

FREMONT ENVIRONMENTAL INC.

May 15, 2023

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

Subject: **Facility Closure Data Submittal**
Loustalet-64N64W 30NESE
API # 05-123-19847
NESE Sec. 30, T4N, R64W
Weld County, Colorado
Fremont Project No. C023-134
Facility # 327430, Remediation #26975

Dear Mr. Peterson:

As you requested, Fremont Environmental Inc. (Fremont) personnel conducted Facility Closure activities for the Noble Energy Inc. (Noble) Loustalet-64N64W 30NESE. Impacted soil was encountered during abandonment activities. Details of the Loustalet-64N64W 30NESE facility closure activities are documented in the attached Closure Report. Groundwater was not encountered during flowline abandonment activities.

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

Sincerely,

FREMONT ENVIRONMENTAL INC.



Paul V. Henehan, P.E.
Senior Consultant

Attachments:

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

**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: Loustalet-64N64W 30NESE Facility ID: 327430		Date: 05/15/2023					Remediation Project #: 26975		
Associated Wells: Loustalet 30-44 Facility ID: 256320 API: 05-123-19847		Age of Site: 2000					Number of Photos Attached: 7 Photos		
Location: (GPS coordinates of southeaster berm) 40.281418, -104.586622							Estimated Facility Size (acres): ~1 Acre		

General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)
Good housekeeping. General condition for all the on-site equipment looked fine. Waste management well maintained.

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

Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
 Impacts were discovered at the above ground storage tank (AST01@4.0'). Soil failed groundwater protection soil screening levels (GPSSLs) for benzene, 1,2,4 Trimethyl-Benzene and 1,3,5 Trimethyl-Benzene, Naphthalene 1-Methyl-Naphthalene and 2-Methyl-Naphthalene. Refer to the volatile organic soil chemistry table (Table 1) and polycyclic aromatic hydrocarbon soil chemistry table (Table 2) for reference. Soil impacts were left in place. Further Investigation is required.

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	Oil							
Size (barrels)	300 BBLs							
Age	2000							
Construction Material	Steel							
Tank type (AST/DRV, etc.)	AST							
Visual Integrity of Tank	No Damage							
Condition of tank footprint	Odor Present							
PID Readings	High @ 887.8ppm							
Soil impacts present at valves or hatches?	No Impacts Noted							
PID Readings	N/A							
Sample taken? Location/ Sample ID#	40.281416, -104.586815 AST01@4.0'							
Photo Number(s)	Photo 1A							

Other observations regarding tanks:
 Tank removed prior to sampling event.

Separators

Separator size	UNK	UNK						
Vertical or Horizontal	Horizontal	Horizontal						
Age	2000	2000						
Soil impacts present at valves or hatches?	No Impacts Noted	No Impacts Noted						
PID Readings	High @ 0.6ppm	High @ 0.0ppm						
Sample taken? Location/ Sample ID#	40.281447, -104.586463 SEP01@5.5'	40.281481, -104.586462 SEP02@5.5'						
Photo Number(s)	Photo 2A	Photo 3A						

Other observations regarding separators
 Separators removed prior to sampling event. An exceedance in pH (5.33) was discovered at the southern separator (SEP01@5.5'). Refer to the inorganic soil chemistry table (Table 3) for reference. An exceedance in pH (5.47) was discovered at the northern separator (SEP02@5.5'). Refer to the inorganic soil chemistry table (Table 3) for reference.

Third Party Equipment

Type	Meter Shed							
Age	2000							

Third Party Owner	Unknown								
Removal Date	Still On-site								
Sample taken? Location/Depth	MET01@6.0"								
PID Readings	High @ 0.0ppm								
Photo Number(s)	Photo 6A								

Other Facility Equipment

Equipment type	Combustion Unit	Combustion Unit		
Equipment Condition	No Damage	No Damage		
Age	2000	2000		
Soil impacts	No Impacts Noted	No Impacts Noted		
PID Readings	High @ 0.0ppm	High @ 0.0ppm		
Sample taken? Location/Depth	ECD01@6.0"	ECD02@6.0"		
Photo Number(s)	Photo 7A	Photo 8A		

Other observations regarding other facility or third party equipment:

Combustion Unit removed prior to sampling event

Summary

Was impacted soil identified?	
No	Yes - less than 10 cubic yards
Yes - more than 10 cubic yards	
Total number of samples field screened: 3 Samples	Total number of samples collected: 7 Samples
Highest PID Reading: High at 887.8ppm (AST01@4.0')	Total number of samples submitted to lab for analysis: 4 Samples
If more than 10 cubic yards of impacted soil were observed:	
Vertical extent: N/A	Estimated spill volume: N/A
Lateral extent: N/A	Volume of soil removed: N/A
Is additional investigation required? N/A	
Was groundwater encountered during the investigation?	
No	Yes - not impacted or in contact with impacted soils
Yes - groundwater impacted and/or in contact with impacted soils	
Measured depth to groundwater: N/A	Was remedial groundwater removal conducted? Yes No
Date Groundwater was encountered: N/A	Commencement date of removal: N/A
Sheen on groundwater? Yes No	Volume of groundwater removed prior to sampling: N/A
Free product observed? Yes No	Volume of groundwater removed post sampling: N/A
Total number of samples collected: N/A	Total Volume of groundwater removed: N/A
Total number of samples submitted to lab for analysis: N/A	

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	X	Tank Battery Closure	
Site Name & COGCC Facility Number: Loustalet-64N64W 30NESE Facility ID: 327430		Date: 05/15/2023						Remediation Project #: 26975	
Associated Wells: Loustalet 30-44 Facility ID: 256320 API: 05-123-19847		Age of Site: 2000						Number of Photos Attached: 6 Photos	
Location: (GPS coordinates of vault or southeastern tank berm for multiple)							40.281392, -104.586813		
Estimated Facility Size (acres): ~1 acre									

General Condition of Site: (General observations regarding housekeeping, corrosion, waste management, etc.)
Good housekeeping. General condition for all the on-site equipment looked fine. Waste management well maintained.

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

Hydrocarbon Impacted Soils / Spills: (Note estimated size and if impact appears to be surficial or extends to an unknown depth)
 Impacts were discovered at the north and west sidewall of the produced water vault excavation (PWVN01@6.0' and PWVW01@6.0'). Soil failed groundwater protection soil screening levels (GPSSLs) for Xylenes, 1,2,4 Trimethyl-Benzene, 1,3,5 Trimethyl-Benzene, Naphthalene, TPHs, 1-Methyl-Naphthalene and 2-Methyl-Naphthalene. Refer to the volatile organic soil chemistry table (Table 1) and polycyclic aromatic hydrocarbon soil chemistry table (Table 2) for reference. Soil impacts were left in place. Further Investigation is required.

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

Buried or Partially Buried Vessels

Tank Contents	Produced Water							
Size (barrels)	<100 BBLs							
Age	2000							
Construction Material	PBV Concrete							
Visual Integrity of Tank	No Damage							
Condition of tank contents	Staining/Odor							
PID Readings	High @ 1033ppm							
Condition of Access Line	No Damage							
PID Readings	High @ 0.1ppm DL01 @ 4.0'							
Sample taken? Location/Sample ID#	All five samples collected at PWV							
Photo Number(s)	Photo 4A-4E & 5A							

Other observations regarding partially buried vessels:
 An exceedance in pH (5.85 & 5.78) was discovered at the eastern and western sidewalls of the produced water vault excavation (PWVE01@6.0' & PWVW01@6.0'). Refer to the inorganic soil chemistry table (Table 3) for reference. Dumplines were not trenched.

Summary

Was impacted soil identified?		No	Yes - less than 10 cubic yards	Yes - more than 10 cubic yards
Total number of samples field screened: 1 samples		Total number of samples collected: 6 samples		
Highest PID Reading: High @ 1033ppm (PWVW01@6.0')		Total number of samples submitted to lab for analysis: 5 samples		
If more than 10 cubic yards of impacted soil were observed:				
Vertical extent: N/A		Estimated spill volume: N/A		
Lateral extent: N/A		Volume of soil removed: N/A		
Is additional investigation required? N/A				
Was groundwater encountered during the investigation?				
No		Yes - not impacted or in contact with impacted soils		Yes - groundwater impacted and/or in contact with impacted soils
Measured depth to groundwater: N/A		Was remedial groundwater removal conducted? Yes No		
Date Groundwater was encountered: N/A		Commencement date of removal: N/A		
Sheen on groundwater? Yes No		Volume of groundwater removed prior to sampling: N/A		
Free product observed? Yes No		Volume of groundwater removed post sampling: N/A		
Total number of samples collected: N/A		Total Volume of groundwater removed: N/A		
Total number of samples submitted to lab for analysis: N/A				

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-134

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500**		
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500**		
AST01@4.0'	5/15/2023	4.0 Ft	0.052	0.63	<0.050	6.7	2.8	1.9	0.14	130	95	<50
SEP01@5.5'	5/15/2023	5.5 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
SEP02@5.5'	5/15/2023	5.5 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWVB01@7.0'	5/15/2023	7.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWVN01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.14	<0.0038	3.8	<50	<50
PWVS01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWVE01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50
PWVW01@6.0'	5/15/2023	6.0 Ft	<0.0020	<0.0050	0.24	14	<0.0050	13	1.7	7600	180	52

Bold faced values exceed the COGCC Table 915-1 concentrations

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

* Indicates laboratory minimum detection limit in excess of SSL

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

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-134

Sample ID	Sample Date	Depth (ft)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) Anthracene (mg/kg)	Benzo (a) Pyrene (mg/kg)	Benzo (b) Fluoranthene (mg/kg)	Benzo (k) Fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo (a,h) Anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) Pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - Naphthalene (mg/kg)	2-Methyl- Naphthalene (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
AST01@4.0'	5/15/2023	4.0 Ft	<0.00500	<0.00500	0.00980	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0322	<0.00500	<0.00500	0.415	0.889
SEP01@5.5'	5/15/2023	5.5 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP02@5.5'	5/15/2023	5.5 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWVB01@7.0'	5/15/2023	7.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWVN01@6.0'	5/15/2023	6.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWVS01@6.0'	5/15/2023	6.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWVE01@6.0'	5/15/2023	6.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
PWVW01@6.0'	5/15/2023	6.0 Ft	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0705	<0.00500	0.0168	1.18	2.87

Bold faced values exceed the COGCC Table 915-1 concentrations

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

* Indicates laboratory minimum detection limit in excess of SSL

TABLE 3
SUMMARY OF SOIL SUITABILITY FOR RECLAMATION
NOBLE ENERGY INC.
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-134

Sample ID	Sample Date	Depth (ft)	pH	EC (mmhos/cm)	SAR	Boron (mg/L)
COGCC Table 915-1 Soil Suitability Limits			6 - 8.3	<4	<6	2
AST01@4.0'	5/15/2023	4.0 Ft	6.51	0.705	1.83	0.216
SEP01@5.5'	5/15/2023	5.5 Ft	5.33	0.151	0.0876	0.162
SEP02@5.5'	5/15/2023	5.5 Ft	5.47	0.187	0.138	0.181
PWVB01@7.0'	5/15/2023	7.0 Ft	7.00	0.210	0.0832	0.197
PWVN01@6.0'	5/15/2023	6.0 Ft	6.55	0.217	0.302	0.160
PWVS01@6.0'	5/15/2023	6.0 Ft	6.24	0.186	0.848	0.132
PWVE01@6.0'	5/15/2023	6.0 Ft	5.85	0.0877	0.386	0.0904
PWVW01@6.0'	5/15/2023	6.0 Ft	5.78	0.214	1.34	0.677
BKG01@6.0"	5/15/2023	0.5 Ft	5.06	0.0499	0.0290	0.139

Bold faced values exceed the COGCC Table 915-1 concentrations

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

Local Background Sample (BKG01@6.0")

TABLE 4
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
LOUSTALET-64N64W 30NESE, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C023-134

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
BKG01@6.0"	5/15/2023	0.5 Ft	0.391	22.3	<0.212	<0.30	1.01	2.28	0.925	<0.260	<0.0212	3.97

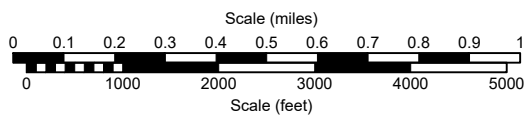
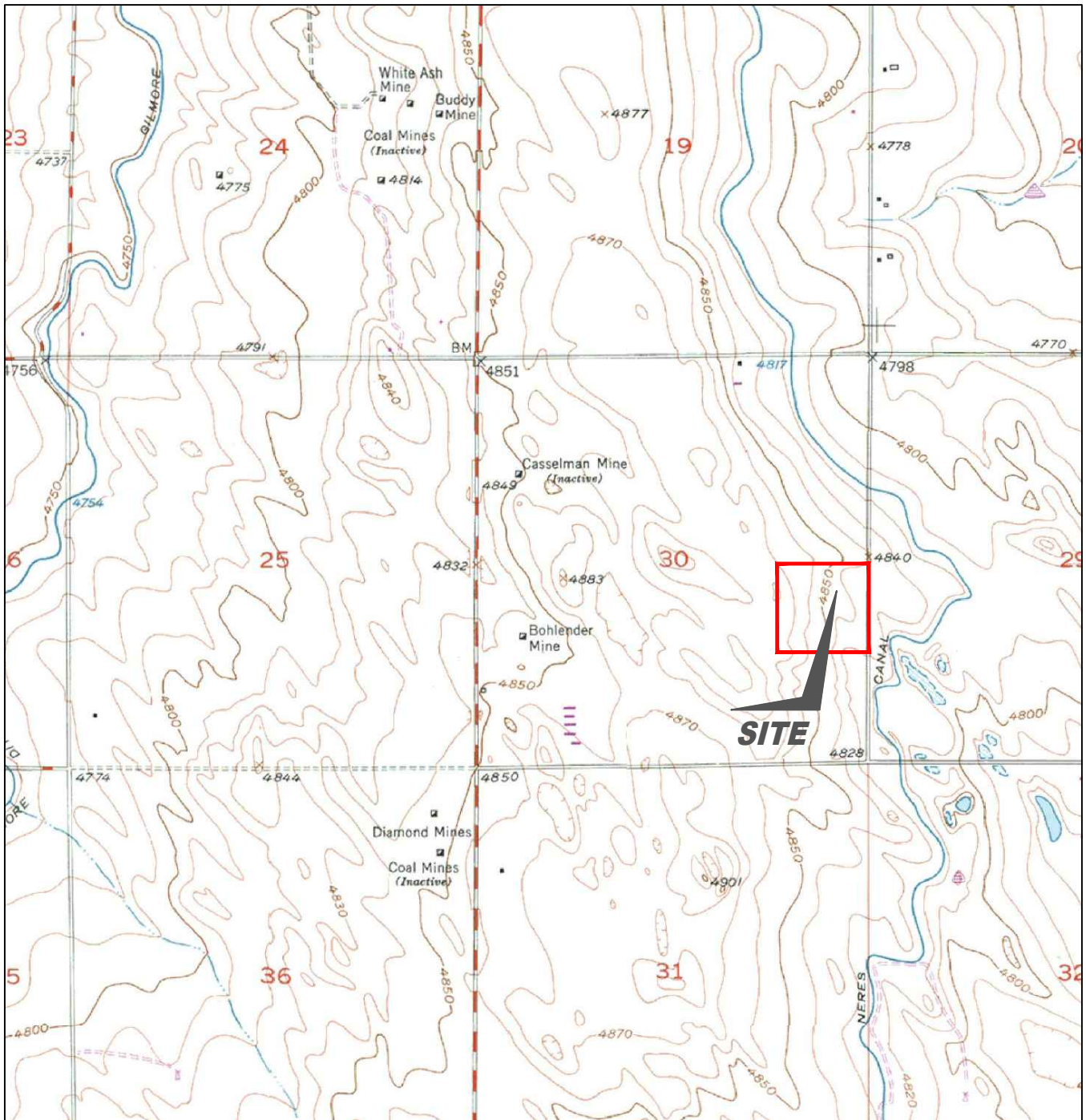
Bold faced values exceed the COGCC Table 915-1 concentrations

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

* Indicates laboratory minimum detection limit in excess of SSL

NA - Not analyzed

Local Background Sample (BKG01@6.0")



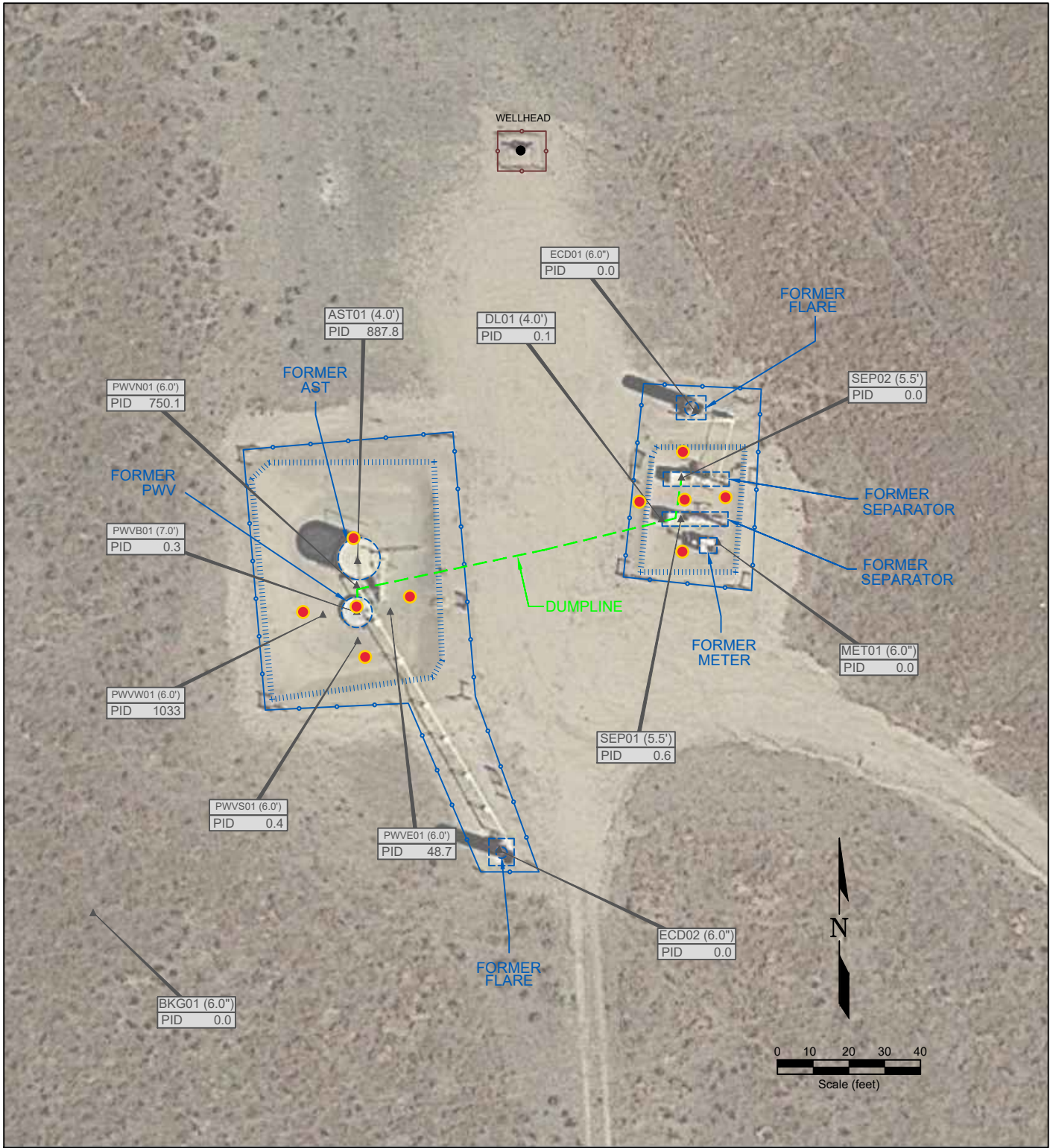
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY INC - LOUSTALET-64N64W 30NESE
 NESE Sec. 30, T4N, R64W, 6th PM
 Weld County, Colorado
 40.281418°, -104.586622°

Project # CO23-134	API # 05-123-19847	Facility # 327430
Date 10/19/2023	Remediation # 26975	Filename 23134T





LEGEND

- WELLHEAD LOCATION
- ▲ PID READING LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FORMER FACILITY
- FLOW LINE
- CONTAINMENT BERM
- FENCE LINE
- DUMPLINE
- Proposed Soil Boring Location

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

**Figure 2
SITE MAP**

NOBLE ENERGY INC - LOUSTALET-64N64W 30NESE
 NESE Sec. 30, T4N, R64W, 6th PM
 Weld County, Colorado
 40.281418°, -104.586622°

Project # CO23-134	API # 05-123-19847	Facility # 327430
Date 10/19/2023	Remediation # 26975	Filename 23134Q



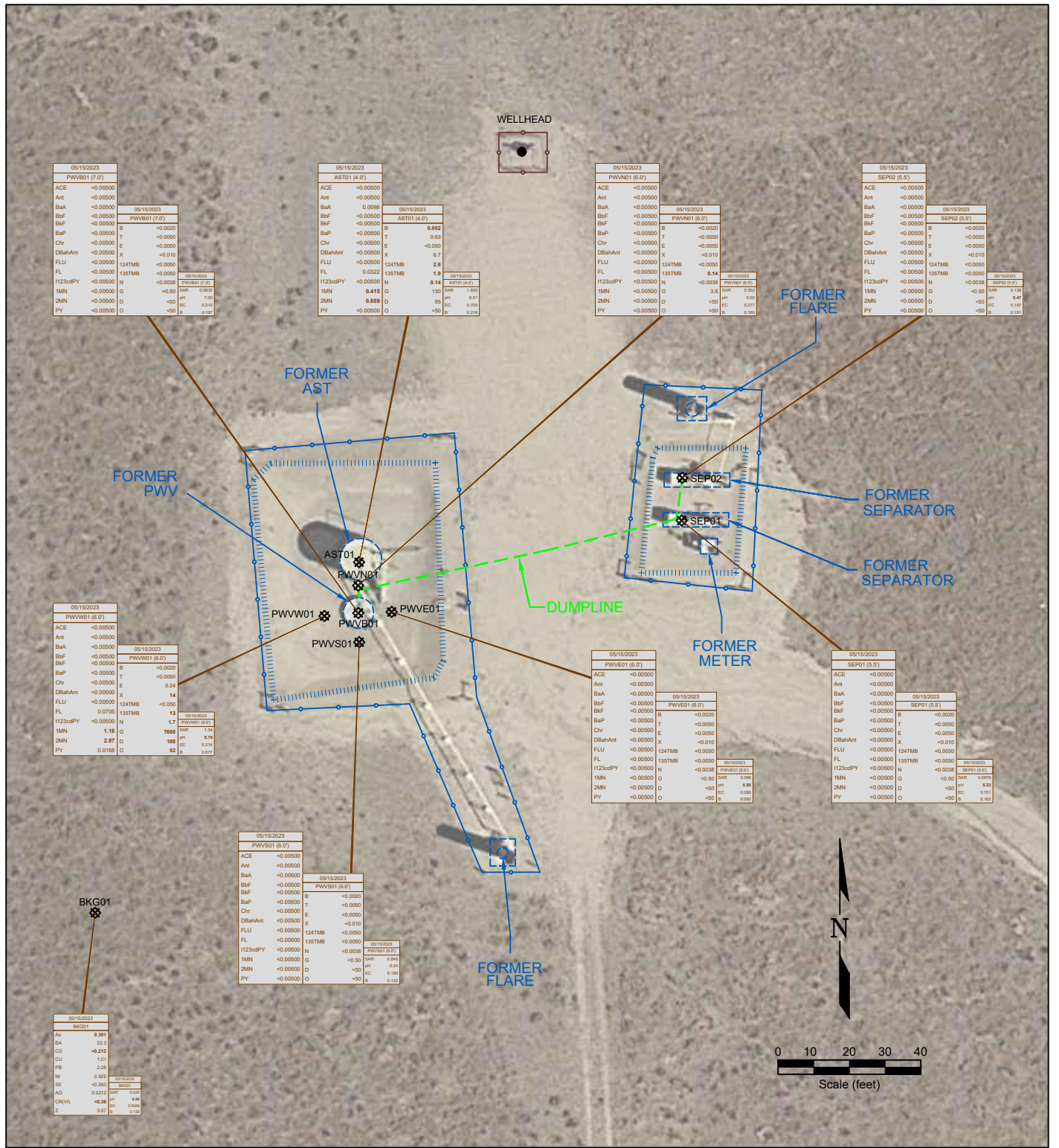


Figure 3
SOIL CHEMISTRY MAP

NOBLE ENERGY INC - LOUSTALET-64N64W 30NE5
 NESE Sec. 30, T4N, R64W, 6th PM
 Weld County, Colorado
 40.281418°, -104.586622°

Project # CO23-134	API # 05-123-19847	Facility # 327430
Date 10/19/2023	Remediation # 26975	Filename 23134Q



LEGEND

- WELLHEAD LOCATION
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- FLOW LINE
- CONTAINMENT BERM
- FENCE LINE
- DUMP LINE

4/7/2023	DATE SAMPLED	4/7/2023	DATE SAMPLED	4/7/2023	DATE SAMPLED
FLU1 (ft)	SAMPLE ID and DEPTH (ft)	FLU1 (ft)	SAMPLE ID and DEPTH (ft)	FLU1 (ft)	SAMPLE ID and DEPTH (ft)
ACE	ACENAPHTHENE (mg/kg)	ACE	ACENAPHTHENE (mg/kg)	B	BENZENE (mg/kg)
Ant	ANTHRACENE (mg/kg)	Ant	ANTHRACENE (mg/kg)	T	TOLUENE (mg/kg)
BaA	BENZO (A) ANTHRACENE (mg/kg)	BaA	BENZO (A) ANTHRACENE (mg/kg)	E	ETHYLBENZENE (mg/kg)
BbF	BENZO (B) FLUORANTHENE (mg/kg)	BbF	BENZO (B) FLUORANTHENE (mg/kg)	X	TOTAL XYLENES (mg/kg)
BkF	BENZO (K) FLUORANTHENE (mg/kg)	BkF	BENZO (K) FLUORANTHENE (mg/kg)	M	1,2,4-TRIMETHYLBENZENE (mg/kg)
BaP	BENZO (A) PYRENE (mg/kg)	BaP	BENZO (A) PYRENE (mg/kg)	N	1,2,5-TRIMETHYLBENZENE (mg/kg)
Chr	CHRYSENE (mg/kg)	Chr	CHRYSENE (mg/kg)	N	NAPHTHALENE (mg/kg)
DbaaAnt	DIBENZO(A,H)ANTHRACENE (mg/kg)	DbaaAnt	DIBENZO(A,H)ANTHRACENE (mg/kg)	G	TPH-CRO (mg/kg)
FLU	FLUORANTHENE (mg/kg)	FLU	FLUORANTHENE (mg/kg)	D	TPH-HRO (mg/kg)
FL	FLUORENE (mg/kg)	FL	FLUORENE (mg/kg)	O	TPH-ORO (mg/kg)
H123cdPY	INDENO (1,2,3-CD) PYRENE(mg/kg)	H123cdPY	INDENO (1,2,3-CD) PYRENE(mg/kg)		
IMN	1-METHYLNAPHTHALENE (mg/kg)	IMN	1-METHYLNAPHTHALENE (mg/kg)		
2MN	2-METHYLNAPHTHALENE (mg/kg)	2MN	2-METHYLNAPHTHALENE (mg/kg)		
PY	PYRENE (mg/kg)	PY	PYRENE (mg/kg)		

NOT ANALYZED

Photo Log



Description:

--

Photo Log



Description:

--

Photo Log



Description:

--

Photo Log



Description:

--

Photo Log



Description:

Photo Log



Description:

Photo Log



Description:

Photo Log



Description:

Photo Log



Description:

--

Photo Log



Description:

Photo Log



Description:

Photo Log



Description:

Photo Log



Description:

--

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

May 25, 2023

Paul Henehan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Loustalet 64N64W 30

Work Order # 2305374

Enclosed are the results of analyses for samples received by Summit Scientific on 05/16/23 14:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacob Wood For Paul Shrewsbury

President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@4.0'	2305374-01	Soil	05/15/23 00:00	05/16/23 14:56
SEP01@5.5'	2305374-02	Soil	05/15/23 00:00	05/16/23 14:56
SEP02@5.5'	2305374-03	Soil	05/15/23 00:00	05/16/23 14:56
PWVB01@7.0'	2305374-04	Soil	05/15/23 00:00	05/16/23 14:56
PWVN01@6.0'	2305374-05	Soil	05/15/23 00:00	05/16/23 14:56
PWVS01@6.0'	2305374-06	Soil	05/15/23 00:00	05/16/23 14:56
PWVE01@6.0'	2305374-07	Soil	05/15/23 00:00	05/16/23 14:56
PWVW01@6.0'	2305374-08	Soil	05/15/23 00:00	05/16/23 14:56
BKG01@6.0''	2305374-09	Soil	05/15/23 00:00	05/16/23 14:56

SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 1
2305374	

Client: Fremont Env	Send Data To: Project Manager: Paul Henahan	Send Invoice To: Company: Noble
Address:	E-Mail: Paulh@fremontenv.com	Project Name/Location:
City/State/Zip:	Jeffj@fremontenv.com Ethanb@fremontenv.com	AFE#:
Phone:	Project Name: Loustalet-64N64U 30	PO/Billing Codes:
Sampler Name: JG	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX+N	TMBs(915)	DRO,ORO,GRO	PAHs(915)	EC,SPM,SO ₂ ,SO ₄ ,Baron		Metals(915)	
1	AST01@4.0'	5/15/23		2			X			X				X	X	X	X	X		
2	SEP01@5.5'																			
3	SEPO2@5.5'																			
4	PWB01@7.0'																			
5	PWV01@6.0'																			
6	PWV01@6.0'																			
7	PWVE01@6.0'																			
8	PWVW01@6.0'			2										X	X	X	X			
9	BKG01@6.0"			2														X	X	
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: <i>[Signature]</i>	Date/Time: 5/16/23 1455	Received by: <i>[Signature]</i>	Date/Time: 5/16/23/45	TAT Business Days	Field DO	Notes: Bill to Noble
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	X Field Turb.	
Temperature Upon Receipt: 19.8	Corrected Temperature: —	IR gun #: 02	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2305374

Client: Fremont Environmental Client Project ID: Laus talet - 64N64W30

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

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

Temp (°C) 19.8 Thermometer # 02

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

A
Custodian Printed Name

5/16/23 1456
Date/Time



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

AST01@4.0'
2305374-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	0.052	0.020		mg/kg	10	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	0.63	0.050		"	"	"	"	"	"	
Ethylbenzene	ND	0.050		"	"	"	"	"	"	
Xylenes (total)	6.7	0.10		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	2.8	0.050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	1.9	0.050		"	"	"	"	"	"	
Naphthalene	0.14	0.038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	130	5.0		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		117 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		92.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		131 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	95	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		115 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

AST01@4.0'
2305374-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	0.00980	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	0.0322	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	0.415	0.100		"	20	"	"	05/19/23	"	"
2-Methylnaphthalene	0.889	0.100		"	"	"	"	"	"	"

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		100 %		40-150		"	"	05/18/23	"	"
Surrogate: Fluoranthene-d10		82.6 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.216	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

AST01@4.0'
2305374-01 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	147	0.0536		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	35.5	0.0536		"	"	"	"	"	"	
Sodium	95.4	0.0536		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.83	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.705	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.51			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

SEP01@5.5'
2305374-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		112 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		125 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

SEP01@5.5'
2305374-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		54.4 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.162	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

SEP01@5.5'
2305374-02 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	105	0.0541		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	24.3	0.0541		"	"	"	"	"	"	
Sodium	3.83	0.0541		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0876	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.4			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.151	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.33			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

SEP02@5.5'
2305374-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		108 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		110 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

SEP02@5.5'
2305374-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		99.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		81.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.181	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

SEP02@5.5'
2305374-03 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	66.7	0.0537		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	15.3	0.0537		"	"	"	"	"	"	
Sodium	4.78	0.0537		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.138	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.0			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.187	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.47			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVB01@7.0'
2305374-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		118 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		104 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVB01@7.0'
2305374-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		63.7 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.197	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

PWVB01@7.0'
2305374-04 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	216	0.0555		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	45.9	0.0555		"	"	"	"	"	"	
Sodium	5.16	0.0555		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0832	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.0			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.210	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.00			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVN01@6.0'
2305374-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.14	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3.8	0.50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		114 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		105 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		119 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		90.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVN01@6.0'
2305374-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		70.3 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		85.0 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.160	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVN01@6.0'
2305374-05 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	247	0.0545		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	59.7	0.0545		"	"	"	"	"	"	
Sodium	20.4	0.0545		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.302	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.8			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.217	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.55			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

PWVS01@6.0'
2305374-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		108 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		95.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVS01@6.0'
2305374-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	ND	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	ND	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		54.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.132	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVS01@6.0'
2305374-06 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	191	0.0590		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	42.0	0.0590		"	"	"	"	"	"	
Sodium	49.7	0.0590		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.848	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.8			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.186	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.24			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

PWVE01@6.0'
2305374-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		110 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		96.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		95.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVE01@6.0'
2305374-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Chrysene	ND	0.00500		"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	"
Fluoranthene	ND	0.00500		"	"	"	"	"	"	"
Fluorene	ND	0.00500		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	"
Pyrene	ND	0.00500		"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500		"	"	"	"	"	"	"

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		79.2 %		40-150		"	"	"	"	"
Surrogate: Fluoranthene-d10		81.2 %		40-150		"	"	"	"	"

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0904	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PWVE01@6.0'
2305374-07 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	193	0.0568		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	47.7	0.0568		"	"	"	"	"	"	
Sodium	23.2	0.0568		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.386	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0877	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.85			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

PWVW01@6.0'
2305374-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.020		mg/kg	10	BGE0618	05/17/23	05/18/23	EPA 8260B	
Toluene	ND	0.050		"	"	"	"	"	"	
Ethylbenzene	0.24	0.050		"	"	"	"	"	"	
Xylenes (total)	14	0.10		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	13	0.050		"	"	"	"	"	"	E
Naphthalene	1.7	0.038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	7600	5.0		"	"	"	"	"	"	E

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		1180 %		50-150		"	"	"	"	S-02
Surrogate: Toluene-d8		84.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		400 %		50-150		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	180	50		mg/kg	1	BGE0619	05/17/23	05/18/23	EPA 8015M	
C28-C36 (ORO)	52	50		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		66.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

PWVW01@6.0'
2305374-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGE0633	05/18/23	05/19/23	EPA 8270D SIM	
Anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500		"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500		"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500		"	"	"	"	"	"	
Chrysene	ND	0.00500		"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500		"	"	"	"	"	"	
Fluoranthene	ND	0.00500		"	"	"	"	"	"	
Fluorene	0.0705	0.00500		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500		"	"	"	"	"	"	
Pyrene	0.0168	0.00500		"	"	"	"	"	"	
1-Methylnaphthalene	1.18	0.250		"	50	"	"	05/19/23	"	
2-Methylnaphthalene	2.87	0.250		"	"	"	"	"	"	

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		57.2 %		40-150		"	"	05/19/23	"	
Surrogate: Fluoranthene-d10		70.6 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.677	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

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



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

PWVW01@6.0'
2305374-08 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	92.0	0.0579		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	15.8	0.0579		"	"	"	"	"	"	
Sodium	52.8	0.0579		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.34	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.3			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.214	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.78			pH Units	1	BGE0813	05/23/23	05/23/23	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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

BKG01@6.0"
2305374-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.139	0.0100		mg/L	1	BGE0783	05/23/23	05/24/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	0.391	0.212		mg/kg dry	1	BGE0658	05/18/23	05/22/23	EPA 6020B	
Barium	22.3	0.424		"	"	"	"	"	"	
Cadmium	ND	0.212		"	"	"	"	"	"	
Copper	1.01	0.424		"	"	"	"	"	"	
Lead	2.28	0.212		"	"	"	"	"	"	
Nickel	0.925	0.424		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0212		"	"	"	"	"	"	
Zinc	3.97	0.424		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGE0593	05/17/23	05/17/23	EPA 7196A	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	42.3	0.0530		mg/L dry	1	BGE0771	05/22/23	05/23/23	EPA 6020B	
Magnesium	6.40	0.0530		"	"	"	"	"	"	
Sodium	0.765	0.0530		"	"	"	"	"	"	

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

BKG01@6.0"
2305374-09 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0290	0.00100		units	1	BGE0855	05/24/23	05/24/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.4			%	1	BGE0687	05/19/23	05/19/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0499	0.0100		mmhos/cm	1	BGE0815	05/23/23	05/23/23	EPA 120.1	

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

Date Sampled: **05/15/23 00:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.06			pH Units	1	BGE0813	05/23/23	05/23/23	EPA 9045D	



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

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 BGE0618 - EPA 5030 Soil MS

Blank (BGE0618-BLK1)

Prepared: 05/17/23 Analyzed: 05/18/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0428		"	0.0400		107	50-150			
<i>Surrogate: Toluene-d8</i>	0.0421		"	0.0400		105	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0436		"	0.0400		109	50-150			

LCS (BGE0618-BS1)

Prepared: 05/17/23 Analyzed: 05/18/23

Benzene	0.126	0.0020	mg/kg	0.125		101	70-130			
Toluene	0.145	0.0050	"	0.125		116	70-130			
Ethylbenzene	0.124	0.0050	"	0.125		98.8	70-130			
m,p-Xylene	0.322	0.010	"	0.250		129	70-130			
o-Xylene	0.140	0.0050	"	0.125		112	70-130			
1,2,4-Trimethylbenzene	0.123	0.0050	"	0.125		98.1	70-130			
1,3,5-Trimethylbenzene	0.120	0.0050	"	0.125		96.2	70-130			
Naphthalene	0.124	0.0038	"	0.125		99.6	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0413		"	0.0400		103	50-150			
<i>Surrogate: Toluene-d8</i>	0.0428		"	0.0400		107	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0418		"	0.0400		104	50-150			

Matrix Spike (BGE0618-MS1)

Source: 2305357-01

Prepared: 05/17/23 Analyzed: 05/18/23

Benzene	0.113	0.0020	mg/kg	0.125	ND	90.8	70-130			
Toluene	0.140	0.0050	"	0.125	ND	112	70-130			
Ethylbenzene	0.149	0.0050	"	0.125	ND	119	70-130			
m,p-Xylene	0.292	0.010	"	0.250	ND	117	70-130			
o-Xylene	0.132	0.0050	"	0.125	ND	106	70-130			
1,2,4-Trimethylbenzene	0.147	0.0050	"	0.125	ND	118	70-130			
1,3,5-Trimethylbenzene	0.151	0.0050	"	0.125	ND	120	70-130			
Naphthalene	0.124	0.0038	"	0.125	ND	98.8	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0426		"	0.0400		107	50-150			
<i>Surrogate: Toluene-d8</i>	0.0424		"	0.0400		106	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0412		"	0.0400		103	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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BGE0618 - EPA 5030 Soil MS

Matrix Spike Dup (BGE0618-MSD1)	Source: 2305357-01			Prepared: 05/17/23 Analyzed: 05/18/23						
Benzene	0.112	0.0020	mg/kg	0.125	ND	89.4	70-130	1.55	30	
Toluene	0.140	0.0050	"	0.125	ND	112	70-130	0.343	30	
Ethylbenzene	0.146	0.0050	"	0.125	ND	117	70-130	1.81	30	
m,p-Xylene	0.285	0.010	"	0.250	ND	114	70-130	2.65	30	
o-Xylene	0.131	0.0050	"	0.125	ND	105	70-130	0.934	30	
1,2,4-Trimethylbenzene	0.147	0.0050	"	0.125	ND	118	70-130	0.387	30	
1,3,5-Trimethylbenzene	0.148	0.0050	"	0.125	ND	118	70-130	2.01	30	
Naphthalene	0.124	0.0038	"	0.125	ND	99.3	70-130	0.436	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0451</i>		<i>"</i>	<i>0.0400</i>		<i>113</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0426</i>		<i>"</i>	<i>0.0400</i>		<i>106</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGE0619 - EPA 3550A

Blank (BGE0619-BLK1)

Prepared: 05/17/23 Analyzed: 05/18/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.4		"	12.5		115		30-150			

LCS (BGE0619-BS1)

Prepared: 05/17/23 Analyzed: 05/18/23

C10-C28 (DRO)	401	50	mg/kg	500		80.1		70-130			
Surrogate: <i>o</i> -Terphenyl	9.84		"	12.5		78.7		30-150			

Matrix Spike (BGE0619-MS1)

Source: 2305357-01

Prepared: 05/17/23 Analyzed: 05/18/23

C10-C28 (DRO)	502	50	mg/kg	500	ND	100		70-130			
Surrogate: <i>o</i> -Terphenyl	12.7		"	12.5		101		30-150			

Matrix Spike Dup (BGE0619-MSD1)

Source: 2305357-01

Prepared: 05/17/23 Analyzed: 05/18/23

C10-C28 (DRO)	434	50	mg/kg	500	ND	86.7		70-130	14.6	20	
Surrogate: <i>o</i> -Terphenyl	11.5		"	12.5		91.7		30-150			



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGE0633 - EPA 5030 Soil MS

Blank (BGE0633-BLK1)

Prepared & Analyzed: 05/18/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0398</i>		"	<i>0.0333</i>		<i>119</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0354</i>		"	<i>0.0333</i>		<i>106</i>	<i>40-150</i>			

LCS (BGE0633-BS1)

Prepared & Analyzed: 05/18/23

Acenaphthene	0.0329	0.00500	mg/kg	0.0333	98.7	31-137
Anthracene	0.0341	0.00500	"	0.0333	102	30-120
Benzo (a) anthracene	0.0341	0.00500	"	0.0333	102	30-120
Benzo (a) pyrene	0.0323	0.00500	"	0.0333	96.8	30-120
Benzo (b) fluoranthene	0.0352	0.00500	"	0.0333	105	30-120
Benzo (k) fluoranthene	0.0344	0.00500	"	0.0333	103	30-120
Chrysene	0.0331	0.00500	"	0.0333	99.4	30-120
Dibenz (a,h) anthracene	0.0314	0.00500	"	0.0333	94.2	30-120
Fluoranthene	0.0340	0.00500	"	0.0333	102	30-120
Fluorene	0.0348	0.00500	"	0.0333	104	30-120
Indeno (1,2,3-cd) pyrene	0.0334	0.00500	"	0.0333	100	30-120
Pyrene	0.0369	0.00500	"	0.0333	111	35-142
1-Methylnaphthalene	0.0379	0.00500	"	0.0333	114	35-142
2-Methylnaphthalene	0.0391	0.00500	"	0.0333	117	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0289</i>		"	<i>0.0333</i>	<i>86.7</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0346</i>		"	<i>0.0333</i>	<i>104</i>	<i>40-150</i>

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

PAH by EPA Method 8270D SIM - Quality Control
Summit Scientific

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

Batch BGE0633 - EPA 5030 Soil MS

Matrix Spike (BGE0633-MS1)	Source: 2305374-01			Prepared & Analyzed: 05/18/23								
Acenaphthene	0.0373	0.00500	mg/kg	0.0333	ND	112	31-137					
Anthracene	0.0238	0.00500	"	0.0333	ND	71.5	30-120					
Benzo (a) anthracene	0.0277	0.00500	"	0.0333	0.00980	53.8	30-120					
Benzo (a) pyrene	0.0227	0.00500	"	0.0333	ND	68.0	30-120					
Benzo (b) fluoranthene	0.0258	0.00500	"	0.0333	ND	77.4	30-120					
Benzo (k) fluoranthene	0.0249	0.00500	"	0.0333	ND	74.8	30-120					
Chrysene	0.0309	0.00500	"	0.0333	0.00400	80.8	30-120					
Dibenz (a,h) anthracene	0.0215	0.00500	"	0.0333	ND	64.6	30-120					
Fluoranthene	0.0285	0.00500	"	0.0333	ND	85.6	30-120					
Fluorene	0.0413	0.00500	"	0.0333	0.0322	27.5	30-120					QM-01
Indeno (1,2,3-cd) pyrene	0.0184	0.00500	"	0.0333	ND	55.3	30-120					
Pyrene	0.0285	0.00500	"	0.0333	0.00292	76.9	35-142					
1-Methylnaphthalene	0.314	0.00500	"	0.0333	0.415	NR	15-130					QM-01
2-Methylnaphthalene	0.505	0.00500	"	0.0333	0.889	NR	15-130					QM-01
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0200</i>		<i>"</i>	<i>0.0333</i>		<i>60.1</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0274</i>		<i>"</i>	<i>0.0333</i>		<i>82.3</i>	<i>40-150</i>					

Matrix Spike Dup (BGE0633-MSD1)	Source: 2305374-01			Prepared & Analyzed: 05/18/23								
Acenaphthene	0.0434	0.00500	mg/kg	0.0333	ND	130	31-137	15.3	30			
Anthracene	0.0217	0.00500	"	0.0333	ND	65.2	30-120	9.26	30			
Benzo (a) anthracene	0.0278	0.00500	"	0.0333	0.00980	54.1	30-120	0.264	30			
Benzo (a) pyrene	0.0216	0.00500	"	0.0333	ND	64.8	30-120	4.74	30			
Benzo (b) fluoranthene	0.0245	0.00500	"	0.0333	ND	73.5	30-120	5.20	30			
Benzo (k) fluoranthene	0.0224	0.00500	"	0.0333	ND	67.2	30-120	10.7	30			
Chrysene	0.0325	0.00500	"	0.0333	0.00400	85.5	30-120	4.93	30			
Dibenz (a,h) anthracene	0.0224	0.00500	"	0.0333	ND	67.2	30-120	3.87	30			
Fluoranthene	0.0259	0.00500	"	0.0333	ND	77.8	30-120	9.55	30			
Fluorene	0.0458	0.00500	"	0.0333	0.0322	40.9	30-120	10.3	30			
Indeno (1,2,3-cd) pyrene	0.0190	0.00500	"	0.0333	ND	57.1	30-120	3.27	30			
Pyrene	0.0256	0.00500	"	0.0333	0.00292	67.9	35-142	11.0	30			
1-Methylnaphthalene	0.667	0.00500	"	0.0333	0.415	757	15-130	71.9	50			QM-01
2-Methylnaphthalene	0.926	0.00500	"	0.0333	0.889	110	15-130	58.7	50			QM-01
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0258</i>		<i>"</i>	<i>0.0333</i>		<i>77.5</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0238</i>		<i>"</i>	<i>0.0333</i>		<i>71.4</i>	<i>40-150</i>					

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 - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

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

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

Batch BGE0783 - EPA 3050B

Blank (BGE0783-BLK1)

Prepared: 05/23/23 Analyzed: 05/24/23

Boron ND 0.0100 mg/L

LCS (BGE0783-BS1)

Prepared: 05/23/23 Analyzed: 05/24/23

Boron 4.06 0.0100 mg/L 5.00 81.3 80-120

Duplicate (BGE0783-DUP1)

Source: 2305374-01

Prepared: 05/23/23 Analyzed: 05/24/23

Boron 0.210 0.0100 mg/L 0.216 2.77 20

Matrix Spike (BGE0783-MS1)

Source: 2305374-01

Prepared: 05/23/23 Analyzed: 05/24/23

Boron 4.31 0.0100 mg/L 5.00 0.216 81.9 75-125

Matrix Spike Dup (BGE0783-MSD1)

Source: 2305374-01

Prepared: 05/23/23 Analyzed: 05/24/23

Boron 4.44 0.0100 mg/L 5.00 0.216 84.4 75-125 2.82 25



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGE0658 - EPA 3050B

Blank (BGE0658-BLK1)

Prepared: 05/18/23 Analyzed: 05/22/23

Arsenic	ND	0.200	mg/kg wet						
Barium	ND	0.400	"						
Cadmium	ND	0.200	"						
Copper	ND	0.400	"						
Lead	ND	0.200	"						
Nickel	ND	0.400	"						
Selenium	ND	0.260	"						
Silver	ND	0.0200	"						
Zinc	ND	0.400	"						

LCS (BGE0658-BS1)

Prepared: 05/18/23 Analyzed: 05/22/23

Arsenic	39.7	0.200	mg/kg wet	40.0	99.3	80-120
Barium	36.4	0.400	"	40.0	91.0	80-120
Cadmium	1.84	0.200	"	2.00	91.9	80-120
Copper	41.1	0.400	"	40.0	103	80-120
Lead	18.1	0.200	"	20.0	90.4	80-120
Nickel	39.9	0.400	"	40.0	99.7	80-120
Selenium	4.29	0.260	"	4.00	107	80-120
Silver	1.88	0.0200	"	2.00	94.0	80-120
Zinc	39.0	0.400	"	40.0	97.4	80-120

Duplicate (BGE0658-DUP1)

Source: 2305288-21

Prepared: 05/18/23 Analyzed: 05/22/23

Arsenic	0.184	0.211	mg/kg dry	0.213	14.4	20
Barium	12.0	0.421	"	11.9	0.840	20
Cadmium	0.0156	0.211	"	0.0181	15.0	20
Copper	0.852	0.421	"	0.907	6.27	20
Lead	1.91	0.211	"	1.96	2.46	20
Nickel	0.405	0.421	"	0.465	13.7	20
Selenium	ND	0.260	"	ND		20
Silver	0.00379	0.0211	"	0.00547	36.4	20
Zinc	2.78	0.421	"	2.83	1.52	20

QR-01



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BGE0658 - EPA 3050B

Matrix Spike (BGE0658-MS1)	Source: 2305288-21			Prepared: 05/18/23		Analyzed: 05/22/23					
Arsenic	14.9	0.211	mg/kg dry	42.1	0.213	35.0	75-125				QM-05
Barium	52.5	0.421	"	42.1	11.9	96.3	75-125				
Cadmium	1.94	0.211	"	2.11	0.0181	91.2	75-125				
Copper	15.9	0.421	"	42.1	0.907	35.7	75-125				QM-05
Lead	19.5	0.211	"	21.1	1.96	83.2	75-125				
Nickel	15.5	0.421	"	42.1	0.465	35.7	75-125				QM-05
Selenium	3.92	0.260	"	4.21	ND	93.2	75-125				
Silver	1.93	0.0211	"	2.11	0.00547	91.2	75-125				
Zinc	18.0	0.421	"	42.1	2.83	36.0	75-125				QM-05

Matrix Spike Dup (BGE0658-MSD1)	Source: 2305288-21			Prepared: 05/18/23		Analyzed: 05/22/23					
Arsenic	14.7	0.211	mg/kg dry	42.1	0.213	34.4	75-125	1.65	25		QM-05
Barium	54.5	0.421	"	42.1	11.9	101	75-125	3.67	25		
Cadmium	1.94	0.211	"	2.11	0.0181	91.2	75-125	0.0435	25		
Copper	15.8	0.421	"	42.1	0.907	35.5	75-125	0.684	25		QM-05
Lead	20.0	0.211	"	21.1	1.96	85.7	75-125	2.61	25		
Nickel	15.5	0.421	"	42.1	0.465	35.8	75-125	0.255	25		QM-05
Selenium	4.44	0.260	"	4.21	ND	105	75-125	12.3	25		
Silver	1.96	0.0211	"	2.11	0.00547	92.9	75-125	1.78	25		
Zinc	18.0	0.421	"	42.1	2.83	36.0	75-125	0.0726	25		QM-05



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGE0593 - 3060A Mod

Blank (BGE0593-BLK1)

Prepared & Analyzed: 05/17/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGE0593-BS1)

Prepared & Analyzed: 05/17/23

Chromium, Hexavalent 23.1 0.30 mg/kg wet 25.0 92.4 80-120

Duplicate (BGE0593-DUP1)

Source: 2305360-01

Prepared & Analyzed: 05/17/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGE0593-MS1)

Source: 2305360-01

Prepared & Analyzed: 05/17/23

Chromium, Hexavalent 29.2 0.30 mg/kg dry 30.7 ND 95.2 75-125

Matrix Spike Dup (BGE0593-MSD1)

Source: 2305360-01

Prepared & Analyzed: 05/17/23

Chromium, Hexavalent 25.8 0.30 mg/kg dry 30.7 ND 84.2 75-125 12.3 20



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

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

Summit Scientific

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

Batch BGE0771 - General Preparation

Blank (BGE0771-BLK1)

Prepared: 05/22/23 Analyzed: 05/23/23

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

LCS (BGE0771-BS1)

Prepared: 05/22/23 Analyzed: 05/23/23

Calcium	5.47	0.0500	mg/L wet	5.00		109	70-130			
Magnesium	5.04	0.0500	"	5.00		101	70-130			
Sodium	5.19	0.0500	"	5.00		104	70-130			



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

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

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

Batch BGE0687 - General Preparation

Duplicate (BGE0687-DUP1)	Source: 2305374-01			Prepared & Analyzed: 05/19/23							
% Solids	93.0		%		93.3				0.327	20	



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
 Project Manager: Paul Henehan

Reported:
 05/25/23 09:37

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

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

Batch BGE0815 - General Preparation

Blank (BGE0815-BLK1)

Prepared & Analyzed: 05/23/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGE0815-BS1)

Prepared & Analyzed: 05/23/23

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BGE0815-DUP1)

Source: 2305374-01

Prepared & Analyzed: 05/23/23

Specific Conductance (EC) 0.695 0.0100 mmhos/cm 0.705 1.43 20



Fremont Environmental PO Box 1289 Wellington CO, 80549	Project: Noble - Loustalet 64N64W 30 Project Number: [none] Project Manager: Paul Henehan	Reported: 05/25/23 09:37
--	---	------------------------------------

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

Summit Scientific

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

Batch BGE0813 - General Preparation

LCS (BGE0813-BS1)				Prepared & Analyzed: 05/23/23						
pH	9.08		pH Units	9.18		98.9	95-105			
Duplicate (BGE0813-DUP1)				Source: 2305374-01		Prepared & Analyzed: 05/23/23				
pH	6.52		pH Units	6.51		0.153	20			



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Loustalet 64N64W 30

Project Number: [none]
Project Manager: Paul Henehan

Reported:
05/25/23 09:37

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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