

# **FREMONT ENVIRONMENTAL INC.**

July 11, 2022

Mr. Daniel Peterson  
Noble Energy Inc.  
2115 117<sup>th</sup> Avenue  
Greeley, CO 80634

Subject:       **Facility Closure Data Submittal**  
                  QC A 32-19  
                  API # 05-123-32723  
                  NWNW Sec. 32, T6N, R64W  
                  Weld County, Colorado  
                  Fremont Project No. C022-058  
                  Facility #420814, Remediation #22490

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted facility closure activities for the Noble Energy Inc. (Noble) QC A 32-19 tank battery. Impacted soil was encountered in the floor of the east produced water vault during the facility abandonment. Details of the QC A 32-19 facility closure activities are documented in the attached Closure Report. Groundwater was not encountered.

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.**

A handwritten signature in blue ink, appearing to read "Paul V. Henchan".

Paul V. Henchan, P.E.  
Senior Consultant

Attachments:

Facility Closure Checklist  
Tables  
Figures  
Photos  
Laboratory Reports

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

# Tank Battery Closure Checklist

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

Additional attachments (optional):		Pit Closure		Wellhead Closure		Flowline Closure	X	Partially Buried Vault Closure
Site Name & COGCC Facility Number: QC A 32-19, 420814		Date: 5/24/2022						Remediation Project #: 22490
Associated Wells: 05-123-32723		Age of Site: 2011						Number of Photos Attached: 9
Location: (GPS coordinates of southeaster berm)		40.449442, -104.581212						Estimated Facility Size (acres): 1.25

General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)

Good condition.

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

### Tanks

Tank Contents	Crude Oil	Crude Oil	Crude Oil						
Size (barrels)	300	300	300						
Age	2011	2011	2011						
Construction Material	Steel	Steel	Steel						
Tank type (AST/DRU, etc.)	AST	AST	AST						
Visual Integrity of Tank	Good	Good	Good						
Condition of tank footprint	Good	Good	Good						
PID Readings	16.1	1.0	1.0						
Soil impacts present at valves or hatches?	No	No	No						
PID Readings	0.8	0.0	0.0						
Sample taken? Location/ Sample ID#	2205358-1	2205358-2	2205358-3						
Photo Number(s)	1,2,3,6	1,2,4,6	1,2,5,6						

Other observations regarding tanks:

Some rusting on tank bottoms. No penetration observed.

### Separators

Separator size	14 bbls	14 bbls							
Vertical or Horizontal	Horizontal	Horizontal							
Age	2011	2011							
Soil impacts observed?	No	No							
PID Readings	2.6	0.2							
Sample taken? Location/ Sample ID#	2205358-8	2205358-9							
Photo Number(s)	10, 11	10, 11							

Other observations regarding separators

None

### Third Party Equipment

Type	Meter Skid								
Age	2011								

Third Party Operator	Unknown													
Removal Date	5/24/2022													
Sample taken? Location/Sample	No													
PID Readings	2.3													
Photo Number(s)	12													
<b>Other Facility Equipment</b>														
Equipment type	ECD	ECD												
Equipment Condition	Unknown	Unknown												
Age	2011	2011												
Soil impacts observed during	None	None												
PID Readings	0.0	0.0												
Sample taken?	No	No												
Photo Number(s)	9	9												
Other observations regarding other facility or third party equipment: None														
<b>Summary</b>														
Was impacted soil identified? X No Yes - less than 10 cubic yards Yes - more than 10 cubic yards														
Total number of samples field screened: 11					Total number of samples collected: 11									
Highest PID Reading: 2.6					Total number of samples submitted to lab for analysis: 4.4									
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?														
Was groundwater encountered during the investigation? X 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:														

## Buried or Partially Buried Vessel Closure Checklist

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

Additional attachments (optional):		Pit Closure		Wellhead Closure		Flowline Closure		Tank Battery Closure
Site Name & COGCC Facility Number: QC A 32-19, 420814		Date: 5/24/2022						Remediation Project #: 22490
Associated Wells: 05-123-32723		Age of Site: 2011						Number of Photos Attached: 3
Location: (GPS coordinates of vault or southeastern tank berm for multiple) 40.449442, -104.581212							Estimated Facility Size (acres): 1.25	
General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)  Good								
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) Observed following laboratory analysis								
Salt Crusted Soils or Impacted Vegetation: (Note estimated size and if impact appears to be surficial or extends to an unknown depth) None observed								
<b>Buried or Partially Buried Vessels</b>								
Tank Contents	Produced water	Produced water						
Size (barrels)	60	60						
Age	2011	2011						
Construction Material	Concrete	Concrete						
Visual Integrity of Tank	Good condition	Good Condition						
Condition of tank bottom	No staining	No staining						
PID Readings	75.7	26.3						
Condition of dump line	Good	Good						
PID Readings	1.4	1.4						
Sample taken? Location/Sample ID#	2205358-4,5	2205358-6,7						
Photo Number(s)	1, 7	1, 8						
Other observations regarding partially buried vessels: Elevated pH concentrations will be addressed during site reclamation.								
<b>Summary</b>								
Was impacted soil identified? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - less than 10 cubic yards <input type="checkbox"/> Yes - more than 10 cubic yards								
Total number of samples field screened: 14					Total number of samples collected: 14			
Highest PID Reading: 75.7					Total number of samples submitted to lab for analysis: 4			
If more than 10 cubic yards of impacted soil were observed: Unknown								
Vertical extent:					Estimated spill volume:			
Lateral extent:					Volume of soil removed: None			
Is additional investigation required? Yes								
Was groundwater encountered during the investigation? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - not impacted or in contact with impacted soils <input type="checkbox"/> 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.**  
**QA C 32-19, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C022-058**

Sample	Date Sampled	Depth (ft)	Location	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)
AST-Cen Surface	5/24/2022	0	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST-E Surface	5/24/2022	0	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
AST-W Surface	5/24/2022	0	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWV-E Floor 5ft	5/24/2022	5	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWV-E N Wall 3ft	5/24/2022	3	N Wall	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWV-W Floor 5ft	5/24/2022	5	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWV-W N Wall 3ft	5/24/2022	3	N Wall	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1.5	120	<50
SEP-N Surface	5/24/2022	0	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1.5	<50	<50
SEP-S Surface	5/24/2022	0	Floor	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
COGCC Table 915-1 Limits (Residential SSL)				1.2	490	5.8	58	30	27	2	500	500	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	500	500

Bold faced values exceed the COGCC Table 915-1 concentrations

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.  
QA C 32-19, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-058

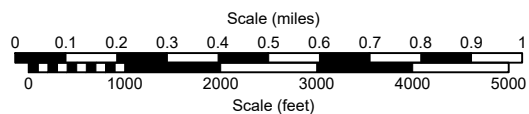
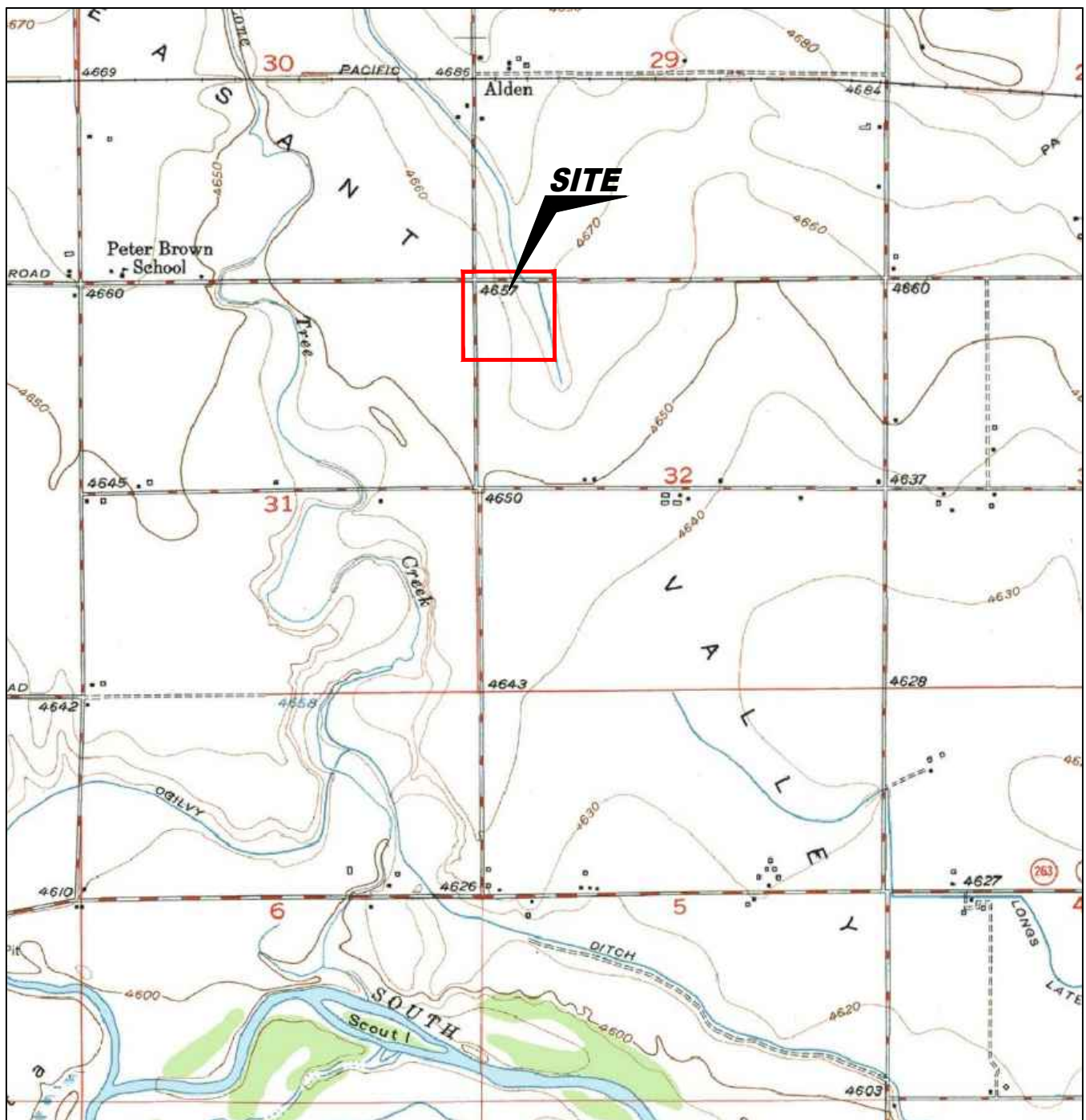
Sample	Date Sampled	Depth (ft)	Location	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)
AST-Cen Surface	5/24/2022	0	Floor	<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
AST-E Surface	5/24/2022	0	Floor	<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
AST-W Surface	5/24/2022	0	Floor	<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	0.00666
PWV-E Floor 5ft	5/24/2022	5	Floor	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<b>0.00871</b>	0.00610
PWV-E N Wall 3ft	5/24/2022	3	N Wall	<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
PWV-W Floor 5ft	5/24/2022	5	Floor	<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
PWV-W N Wall 3ft	5/24/2022	3	N Wall	<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	0.00575
SEP-N Surface	5/24/2022	0	Floor	<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
SEP-S Surface	5/24/2022	0	Floor	<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
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

Bold faced values exceed the COGCC Table 915-1 concentrations  
Blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 3  
SUMMARY OF INORGANIC SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
QA C 32-19, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-058

SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	EC mmhos/cm	pH pH units	SAR units	BORON mg/L
AST-Cen Surface	5/24/2022	0	0.429	<b>8.52</b>	0.0856	0.0554
AST-E Surface	5/24/2022	0	0.349	<b>8.64</b>	0.0608	0.0646
AST-W Surface	5/24/2022	0	0.306	<b>9.49</b>	0.489	0.0393
PWV-E Floor 5ft	5/24/2022	5	0.384	<b>8.49</b>	0.137	0.0667
PWV-E N Wall 3ft	5/24/2022	3	0.297	<b>8.71</b>	0.112	0.0270
PWV-W Floor 5ft	5/24/2022	5	0.364	<b>8.50</b>	0.137	0.126
PWV-W N Wall 3ft	5/24/2022	3	0.426	<b>9.68</b>	0.199	0.0679
SEP-N Surface	5/24/2022	0	0.261	<b>8.83</b>	0.0941	0.0572
SEP-S Surface	5/24/2022	0	0.365	<b>8.81</b>	0.240	0.0703
BKG	7/13/2022	1	NA	8.13	NA	NA
Table 915-1 Limits			<4	6-8.3	<6	2

Bold face values exceed the COGCC Limits



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**NOBLE ENERGY, INC. ~ QC A 32-19**  
 NWNW Sec. 32, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.449442°, -104.581212°

Project # <b>C022-058</b>	API # <b>05-123-32723</b>	Facility ID <b>420814</b>
Date <b>7/7/22</b>	Remediation # <b>22490</b>	Filename <b>22058T</b>







# LEGEND

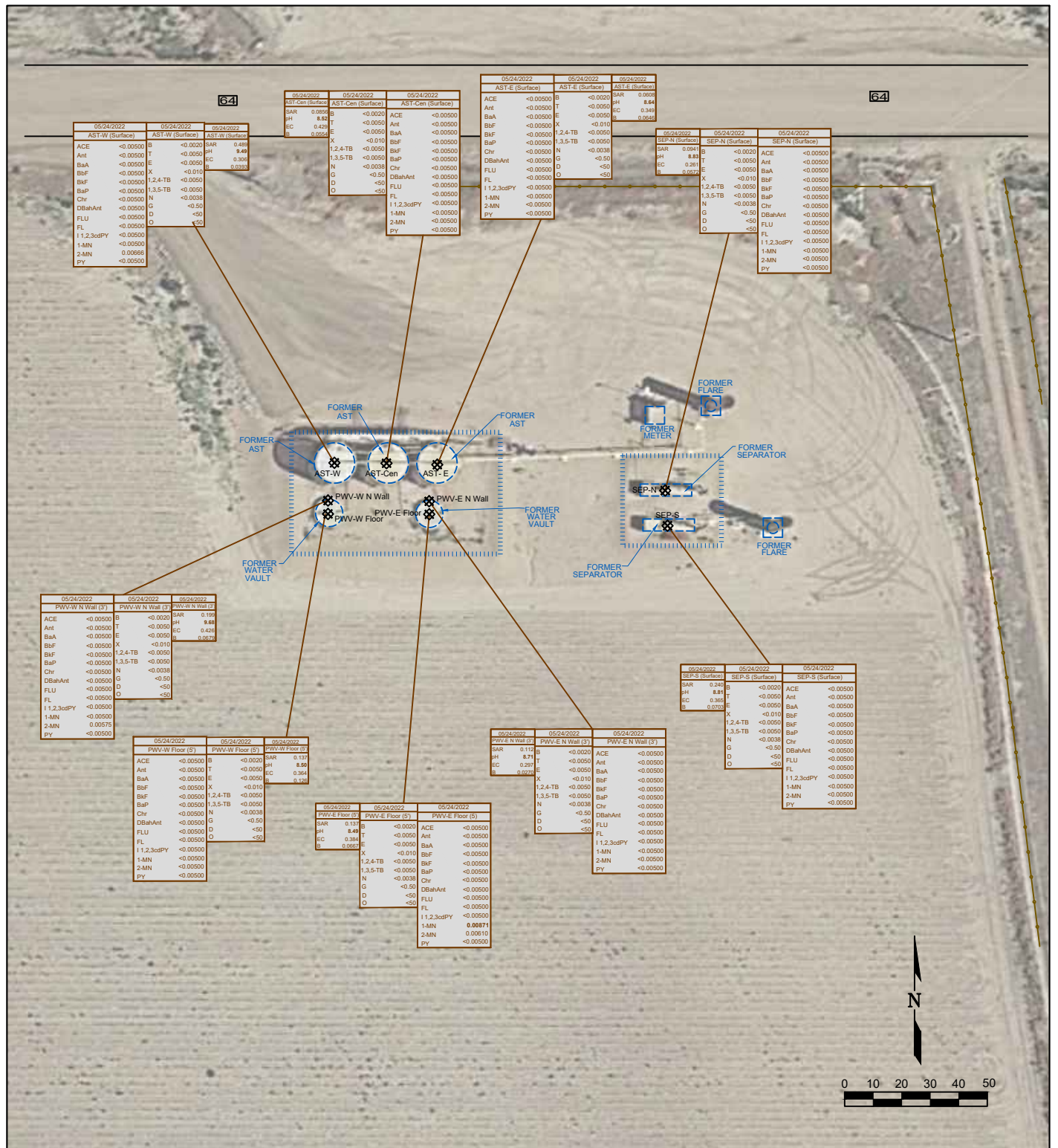
○ ABOVE GROUND STORAGE TANK   
 FORMER FORMER FACILITY   
 - - - - - CONTAINMENT BERM   
 —●— FENCE LINE

Figure 2  
SITE MAP

**NOBLE ENERGY, INC. ~ QC A 32-19**  
 NWNW Sec. 32, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.449442°, -104.581212°

Project No. <b>C022-058</b>	API # <b>05-123-32723</b>	Facility # <b>420814</b>
Date <b>7/7/22</b>	Remediation # <b>22490</b>	Filename <b>22058Q</b>





# LEGEND

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

DATE SAMPLED	SAMPLE ID and DEPTH (ft)	DATE SAMPLED	SAMPLE ID and DEPTH (ft)	DATE SAMPLED	SAMPLE ID and DEPTH (ft)
05/24/2022	AST-Cen (Surface)	05/24/2022	AST-Cen (Surface)	05/24/2022	SEP-S (Surface)
ACE	<0.0050	ACE	<0.0050	ACE	<0.0050
Ant	<0.0050	Ant	<0.0050	Ant	<0.0050
BaA	<0.0050	BaA	<0.0050	BaA	<0.0050
BaP	<0.0050	BaP	<0.0050	BaP	<0.0050
Chr	<0.0050	Chr	<0.0050	Chr	<0.0050
DBaHAnt	<0.0050	DBaHAnt	<0.0050	DBaHAnt	<0.0050
FLU	<0.0050	FLU	<0.0050	FLU	<0.0050
1,1,2,3cdPY	<0.0050	1,1,2,3cdPY	<0.0050	1,1,2,3cdPY	<0.0050
1-MN	<0.0050	1-MN	<0.0050	1-MN	<0.0050
2-MN	<0.0050	2-MN	<0.0050	2-MN	<0.0050
PY	<0.0050	PY	<0.0050	PY	<0.0050

Figure 3  
**SOIL CHEMISTRY MAP**  
 May 24, 2022

**NOBLE ENERGY, INC. ~ QC A 32-19**  
 NWNW Sec. 32, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.449442° , -104.581212°

Project No. <b>C022-058</b>	API # <b>05-123-32723</b>	Facility # <b>420814</b>	
Date <b>7/7/22</b>	Remediation # <b>22490</b>	Filename <b>22058Q</b>	





**1 – QC A 32-19 ASTs (rear view) and produced water vaults (PWV); looking north**



**2 – QC A 32-19 AST loadouts; looking east**



**3 – QC A 32-19 base of east AST**



**4 – QC A 32-19 base of center AST**



**5 – QC A 32-19 base of west AST; some rust, no penetration**



**6 – QC A 32-19 AST soil footprint**





**7 – QC A 32-19 east PWV prior to removal**



**8 – QC A 32-19 west PWV prior to removal**



**9 – QC A 32-19 former north and south ECD locations**



**10 – QC A 32-19 former separator location with dumpline trench in the background**





**11 – QC A 32-19 dumlins with green epoxy coating in good condition**



**12 – QC A 32-19 meter skid**



# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 13, 2022

Paul Henchan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549  
RE: Noble - QC A 32-19  
Work Order #2205358

Enclosed are the results of analyses for samples received by Summit Scientific on 05/24/22 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST-E Surface	2205358-01	Soil	05/24/22 00:00	05/24/22 15:00
AST-Cen Surface	2205358-02	Soil	05/24/22 00:00	05/24/22 15:00
AST-W Surface	2205358-03	Soil	05/24/22 00:00	05/24/22 15:00
PWV-E N Wall 3ft	2205358-04	Soil	05/24/22 00:00	05/24/22 15:00
PWV-E Floor 5ft	2205358-05	Soil	05/24/22 00:00	05/24/22 15:00
PWV-W N Wall 3ft	2205358-06	Soil	05/24/22 00:00	05/24/22 15:00
PWV-W Floor 5ft	2205358-07	Soil	05/24/22 00:00	05/24/22 15:00
SEP-N Surface	2205358-08	Soil	05/24/22 00:00	05/24/22 15:00
SEP-S Surface	2205358-09	Soil	05/24/22 00:00	05/24/22 15:00

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

S<sub>2</sub>

2205358

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

Page 1 of 1

Client: Fremont Env.

Project Manager: Henehan

Address:

E-Mail: ethan b, paul h, jeff g

City/State/Zip:

Bill To: Noble - Dan Peterson

Phone:

Project Name: Noble - QC A 32-19

Sampler Name: Black

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other	BTEX, N, THGS	TPH	PAH	SAR, EC, pH	Boron		
1	AST - E SURFACE	5/24/22		3			X			X				X	X	X	X		
2	AST - CEN SURFACE																		
3	AST - W SURFACE																		
4	PWVE N WALL 3FT																		
5	PWV-E Floor SFT																		
6	PWV-W N WALL 3FT																		
7	PWV-W Floor SFT																		
8	SEP - N SURFACE																		
9	SEP - S SURFACE																		
10																			

Relinquished by: <u>Ethan Black</u>	Date/Time: <u>5/24/22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5/24/22 1500</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/>	72 hours <input type="checkbox"/>
				24 hours <input type="checkbox"/>	Standard <input checked="" type="checkbox"/>
				48 hours <input type="checkbox"/>	
Temperature Upon Receipt: <u>6.3</u>	Corrected Temperature <u>6.3</u>	HNO <sub>3</sub> lot #	Sample Integrity:	Do NOT SEND RESULTS ON A FRIDAY. THX	
IR gun correction: <u>0</u>	IR gun #: <u>1</u>		Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

2205358

### Sample Receipt Checklist

S2 Work Order#

Client: Fremont Client Project ID: Noble-BC A 32-19

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

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

Temp ( $^{\circ}\text{C}$ )


Q.3

Thermometer #

i

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature $< 6^{\circ}\text{C}$ <sup>(1)</sup> ? <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	—			on ice
Were all samples received intact <sup>(1)</sup> ?	—			
Was adequate sample volume provided <sup>(1)</sup> ?	—			
If custody seals are present, are they intact <sup>(1)</sup> ?	—			
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 ( $\text{Fe}^{2+}$ ), Hexavalent Chromium ( $\text{Cr}^{6+}$ , 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 <sup>(1)</sup> ?	—			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	—			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	—			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	—			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			—	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the comments column – HCl, $\text{H}_2\text{SO}_4$ , NaOH, $\text{HNO}_3$ , etc.			—	
If samples are acid preserved for metals, is the $\text{pH} \leq 2$ <sup>(1)</sup> ? Record the pH in Comments.			—	
If dissolved metals are requested, were samples field filtered?			—	
<u>Additional Comments (if any):</u>				
<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.				

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



Custodian Printed Name

52422

Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-E Surface**  
**2205358-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/28/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0377	94.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0362	90.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0360	90.1 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.0	112 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-E Surface**  
**2205358-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/02/22	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: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0236	70.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0213	64.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0646	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-E Surface**  
**2205358-01 (Soil)**

**Summit Scientific**

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

Calcium	1530	0.0546	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	192	0.0546	"	"	"	"	"	"
Sodium	9.49	0.0546	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0608	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.5		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.349	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.64		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
06/13/22 11:07

**AST-Cen Surface**  
**2205358-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/27/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0411	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0357	89.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0368	92.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.0	112 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-Cen Surface**  
**2205358-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/03/22	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: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0222	66.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0180	53.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0554</b>	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-Cen Surface**  
**2205358-02 (Soil)**

**Summit Scientific**

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

Calcium	1920	0.0570	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	229	0.0570	"	"	"	"	"	"
Sodium	14.9	0.0570	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0856	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.429	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.52		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
06/13/22 11:07

**AST-W Surface**  
**2205358-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/27/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0424	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0365	91.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0359	89.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.4	107 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-W Surface**  
**2205358-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/03/22	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	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00666</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0211	63.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0192	57.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0393</b>	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**AST-W Surface**  
**2205358-03 (Soil)**

**Summit Scientific**

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

Calcium	368	0.0531	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	183	0.0531	"	"	"	"	"	"
Sodium	46.0	0.0531	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.489	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.1		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.306	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.49		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
06/13/22 11:07

**PWV-E N Wall 3ft**  
**2205358-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/27/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0411	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0358	89.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0364	91.1 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.7	93.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-E N Wall 3ft**  
**2205358-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/03/22	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: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0219	65.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0184	55.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0270</b>	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-E N Wall 3ft**  
**2205358-04 (Soil)**

**Summit Scientific**

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

Calcium	1740	0.0569	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	204	0.0569	"	"	"	"	"	"
Sodium	18.5	0.0569	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.112	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.9		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.297	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.71		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
06/13/22 11:07

**PWV-E Floor 5ft**  
**2205358-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFF0149	06/06/22	06/06/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0426	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0396	98.9 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFF0151	06/06/22	06/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.2	121 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-E Floor 5ft**  
**2205358-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFF0119	06/06/22	06/07/22	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	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.00871</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00610</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0180	54.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0204	61.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0667</b>	0.0100	mg/L	1	BFF0197	06/08/22	06/12/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-E Floor 5ft  
2205358-05 (Soil)**

**Summit Scientific**

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

Calcium	1470	0.0557	mg/L dry	1	BFF0122	06/06/22	06/08/22	EPA 6020B
Magnesium	156	0.0557	"	"	"	"	"	"
Sodium	20.7	0.0557	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.137	0.00100	units	1	BFF0198	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.7		%	1	BFF0141	06/06/22	06/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.384	0.0100	mmhos/cm	1	BFF0126	06/06/22	06/07/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.49		pH Units	1	BFF0125	06/06/22	06/07/22	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-W N Wall 3ft**  
**2205358-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/27/22	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	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>1.5</b>	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0434	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0362	90.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0368	92.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>120</b>	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.9	112 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-W N Wall 3ft**  
**2205358-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/03/22	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	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00575</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0207	62.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0198	59.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0679</b>	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-W N Wall 3ft**  
**2205358-06 (Soil)**

**Summit Scientific**

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

Calcium	1160	0.0563	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	161	0.0563	"	"	"	"	"	"
Sodium	27.3	0.0563	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.199	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.426	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.68		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
06/13/22 11:07

**PWV-W Floor 5ft  
2205358-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFF0149	06/06/22	06/07/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0427	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0390	97.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFF0151	06/06/22	06/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	15.2	121 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-W Floor 5ft  
2205358-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFF0119	06/06/22	06/07/22	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: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	56.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0162	48.5 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.126</b>	0.0100	mg/L	1	BFF0197	06/08/22	06/12/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**PWV-W Floor 5ft  
2205358-07 (Soil)**

**Summit Scientific**

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

Calcium	1380	0.0551	mg/L dry	1	BFF0122	06/06/22	06/08/22	EPA 6020B
Magnesium	146	0.0551	"	"	"	"	"	"
Sodium	20.0	0.0551	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.137	0.00100	units	1	BFF0198	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.8		%	1	BFF0141	06/06/22	06/06/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.364	0.0100	mmhos/cm	1	BFF0126	06/06/22	06/07/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.50		pH Units	1	BFF0125	06/06/22	06/07/22	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**SEP-N Surface**  
**2205358-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/27/22	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	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>1.5</b>	0.50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0436	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0362	90.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0365	91.2 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.1	105 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**SEP-N Surface**  
**2205358-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/03/22	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: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0242	72.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0572</b>	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**SEP-N Surface**  
**2205358-08 (Soil)**

**Summit Scientific**

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

Calcium	1120	0.0537	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	146	0.0537	"	"	"	"	"	"
Sodium	12.6	0.0537	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0941	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.2		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.261	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.83		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
06/13/22 11:07

**SEP-S Surface**  
**2205358-09 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFE0593	05/26/22	05/27/22	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: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0492	123 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0369	92.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0376	93.9 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0595	05/26/22	05/27/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	11.6	92.9 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**SEP-S Surface**  
**2205358-09 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFE0589	05/26/22	06/03/22	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: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0183	55.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0167	50.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0703</b>	0.0100	mg/L	1	BFE0746	05/31/22	06/05/22	EPA 6020B	

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

Date Sampled: **05/24/22 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**SEP-S Surface**  
**2205358-09 (Soil)**

**Summit Scientific**

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

Calcium	534	0.0531	mg/L dry	1	BFF0026	06/01/22	06/07/22	EPA 6020B
Magnesium	81.3	0.0531	"	"	"	"	"	"
Sodium	22.5	0.0531	"	"	"	"	"	"

**Calculated Analysis**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.240	0.00100	units	1	BFF0195	06/08/22	06/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.1		%	1	BFE0741	05/31/22	06/01/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.365	0.0100	mmhos/cm	1	BFF0030	06/01/22	06/05/22	EPA 120.1	

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

Date Sampled: **05/24/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.81		pH Units	1	BFF0031	06/01/22	06/05/22	EPA 9045D	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BFE0593 - EPA 5030 Soil MS

##### Blank (BFE0593-BLK1)

Prepared: 05/26/22 Analyzed: 05/27/22

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	0.0406		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0360		"	0.0400		89.9	50-150			
Surrogate: 4-Bromofluorobenzene	0.0351		"	0.0400		87.8	50-150			

##### LCS (BFE0593-BS1)

Prepared: 05/26/22 Analyzed: 05/27/22

Benzene	0.0991	0.0020	mg/kg	0.125		79.2	70-130			
Toluene	0.0949	0.0050	"	0.125		75.9	70-130			
Ethylbenzene	0.152	0.0050	"	0.125		122	70-130			
m,p-Xylene	0.269	0.010	"	0.250		108	70-130			
o-Xylene	0.130	0.0050	"	0.125		104	70-130			
1,2,4-Trimethylbenzene	0.146	0.0050	"	0.125		116	70-130			
1,3,5-Trimethylbenzene	0.147	0.0050	"	0.125		117	70-130			
Naphthalene	0.136	0.0038	"	0.125		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0400		"	0.0400		100	50-150			
Surrogate: Toluene-d8	0.0371		"	0.0400		92.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0400		92.7	50-150			

##### Matrix Spike (BFE0593-MS1)

Source: 2205358-02

Prepared: 05/26/22 Analyzed: 05/27/22

Benzene	0.0983	0.0020	mg/kg	0.125	ND	78.6	70-130			
Toluene	0.0935	0.0050	"	0.125	ND	74.8	70-130			
Ethylbenzene	0.149	0.0050	"	0.125	ND	119	70-130			
m,p-Xylene	0.264	0.010	"	0.250	ND	106	70-130			
o-Xylene	0.128	0.0050	"	0.125	ND	102	70-130			
1,2,4-Trimethylbenzene	0.141	0.0050	"	0.125	ND	113	70-130			
1,3,5-Trimethylbenzene	0.141	0.0050	"	0.125	ND	113	70-130			
Naphthalene	0.141	0.0038	"	0.125	ND	113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0403		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0368		"	0.0400		92.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0361		"	0.0400		90.2	50-150			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

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

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

**Batch BFE0593 - EPA 5030 Soil MS**

Matrix Spike Dup (BFE0593-MSD1)		Source: 2205358-02			Prepared: 05/26/22 Analyzed: 05/27/22					
Benzene	0.0961	0.0020	mg/kg	0.125	ND	76.8	70-130	2.28	30	
Toluene	0.0938	0.0050	"	0.125	ND	75.0	70-130	0.224	30	
Ethylbenzene	0.149	0.0050	"	0.125	ND	119	70-130	0.202	30	
m,p-Xylene	0.263	0.010	"	0.250	ND	105	70-130	0.182	30	
o-Xylene	0.128	0.0050	"	0.125	ND	103	70-130	0.327	30	
1,2,4-Trimethylbenzene	0.142	0.0050	"	0.125	ND	114	70-130	0.888	30	
1,3,5-Trimethylbenzene	0.143	0.0050	"	0.125	ND	114	70-130	1.35	30	
Naphthalene	0.140	0.0038	"	0.125	ND	112	70-130	0.278	30	
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	0.0397		"	0.0400		99.3	50-150			
Surrogate: Toluene-d8	0.0369		"	0.0400		92.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0362		"	0.0400		90.4	50-150			

**Batch BFF0149 - EPA 5030 Soil MS**

Blank (BFF0149-BLK1)		Prepared & Analyzed: 06/06/22								
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	"							
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.6	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	50-150			

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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BFF0149 - EPA 5030 Soil MS

##### LCS (BFF0149-BS1)

Prepared & Analyzed: 06/06/22

Benzene	0.0892	0.0020	mg/kg	0.100		89.2	70-130			
Toluene	0.0872	0.0050	"	0.100		87.2	70-130			
Ethylbenzene	0.0820	0.0050	"	0.100		82.0	70-130			
m,p-Xylene	0.166	0.010	"	0.200		82.8	70-130			
o-Xylene	0.0865	0.0050	"	0.100		86.5	70-130			
1,2,4-Trimethylbenzene	0.0810	0.0050	"	0.100		81.0	70-130			
1,3,5-Trimethylbenzene	0.0806	0.0050	"	0.100		80.6	70-130			
Naphthalene	0.0917	0.0038	"	0.100		91.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0366		"	0.0400		91.5	50-150			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

##### Matrix Spike (BFF0149-MS1)

Source: 2206091-05

Prepared & Analyzed: 06/06/22

Benzene	0.0884	0.0020	mg/kg	0.100	ND	88.4	70-130			
Toluene	0.0878	0.0050	"	0.100	ND	87.8	70-130			
Ethylbenzene	0.0833	0.0050	"	0.100	ND	83.3	70-130			
m,p-Xylene	0.167	0.010	"	0.200	ND	83.7	70-130			
o-Xylene	0.0876	0.0050	"	0.100	ND	87.6	70-130			
1,2,4-Trimethylbenzene	0.0832	0.0050	"	0.100	ND	83.2	70-130			
1,3,5-Trimethylbenzene	0.0821	0.0050	"	0.100	ND	82.1	70-130			
Naphthalene	0.106	0.0038	"	0.100	ND	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100	50-150			

##### Matrix Spike Dup (BFF0149-MSD1)

Source: 2206091-05

Prepared & Analyzed: 06/06/22

Benzene	0.0911	0.0020	mg/kg	0.100	ND	91.1	70-130	2.98	30	
Toluene	0.0914	0.0050	"	0.100	ND	91.4	70-130	3.98	30	
Ethylbenzene	0.0856	0.0050	"	0.100	ND	85.6	70-130	2.77	30	
m,p-Xylene	0.174	0.010	"	0.200	ND	87.0	70-130	3.90	30	
o-Xylene	0.0902	0.0050	"	0.100	ND	90.2	70-130	2.94	30	
1,2,4-Trimethylbenzene	0.0865	0.0050	"	0.100	ND	86.5	70-130	3.85	30	
1,3,5-Trimethylbenzene	0.0861	0.0050	"	0.100	ND	86.1	70-130	4.71	30	
Naphthalene	0.116	0.0038	"	0.100	ND	116	70-130	8.50	30	
Surrogate: 1,2-Dichloroethane-d4	0.0404		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0410		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	50-150			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BFE0595 - EPA 3550A**

**Blank (BFE0595-BLK1)**

Prepared & Analyzed: 05/26/22

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

**LCS (BFE0595-BS1)**

Prepared & Analyzed: 05/26/22

C10-C28 (DRO)	444	50	mg/kg	500	88.7	70-130
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**Matrix Spike (BFE0595-MS1)**

Source: 2205358-01

Prepared & Analyzed: 05/26/22

C10-C28 (DRO)	437	50	mg/kg	500	13.2	84.8	70-130
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**Matrix Spike Dup (BFE0595-MSD1)**

Source: 2205358-01

Prepared & Analyzed: 05/26/22

C10-C28 (DRO)	422	50	mg/kg	500	13.2	81.8	70-130	3.49	20
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**Batch BFF0151 - EPA 3550A**

**Blank (BFF0151-BLK1)**

Prepared & Analyzed: 06/06/22

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

**LCS (BFF0151-BS1)**

Prepared & Analyzed: 06/06/22

C10-C28 (DRO)	555	50	mg/kg	500	111	70-130
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**Matrix Spike (BFF0151-MS1)**

Source: 2206091-05

Prepared & Analyzed: 06/06/22

C10-C28 (DRO)	511	50	mg/kg	500	26.5	96.9	70-130
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**Matrix Spike Dup (BFF0151-MSD1)**

Source: 2206091-05

Prepared: 06/06/22 Analyzed: 06/07/22

C10-C28 (DRO)	533	50	mg/kg	500	26.5	101	70-130	4.22	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BFE0589 - EPA 5030 Soil MS

##### Blank (BFE0589-BLK1)

Prepared: 05/26/22 Analyzed: 06/02/22

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	0.0301		"	0.0333		90.3	40-150			
Surrogate: Fluoranthene-d10	0.0264		"	0.0333		79.3	40-150			

##### LCS (BFE0589-BS1)

Prepared: 05/26/22 Analyzed: 06/02/22

Acenaphthene	0.0367	0.00500	mg/kg	0.0333	110	31-137
Anthracene	0.0334	0.00500	"	0.0333	100	30-120
Benzo (a) anthracene	0.0310	0.00500	"	0.0333	93.0	30-120
Benzo (a) pyrene	0.0317	0.00500	"	0.0333	95.2	30-120
Benzo (b) fluoranthene	0.0387	0.00500	"	0.0333	116	30-120
Benzo (k) fluoranthene	0.0400	0.00500	"	0.0333	120	30-120
Chrysene	0.0329	0.00500	"	0.0333	98.6	30-120
Dibenz (a,h) anthracene	0.0185	0.00500	"	0.0333	55.4	30-120
Fluoranthene	0.0299	0.00500	"	0.0333	89.8	30-120
Fluorene	0.0357	0.00500	"	0.0333	107	30-120
Indeno (1,2,3-cd) pyrene	0.0212	0.00500	"	0.0333	63.7	30-120
Pyrene	0.0472	0.00500	"	0.0333	142	35-142
1-Methylnaphthalene	0.0277	0.00500	"	0.0333	83.2	35-142
2-Methylnaphthalene	0.0299	0.00500	"	0.0333	89.6	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0313		"	0.0333	93.9	40-150
Surrogate: Fluoranthene-d10	0.0304		"	0.0333	91.2	40-150

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BFE0589 - EPA 5030 Soil MS

##### Matrix Spike (BFE0589-MS1)

Source: 2205358-01

Prepared: 05/26/22 Analyzed: 06/11/22

Acenaphthene	0.0243	0.00500	mg/kg	0.0333	ND	72.8	31-137		
Anthracene	0.0249	0.00500	"	0.0333	ND	74.8	30-120		
Benzo (a) anthracene	0.0217	0.00500	"	0.0333	ND	65.1	30-120		
Benzo (a) pyrene	0.0231	0.00500	"	0.0333	ND	69.2	30-120		
Benzo (b) fluoranthene	0.0269	0.00500	"	0.0333	ND	80.7	30-120		
Benzo (k) fluoranthene	0.0324	0.00500	"	0.0333	ND	97.2	30-120		
Chrysene	0.0241	0.00500	"	0.0333	ND	72.4	30-120		
Dibenz (a,h) anthracene	0.0137	0.00500	"	0.0333	ND	41.0	30-120		
Fluoranthene	0.0233	0.00500	"	0.0333	ND	69.9	30-120		
Fluorene	0.0250	0.00500	"	0.0333	ND	74.9	30-120		
Indeno (1,2,3-cd) pyrene	0.0200	0.00500	"	0.0333	ND	60.0	30-120		
Pyrene	0.0329	0.00500	"	0.0333	ND	98.6	35-142		
1-Methylnaphthalene	0.0263	0.00500	"	0.0333	ND	79.0	15-130		
2-Methylnaphthalene	0.0255	0.00500	"	0.0333	ND	76.6	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0240		"	0.0333		71.9	40-150		
Surrogate: Fluoranthene-d10	0.0217		"	0.0333		65.0	40-150		

##### Matrix Spike Dup (BFE0589-MSD1)

Source: 2205358-01

Prepared: 05/26/22 Analyzed: 06/11/22

Acenaphthene	0.0220	0.00500	mg/kg	0.0333	ND	65.9	31-137	9.93	30
Anthracene	0.0237	0.00500	"	0.0333	ND	71.2	30-120	4.84	30
Benzo (a) anthracene	0.0210	0.00500	"	0.0333	ND	63.1	30-120	3.10	30
Benzo (a) pyrene	0.0224	0.00500	"	0.0333	ND	67.1	30-120	3.03	30
Benzo (b) fluoranthene	0.0267	0.00500	"	0.0333	ND	80.2	30-120	0.715	30
Benzo (k) fluoranthene	0.0322	0.00500	"	0.0333	ND	96.6	30-120	0.657	30
Chrysene	0.0233	0.00500	"	0.0333	ND	69.9	30-120	3.51	30
Dibenz (a,h) anthracene	0.0129	0.00500	"	0.0333	ND	38.6	30-120	5.98	30
Fluoranthene	0.0241	0.00500	"	0.0333	ND	72.2	30-120	3.26	30
Fluorene	0.0234	0.00500	"	0.0333	ND	70.1	30-120	6.68	30
Indeno (1,2,3-cd) pyrene	0.0167	0.00500	"	0.0333	ND	50.2	30-120	17.7	30
Pyrene	0.0340	0.00500	"	0.0333	ND	102	35-142	3.31	30
1-Methylnaphthalene	0.0252	0.00500	"	0.0333	ND	75.6	15-130	4.39	50
2-Methylnaphthalene	0.0244	0.00500	"	0.0333	ND	73.2	15-130	4.50	50
Surrogate: 2-Methylnaphthalene-d10	0.0235		"	0.0333		70.6	40-150		
Surrogate: Fluoranthene-d10	0.0226		"	0.0333		67.7	40-150		

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BFF0119 - EPA 5030 Soil MS

##### Blank (BFF0119-BLK1)

Prepared & Analyzed: 06/06/22

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	0.0225		"	0.0333		67.4	40-150			
Surrogate: Fluoranthene-d10	0.0255		"	0.0333		76.5	40-150			

##### LCS (BFF0119-BS1)

Prepared & Analyzed: 06/06/22

Acenaphthene	0.0360	0.00500	mg/kg	0.0333	108	31-137
Anthracene	0.0309	0.00500	"	0.0333	92.7	30-120
Benzo (a) anthracene	0.0297	0.00500	"	0.0333	89.0	30-120
Benzo (a) pyrene	0.0292	0.00500	"	0.0333	87.6	30-120
Benzo (b) fluoranthene	0.0354	0.00500	"	0.0333	106	30-120
Benzo (k) fluoranthene	0.0373	0.00500	"	0.0333	112	30-120
Chrysene	0.0352	0.00500	"	0.0333	106	30-120
Dibenz (a,h) anthracene	0.0172	0.00500	"	0.0333	51.6	30-120
Fluoranthene	0.0226	0.00500	"	0.0333	67.9	30-120
Fluorene	0.0288	0.00500	"	0.0333	86.3	30-120
Indeno (1,2,3-cd) pyrene	0.0234	0.00500	"	0.0333	70.2	30-120
Pyrene	0.0387	0.00500	"	0.0333	116	35-142
1-Methylnaphthalene	0.0237	0.00500	"	0.0333	71.1	35-142
2-Methylnaphthalene	0.0449	0.00500	"	0.0333	135	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0221		"	0.0333	66.2	40-150
Surrogate: Fluoranthene-d10	0.0240		"	0.0333	72.0	40-150

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BFF0119 - EPA 5030 Soil MS

##### Matrix Spike (BFF0119-MS1)

Source: 2205358-05

Prepared: 06/06/22 Analyzed: 06/07/22

Acenaphthene	0.0224	0.00500	mg/kg	0.0333	ND	67.2	31-137		
Anthracene	0.0216	0.00500	"	0.0333	ND	64.6	30-120		
Benzo (a) anthracene	0.0224	0.00500	"	0.0333	ND	67.3	30-120		
Benzo (a) pyrene	0.0205	0.00500	"	0.0333	ND	61.5	30-120		
Benzo (b) fluoranthene	0.0242	0.00500	"	0.0333	ND	72.5	30-120		
Benzo (k) fluoranthene	0.0262	0.00500	"	0.0333	ND	78.6	30-120		
Chrysene	0.0253	0.00500	"	0.0333	ND	75.9	30-120		
Dibenz (a,h) anthracene	0.0146	0.00500	"	0.0333	ND	43.7	30-120		
Fluoranthene	0.0161	0.00500	"	0.0333	ND	48.4	30-120		
Fluorene	0.0200	0.00500	"	0.0333	ND	59.9	30-120		
Indeno (1,2,3-cd) pyrene	0.0149	0.00500	"	0.0333	ND	44.8	30-120		
Pyrene	0.0314	0.00500	"	0.0333	ND	94.2	35-142		
1-Methylnaphthalene	0.0186	0.00500	"	0.0333	0.00871	29.6	15-130		
2-Methylnaphthalene	0.0319	0.00500	"	0.0333	0.00610	77.5	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0168		"	0.0333		50.4	40-150		
Surrogate: Fluoranthene-d10	0.0180		"	0.0333		54.0	40-150		

##### Matrix Spike Dup (BFF0119-MSD1)

Source: 2205358-05

Prepared: 06/06/22 Analyzed: 06/07/22

Acenaphthene	0.0208	0.00500	mg/kg	0.0333	ND	62.4	31-137	7.47	30
Anthracene	0.0190	0.00500	"	0.0333	ND	56.9	30-120	12.8	30
Benzo (a) anthracene	0.0208	0.00500	"	0.0333	ND	62.3	30-120	7.83	30
Benzo (a) pyrene	0.0189	0.00500	"	0.0333	ND	56.6	30-120	8.25	30
Benzo (b) fluoranthene	0.0227	0.00500	"	0.0333	ND	68.1	30-120	6.36	30
Benzo (k) fluoranthene	0.0245	0.00500	"	0.0333	ND	73.5	30-120	6.62	30
Chrysene	0.0235	0.00500	"	0.0333	ND	70.5	30-120	7.41	30
Dibenz (a,h) anthracene	0.0158	0.00500	"	0.0333	ND	47.3	30-120	7.90	30
Fluoranthene	0.0144	0.00500	"	0.0333	ND	43.1	30-120	11.7	30
Fluorene	0.0191	0.00500	"	0.0333	ND	57.2	30-120	4.72	30
Indeno (1,2,3-cd) pyrene	0.0123	0.00500	"	0.0333	ND	36.9	30-120	19.3	30
Pyrene	0.0287	0.00500	"	0.0333	ND	86.1	35-142	8.98	30
1-Methylnaphthalene	0.0171	0.00500	"	0.0333	0.00871	25.2	15-130	8.31	50
2-Methylnaphthalene	0.0282	0.00500	"	0.0333	0.00610	66.2	15-130	12.5	50
Surrogate: 2-Methylnaphthalene-d10	0.0172		"	0.0333		51.6	40-150		
Surrogate: Fluoranthene-d10	0.0164		"	0.0333		49.2	40-150		

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

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

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

**Batch BFE0746 - EPA 3050B**

**Blank (BFE0746-BLK1)**

Prepared: 05/31/22 Analyzed: 06/05/22

Boron ND 0.0100 mg/L

**LCS (BFE0746-BS1)**

Prepared: 05/31/22 Analyzed: 06/05/22

Boron 5.89 0.0100 mg/L 5.00 118 80-120

**Duplicate (BFE0746-DUP1)**

**Source: 2205323-01**

Prepared: 05/31/22 Analyzed: 06/05/22

Boron 0.685 0.0100 mg/L 0.720 4.92 20

**Matrix Spike (BFE0746-MS1)**

**Source: 2205323-01**

Prepared: 05/31/22 Analyzed: 06/05/22

Boron 6.79 0.0100 mg/L 5.00 0.720 121 75-125

**Matrix Spike Dup (BFE0746-MSD1)**

**Source: 2205323-01**

Prepared: 05/31/22 Analyzed: 06/05/22

Boron 6.83 0.0100 mg/L 5.00 0.720 122 75-125 0.621 25

**Batch BFF0197 - EPA 3050B**

**Blank (BFF0197-BLK1)**

Prepared: 06/08/22 Analyzed: 06/12/22

Boron ND 0.0100 mg/L

**LCS (BFF0197-BS1)**

Prepared: 06/08/22 Analyzed: 06/12/22

Boron 5.61 0.0100 mg/L 5.00 112 80-120

**Duplicate (BFF0197-DUP1)**

**Source: 2205358-05**

Prepared: 06/08/22 Analyzed: 06/12/22

Boron 0.0634 0.0100 mg/L 0.0667 5.09 20

**Matrix Spike (BFF0197-MS1)**

**Source: 2205358-05**

Prepared: 06/08/22 Analyzed: 06/12/22

Boron 5.51 0.0100 mg/L 5.00 0.0667 109 75-125

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	Project: Noble - QC A 32-19	
PO Box 1289	Project Number: [none]	Reported:
Wellington CO, 80549	Project Manager: Paul Henchan	06/13/22 11:07

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

Summit Scientific

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

Batch BFF0197 - EPA 3050B

Matrix Spike Dup (BFF0197-MSD1)		Source: 2205358-05			Prepared: 06/08/22 Analyzed: 06/12/22					
Boron	5.56	0.0100	mg/L	5.00	0.0667	110	75-125	0.877	25	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

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

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

**Batch BFF0026 - General Preparation**

**Blank (BFF0026-BLK1)**

Prepared: 06/01/22 Analyzed: 06/07/22

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

**LCS (BFF0026-BS1)**

Prepared: 06/01/22 Analyzed: 06/07/22

Calcium	572	0.0500	mg/L wet	500	114	70-130
Magnesium	587	0.0500	"	500	117	70-130
Sodium	533	0.0500	"	500	107	70-130

**Batch BFF0122 - General Preparation**

**Blank (BFF0122-BLK1)**

Prepared: 06/06/22 Analyzed: 06/08/22

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

**LCS (BFF0122-BS1)**

Prepared: 06/06/22 Analyzed: 06/08/22

Calcium	647	0.0500	mg/L wet	500	129	70-130
Magnesium	547	0.0500	"	500	109	70-130
Sodium	520	0.0500	"	500	104	70-130

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

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

**Summit Scientific**

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

**Batch BFE0741 - General Preparation**

<b>Duplicate (BFE0741-DUP1)</b>		<b>Source: 2205358-01</b>			Prepared: 05/31/22 Analyzed: 06/01/22					
% Solids	91.7		%		91.5			0.190	20	

**Batch BFF0141 - General Preparation**

<b>Duplicate (BFF0141-DUP1)</b>		<b>Source: 2205358-05</b>			Prepared & Analyzed: 06/06/22					
% Solids	90.2		%		89.7			0.468	20	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

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

**Summit Scientific**

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

**Batch BFF0030 - General Preparation**

**Blank (BFF0030-BLK1)**

Prepared: 06/01/22 Analyzed: 06/05/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFF0030-BS1)**

Prepared: 06/01/22 Analyzed: 06/05/22

Specific Conductance (EC) 0.158 0.0100 mmhos/cm 0.150 105 95-105

**Duplicate (BFF0030-DUP1)**

**Source: 2205357-01**

Prepared: 06/01/22 Analyzed: 06/05/22

Specific Conductance (EC) 4.23 0.0100 mmhos/cm 4.32 2.08 20

**Batch BFF0126 - General Preparation**

**Blank (BFF0126-BLK1)**

Prepared: 06/06/22 Analyzed: 06/07/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFF0126-BS1)**

Prepared: 06/06/22 Analyzed: 06/07/22

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

**Duplicate (BFF0126-DUP1)**

**Source: 2205382-01**

Prepared: 06/06/22 Analyzed: 06/07/22

Specific Conductance (EC) 1.05 0.0100 mmhos/cm 1.13 6.70 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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

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

**Summit Scientific**

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

**Batch BFF0031 - General Preparation**

**LCS (BFF0031-BS1)**

Prepared: 06/01/22 Analyzed: 06/05/22

pH	9.13		pH Units	9.18		99.5	95-105		
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**Duplicate (BFF0031-DUP1)**

**Source: 2205357-01**

Prepared: 06/01/22 Analyzed: 06/05/22

pH	7.90		pH Units	7.90		0.00	20		
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**Batch BFF0125 - General Preparation**

**LCS (BFF0125-BS1)**

Prepared: 06/06/22 Analyzed: 06/07/22

pH	9.07		pH Units	9.18		98.8	95-105		
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**Duplicate (BFF0125-DUP1)**

**Source: 2205382-01**

Prepared: 06/06/22 Analyzed: 06/07/22

pH	7.52		pH Units	7.50		0.266	20		
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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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
06/13/22 11:07

### 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

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 20, 2022

Paul Henehan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549  
RE: Noble - QC A 32-19  
Work Order #2207252

Enclosed are the results of analyses for samples received by Summit Scientific on 07/18/22 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Mikayla Axtell". The signature is fluid and cursive, with the first name "Mikayla" and last name "Axtell" clearly distinguishable.

Mikayla Axtell For Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/20/22 11:49

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG	2207252-01	Soil	07/13/22 00:00	07/18/22 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

2207252

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

Page 1 of 1

Client: Fremont Environmental

Project Manager: Henahan

Address:

E-Mail: fremont env dist list (jeffg, paulh, ethanb)

City/State/Zip:

Bill To: Noble

Phone:

Project Name: Noble - QC A 32-19

Sampler Name: Black

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	VOCs (q15)	TPH (q15)	PAHs (q15)	TDS / Cl-/SO4 <sup>2-</sup>	SAR/EC (pH)	Boron		Metals (q15)
1	BKG	7/13/22		1			X													
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by: <u>Ethan Glad</u>	Date/Time: <u>7/15/22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7/15/22 1000</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/>	
				24 hours <input type="checkbox"/>	
				48 hours <input type="checkbox"/>	Standard <input checked="" type="checkbox"/>
Temperature Upon Receipt: <u>9.1</u>	Corrected Temperature <u>0</u>	HNO3 lot #		Sample Integrity:	
IR gun correction: <u>0</u>	IR gun #: <u>1</u>			Samples Intact: <u>Yes</u> No	

S<sub>2</sub>

2207252

## Sample Receipt Checklist

S2 Work Order#

Client: Fremont Client Project ID: Noble-QCA 32-19

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

	-			
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Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 9.1Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C <sup>(1)</sup> ? <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on ICE
Were all samples received intact <sup>(1)</sup> ?	-			
Was adequate sample volume provided <sup>(1)</sup> ?	-			
If custody seals are present, are they intact <sup>(1)</sup> ?	-			
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 <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , 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 <sup>(1)</sup> ?	-			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	-			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	-			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	-			
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>			-	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	
Additional Comments (if any):				
<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.				



Custodian Printed Name

71822

Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
07/20/22 11:49

**BKG**  
**2207252-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **07/13/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.13</b>			pH Units	1	BFG0343	07/19/22	07/19/22	EPA 9045D	

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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/20/22 11:49

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

**Summit Scientific**

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

**Batch BFG0343 - General Preparation**

**LCS (BFG0343-BS1)**

Prepared & Analyzed: 07/19/22

pH	9.20	pH Units	9.18	100	95-105
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**Duplicate (BFG0343-DUP1)**

Source: 2207252-01

Prepared & Analyzed: 07/19/22

pH	8.00	pH Units	8.13	1.61	20
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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 - QC A 32-19

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
07/20/22 11:49

### 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