

FREMONT ENVIRONMENTAL INC.

May 4, 2023

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

Subject: **Flowline Closure Data Submittal**
Shable 21-20
API # 05-123-22446
NENW Sec. 20, T4N, R65W
Weld County, Colorado
Fremont Project No. C023-044
Facility # 274183, Remediation #23892

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted Flowline Closure activities for the Noble Energy Inc. (Noble) Shable 21-20. Impacted soil was not encountered during abandonment activities. Details of the Shable 21-20 flowline closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

Please contact me at (303) 956-8714 if you require any additional information. Fremont appreciates the opportunity to provide this service.

Sincerely,

FREMONT ENVIRONMENTAL INC.



Paul V. Henehan, P.E.
Senior Consultant

Attachments:

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

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: SHABLE-64N65W 20NENW Facility: 305103		Date: 02/21/2023			Remediation Project #: 23892			
Associated Wells: Shable 21-20 Facility ID: 274183 API: 05-123-22446		Age of Site: 2005			Number of Photos Attached: 4 Photos			

Starting point: (GPS coordinates and descriptions) 40.301631, -104.687926

End point: (GPS coordinates and descriptions) 40.299527, -104.686482

USCS Soil Type: SW Estimated Depth to Groundwater: N/A

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	2" Steel							
Depth	Roughly 3-4ft							
Age	2005							
Length	924ft							
Construction Material	Green TGF/2" Steel							
Were flowlines pulled?	Partially							
Visual Integrity of lines	No Damage							
Visual impacts if trenched	N/A							
PID Readings if trenched	High @ 0.0ppm							
Sample taken? Location/Sample ID#	FL01 @5.0' FL03 @3.5'							
Photo Number(s)	Photo 1A-1D							

Other observations regarding on loction flowlines:
Flowline removed (298ft) from Wellhead Tie-in (FL01@5.0) to sample location FL02@5.0'. Flowline abandoned-in-place (626ft) from sample location FL02@5.0' to separator tie-in (FL03@3.5').

Summary

Was impacted soil identified?		No	Yes - less than 10 cubic yards	Yes - more than 10 cubic yards
Total number of samples field screened: 1 samples		Total number of samples collected: 3 samples		
Highest PID Reading: High @ 0.0ppm (All Samples Taken)		Total number of samples submitted to lab for analysis: 2 samples		
If more than 10 cubic yards of impacted soil were observed:				
Vertical extent: N/A		Estimated spill volume: N/A		
Lateral extent: N/A		Volume of soil removed: N/A		
Is additional investigation required? N/A				
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: N/A		Was remedial groundwater removal conducted? Yes No		
Date Groundwater was encountered: N/A		Commencement date of removal: N/A		
Sheen on groundwater? Yes No		Volume of groundwater removed prior to sampling: N/A		
Free product observed? Yes No		Volume of groundwater removed post sampling: N/A		
Total number of samples collected: N/A		Total Volume of groundwater removed: N/A		
Total number of samples submitted to lab for analysis: N/A				

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
SHABLE 21-20, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-044

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@5.0'	2/21/2023	5.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
FL03@3.5'	2/21/2023	3.5 Ft	<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)

* 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.
SHABLE 21-20, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-044

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@5.0'	2/21/2023	5.0 Ft	<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
FL03@3.5'	2/21/2023	3.5 Ft	<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

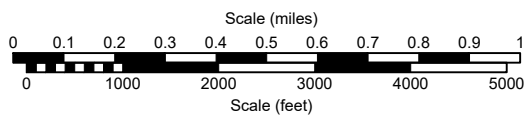
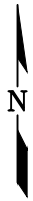
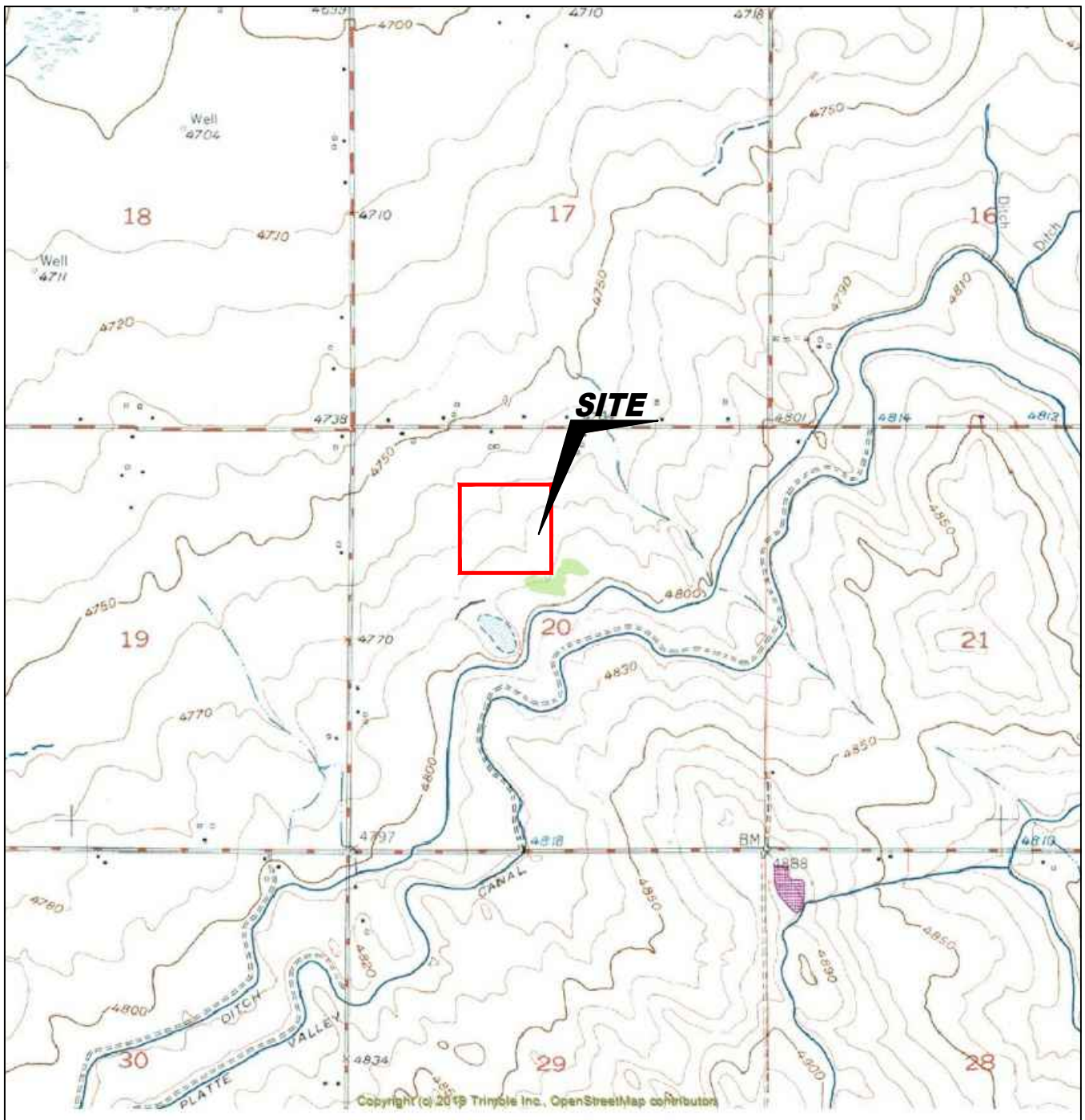
Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC.
SHABLE 21-20, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-044

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
FL01@5.0'	2/21/2023	5.0 Ft	7.74	0.480	1.96	0.0834
FL03@3.5'	2/21/2023	3.5 Ft	7.84	0.260	0.318	0.361

Bold faced values exceed the COGCC Table 915-1 concentrations

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



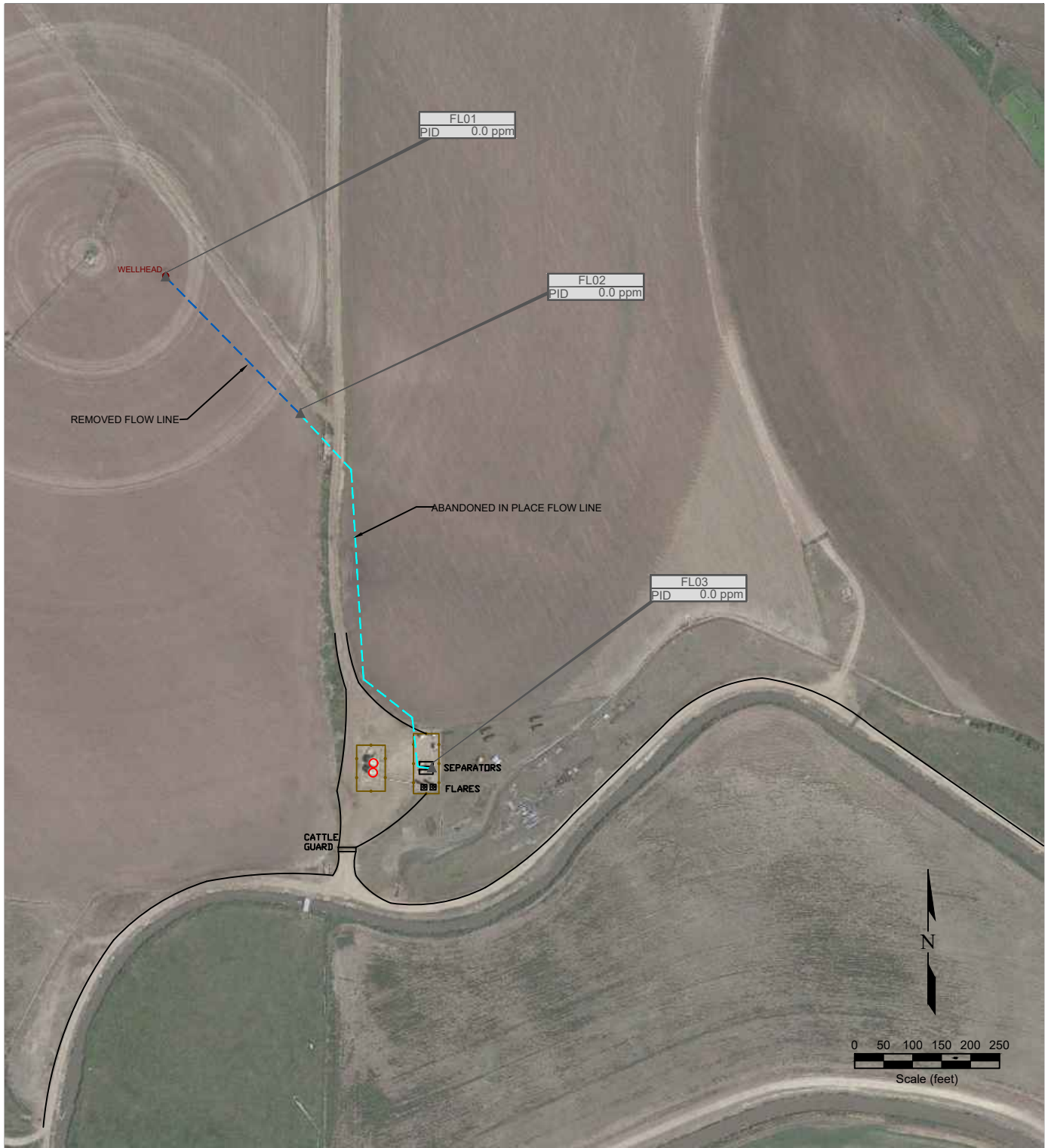
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP
NOBLE ENERGY INC~ SHABLE 21-20

NENW Sec. 20, T4N, R65W, 6th PM
 Weld County, Colorado
 40.301625°, -104.687906°

Project # C023-044	API # 05-123-22446	Facility # 274183
Date 4/12/23	Remediation # 23892	Filename 23044T





LEGEND

- WELL HEAD LOCATION
- ▲ PID READING LOCATION
- ASST ABOVE GROUND STORAGE TANK
- BUILDING BUILDING
- FORMER FORMER FACILITY
- CONTAINMENT BERM
- FLOW LINE REMOVED
- ABANDONED IN PLACE
- FENCE LINE

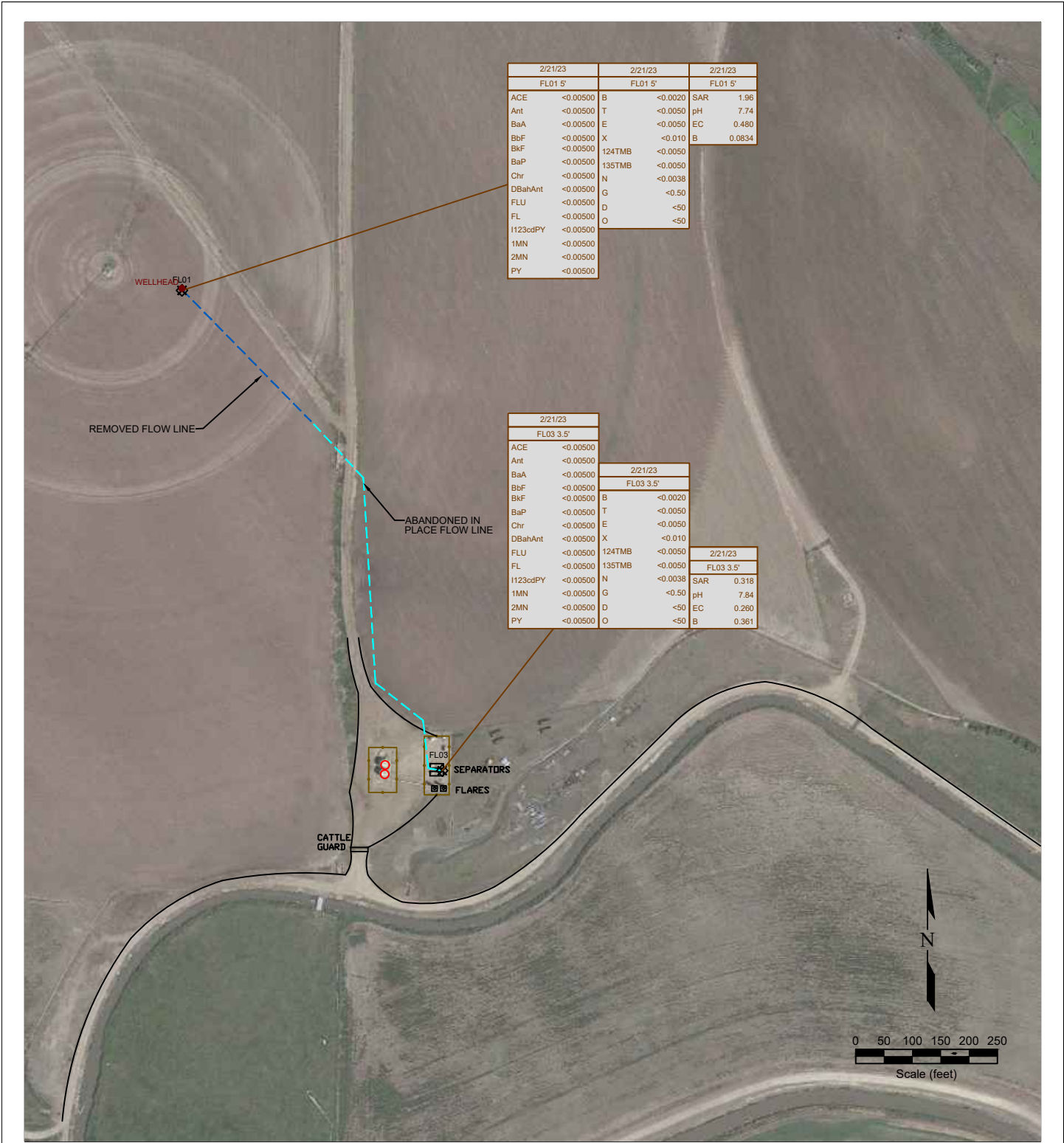
**Figure 2
SITE MAP**

NOBLE ENERGY INC~ SHABLE 21-20

NENW Sec. 20, T4N, R65W, 6th PM
Weld County, Colorado
40.301625°, -104.687906°

Project No. C023-044	API # 05-123-22446	Facility # 274183
Date 4/12/23	Remediation # 23892	Filename 23044Q





2/21/23		2/21/23		2/21/23	
FL01 5'		FL01 5'		FL01 5'	
ACE	<0.00500	B	<0.0020	SAR	1.96
Ant	<0.00500	T	<0.0050	pH	7.74
BaA	<0.00500	E	<0.0050	EC	0.480
BbF	<0.00500	X	<0.010	B	0.0834
BkF	<0.00500	124TMB	<0.0050		
BaP	<0.00500	135TMB	<0.0050		
Chr	<0.00500	N	<0.0038		
DBahAnt	<0.00500	G	<0.50		
FLU	<0.00500	D	<50		
FL	<0.00500	O	<50		
1123cdPY	<0.00500				
1MN	<0.00500				
2MN	<0.00500				
PY	<0.00500				

2/21/23		2/21/23		2/21/23	
FL03 3.5'		FL03 3.5'		FL03 3.5'	
ACE	<0.00500	B	<0.0020	SAR	0.318
Ant	<0.00500	T	<0.0050	pH	7.84
BaA	<0.00500	E	<0.0050	EC	0.260
BbF	<0.00500	X	<0.010	B	0.361
BkF	<0.00500	124TMB	<0.0050		
BaP	<0.00500	135TMB	<0.0050		
Chr	<0.00500	N	<0.0038		
DBahAnt	<0.00500	G	<0.50		
FLU	<0.00500	D	<50		
FL	<0.00500	O	<50		
1123cdPY	<0.00500				
1MN	<0.00500				
2MN	<0.00500				
PY	<0.00500				

LEGEND

WELLHEAD LOCATION
 ABOVE GROUND STORAGE TANK
 BUILDING
 FORMER BUILDING FACILITY
 FLOW LINE REMOVED
 ABANDONED IN PLACE FLOW LINE
 FENCE LINE
 CONTAINMENT BERM

DATE SAMPLED	SAMPLE ID and DEPTH (ft)	DATE SAMPLED	SAMPLE ID and DEPTH (ft)
03/24/2021	N Well @ 3'	01/22/21	N Well @ 1'
ACE	<0.005	SAR	63.76
Ant	<0.005	pH	9.4
BaA	<0.005	EC	3.34
BbF	<0.005	BORON	5.4
BkF	<0.005		
BaP	<0.005		
Chr	<0.005		
DBahAnt	<0.005		
FLU	<0.005		
FL	<0.005		
1123cdPY	<0.005		
1MN	<0.005		
2MN	<0.005		
PY	<0.005		

Figure 3
SOIL CHEMISTRY MAP
NOBLE ENERGY INC~ SHABLE 21-20

NENW Sec. 20, T4N, R65W, 6th PM
 Weld County, Colorado
 40.301625°, -104.687906°

Project No. C023-044	API # 05-123-22446	Facility # 274183
Date 4/12/23	Remediation # 23892	Filename 23044Q

Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

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Photo Log



Description:

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 02, 2023

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Shable 21-20
Work Order #2302426

Enclosed are the results of analyses for samples received by Summit Scientific on 02/21/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01@5.0'	2302426-01	Soil	02/21/23 00:00	02/21/23 16:30
FL03@3.5'	2302426-02	Soil	02/21/23 00:00	02/21/23 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.






SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2302426	

	Send Data To:	Send Invoice To:
Client: Fremont Env	Project Manager: Paul Henehan	Company: Noble
Address:	E-Mail: Paulh@fremontenv.com	Project Name/Location:
City/State/Zip:	jeff@fremontenv.com Ethanh@fremontenv.com	AFE#:
Phone:	Project Name: Shable 21-20	PO/Billing Codes:
Sampler Name: J6	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX+N	TMGs (915)	DRD, ORD, GRO	PAHs (915)		EC, PH, SAR
1	FL01@5.0'	2/21/23		2			X			X				X	X	X	X	
2	FL03@3.5'	2/21/23		2			X			X				X	X	X	X	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: 	Date/Time: 2/21/23	Received by: 	Date/Time: 2/21/23	TAT Business Days	Field DO	Notes: Bill to Noble
Relinquished by: 	Date/Time: 2/21/23 1630	Received by: 	Date/Time: 2/21/23 1630	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: 7.9	Corrected Temperature: 	IR gun #: 1	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2302426

Client: Fremont Client Project ID: Shable 21-20

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

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

Temp (°C) Thermometer #

	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"/>	on ICE
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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

2/21/23

Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

FL01@5.0'
2302426-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BGB0687	02/22/23	02/23/23	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: **02/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0365	91.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0414	103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0438	110 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BGB0690	02/22/23	02/23/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.9	95.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

FL01@5.0'
2302426-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGB0764	02/24/23	02/25/23	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: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0233	69.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0258	77.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0834	0.0100	mg/L	1	BGB0819	02/27/23	02/28/23	EPA 6020B	

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

Date Sampled: **02/21/23 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 - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

FL01@5.0'
2302426-01 (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	30.6	0.0545	mg/L dry	1	BGB0827	02/27/23	03/01/23	EPA 6020B	
Magnesium	5.32	0.0545	"	"	"	"	"	"	
Sodium	44.6	0.0545	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.96	0.00100	units	1	BGC0033	03/01/23	03/01/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.8		%	1	BGB0789	02/24/23	02/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.480	0.0100	mmhos/cm	1	BGB0864	02/28/23	02/28/23	EPA 120.1	

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

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.74		pH Units	1	BGB0866	02/28/23	02/28/23	EPA 9045D	

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PO Box 1289
Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

FL03@3.5'
2302426-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGB0687	02/22/23	02/23/23	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: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0359	89.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0413	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0432	108 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGB0690	02/22/23	02/23/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.6	92.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

FL03@3.5'
2302426-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGB0764	02/24/23	02/25/23	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: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0212	63.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0188	56.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.361	0.0100	mg/L	1	BGB0819	02/27/23	03/01/23	EPA 6020B	

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

Date Sampled: **02/21/23 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 - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

FL03@3.5'
2302426-02 (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	22.4	0.0574	mg/L dry	1	BGB0827	02/27/23	03/01/23	EPA 6020B	
Magnesium	7.94	0.0574	"	"	"	"	"	"	
Sodium	6.89	0.0574	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.318	0.00100	units	1	BGC0033	03/01/23	03/01/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.2		%	1	BGB0789	02/24/23	02/25/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.260	0.0100	mmhos/cm	1	BGB0864	02/28/23	02/28/23	EPA 120.1	

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

Date Sampled: **02/21/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.84		pH Units	1	BGB0866	02/28/23	02/28/23	EPA 9045D	

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Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

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 BGB0687 - EPA 5030 Soil MS

Blank (BGB0687-BLK1)

Prepared: 02/22/23 Analyzed: 02/23/23

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	0.0338		"	0.0400		84.4	50-150			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0433		"	0.0400		108	50-150			

LCS (BGB0687-BS1)

Prepared: 02/22/23 Analyzed: 02/23/23

Benzene	0.107	0.0020	mg/kg	0.100		107	70-130			
Toluene	0.123	0.0050	"	0.100		123	70-130			
Ethylbenzene	0.125	0.0050	"	0.100		125	70-130			
m,p-Xylene	0.247	0.010	"	0.200		123	70-130			
o-Xylene	0.113	0.0050	"	0.100		113	70-130			
1,2,4-Trimethylbenzene	0.129	0.0050	"	0.100		129	70-130			
1,3,5-Trimethylbenzene	0.130	0.0050	"	0.100		130	70-130			
Naphthalene	0.0708	0.0038	"	0.100		70.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0344		"	0.0400		86.0	50-150			
Surrogate: Toluene-d8	0.0421		"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene	0.0408		"	0.0400		102	50-150			

Matrix Spike (BGB0687-MS1)

Source: 2302381-01

Prepared: 02/22/23 Analyzed: 02/23/23

Benzene	0.104	0.0020	mg/kg	0.100	ND	104	70-130			
Toluene	0.120	0.0050	"	0.100	ND	120	70-130			
Ethylbenzene	0.122	0.0050	"	0.100	ND	122	70-130			
m,p-Xylene	0.243	0.010	"	0.200	ND	122	70-130			
o-Xylene	0.113	0.0050	"	0.100	ND	113	70-130			
1,2,4-Trimethylbenzene	0.129	0.0050	"	0.100	ND	129	70-130			
1,3,5-Trimethylbenzene	0.129	0.0050	"	0.100	ND	129	70-130			
Naphthalene	0.0774	0.0038	"	0.100	ND	77.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0357		"	0.0400		89.2	50-150			
Surrogate: Toluene-d8	0.0423		"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

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Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

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 BGB0687 - EPA 5030 Soil MS

Matrix Spike Dup (BGB0687-MSD1)	Source: 2302381-01			Prepared: 02/22/23 Analyzed: 02/23/23						
Benzene	0.107	0.0020	mg/kg	0.100	ND	107	70-130	2.61	30	
Toluene	0.126	0.0050	"	0.100	ND	126	70-130	4.51	30	
Ethylbenzene	0.128	0.0050	"	0.100	ND	128	70-130	4.68	30	
m,p-Xylene	0.254	0.010	"	0.200	ND	127	70-130	4.14	30	
o-Xylene	0.117	0.0050	"	0.100	ND	117	70-130	3.52	30	
1,2,4-Trimethylbenzene	0.123	0.0050	"	0.100	ND	123	70-130	4.48	30	
1,3,5-Trimethylbenzene	0.125	0.0050	"	0.100	ND	125	70-130	2.46	30	
Naphthalene	0.0771	0.0038	"	0.100	ND	77.1	70-130	0.388	30	
Surrogate: 1,2-Dichloroethane-d4	0.0358		"	0.0400		89.4	50-150			
Surrogate: Toluene-d8	0.0424		"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	50-150			

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Fremont Environmental
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Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGB0690 - EPA 3550A

Blank (BGB0690-BLK1)

Prepared & Analyzed: 02/22/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.7		"	12.5	101	30-150					

LCS (BGB0690-BS1)

Prepared & Analyzed: 02/22/23

C10-C28 (DRO)	476	50	mg/kg	500	95.2	70-130					
Surrogate: <i>o</i> -Terphenyl	11.9		"	12.5	95.3	30-150					

Matrix Spike (BGB0690-MS1)

Source: 2302381-01

Prepared & Analyzed: 02/22/23

C10-C28 (DRO)	496	50	mg/kg	500	11.3	96.9	70-130				
Surrogate: <i>o</i> -Terphenyl	12.3		"	12.5	98.1	30-150					

Matrix Spike Dup (BGB0690-MSD1)

Source: 2302381-01

Prepared & Analyzed: 02/22/23

C10-C28 (DRO)	440	50	mg/kg	500	11.3	85.7	70-130	11.9	20		
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5	86.0	30-150					

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Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BGB0764 - EPA 5030 Soil MS

Blank (BGB0764-BLK1)

Prepared: 02/24/23 Analyzed: 02/25/23

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>	<i>0.0349</i>		"	<i>0.0333</i>		<i>105</i>		<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0334</i>		"	<i>0.0333</i>		<i>100</i>		<i>40-150</i>			

LCS (BGB0764-BS1)

Prepared: 02/24/23 Analyzed: 02/25/23

Acenaphthene	0.0356	0.00500	mg/kg	0.0333	107	31-137
Anthracene	0.0352	0.00500	"	0.0333	105	30-120
Benzo (a) anthracene	0.0369	0.00500	"	0.0333	111	30-120
Benzo (a) pyrene	0.0377	0.00500	"	0.0333	113	30-120
Benzo (b) fluoranthene	0.0382	0.00500	"	0.0333	115	30-120
Benzo (k) fluoranthene	0.0380	0.00500	"	0.0333	114	30-120
Chrysene	0.0373	0.00500	"	0.0333	112	30-120
Dibenz (a,h) anthracene	0.0310	0.00500	"	0.0333	93.0	30-120
Fluoranthene	0.0357	0.00500	"	0.0333	107	30-120
Fluorene	0.0343	0.00500	"	0.0333	103	30-120
Indeno (1,2,3-cd) pyrene	0.0353	0.00500	"	0.0333	106	30-120
Pyrene	0.0354	0.00500	"	0.0333	106	35-142
1-Methylnaphthalene	0.0281	0.00500	"	0.0333	84.2	35-142
2-Methylnaphthalene	0.0313	0.00500	"	0.0333	93.9	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0327</i>		"	<i>0.0333</i>	<i>98.2</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0368</i>		"	<i>0.0333</i>	<i>111</i>	<i>40-150</i>

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BGB0764 - EPA 5030 Soil MS

Matrix Spike (BGB0764-MS1)

Source: 2302415-01

Prepared: 02/24/23 Analyzed: 02/25/23

Acenaphthene	0.0264	0.00500	mg/kg	0.0333	ND	79.1	31-137			
Anthracene	0.0272	0.00500	"	0.0333	ND	81.5	30-120			
Benzo (a) anthracene	0.0285	0.00500	"	0.0333	ND	85.6	30-120			
Benzo (a) pyrene	0.0264	0.00500	"	0.0333	ND	79.1	30-120			
Benzo (b) fluoranthene	0.0279	0.00500	"	0.0333	ND	83.8	30-120			
Benzo (k) fluoranthene	0.0265	0.00500	"	0.0333	ND	79.6	30-120			
Chrysene	0.0278	0.00500	"	0.0333	ND	83.4	30-120			
Dibenz (a,h) anthracene	0.0208	0.00500	"	0.0333	ND	62.4	30-120			
Fluoranthene	0.0265	0.00500	"	0.0333	ND	79.4	30-120			
Fluorene	0.0255	0.00500	"	0.0333	ND	76.4	30-120			
Indeno (1,2,3-cd) pyrene	0.0263	0.00500	"	0.0333	ND	78.9	30-120			
Pyrene	0.0296	0.00500	"	0.0333	ND	88.8	35-142			
1-Methylnaphthalene	0.0284	0.00500	"	0.0333	ND	85.3	15-130			
2-Methylnaphthalene	0.0271	0.00500	"	0.0333	ND	81.4	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0269		"	0.0333		80.7	40-150			
Surrogate: Fluoranthene-d10	0.0260		"	0.0333		78.1	40-150			

Matrix Spike Dup (BGB0764-MSD1)

Source: 2302415-01

Prepared: 02/24/23 Analyzed: 02/25/23

Acenaphthene	0.0256	0.00500	mg/kg	0.0333	ND	76.9	31-137	2.86	30
Anthracene	0.0248	0.00500	"	0.0333	ND	74.3	30-120	9.27	30
Benzo (a) anthracene	0.0278	0.00500	"	0.0333	ND	83.3	30-120	2.75	30
Benzo (a) pyrene	0.0262	0.00500	"	0.0333	ND	78.6	30-120	0.681	30
Benzo (b) fluoranthene	0.0278	0.00500	"	0.0333	ND	83.5	30-120	0.351	30
Benzo (k) fluoranthene	0.0262	0.00500	"	0.0333	ND	78.6	30-120	1.34	30
Chrysene	0.0266	0.00500	"	0.0333	ND	79.9	30-120	4.29	30
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	3.85	30
Fluoranthene	0.0248	0.00500	"	0.0333	ND	74.5	30-120	6.41	30
Fluorene	0.0254	0.00500	"	0.0333	ND	76.2	30-120	0.287	30
Indeno (1,2,3-cd) pyrene	0.0251	0.00500	"	0.0333	ND	75.3	30-120	4.62	30
Pyrene	0.0285	0.00500	"	0.0333	ND	85.5	35-142	3.83	30
1-Methylnaphthalene	0.0233	0.00500	"	0.0333	ND	69.8	15-130	20.0	50
2-Methylnaphthalene	0.0254	0.00500	"	0.0333	ND	76.1	15-130	6.65	50
Surrogate: 2-Methylnaphthalene-d10	0.0237		"	0.0333		71.0	40-150		
Surrogate: Fluoranthene-d10	0.0248		"	0.0333		74.5	40-150		

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Fremont Environmental
 PO Box 1289
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Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

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

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

Batch BGB0819 - EPA 3050B

Blank (BGB0819-BLK1)

Prepared: 02/27/23 Analyzed: 02/28/23

Boron ND 0.0100 mg/L

LCS (BGB0819-BS1)

Prepared: 02/27/23 Analyzed: 02/28/23

Boron 5.76 0.0100 mg/L 5.00 115 80-120

Duplicate (BGB0819-DUP1)

Source: 2302426-01

Prepared: 02/27/23 Analyzed: 02/28/23

Boron 0.114 0.0100 mg/L 0.0834 30.9 20 QR-03

Matrix Spike (BGB0819-MS1)

Source: 2302426-01

Prepared: 02/27/23 Analyzed: 03/01/23

Boron 5.78 0.0100 mg/L 5.00 0.0834 114 75-125

Matrix Spike Dup (BGB0819-MSD1)

Source: 2302426-01

Prepared: 02/27/23 Analyzed: 03/01/23

Boron 6.05 0.0100 mg/L 5.00 0.0834 119 75-125 4.58 25

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

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 BGB0827 - General Preparation

Blank (BGB0827-BLK1)

Prepared: 02/27/23 Analyzed: 03/01/23

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

LCS (BGB0827-BS1)

Prepared: 02/27/23 Analyzed: 03/01/23

Calcium	5.37	0.0500	mg/L wet	5.00		107	70-130			
Magnesium	5.99	0.0500	"	5.00		120	70-130			
Sodium	6.03	0.0500	"	5.00		121	70-130			

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

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

Summit Scientific

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

Batch BGB0789 - General Preparation

Duplicate (BGB0789-DUP1)		Source: 2301216-29		Prepared: 02/24/23 Analyzed: 02/25/23	
% Solids	86.5	%		80.1	7.65 20

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

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

Summit Scientific

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

Batch BGB0864 - General Preparation

Blank (BGB0864-BLK1)

Prepared & Analyzed: 02/28/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGB0864-BS1)

Prepared & Analyzed: 02/28/23

Specific Conductance (EC) 0.145 0.0100 mmhos/cm 0.150 96.8 95-105

Duplicate (BGB0864-DUP1)

Source: 2302295-01

Prepared & Analyzed: 02/28/23

Specific Conductance (EC) 0.228 0.0100 mmhos/cm 0.236 3.62 20

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Shable 21-20

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 03/02/23 12:25

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

Summit Scientific

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

Batch BGB0866 - General Preparation

LCS (BGB0866-BS1)

Prepared & Analyzed: 02/28/23

pH 9.02 pH Units 95-105

Duplicate (BGB0866-DUP1)

Source: 2302295-01

Prepared & Analyzed: 02/28/23

pH 7.69 pH Units 7.63 0.783 20

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 - Shable 21-20

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/02/23 12:25

Notes and Definitions

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference