FREMONT ENVIRONMENTAL INC.

April 5, 2023

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

Subject: **Flowline Closure Data Submittal**
O'Connell C 31-18
API # 05-123-26059
SWNE Sec. 31, T4N, R64W
Weld County, Colorado
Fremont Project No. C022-189
Remediation # 24272

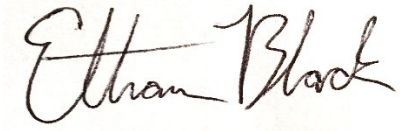
Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted flowline abandonment activities for the Noble Energy Inc. (Noble) O'Connell C 31-18 location. Details of the O'Connell C 31-18 flowline abandonment are documented in the attached Closure Report. Groundwater was not encountered.

Please contact me at (603) 477-6907 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

FREMONT ENVIRONMENTAL INC.



Ethan D. Black, P.G.
Consultant

Attachments:
- Facility Closure Checklist
- Tables
- Figures
- Photos
- Laboratory Reports

1759 REDWING LANE, BROOMFIELD, CO 80020
(303) 956-8714 (DIRECT)

Flowline Closure Checklist

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

Additional Attachments:		Tank Battery Closure		Wellhead Closure		Pit Closure		Partially Buried Vault Closure

Site Name & COGCC Facility Number:	*Date:*	*Remediation Project #:*
O'Connell C 31-18, 291423	11/30	24272
Associated Wells:	*Age of Site:*	*Number of Photos Attached:*
05-123-26059	2007	6

Starting point: *(GPS coordinates and descriptions)*
40.2721637 -104.5929876 (WH Riser)

End point: *(GPS coordinates and descriptions)*
40.2706188 -104.591027 (Sep. Riser)

USCS Soil Type: SP | *Estimated Depth to Groundwater:* >25 feet

Hydrocarbon Impacted Soils / Spills: *(Note estimated size and if impact appears to be surficial or extends to an unknown depth)*
None observed

Salt Crusted Soils or Impacted Vegetation: *(Note estimated size and if impact appears to be surficial or extends to an unknown depth)*
None observed

Flowlines

Flowline type	Combine fluids							
Depth	2 ft							
Age	2007							
Length								
Construction Material	Carbon Steel							
Were flowlines pulled?	yes							
Visual Integrity of lines	good							
Visual impacts if trenched	none							
PID Readings if trenched	see attached							
Sample taken? Location/Sample ID#	see attached							
Photo Number(s)	see attached							

Other observations regarding on loction flowlines:
None

Summary

Was impacted soil identified?
☑ No ☐ Yes - less than 10 cubic yards ☐ Yes - more than 10 cubic yards

Total number of samples field screened: 5	*Total number of samples collected:* 5
Highest PID Reading: 1.1 ppm	*Total number of samples submitted to lab for analysis:* 3

If more than 10 cubic yards of impacted soil were observed:

Vertical extent:	*Estimated spill volume:*
Lateral extent:	*Volume of soil removed:*

Is additional investigation required?
No

Was groundwater encountered during the investigation?
☑ No ☐ Yes - not impacted or in contact with impacted soils ☐ Yes - groundwater impacted and/or in contact with impacted soils

Measured depth to groundwater:	*Was remedial groundwater removal conducted?* Yes ☐ No ☐
Date Groundwater was encountered:	*Commencement date of removal:*
Sheen on groundwater? ☐ Yes ☐ No	*Volume of groundwater removed prior to sampling:*
Free product observed? ☐ Yes ☐ No	*Volume of groundwater removed post sampling:*
Total number of samples collected:	*Total Volume of groundwater removed:*
Total number of samples submitted to lab for analysis:	

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY, INC.
O'CONNELL C 31-18, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-189

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 2ft	11/30/2022	2	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*	*<0.0050*	*<0.0050*	*<0.0038*	*<0.50*	*<50*	*<50*
FL05 2ft	11/30/2022	2	*<0.0020*	*<0.0050*	*<0.0050*	*<0.010*	*<0.0050*	*<0.0050*	*<0.0038*	*<0.50*	*<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

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY, INC.
O'CONNELL C 31-18, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-189

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 2ft	11/30/2022	2	*<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*
FL05 2ft	11/30/2022	2	*<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

TABLE 3

SUMMARY OF SOIL SUITABILITY FOR RECLAMATION

NOBLE ENERGY, INC.

O'CONNELL C 31-18, WELD COUNTY, COLORADO

FREMONT PROJECT NO. C022-189

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
BKG 2ft	11/30/2022	2	7.73	0.453	0.455	0.040
FL01 2ft	11/30/2022	2	7.11	0.363	0.431	0.036
FL05 2ft	11/30/2022	2	7.82	0.245	0.299	0.042

Bold faced values exceed the COGCC Table 915-1 concentrations

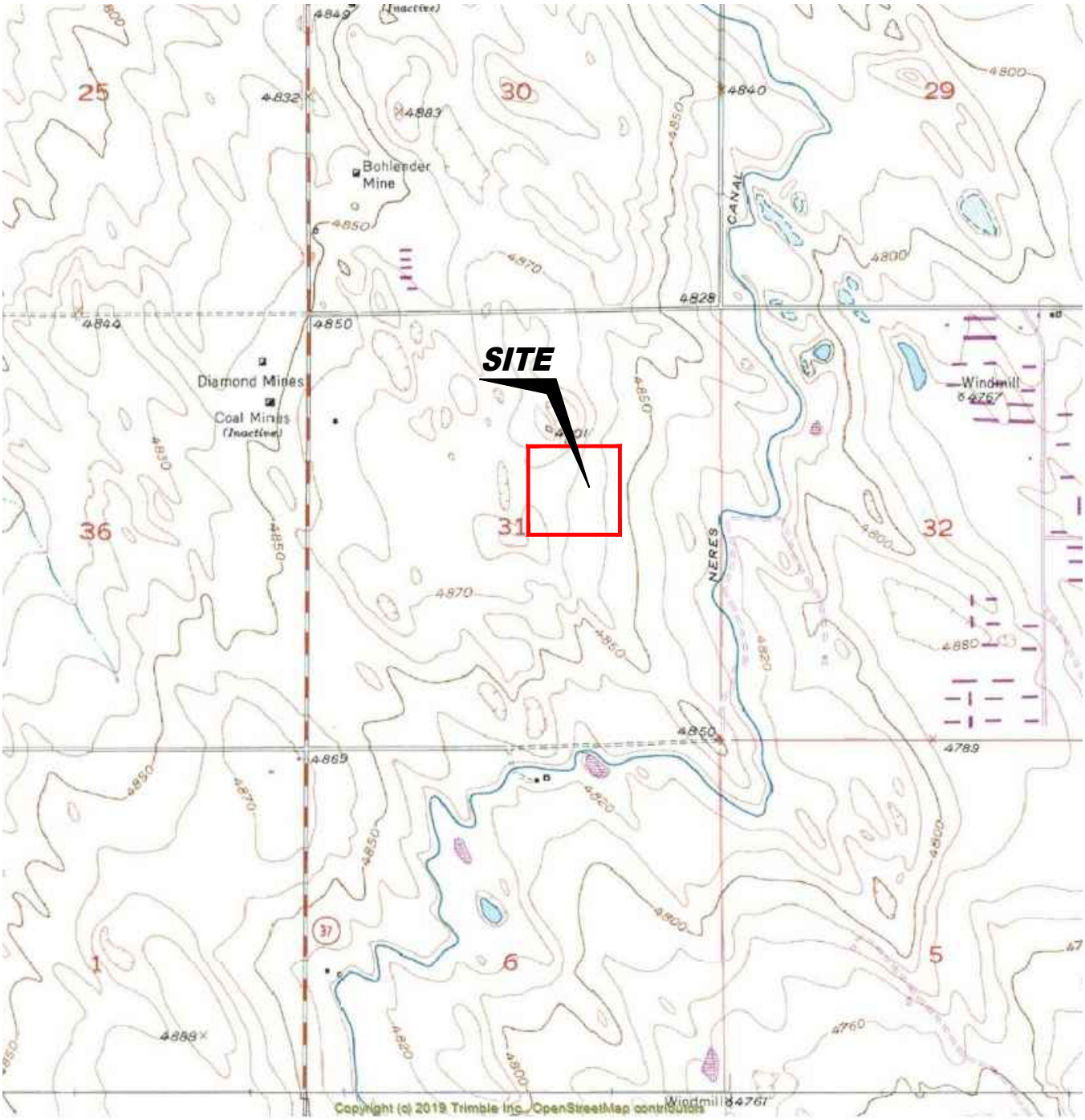
Yellow highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 4
SUMMARY OF POTHOLE FIELD OBSERVATIONS
NOBLE ENERGY, INC.
OCONNELL C 31-18, WELD COUNTY, COLORADO
FREMONT PROJECT C022-189

Location	Latitude	Longitude	PID Reading	Field Observations
FL01 2Ft	40.2721637	-104.5929876	0	No soil impacts
FL02 2Ft	40.2718125	-104.59227	0.3	No soil impacts
FL03 2Ft	40.2711638	-104.5919112	0.0	No soil impacts
FL04 2 Ft	40.2706972	-104.5914108	0.6	No soil impacts
FL05 2 Ft (SEP)	40.2706188	-104.591027	1.1	No soil impacts

TABLE 5
SUMMARY OF FLOW LINE CONDITION
NOBLE ENERGY, INC.
OCONNELL C 31-18, WELD COUNTY, COLORADO
FREMONT PROJECT C022-189

START	STOP	FOOTAGE	PIPE TYPE AND CONDITION
FL01 2Ft	FL02 2Ft	232	2" carbon steel, black non-ACM TGF coating, good condition
FL02 2Ft	FL03 2Ft	258	2" carbon steel, black non-ACM TGF coating, good condition
FL03 2Ft	FL04 2 Ft	224	2" carbon steel, black non-ACM TGF coating, good condition
FL04 2 Ft	FL05 2 Ft (SEP)	114	2" carbon steel, black non-ACM TGF coating, good condition
		828	**Total Linear Feet of Flowline**



N

Scale (miles)
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
0 1000 2000 3000 4000 5000
Scale (feet)

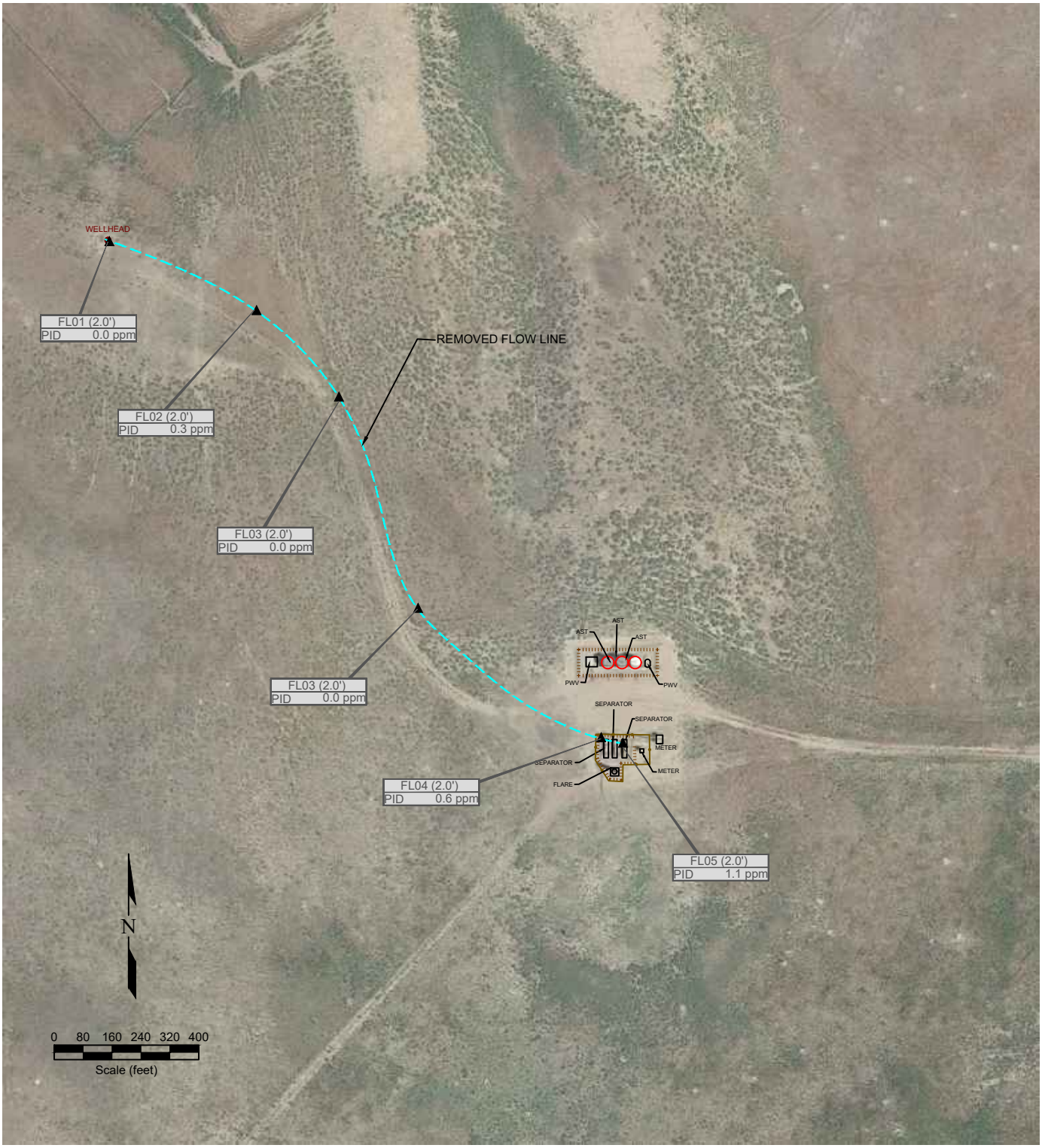
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY, INC. ~ O'CONNEL C 31-18
SWNE Sec. 31, T4N, R64W, 6th PM
Weld County, Colorado
40.272165 °, -104.593023°

Project #	API #	Facility #
C022-189	**05-123-26059**	
Date	Remediation #	Filename
4/11/23	**24272**	**22189T**

FREMONT ENVIRONMENTAL



LEGEND

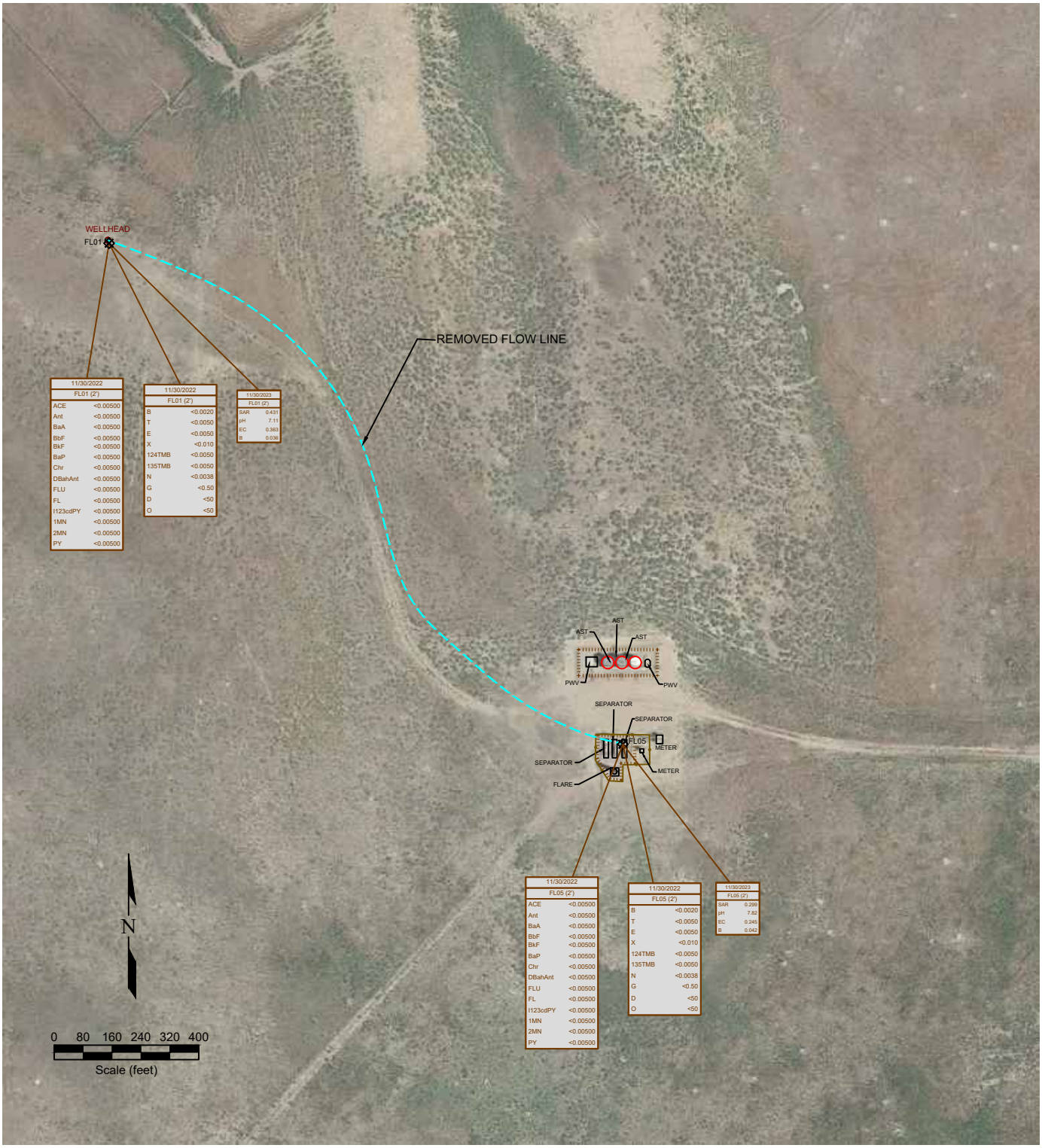
- WELL HEAD LOCATION
- PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- FENCE LINE
- FLOW LINE
- PID READING LOCATION IDENTIFICATION
- PHOTO IONIZATION DETECTION (ppm)

Figure 2
SITE MAP

NOBLE ENERGY, INC. ~ O'CONNEL C 31-18
SWNE Sec. 31, T4N, R64W, 6th PM
Weld County, Colorado
40.272165 °, -104.593023°

Project No.	API #	Facility #
C022-189	**05-123-26059**	
Date	Remediation #	Filename
4/11/23	**24272**	**22189T**

FREMONT ENVIRONMENTAL



LEGEND

WELL HEAD LOCATION
SOIL SAMPLE LOCATION
ABOVE GROUND STORAGE TANK
FORMER FACILITY
CONTAINMENT BERM
FENCE LINE
FLOW LINE

11/30/2022
FL01 (2')
ACE <0.00500
Ant <0.00500
BaA <0.00500
BbF <0.00500
BkF <0.00500
BaP <0.00500
Chr <0.00500
DBahAnt <0.00500
FLU <0.00500
FL <0.00500
I123cdPY <0.00500
1MN <0.00500
2MN <0.00500
PY <0.00500

DATE SAMPLED
SAMPLE ID and DEPTH (ft)
ACENAPHTHENE (mg/kg)
ANTHRACENE (mg/kg)
BENZO (A) ANTHRACENE (mg/kg)
BENZO (B) FLUORANTHENE (mg/kg)
BENZO (K) FLUORANTHENE(mg/kg)
BENZO (A) PYRENE (mg/kg)
CHRYSENE (mg/kg)
DIBENZ (A,H) ANTHRACENE (mg/kg)
FLUORANTHENE (mg/kg)
FLUORENE (mg/kg)
INDENO (1,2,3-CD) PYRENE(mg/kg)
1-METHYLNAPHTHALENE (mg/kg)
2-METHYLNAPHTHALENE (mg/kg)
PYRENE (mg/kg)

11/30/2022
FL01 (2')
B <0.0020
T <0.0050
E <0.0050
X <0.010
124TMB <0.0050
135TMB <0.0050
N <0.0038
G <0.50
D <50
O <50

DATE SAMPLED
SAMPLE ID and DEPTH (ft)
BENZENE (mg/kg)
TOLUENE (mg/kg)
ETHYLBENZENE (mg/kg)
TOTAL XYLENES (mg/kg)
1,2,4-TRIMETHYLBENZENE (mg/kg)
1,3,5-TRIMETHYLBENZENE (mg/kg)
NAPHTHALENE (mg/kg)
TPH-GRO (mg/kg)
TPH-DRO (mg/kg)
TPH-ORO (mg/kg)

11/30/2023
BKG (2')
SAR 0.455
pH 7.73
EC 0.453
B 0.040

DATE SAMPLED
SAMPLE ID & DEPTH (ft)
SAR (units)
pH (pH units)
EC (mmhos/cm)
BORON (mg/L)

(NA) NOT ANALYZED

Figure 3
SOIL CHEMISTRY MAP

NOBLE ENERGY, INC. ~ O'CONNEL C 31-18
SWNE Sec. 31, T4N, R64W, 6th PM
Weld County, Colorado
40.272165 °, -104.593023°

Project No.	API #	Facility #
C022-189	**05-123-26059**	
Date	Remediation #	Filename
4/11/23	**24272**	**22189T**

FREMONT ENVIRONMENTAL

Photo Log

Description:

1 - O'Connell C 31-18 FL01 bellhole post flowline removal; looking SE

Photo Log

Description:

2 - O'Connell C 31-18 flowline post removal; good condition

Photo Log

Description:

3 - O'Connell C 31-18 flowline close-up, post removal; good condition

Photo Log

Description:

4 - O'Connell C 31-18 FL02 bellhole post flowline removal; looking SE

Photo Log

Description:

5 - O'Connell C 31-18 FL03 bellhole post flowline removal; looking SE

Photo Log

Description:

6 - O'Connell C 31-18 FL05 separator riser bellhole post flowline removal

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 06, 2022

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - OConnell C31-18
Work Order #2211483

Enclosed are the results of analyses for samples received by Summit Scientific on 11/30/22 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mikayla Axtell For Paul Shrewsbury
President

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01 2ft	2211483-01	Soil	11/30/22 00:00	11/30/22 16:00
FL05 2ft	2211483-02	Soil	11/30/22 00:00	11/30/22 16:00
BKG 2ft	2211483-03	Soil	11/30/22 00:00	11/30/22 16:00

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

2211483

S2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

client: Fremont
Address:
City/State/Zip:
Phone:
Sampler Name: EB

Project Manager: Harahan
E-Mail: fremont dist list
Bill To : Dan
Project Name: Noble - OConnell C31-18
Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative: HCl	HNO3	None	Other	Matrix: Water	Soil	Air-Canister #	Other	Analysis Requested: N BTEX/TMBs	TPH	EDB/EC/DH	PAH	VOCs				Special Instructions
1	FL01 2FT	11/30/22		2			X			X			X	X	X	X	X				
2	FL05 2FT	1		1			1			1			X	X	X	X	X				
3	BKG 2FT	1		1			1			1			X	X	X	X	X				
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: [signature] Date/Time: 11/30/22 1550
Received by: S2 Date/Time: 11/30/22 1550

Relinquished by: S2 Date/Time: 11/30/22 1600
Received by: [signature] Date/Time: 11/30/22 1600

Temperature Upon Receipt: 7.2
IR gun correction: 0

Corrected Temperature: 0
IR gun #: 1

HNO3 lot #:

Turn Around Time (Check)
Same Day ___ 72 hours ___
24 hours ___ Standard X
48 hours ___

Sample Integrity:
Samples Intact: (Yes) No

Notes:

S2

Sample Receipt Checklist

S2 Work Order# 2211483

Client: Fremont Client Project ID: Noble-Oconnell C31-18

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

[ ] - [ ] [ ] [ ]

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

Temp (°C) 7.2 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.	-			w ICE
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_2SO_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.

Custodian Printed Name

11.30.22
Date/Time

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

FL01 2ft

2211483-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFL0004	12/01/22	12/02/22	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: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*78.5 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8		*98.3 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.5 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFL0006	12/01/22	12/02/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*105 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

FL01 2ft

2211483-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0001	12/01/22	12/01/22	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: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		*86.3 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10		*71.4 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.0356**	0.0100	mg/L	1	BFL0059	12/02/22	12/03/22	EPA 6020B	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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 - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

FL01 2ft

2211483-01 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**23.1**	0.0529	mg/L dry	1	BFL0025	12/01/22	12/02/22	EPA 6020B	
Magnesium	**9.14**	0.0529	"	"	"	"	"	"	
Sodium	**9.67**	0.0529	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.431**	0.00100	units	1	BFL0105	12/05/22	12/05/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.5**		%	1	BFL0065	12/02/22	12/03/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.363**	0.0100	mmhos/cm	1	BFL0057	12/02/22	12/02/22	EPA 120.1	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.11**		pH Units	1	BFL0056	12/02/22	12/02/22	EPA 9045D	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

FL05 2ft

2211483-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFL0004	12/01/22	12/02/22	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: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*77.2 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8		*98.6 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.6 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFL0006	12/01/22	12/02/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*100 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

FL05 2ft

2211483-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFL0001	12/01/22	12/01/22	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: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		*64.2 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10		*53.0 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.0417**	0.0100	mg/L	1	BFL0059	12/02/22	12/03/22	EPA 6020B	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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FL05 2ft

2211483-02 (Soil)

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**63.6**	0.0543	mg/L dry	1	BFL0025	12/01/22	12/02/22	EPA 6020B	
Magnesium	**11.6**	0.0543	"	"	"	"	"	"	
Sodium	**9.87**	0.0543	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.299**	0.00100	units	1	BFL0105	12/05/22	12/05/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92.1**		%	1	BFL0065	12/02/22	12/03/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.245**	0.0100	mmhos/cm	1	BFL0057	12/02/22	12/02/22	EPA 120.1	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.82**		pH Units	1	BFL0056	12/02/22	12/02/22	EPA 9045D	

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S2

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

BKG 2ft

2211483-03 (Soil)

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Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.0397**	0.0100	mg/L	1	BFL0059	12/02/22	12/03/22	EPA 6020B	

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**39.6**	0.0529	mg/L dry	1	BFL0025	12/01/22	12/02/22	EPA 6020B	
Magnesium	**11.2**	0.0529	"	"	"	"	"	"	
Sodium	**12.6**	0.0529	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.455**	0.00100	units	1	BFL0105	12/05/22	12/05/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.5**		%	1	BFL0065	12/02/22	12/03/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.453**	0.0100	mmhos/cm	1	BFL0057	12/02/22	12/02/22	EPA 120.1	

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

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BKG 2ft

2211483-03 (Soil)

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

Date Sampled: **11/30/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.73**		pH Units	1	BFL0056	12/02/22	12/02/22	EPA 9045D	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0004 - EPA 5030 Soil MS										
Blank (BFL0004-BLK1)				Prepared: 12/01/22 Analyzed: 12/02/22						
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	*0.0374*		*"*	*0.0400*		*93.6*	*50-150*			
Surrogate: Toluene-d8	*0.0397*		*"*	*0.0400*		*99.2*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0363*		*"*	*0.0400*		*90.8*	*50-150*			
LCS (BFL0004-BS1)				Prepared: 12/01/22 Analyzed: 12/02/22						
Benzene	0.0686	0.0020	mg/kg	0.0750		91.4	70-130			
Toluene	0.0740	0.0050	"	0.0750		98.7	70-130			
Ethylbenzene	0.0689	0.0050	"	0.0750		91.9	70-130			
m,p-Xylene	0.143	0.010	"	0.150		95.4	70-130			
o-Xylene	0.0719	0.0050	"	0.0750		95.9	70-130			
1,2,4-Trimethylbenzene	0.0737	0.0050	"	0.0750		98.2	70-130			
1,3,5-Trimethylbenzene	0.0730	0.0050	"	0.0750		97.4	70-130			
Naphthalene	0.0960	0.0038	"	0.0750		128	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0314*		*"*	*0.0400*		*78.5*	*50-150*			
Surrogate: Toluene-d8	*0.0416*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0384*		*"*	*0.0400*		*95.9*	*50-150*			
Matrix Spike (BFL0004-MS1)	**Source: 2211465-01**			Prepared: 12/01/22 Analyzed: 12/02/22						
Benzene	0.0659	0.0020	mg/kg	0.0750	ND	87.8	70-130			
Toluene	0.0741	0.0050	"	0.0750	ND	98.8	70-130			
Ethylbenzene	0.0689	0.0050	"	0.0750	ND	91.8	70-130			
m,p-Xylene	0.141	0.010	"	0.150	ND	94.2	70-130			
o-Xylene	0.0729	0.0050	"	0.0750	ND	97.2	70-130			
1,2,4-Trimethylbenzene	0.0752	0.0050	"	0.0750	ND	100	70-130			
1,3,5-Trimethylbenzene	0.0753	0.0050	"	0.0750	ND	100	70-130			
Naphthalene	0.0753	0.0038	"	0.0750	ND	100	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0313*		*"*	*0.0400*		*78.2*	*50-150*			
Surrogate: Toluene-d8	*0.0417*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0384*		*"*	*0.0400*		*96.1*	*50-150*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0004 - EPA 5030 Soil MS										
Matrix Spike Dup (BFL0004-MSD1)	**Source: 2211465-01**			Prepared: 12/01/22 Analyzed: 12/02/22						
Benzene	0.0710	0.0020	mg/kg	0.0750	ND	94.7	70-130	7.50	30	
Toluene	0.0764	0.0050	"	0.0750	ND	102	70-130	3.07	30	
Ethylbenzene	0.0681	0.0050	"	0.0750	ND	90.8	70-130	1.09	30	
m,p-Xylene	0.140	0.010	"	0.150	ND	93.3	70-130	1.00	30	
o-Xylene	0.0720	0.0050	"	0.0750	ND	96.0	70-130	1.24	30	
1,2,4-Trimethylbenzene	0.0756	0.0050	"	0.0750	ND	101	70-130	0.517	30	
1,3,5-Trimethylbenzene	0.0742	0.0050	"	0.0750	ND	99.0	70-130	1.44	30	
Naphthalene	0.0853	0.0038	"	0.0750	ND	114	70-130	12.5	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0343*		*"*	*0.0400*		*85.6*	*50-150*			
Surrogate: Toluene-d8	*0.0418*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0391*		*"*	*0.0400*		*97.6*	*50-150*			

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0006 - EPA 3550A										
Blank (BFL0006-BLK1)				Prepared & Analyzed: 12/01/22						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	*11.6*		*"*	*12.5*		*92.9*	*30-150*			
LCS (BFL0006-BS1)				Prepared & Analyzed: 12/01/22						
C10-C28 (DRO)	433	50	mg/kg	500		86.6	70-130			
Surrogate: o-Terphenyl	*12.4*		*"*	*12.5*		*99.3*	*30-150*			
Matrix Spike (BFL0006-MS1)	**Source: 2211465-01**			Prepared & Analyzed: 12/01/22						
C10-C28 (DRO)	431	50	mg/kg	500	7.64	84.7	70-130			
Surrogate: o-Terphenyl	*8.37*		*"*	*12.5*		*67.0*	*30-150*			
Matrix Spike Dup (BFL0006-MSD1)	**Source: 2211465-01**			Prepared & Analyzed: 12/01/22						
C10-C28 (DRO)	460	50	mg/kg	500	7.64	90.5	70-130	6.54	20	
Surrogate: o-Terphenyl	*8.18*		*"*	*12.5*		*65.5*	*30-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0001 - EPA 5030 Soil MS										
Blank (BFL0001-BLK1)				Prepared & Analyzed: 12/01/22						
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	*0.0355*		*"*	*0.0333*		*107*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0263*		*"*	*0.0333*		*79.0*	*40-150*			
LCS (BFL0001-BS1)				Prepared & Analyzed: 12/01/22						
Acenaphthene	0.0351	0.00500	mg/kg	0.0333		105	31-137			
Anthracene	0.0339	0.00500	"	0.0333		102	30-120			
Benzo (a) anthracene	0.0305	0.00500	"	0.0333		91.4	30-120			
Benzo (a) pyrene	0.0301	0.00500	"	0.0333		90.3	30-120			
Benzo (b) fluoranthene	0.0357	0.00500	"	0.0333		107	30-120			
Benzo (k) fluoranthene	0.0353	0.00500	"	0.0333		106	30-120			
Chrysene	0.0310	0.00500	"	0.0333		93.0	30-120			
Dibenz (a,h) anthracene	0.0347	0.00500	"	0.0333		104	30-120			
Fluoranthene	0.0362	0.00500	"	0.0333		109	30-120			
Fluorene	0.0369	0.00500	"	0.0333		111	30-120			
Indeno (1,2,3-cd) pyrene	0.0321	0.00500	"	0.0333		96.2	30-120			
Pyrene	0.0320	0.00500	"	0.0333		96.1	35-142			
1-Methylnaphthalene	0.0300	0.00500	"	0.0333		89.9	35-142			
2-Methylnaphthalene	0.0303	0.00500	"	0.0333		90.8	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0314*		*"*	*0.0333*		*94.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0375*		*"*	*0.0333*		*112*	*40-150*			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0001 - EPA 5030 Soil MS										
Matrix Spike (BFL0001-MS1)	**Source: 2211483-01**			Prepared & Analyzed: 12/01/22						
Acenaphthene	0.0226	0.00500	mg/kg	0.0333	ND	67.8	31-137			
Anthracene	0.0225	0.00500	"	0.0333	ND	67.5	30-120			
Benzo (a) anthracene	0.0221	0.00500	"	0.0333	0.000503	64.7	30-120			
Benzo (a) pyrene	0.0220	0.00500	"	0.0333	ND	66.1	30-120			
Benzo (b) fluoranthene	0.0250	0.00500	"	0.0333	ND	74.9	30-120			
Benzo (k) fluoranthene	0.0247	0.00500	"	0.0333	ND	74.2	30-120			
Chrysene	0.0215	0.00500	"	0.0333	ND	64.4	30-120			
Dibenz (a,h) anthracene	0.0241	0.00500	"	0.0333	ND	72.3	30-120			
Fluoranthene	0.0296	0.00500	"	0.0333	ND	88.8	30-120			
Fluorene	0.0237	0.00500	"	0.0333	ND	71.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0220	0.00500	"	0.0333	ND	66.0	30-120			
Pyrene	0.0239	0.00500	"	0.0333	ND	71.6	35-142			
1-Methylnaphthalene	0.0204	0.00500	"	0.0333	ND	61.1	15-130			
2-Methylnaphthalene	0.0243	0.00500	"	0.0333	ND	72.8	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0215*		*"*	*0.0333*		*64.5*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0262*		*"*	*0.0333*		*78.6*	*40-150*			
Matrix Spike Dup (BFL0001-MSD1)	**Source: 2211483-01**			Prepared & Analyzed: 12/01/22						
Acenaphthene	0.0221	0.00500	mg/kg	0.0333	ND	66.4	31-137	2.05	30	
Anthracene	0.0217	0.00500	"	0.0333	ND	65.2	30-120	3.47	30	
Benzo (a) anthracene	0.0215	0.00500	"	0.0333	0.000503	63.0	30-120	2.65	30	
Benzo (a) pyrene	0.0213	0.00500	"	0.0333	ND	64.0	30-120	3.19	30	
Benzo (b) fluoranthene	0.0242	0.00500	"	0.0333	ND	72.5	30-120	3.26	30	
Benzo (k) fluoranthene	0.0236	0.00500	"	0.0333	ND	70.9	30-120	4.47	30	
Chrysene	0.0213	0.00500	"	0.0333	ND	63.9	30-120	0.811	30	
Dibenz (a,h) anthracene	0.0230	0.00500	"	0.0333	ND	68.9	30-120	4.81	30	
Fluoranthene	0.0242	0.00500	"	0.0333	ND	72.7	30-120	20.0	30	
Fluorene	0.0258	0.00500	"	0.0333	ND	77.3	30-120	8.32	30	
Indeno (1,2,3-cd) pyrene	0.0212	0.00500	"	0.0333	ND	63.5	30-120	3.82	30	
Pyrene	0.0244	0.00500	"	0.0333	ND	73.1	35-142	2.00	30	
1-Methylnaphthalene	0.0198	0.00500	"	0.0333	ND	59.5	15-130	2.72	50	
2-Methylnaphthalene	0.0204	0.00500	"	0.0333	ND	61.1	15-130	17.6	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0200*		*"*	*0.0333*		*59.9*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0223*		*"*	*0.0333*		*66.9*	*40-150*			

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 - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0059 - EPA 3050B										
Blank (BFL0059-BLK1)				Prepared: 12/02/22 Analyzed: 12/03/22						
Boron	ND	0.0100	mg/L							
LCS (BFL0059-BS1)				Prepared: 12/02/22 Analyzed: 12/03/22						
Boron	5.01	0.0100	mg/L	5.00		100	80-120			
Duplicate (BFL0059-DUP1)		**Source: 2211462-38**		Prepared: 12/02/22 Analyzed: 12/03/22						
Boron	0.107	0.0100	mg/L		0.131			20.0	20	
Matrix Spike (BFL0059-MS1)		**Source: 2211462-38**		Prepared: 12/02/22 Analyzed: 12/03/22						
Boron	4.05	0.0100	mg/L	5.00	0.131	78.5	75-125			
Matrix Spike Dup (BFL0059-MSD1)		**Source: 2211462-38**		Prepared: 12/02/22 Analyzed: 12/03/22						
Boron	4.73	0.0100	mg/L	5.00	0.131	92.0	75-125	15.4	25	

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0025 - General Preparation										
Blank (BFL0025-BLK1)				Prepared: 12/01/22 Analyzed: 12/02/22						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BFL0025-BS1)				Prepared: 12/01/22 Analyzed: 12/02/22						
Calcium	5.55	0.0500	mg/L wet	5.00		111	70-130			
Magnesium	4.30	0.0500	"	5.00		86.0	70-130			
Sodium	3.99	0.0500	"	5.00		79.8	70-130			

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0065 - General Preparation										
Duplicate (BFL0065-DUP1)	**Source: 2211424-05**			Prepared: 12/02/22 Analyzed: 12/03/22						
% Solids	80.6		%		81.1			0.639	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0057 - General Preparation										
Blank (BFL0057-BLK1)				Prepared & Analyzed: 12/02/22						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BFL0057-BS1)				Prepared & Analyzed: 12/02/22						
Specific Conductance (EC)	0.153	0.0100	mmhos/cm	0.150		102	95-105			
Duplicate (BFL0057-DUP1)	**Source: 2211465-01**			Prepared & Analyzed: 12/02/22						
Specific Conductance (EC)	1.71	0.0100	mmhos/cm		1.74			1.62	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFL0056 - General Preparation										
LCS (BFL0056-BS1)				Prepared & Analyzed: 12/02/22						
pH	9.10		pH Units	9.18		99.1	95-105			
Duplicate (BFL0056-DUP1)		**Source: 2211465-01**		Prepared & Analyzed: 12/02/22						
pH	10.0		pH Units		10.1			0.0995	20	

Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - OConnell C31-18 Project Number: [none] Project Manager: Paul Henehan	**Reported:** 12/06/22 16:27

Notes and Definitions

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