261-6246 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

FREMONT ENVIRONMENTAL INC.



Stanley Gilbert
Environmental Scientist

Attachments:

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

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
JEPSEN G21-25, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-235

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)
ECMC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500**		
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500**		
FL01 4'	08/23/2023	4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL02 3'	08/23/2023	3	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50

Bold faced values exceed the ECMC Table 915-1 concentrations

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

Green highlighted cells indicate soil removed via excavation

* 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.
JEPSEN G21-25, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-235

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)
ECMC 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
ECMC 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 4'	08/23/2023	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
FL02 3'	08/23/2023	3	<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 ECMC 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

Green highlighted cells indicate soil removed via excavation

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC.
JEPSEN G21-25, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-235

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
ECMC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
FL01 4'	08/23/2023	4	8.10	0.293	0.96	0.0398
FL02 3'	08/23/2023	3	8.50	0.174	0.300	0.116

Bold faced, yellow highlighted values exceed the ECMC Table 915-1 concentrations

Green highlighted cells indicate soil removed via excavation

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.
JEPSEN G21-25, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-235

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)
ECMC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
ECMC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
FL01 4'	08/23/2023	4	5.48	128	0.369	<0.30	8.52	13.5	8.56	<0.260	0.0533	34.5
FL02 3'	08/23/2023	3	3.40	71.4	0.204	<0.30	4.60	6.07	5.03	<0.260	0.0241	17.0

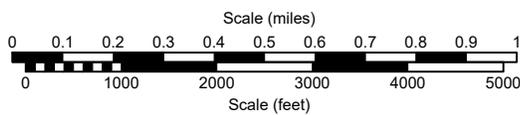
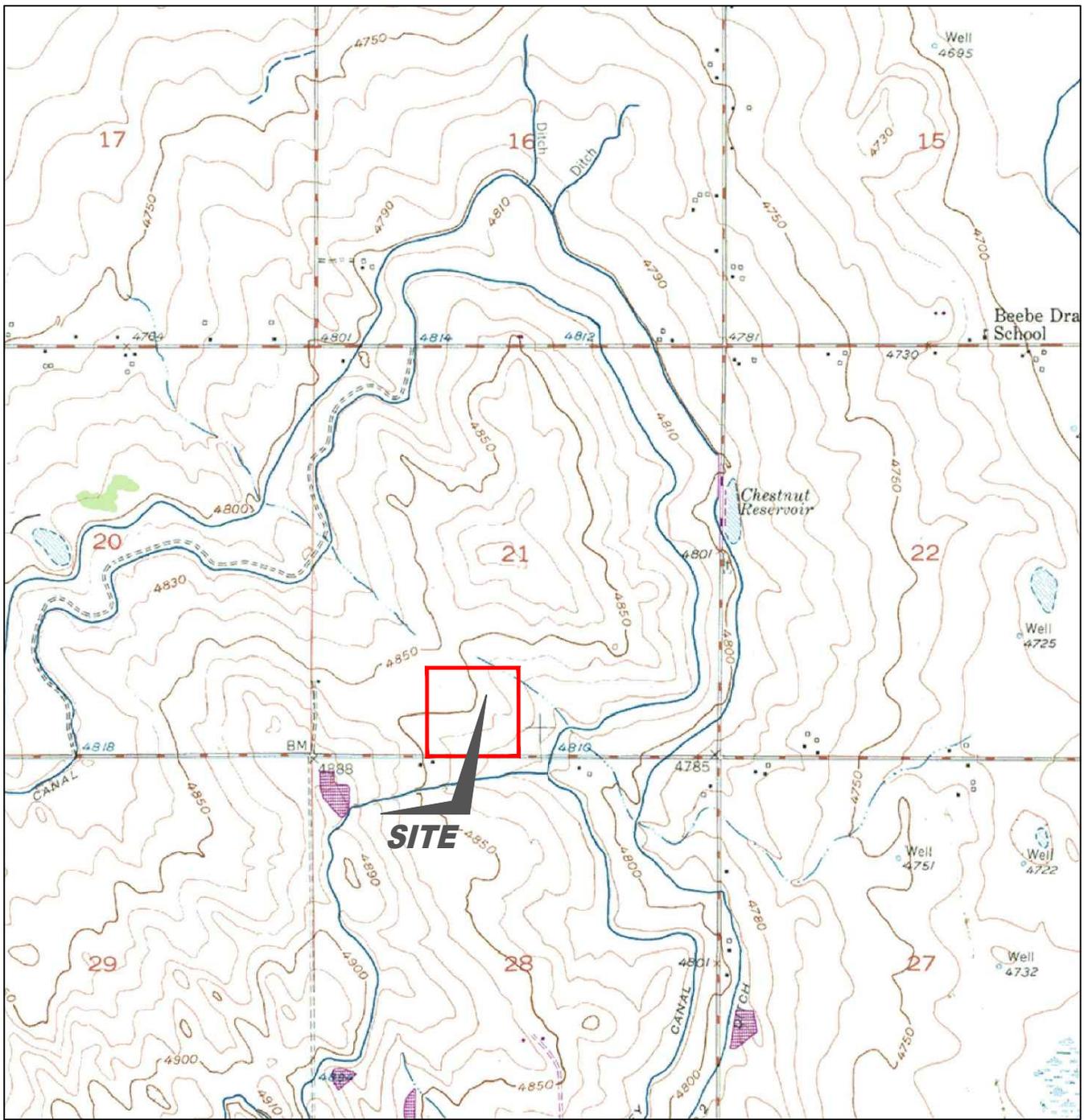
Bold faced values exceed the ECMC Table 915-1 concentrations

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

* Indicates laboratory minimum detection limit in excess of SSL

Green highlighted cells indicate soil removed via excavation

NA - Not analyzed



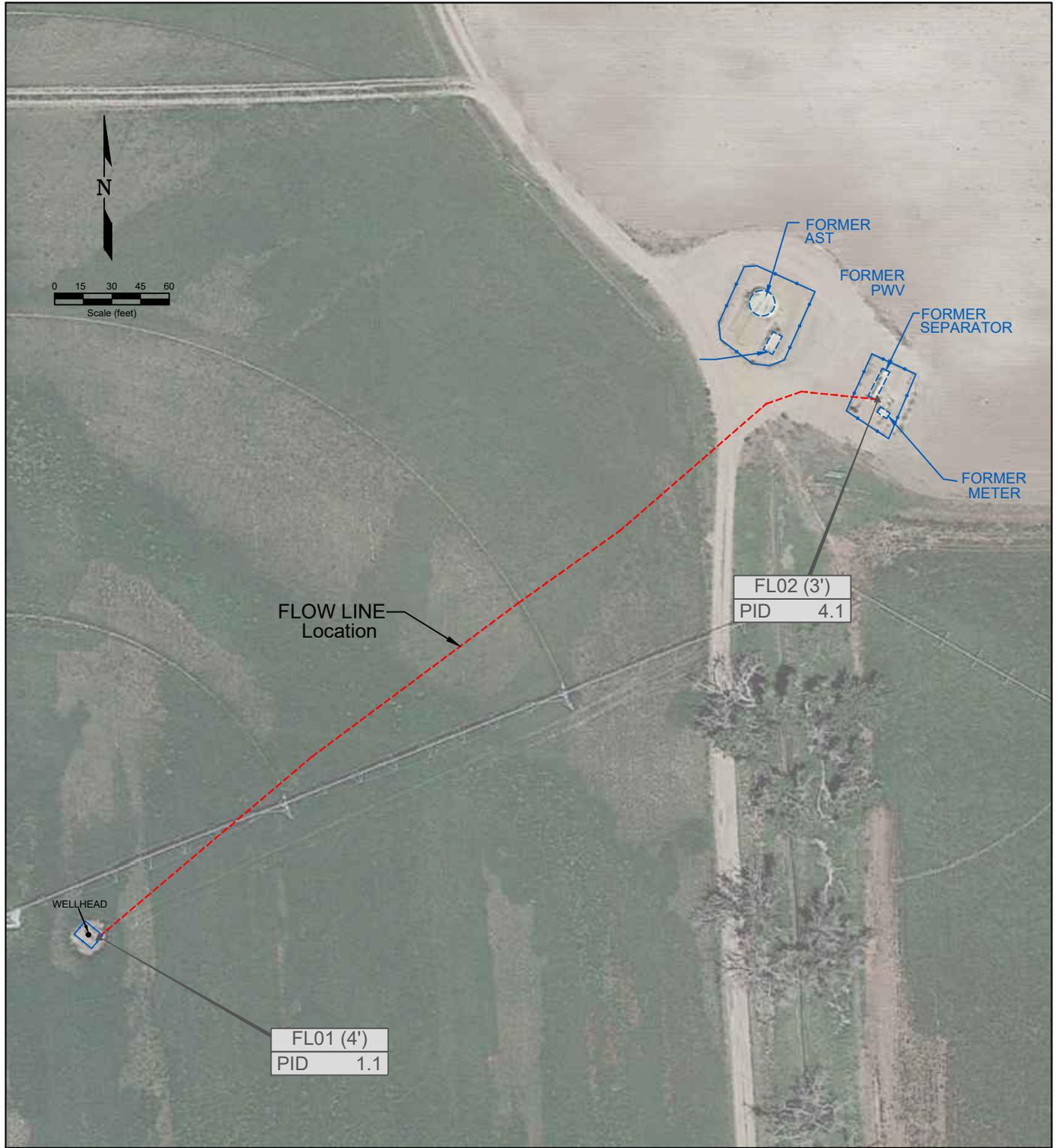
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY INC - JEPSEN G 21-25
 SESW Sec. 21, T4N, R65W, 6th PM
 Weld County, Colorado
 40.294298°, -104.672666°

Project # CO23-235	API # 05-123-24295	Facility #
Date 11/29/2023	Remediation # 25472	Filename 23235TFL





LEGEND

- WELLHEAD LOCATION
- ▲ PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FORMER FACILITY
- FLOW LINE
- CONTAINMENT BERM
- FENCE LINE

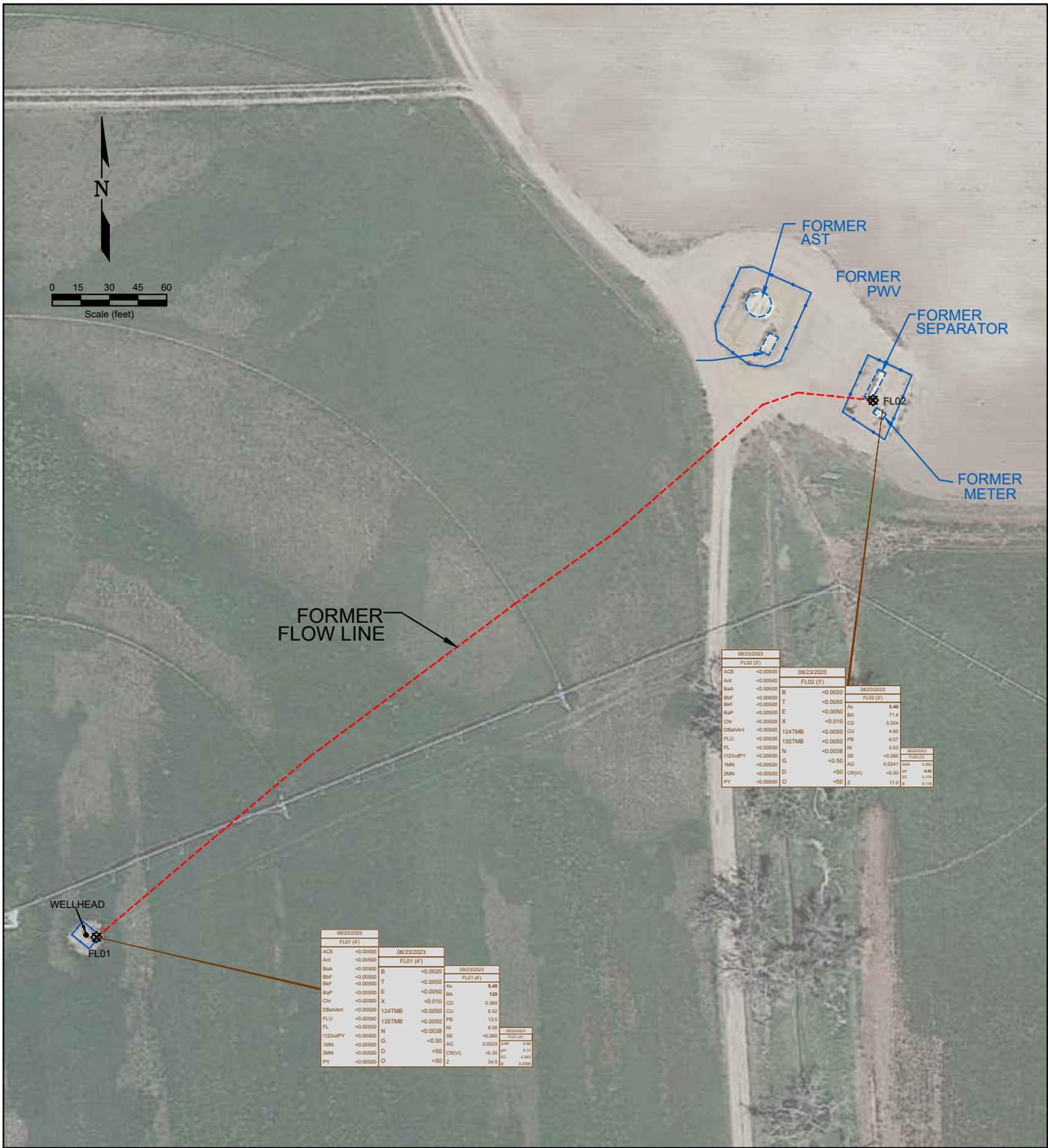
FL01	PID READING LOCATION IDENTIFICATION
PID 0.1	PHOTO IONIZATION DETECTION (ppm)

**Figure 2
SITE MAP**

NOBLE ENERGY INC - JEPSEN G 21-25
 SESW Sec. 21, T4N, R65W, 6th PM
 Weld County, Colorado
 40.294298°, -104.672666°

Project # CO23-235	API # 05-123-24295	Facility #
Date 11/29/2023	Remediation # 25472	Filename 23235Q





08/23/2023		08/23/2023		08/23/2023	
FL02 (F)	FL02 (F)	FL02 (F)	FL02 (F)	FL02 (F)	FL02 (F)
ACE	<0.0050	B	<0.0020	As	3.40
As	<0.0050	T	<0.0050	BA	71.4
BaA	<0.0050	E	<0.0050	CD	0.204
BaP	<0.0050	X	<0.010	CU	4.60
Chv	<0.0050	124TMB	<0.0050	PB	6.87
Dib(a)Avt	<0.0050	135TMB	<0.0050	NI	5.03
FL	<0.0050	N	<0.0038	SE	<0.240
H123aOPY	<0.0050	G	<0.50	AD	0.0241
MN	<0.0050	D	<50	CR(V)	0.48
ZMN	<0.0050	O	<50	Z	17.0
PY	<0.0050				0.110

08/23/2023		08/23/2023		08/23/2023	
FL01 (F)	FL01 (F)	FL01 (F)	FL01 (F)	FL01 (F)	FL01 (F)
ACE	<0.0050	B	<0.0020	As	5.48
As	<0.0050	T	<0.0050	BA	128
BaA	<0.0050	E	<0.0050	CD	0.380
BaP	<0.0050	X	<0.010	CU	6.62
Chv	<0.0050	124TMB	<0.0050	PB	13.5
Dib(a)Avt	<0.0050	135TMB	<0.0050	NI	6.96
FL	<0.0050	N	<0.0038	SE	<0.240
H123aOPY	<0.0050	G	<0.50	AD	0.0333
MN	<0.0050	D	<50	CR(V)	0.48
ZMN	<0.0050	O	<50	Z	34.5
PY	<0.0050				0.110

LEGEND

- WELLHEAD LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- FLOW LINE
- CONTAINMENT BERM
- FENCE LINE

4/7/2023		4/7/2023		4/7/2023	
FL01 (F)	DATE SAMPLED	FL01 (F)	DATE SAMPLED	FL01 (F)	DATE SAMPLED
ACE	<0.0050	B	<0.0020	B	BENZENE (mg/kg)
As	<0.0050	T	<0.0050	E	TOLUENE (mg/kg)
BaA	<0.0050	X	<0.010	X	ETHYLBENZENE (mg/kg)
BaP	<0.0050	124TMB	<0.0050	124TMB	TOTAL XYLENES (mg/kg)
Chv	<0.0050	135TMB	<0.0050	135TMB	1,3,5-TRIMETHYLBENZENE (mg/kg)
Dib(a)Avt	<0.0050	N	<0.0038	N	NAPHTHALENE (mg/kg)
FL	<0.0050	G	<0.50	G	TPH-GRO (mg/kg)
H123aOPY	<0.0050	D	<50	D	TPH-ORO (mg/kg)
MN	<0.0050	O	<50	O	TPH-ORO (mg/kg)
ZMN	<0.0050				
PY	<0.0050				

Figure 3
SOIL CHEMISTRY MAP

NOBLE ENERGY INC - JEPSEN G 21-25
 SESW Sec. 21, T4N, R65W, 6th PM
 Weld County, Colorado
 40.294298°, -104.672666°

Project # CO23-235	API # 05-123-24295	Facility #	
Date 11/29/2023	Remediation # 25472	Filename 23235Q	

Photo Log



Description:

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Photo Log



Description:

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

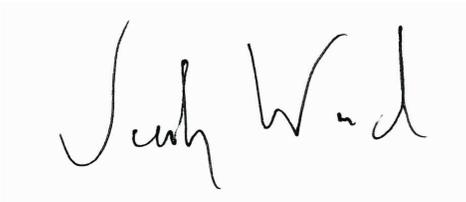
303.277.9310

September 11, 2023

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Jepsen G21-25
Work Order #2308599

Enclosed are the results of analyses for samples received by Summit Scientific on 08/25/23 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 small "w" at the end of the last name.

Jacob Wood For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Jepsen G21-25

Project Number: UWRWE-A2797-ABN

Project Manager: Paul Henchan

Reported:
09/11/23 11:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01 4'	2308599-01	Soil	08/23/23 13:42	08/25/23 16:30
FL02 3'	2308599-02	Soil	08/23/23 11:58	08/25/23 16:30

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.



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

Lab ID	Page 1 of 1
2308599	

		Send Data To:	Send Invoice To:
Client: Fremont Environmental		Project Manager: Paul Henehan	Company: Noble
Address:		E-Mail: Fremont Distribution List	Project Name/Location: JEPSEN G21-25
City/State/Zip:			AFE#:
Phone: 303-261-6246		Project Name: JEPSEN G21-25	PO/Billing Codes: UWBWE-A2797-ABN
Sampler Name: Stanley Gilbert		Project Number:	Contact: Mike Montoya

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Analysis Requested							Special Instructions
					HCl	HNO3	None	Other	Water	Soil		Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, Ph, Boron	Metals (915)	TDS, Chloride, Sulfate	
1	FLO1 4'	8/23/23	13:42	2			X			X		X	X	X	X	X			
2	FLO2 3'	8/23/23	11:58	2			X			X		X	X	X	X	X			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <i>[Signature]</i>	Date/Time: 8/24/23	Received by: Summit North	Date/Time: 8/24/23	TAT Business Days	Field DO	Notes:
Relinquished by: <i>[Signature]</i>	Date/Time: 8/24/23	Received by: <i>[Signature]</i>	Date/Time: 8/24/23	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: 7.3	Corrected Temperature: <i>[Signature]</i>	IR gun #: 1	HNO3 lot #:	Standard	X Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2308599

Client: Fremont Client Project ID: Jensen G21-25

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other [] Airbill #: []

[] [] [] [] []

Matrix (Check all that apply) Air [] Soil/Solid [] Water [] Other []

Temp (°C) 7.3

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.	-			NOTE
If custody seals are present, are they intact? (1)	-			
Are samples due within 48 hours present?		-		
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		-		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	-			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	-			
Were all samples received intact? (1)	✓			
Was adequate sample volume provided? (1)	✓			
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)	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
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.			✓	
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?			✓	
Additional Comments (if any):				

(1) If NO, then contact the client before proceeding with analysis and note in case narrative.

[Signature] Custodian Printed Name

8/25/23 Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

FL01 4'
2308599-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGH1114	08/28/23	08/29/23	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: **08/23/23 13:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0337	84.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGH1118	08/28/23	08/30/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.3	98.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PO Box 1289
Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

FL01 4'
2308599-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH1150	08/29/23	08/30/23	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: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0193	57.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0154	46.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0398	0.0100	mg/L	1	BGH1085	08/28/23	08/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/23/23 13:42**

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 - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

FL01 4'
2308599-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.48	0.200	mg/kg dry	1	BGH1094	08/28/23	08/31/23	EPA 6020B	
Barium	128	0.400	"	"	"	"	"	"	
Cadmium	0.369	0.200	"	"	"	"	"	"	
Copper	8.52	0.400	"	"	"	"	"	"	
Lead	13.5	0.200	"	"	"	"	"	"	
Nickel	8.56	0.400	"	"	"	"	"	"	
Silver	0.0533	0.0200	"	"	"	"	"	"	
Zinc	34.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH1193	08/29/23	08/29/23	EPA 7196A	

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

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	57.7	0.0616	mg/L dry	1	BGH1216	08/30/23	08/31/23	EPA 6020B	
Magnesium	10.2	0.0616	"	"	"	"	"	"	
Sodium	30.1	0.0616	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.960	0.00100	units	1	BG10031	09/01/23	09/01/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/23/23 13:42**

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 - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

FL01 4'
2308599-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	81.1	%	1	BGH1098	08/28/23	08/28/23	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.293	0.0100	mmhos/cm	1	BGH1242	08/31/23	08/31/23	EPA 120.1	

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

Date Sampled: **08/23/23 13:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BGH1243	08/31/23	08/31/23	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

FL02 3'
2308599-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BGH1114	08/28/23	08/29/23	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: **08/23/23 11:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0338	84.5 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0427	107 %	50-150	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	104 %	50-150	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BGH1118	08/28/23	08/30/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	12.0	96.2 %	30-150	"	"	"	"	"	

PAH by EPA Method 8270D SIM

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Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

FL02 3'
2308599-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGH1150	08/29/23	08/30/23	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: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0156	46.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0154	46.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.116	0.0100	mg/L	1	BGH1085	08/28/23	08/29/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **08/23/23 11:58**

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 - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

FL02 3'
2308599-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.40	0.200	mg/kg dry	1	BGH1094	08/28/23	08/31/23	EPA 6020B	
Barium	71.4	0.400	"	"	"	"	"	"	
Cadmium	0.204	0.200	"	"	"	"	"	"	
Copper	4.60	0.400	"	"	"	"	"	"	
Lead	6.07	0.200	"	"	"	"	"	"	
Nickel	5.03	0.400	"	"	"	"	"	"	
Silver	0.0241	0.0200	"	"	"	"	"	"	
Zinc	17.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH1193	08/29/23	08/29/23	EPA 7196A	

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

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	323	0.0591	mg/L dry	1	BGH1216	08/30/23	08/31/23	EPA 6020B	
Magnesium	26.7	0.0591	"	"	"	"	"	"	
Sodium	20.9	0.0591	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.300	0.00100	units	1	BG10031	09/01/23	09/01/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental
 PO Box 1289
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Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

FL02 3'
2308599-02 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

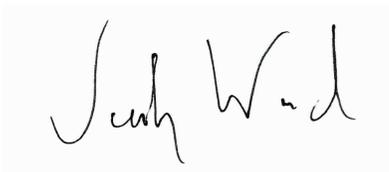
% Solids	84.6	%	1	BGH1098	08/28/23	08/28/23	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.174	0.0100	mmhos/cm	1	BGH1242	08/31/23	08/31/23	EPA 120.1	

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Fremont Environmental
 PO Box 1289
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Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

FL02 3'
2308599-02 (Soil)

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

Date Sampled: **08/23/23 11:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.50		pH Units	1	BGI0137	08/31/23	09/06/23	EPA 9045D	

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Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

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 BGH1114 - EPA 5030 Soil MS

Blank (BGH1114-BLK1)

Prepared: 08/28/23 Analyzed: 08/29/23

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0210		"	0.0400		52.6	50-150				
<i>Surrogate: Toluene-d8</i>	0.0404		"	0.0400		101	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0374		"	0.0400		93.5	50-150				

LCS (BGH1114-BS1)

Prepared: 08/28/23 Analyzed: 08/29/23

Benzene	0.102	0.0020	mg/kg	0.100		102	70-130				
Toluene	0.0938	0.0050	"	0.100		93.8	70-130				
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130				
m,p-Xylene	0.221	0.010	"	0.200		111	70-130				
o-Xylene	0.104	0.0050	"	0.100		104	70-130				
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130				
1,3,5-Trimethylbenzene	0.0958	0.0050	"	0.100		95.8	70-130				
Naphthalene	0.0871	0.0038	"	0.100		87.1	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0349		"	0.0400		87.2	50-150				
<i>Surrogate: Toluene-d8</i>	0.0344		"	0.0400		86.0	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0393		"	0.0400		98.2	50-150				

Matrix Spike (BGH1114-MS1)

Source: 2308581-01

Prepared: 08/28/23 Analyzed: 08/29/23

Benzene	0.117	0.0020	mg/kg	0.100	ND	117	70-130				
Toluene	0.103	0.0050	"	0.100	ND	103	70-130				
Ethylbenzene	0.0901	0.0050	"	0.100	ND	90.1	70-130				
m,p-Xylene	0.202	0.010	"	0.200	ND	101	70-130				
o-Xylene	0.0801	0.0050	"	0.100	ND	80.1	70-130				
1,2,4-Trimethylbenzene	0.0687	0.0050	"	0.100	ND	68.7	70-130				QM-07
1,3,5-Trimethylbenzene	0.0818	0.0050	"	0.100	ND	81.8	70-130				
Naphthalene	0.0486	0.0038	"	0.100	ND	48.6	70-130				QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0361		"	0.0400		90.3	50-150				
<i>Surrogate: Toluene-d8</i>	0.0404		"	0.0400		101	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0386		"	0.0400		96.5	50-150				

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 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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 BGH1114 - EPA 5030 Soil MS

Matrix Spike Dup (BGH1114-MSD1)	Source: 2308581-01			Prepared: 08/28/23 Analyzed: 08/29/23						
Benzene	0.119	0.0020	mg/kg	0.100	ND	119	70-130	1.40	30	
Toluene	0.111	0.0050	"	0.100	ND	111	70-130	6.82	30	
Ethylbenzene	0.0945	0.0050	"	0.100	ND	94.5	70-130	4.81	30	
m,p-Xylene	0.167	0.010	"	0.200	ND	83.3	70-130	19.3	30	
o-Xylene	0.0770	0.0050	"	0.100	ND	77.0	70-130	3.89	30	
1,2,4-Trimethylbenzene	0.0656	0.0050	"	0.100	ND	65.6	70-130	4.51	30	QM-07
1,3,5-Trimethylbenzene	0.0639	0.0050	"	0.100	ND	63.9	70-130	24.6	30	QM-07
Naphthalene	0.0458	0.0038	"	0.100	ND	45.8	70-130	5.85	30	QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0375</i>		<i>"</i>	<i>0.0400</i>		<i>93.7</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0428</i>		<i>"</i>	<i>0.0400</i>		<i>107</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0338</i>		<i>"</i>	<i>0.0400</i>		<i>84.4</i>	<i>50-150</i>			

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Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGH1118 - EPA 3550A

Blank (BGH1118-BLK1)

Prepared: 08/28/23 Analyzed: 08/29/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	13.4		"	12.5		107	30-150			

LCS (BGH1118-BS1)

Prepared: 08/28/23 Analyzed: 08/29/23

C10-C28 (DRO)	476	50	mg/kg	500		95.2	70-130			
Surrogate: <i>o</i> -Terphenyl	14.3		"	12.5		114	30-150			

Matrix Spike (BGH1118-MS1)

Source: 2308581-01

Prepared: 08/28/23 Analyzed: 08/29/23

C10-C28 (DRO)	518	50	mg/kg	500	9.03	102	70-130			
Surrogate: <i>o</i> -Terphenyl	9.92		"	12.5		79.4	30-150			

Matrix Spike Dup (BGH1118-MSD1)

Source: 2308581-01

Prepared: 08/28/23 Analyzed: 08/29/23

C10-C28 (DRO)	453	50	mg/kg	500	9.03	88.8	70-130	13.4	20	
Surrogate: <i>o</i> -Terphenyl	10.3		"	12.5		82.8	30-150			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

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 BGH1150 - EPA 5030 Soil MS

Blank (BGH1150-BLK1)

Prepared: 08/29/23 Analyzed: 08/30/23

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	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0375		"	0.0333		112	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0264		"	0.0333		79.2	40-150			

LCS (BGH1150-BS1)

Prepared: 08/29/23 Analyzed: 08/30/23

Acenaphthene	0.0250	0.00500	mg/kg	0.0333	74.9	31-137
Anthracene	0.0285	0.00500	"	0.0333	85.5	30-120
Benzo (a) anthracene	0.0327	0.00500	"	0.0333	98.2	30-120
Benzo (a) pyrene	0.0310	0.00500	"	0.0333	92.9	30-120
Benzo (b) fluoranthene	0.0393	0.00500	"	0.0333	118	30-120
Benzo (k) fluoranthene	0.0369	0.00500	"	0.0333	111	30-120
Chrysene	0.0314	0.00500	"	0.0333	94.2	30-120
Dibenz (a,h) anthracene	0.0207	0.00500	"	0.0333	62.2	30-120
Fluoranthene	0.0284	0.00500	"	0.0333	85.1	30-120
Fluorene	0.0276	0.00500	"	0.0333	82.8	30-120
Indeno (1,2,3-cd) pyrene	0.0278	0.00500	"	0.0333	83.5	30-120
Pyrene	0.0441	0.00500	"	0.0333	132	35-142
1-Methylnaphthalene	0.0342	0.00500	"	0.0333	103	35-142
2-Methylnaphthalene	0.0366	0.00500	"	0.0333	110	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0360		"	0.0333	108	40-150
<i>Surrogate: Fluoranthene-d10</i>	0.0292		"	0.0333	87.5	40-150

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

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 BGH1150 - EPA 5030 Soil MS

Matrix Spike (BGH1150-MS1)	Source: 2308578-01			Prepared: 08/29/23 Analyzed: 08/30/23						
Acenaphthene	0.0222	0.00500	mg/kg	0.0333	ND	66.7	31-137			
Anthracene	0.0163	0.00500	"	0.0333	ND	49.0	30-120			
Benzo (a) anthracene	0.0232	0.00500	"	0.0333	ND	69.5	30-120			
Benzo (a) pyrene	0.0216	0.00500	"	0.0333	ND	64.7	30-120			
Benzo (b) fluoranthene	0.0256	0.00500	"	0.0333	ND	76.9	30-120			
Benzo (k) fluoranthene	0.0250	0.00500	"	0.0333	ND	75.0	30-120			
Chrysene	0.0203	0.00500	"	0.0333	ND	60.8	30-120			
Dibenz (a,h) anthracene	0.0171	0.00500	"	0.0333	ND	51.4	30-120			
Fluoranthene	0.0157	0.00500	"	0.0333	ND	47.0	30-120			
Fluorene	0.0235	0.00500	"	0.0333	ND	70.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0232	0.00500	"	0.0333	ND	69.7	30-120			
Pyrene	0.0277	0.00500	"	0.0333	ND	83.2	35-142			
1-Methylnaphthalene	0.0220	0.00500	"	0.0333	ND	65.9	15-130			
2-Methylnaphthalene	0.0216	0.00500	"	0.0333	ND	64.9	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0207</i>		<i>"</i>	<i>0.0333</i>		<i>62.2</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0169</i>		<i>"</i>	<i>0.0333</i>		<i>50.6</i>	<i>40-150</i>			

Matrix Spike Dup (BGH1150-MSD1)	Source: 2308578-01			Prepared: 08/29/23 Analyzed: 08/30/23						
Acenaphthene	0.0190	0.00500	mg/kg	0.0333	ND	57.0	31-137	15.7	30	
Anthracene	0.0161	0.00500	"	0.0333	ND	48.4	30-120	1.20	30	
Benzo (a) anthracene	0.0235	0.00500	"	0.0333	ND	70.6	30-120	1.60	30	
Benzo (a) pyrene	0.0224	0.00500	"	0.0333	ND	67.1	30-120	3.69	30	
Benzo (b) fluoranthene	0.0274	0.00500	"	0.0333	ND	82.3	30-120	6.83	30	
Benzo (k) fluoranthene	0.0268	0.00500	"	0.0333	ND	80.3	30-120	6.85	30	
Chrysene	0.0199	0.00500	"	0.0333	ND	59.7	30-120	1.70	30	
Dibenz (a,h) anthracene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	4.92	30	
Fluoranthene	0.0161	0.00500	"	0.0333	ND	48.2	30-120	2.43	30	
Fluorene	0.0205	0.00500	"	0.0333	ND	61.5	30-120	13.4	30	
Indeno (1,2,3-cd) pyrene	0.0223	0.00500	"	0.0333	ND	66.9	30-120	4.06	30	
Pyrene	0.0297	0.00500	"	0.0333	ND	89.1	35-142	6.88	30	
1-Methylnaphthalene	0.0230	0.00500	"	0.0333	ND	69.0	15-130	4.55	50	
2-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	15-130	3.94	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0232</i>		<i>"</i>	<i>0.0333</i>		<i>69.6</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0172</i>		<i>"</i>	<i>0.0333</i>		<i>51.5</i>	<i>40-150</i>			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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

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

Batch BGH1085 - EPA 3050B

Blank (BGH1085-BLK1)

Prepared: 08/28/23 Analyzed: 08/29/23

Boron ND 0.0100 mg/L

LCS (BGH1085-BS1)

Prepared: 08/28/23 Analyzed: 08/29/23

Boron 5.12 0.0100 mg/L 5.00 102 80-120

Duplicate (BGH1085-DUP1)

Source: 2308446-03

Prepared: 08/28/23 Analyzed: 08/29/23

Boron 0.136 0.0100 mg/L 0.126 7.59 20

Matrix Spike (BGH1085-MS1)

Source: 2308446-03

Prepared: 08/28/23 Analyzed: 08/29/23

Boron 6.12 0.0100 mg/L 5.00 0.126 120 75-125

Matrix Spike Dup (BGH1085-MSD1)

Source: 2308446-03

Prepared: 08/28/23 Analyzed: 08/29/23

Boron 6.28 0.0100 mg/L 5.00 0.126 123 75-125 2.45 25

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 PO Box 1289
 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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 BGH1193 - 3060A Mod

Blank (BGH1193-BLK1)

Prepared & Analyzed: 08/29/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGH1193-BS1)

Prepared & Analyzed: 08/29/23

Chromium, Hexavalent 23.7 0.30 mg/kg wet 25.0 94.8 80-120

Duplicate (BGH1193-DUP1)

Source: 2308212-06

Prepared & Analyzed: 08/29/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGH1193-MS1)

Source: 2308212-06

Prepared & Analyzed: 08/29/23

Chromium, Hexavalent 30.1 0.30 mg/kg dry 29.8 ND 101 75-125

Matrix Spike Dup (BGH1193-MSD1)

Source: 2308212-06

Prepared & Analyzed: 08/29/23

Chromium, Hexavalent 28.9 0.30 mg/kg dry 29.8 ND 97.2 75-125 3.83 20

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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 BGH1216 - General Preparation

Blank (BGH1216-BLK1)

Prepared: 08/30/23 Analyzed: 08/31/23

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

LCS (BGH1216-BS1)

Prepared: 08/30/23 Analyzed: 08/31/23

Calcium	5.23	0.0500	mg/L wet	5.00		105	70-130			
Magnesium	5.65	0.0500	"	5.00		113	70-130			
Sodium	5.68	0.0500	"	5.00		114	70-130			

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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

Summit Scientific

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

Batch BGH1098 - General Preparation

Duplicate (BGH1098-DUP1)

Source: 2308599-01

Prepared & Analyzed: 08/28/23

% Solids	81.9		%		81.1			0.987		20	
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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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 BGH1242 - General Preparation

Blank (BGH1242-BLK1)

Prepared & Analyzed: 08/31/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGH1242-BS1)

Prepared & Analyzed: 08/31/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

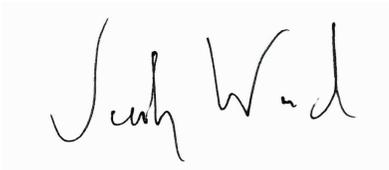
Duplicate (BGH1242-DUP1)

Source: 2308599-01

Prepared & Analyzed: 08/31/23

Specific Conductance (EC) 0.293 0.0100 mmhos/cm 0.293 0.00 20

Summit Scientific



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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Jepsen G21-25
 Project Number: UWRWE-A2797-ABN
 Project Manager: Paul Henchan

Reported:
 09/11/23 11:14

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

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

Batch BGH1243 - General Preparation

LCS (BGH1243-BS1)		Prepared & Analyzed: 08/31/23								
pH	9.11		pH Units	9.18		99.2	95-105			
Duplicate (BGH1243-DUP1)		Source: 2308599-01		Prepared & Analyzed: 08/31/23						
pH	8.10		pH Units		8.10			0.00	20	

Batch BGI0137 - General Preparation

LCS (BGI0137-BS1)		Prepared & Analyzed: 09/06/23								
pH	9.11		pH Units	9.18		99.2	95-105			
Duplicate (BGI0137-DUP1)		Source: 2308466-01		Prepared & Analyzed: 09/06/23						
pH	11.2		pH Units		11.2			0.179	20	

Summit Scientific



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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Jepsen G21-25
Project Number: UWRWE-A2797-ABN
Project Manager: Paul Henchan

Reported:
09/11/23 11:14

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