

FREMONT ENVIRONMENTAL INC.

November 2, 2020
Mr. Jacob Evans
Noble Energy
2115 117th Avenue
Greeley, CO 80634

Subject: **Excavation Report**
 Ogg 21, 22-28
 API # 05-123-17788
 NENW Sec 28, T4N, R65W
 Weld County, Colorado
 Fremont Project No. C020-042
 Facility #329750, Remediation #15589

Dear Mr. Evans:

Enclosed please find a copy of the above-referenced Excavation Report for the Ogg 21, 22-28 water vault release site in Weld County, Colorado. The enclosed report describes excavation actions to remove impacted soil from the site. Groundwater was not encountered at the site.

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

Enclosure

EXCAVATION REPORT
NOBLE ENERGY INC.
OGG 21, 22-28
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C020-042
REMEDIATION #15589

Prepared by:

Fremont Environmental Inc.
1759 Redwing Lane
Broomfield, CO 80020
(303) 956-8714

November 2, 2020

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EXCAVATION REPORT
NOBLE ENERGY INC.
OGG 21, 22-28
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C020-042
REMEDIATION #15589

1.0 INTRODUCTION

The purpose of this document is to present information collected during the three-day excavation of petroleum-impacted soil at the former Ogg 21, 22-28 facility in Weld County, Colorado. This excavation project was completed on October 30, 2020.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The Ogg 21, 22-28 site is located approximately four miles southeast of La Salle, Colorado in Weld County as shown on Figure 1. The site is located in an agricultural area approximately 0.5 miles west of the intersection of County Road 42 and County Road 43. The location is further described as the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 28, Township 4N, Range 65W.

2.2 Site History

The site's excavation area consisted of two separate excavations, the former Ogg water vault to the east and the former separator dump line area to the west. The Ogg 22-28 well was drilled in 1993 to a vertical depth of approximately 7,842 feet.

Soil impacts were first identified at the water vault location during its abandonment. Additional impacts were discovered during reclamation activities on site prompting excavation of the area near the former separator line location.

3.0 FIELD ACTIVITIES

Remediation efforts consisted of the excavation of petroleum-impacted soil at this site. The soil consisted of roadbase which was underlain by clay and sandy clay to a depth of at least 10 feet. Groundwater was not encountered during the excavation work. The 20' x 22' x 10' deep and 22' x 22' x 4' deep excavated areas are shown on Figure 2 and 3.

The excavation project was completed at the former water vault location on October 29, 2020. Soil impacts were removed from the area beneath and around the former water vault and aboveground tank. The sidewall samples were collected as grab samples on the excavation wall at depths of four and nine feet and the floor sample was collected at approximately 10 feet.

An additional excavation of the former separator line location, which was conducted approximately 25 feet west of the former water vault excavation mentioned above, was completed on October 30, 2020. Soil impacts were removed from the area surrounding the former separator line. The sidewall samples were collected as grab samples on the excavation wall at a depth of three feet and the floor sample was collected at approximately four feet.

The sidewall and floor samples collected upon completion of each excavation indicated that no residual soil impacts were present.

The soil samples were analyzed by Summit Scientific Inc. of Golden, Colorado for benzene, toluene, ethylbenzene and total xylenes (BTEX), naphthalene, Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO) by EPA method 8260B, and TPH – Diesel Range Organics (TPH-DRO) by EPA method 8015. The laboratory report and chain-of-custody documentation are included in Appendix A.

A summary of the laboratory data for the soil samples is included in Table 1. The laboratory analyses indicated that all 14 soil samples collected from the sidewalls and floor of each excavation achieved the COGCC Table 910-1 standards.

A total of 320 cubic yards of petroleum impacted soil was removed by 4X Industrial Services Inc. from the location over this three-day project. The impacted soil was disposed of at the Waste Management Inc. Buffalo Ridge landfill in Keenesburg, Colorado as non-hazardous waste.

4.0 DISCUSSION

As demonstrated by the soil sampling, the petroleum impacted soil was removed from the site by excavation after abandonment of the facility. This was confirmed by the analyses of the soil samples collected from the exterior sidewalls and floor which were below the COGCC Table 910-1 standards. Approximately 320 cubic yards of impacted soil were removed and transported to the landfill. Therefore, Noble should request a no further action (NFA) determination from the COGCC.

5.0 REMARKS

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**



11/2/20

Date_____

Paul V. Henahan, P.E.

Senior Consultant

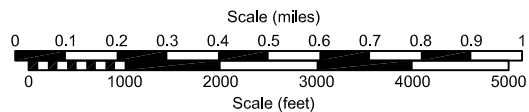
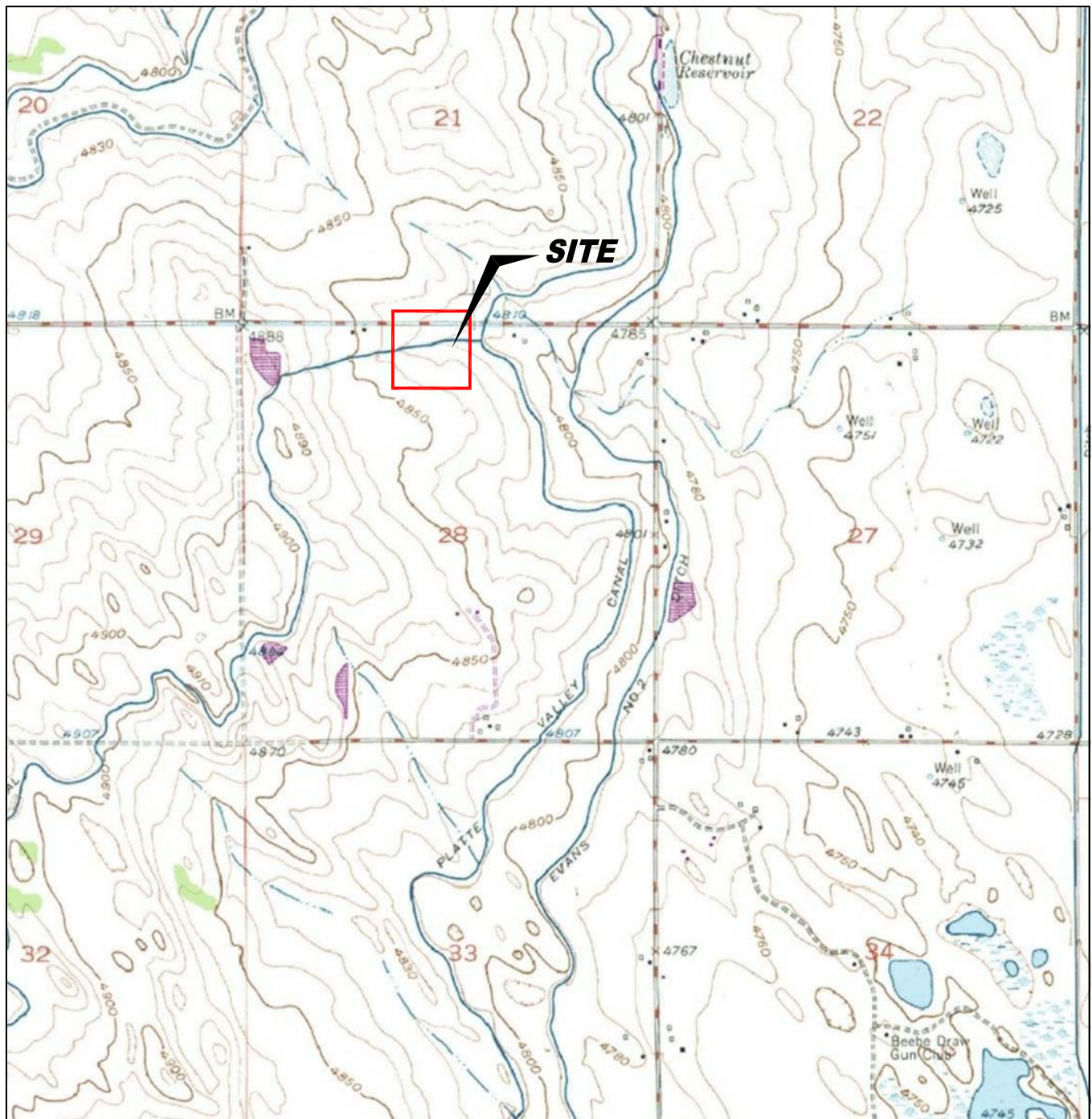
TABLE

TABLE 1
SUMMARY OF SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
OGG 21, 22-28, WELD COUNTY, COLORADO
FREMONT PROJECT C020-042

Sample	Depth (ft)	Date Sampled	Location	Benzene mg/kg	Toluene mg/kg	Ethyl-Benzene mg/kg	Xylenes mg/kg	Naphthalene mg/kg	TPH GRO mg/kg	TPH DRO mg/kg
N Wall 4 Ft	4	10/28/2020	Wall	0.12	<0.005	<0.005	0.044	<0.01	<50	<50
N Wall 9 Ft	9	10/28/2020	Wall	0.0033	<0.005	<0.005	0.06	<0.01	<50	<50
S Wall 4 Ft	4	10/28/2020	Wall	<0.002	<0.005	<0.005	0.048	<0.01	<50	<50
S Wall 9 Ft	9	10/28/2020	Wall	<0.002	<0.005	<0.005	<0.01	<0.01	<50	<50
E Wall 4 Ft	4	10/28/2020	Wall	0.084	<0.005	0.014	0.13	<0.01	<50	<50
E Wall 9 Ft	9	10/28/2020	Wall	<0.002	<0.005	<0.005	<0.01	<0.01	<50	<50
W Wall 4 Ft	4	10/28/2020	Wall	<0.002	<0.005	<0.005	<0.01	<0.01	<50	<50
W Wall 9 Ft	9	10/28/2020	Wall	0.035	0.058	0.019	0.33	<0.01	<50	<50
Floor 10 Ft	10	10/28/2020	Floor	0.016	<0.005	0.016	0.036	<0.01	<50	<50
N Wall 3 Ft	3	10/30/2020	Wall	<0.002	<0.005	<0.005	0.031	<0.01	<50	<50
S Wall 3 Ft	3	10/30/2020	Wall	0.038	<0.005	<0.005	0.015	<0.01	<50	<50
E Wall 3 Ft	3	10/30/2020	Wall	0.043	<0.005	<0.005	0.064	<0.01	<50	<50
W Wall 3 Ft	3	10/30/2020	Wall	0.019	<0.005	<0.005	0.013	<0.01	<50	<50
Floor 4 Ft	4	10/30/2020	Floor	0.026	<0.005	0.025	0.48	<0.01	<50	<50
COGCC Table 910-1 Limits				0.17	85	100	175	23	500	500

Bold faced values exceed the COGCC Table 910-1 concentrations

FIGURES



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY, INC. ~ OGG 21, 22-28
NENW Sec. 28, T4N, R65W ~ 40.289952°, -104.66890°
Weld County, Colorado

Project No.
CO20-042

Prepared by

Drawn by
TA

Date
11/2/20

Reviewed by
EB

Filename
20042T





LEGEND

●	SOIL BORING	- - - - -	EXTENT OF EXCAVATION
○	ABOVE GROUND STORAGE TANK		CONTAINMENT BERM
FORMER	FORMER FACILITY	—○—○—○—	FENCE LINE

Figure 2
SITE MAP

NOBLE ENERGY, INC. ~ OGG 21, 22-28
NENW Sec. 28, T4N, R65W ~ 40.289952°, -104.66890°
Weld County, Colorado

Project No.
CO20-042

Prepared by

Drawn by
TA

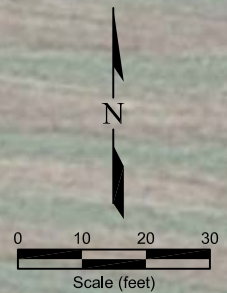
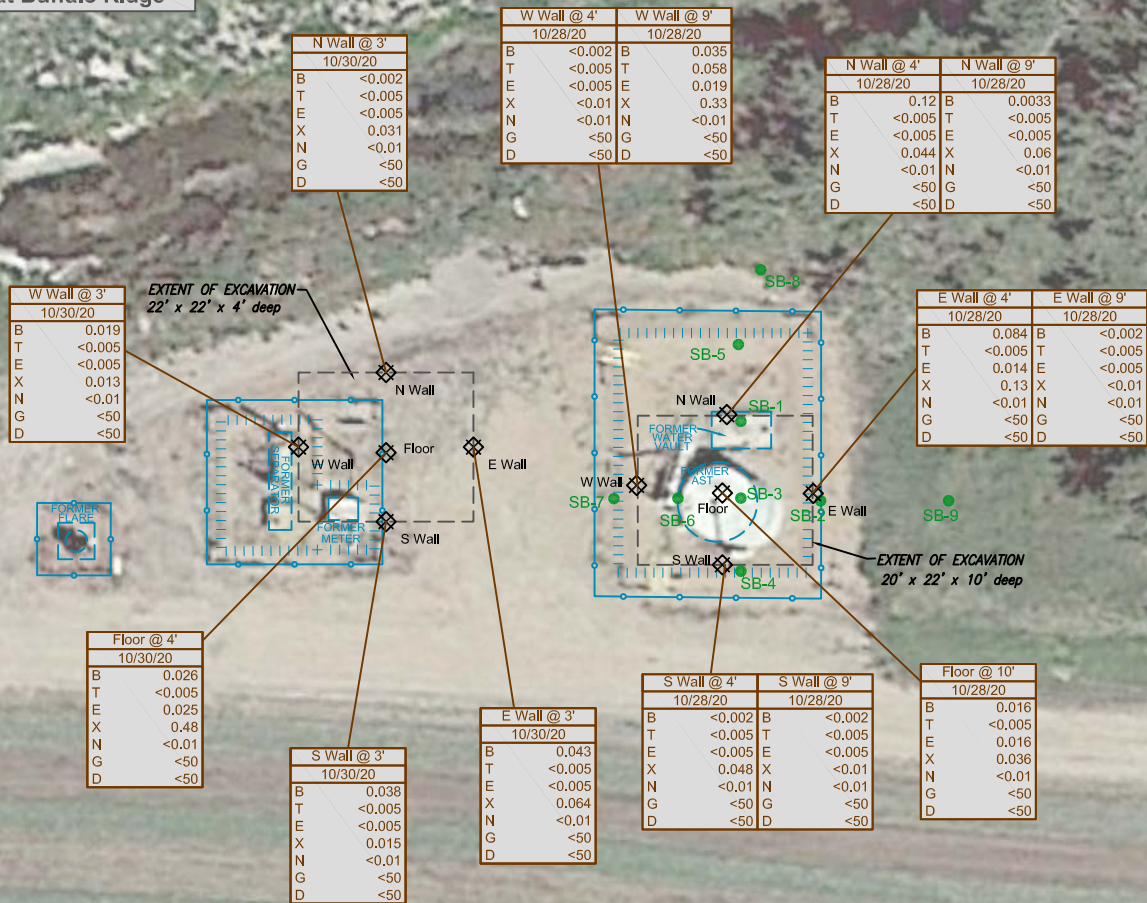
Date
11/2/20

Reviewed by
EB

Filename
20042Q



EXCAVATION TOTALS
 10/28/20 ~ 200 cubic yards
 10/29/20 ~ 60 cubic yards
 10/30/20 ~ 60 cubic yards
 Total ~ 320 cubic yards
 Disposed at Buffalo Ridge



LEGEND

- SOIL BORING
- ⊗ SOIL SAMPLE LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FORMER FACILITY
- EXTENT OF EXCAVATION
- ||||| CONTAINMENT BERM
- FENCE LINE

N Wall @ 4'	
10/28/20	
B	0.12
T	<0.005
E	<0.005
X	0.044
N	<0.01
G	<50
D	<50

SAMPLE ID and DEPTH
 DATE SAMPLED
 BENZENE (mg/kg)
 TOLUENE (mg/kg)
 ETHYLBENZENE (mg/kg)
 TOTAL XYLENES (mg/kg)
 NAPHTHALENE (mg/kg)
 TPH-GRO (mg/kg)
 TPH-DRO (mg/kg)

Figure 3
**EXTENT OF EXCAVATION
 WITH SOIL CHEMISTRY**
 October 30, 2020

NOBLE ENERGY, INC. ~ OGG 21, 22-28
 NENW Sec. 28, T4N, R65W ~ 40.289952°, -104.66890°
 Weld County, Colorado

Project No. CO20-042	Prepared by TA	Drawn by TA
Date 11/2/20	Reviewed by EB	Filename 20042Q



APPENDIX A

LABORATORY DOCUMENTATION

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 29, 2020

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Ogg 21,22-28
Work Order #2010335

Enclosed are the results of analyses for samples received by Summit Scientific on 10/28/20 17:48. 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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N WALL 4FT	2010335-01	Soil	10/28/20 00:00	10/28/20 17:48
N WALL 9FT	2010335-02	Soil	10/28/20 00:00	10/28/20 17:48
S WALL 4FT	2010335-03	Soil	10/28/20 00:00	10/28/20 17:48
S WALL 9FT	2010335-04	Soil	10/28/20 00:00	10/28/20 17:48
E WALL 4FT	2010335-05	Soil	10/28/20 00:00	10/28/20 17:48
E WALL 9FT	2010335-06	Soil	10/28/20 00:00	10/28/20 17:48
W WALL 4FT	2010335-07	Soil	10/28/20 00:00	10/28/20 17:48
W WALL 9FT	2010335-08	Soil	10/28/20 00:00	10/28/20 17:48
FLOOR 10FT	2010335-09	Soil	10/28/20 00:00	10/28/20 17:48

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

2010335

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 1

Client: Fremont Environmental

Project Manager: Paul Henehan

Address: P.O Box 1289

E-Mail: paulh@fremontenv.com, ethanb@fremontenv.com

City/State/Zip: Wellington, CO 80549

Bill to: Jacob

Phone: 303-956-8714

Project Name: Noble - Oggs 21, 22-28

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	BTEX	Naphthalene	GRO	DRO	SAR	EC	pH			
1	N WALL 4FT	10/28/20		1			X			X				X	X	X	X					
2	N WALL 9FT																					
3	S WALL 4FT																					
4	S WALL 9FT																					
5	E WALL 4FT																					
6	E WALL 9FT																					
7	W WALL 4FT																					
8	W WALL 9FT																					
9	FLOOR 10FT																					
10																						

Relinquished by: <i>Jeff Black</i>	Date/Time: 10/28/20 1600	Received by: <i>[Signature]</i>	Date/Time: 10/28/2020 1600	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 hours <input type="checkbox"/>	Notes: Please send results 1st thing in the AM. Thanks -EB
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 4.5 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2010335

Client: Fremont Environmental Client Project ID: Noble - Dgg 21, 22-28

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

Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____ (Describe)

Temp (°C) 4.5

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	
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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽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⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
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.

Custodian Printed Name or Initials 100

Signature of Custodian [Signature]

Date/Time 10/26/2020



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

N WALL 4FT
2010335-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.12	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.044	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/28/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		98.6 %	30-150		"	"	"	"	

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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

N WALL 9FT
2010335-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0033	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.060	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/28/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.6 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

S WALL 4FT
2010335-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.048	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/28/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		91.4 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

S WALL 9FT
2010335-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		98.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/28/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.5 %	30-150		"	"	"	"	

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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

E WALL 4FT
2010335-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.084	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.014	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.13	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/29/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.2 %	30-150		"	"	"	"	

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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

E WALL 9FT
2010335-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/29/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.9 %	30-150		"	"	"	"	

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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

W WALL 4FT
2010335-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/29/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		88.9 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

W WALL 9FT
2010335-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.035	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	0.058	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.019	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.33	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		91.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/29/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		90.5 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

FLOOR 10FT
2010335-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.016	0.0020	mg/kg	1	BDJ0364	10/28/20	10/28/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.016	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.036	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0365	10/28/20	10/29/20	EPA 8015M	

Date Sampled: **10/28/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		91.1 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BDJ0364 - EPA 5030 Soil MS

Blank (BDJ0364-BLK1)

Prepared & Analyzed: 10/28/20

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0347		"	0.0400		86.7	23-173			
Surrogate: Toluene-d8	0.0419		"	0.0400		105	20-170			
Surrogate: 4-Bromofluorobenzene	0.0477		"	0.0400		119	21-167			

LCS (BDJ0364-BS1)

Prepared: 10/28/20 Analyzed: 10/29/20

Benzene	0.0873	0.0020	mg/kg	0.100		87.3	70-130			
Toluene	0.0982	0.0050	"	0.100		98.2	70-130			
Ethylbenzene	0.0916	0.0050	"	0.100		91.6	70-130			
m,p-Xylene	0.217	0.010	"	0.200		109	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0365		"	0.0400		91.2	23-173			
Surrogate: Toluene-d8	0.0434		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0459		"	0.0400		115	21-167			

Matrix Spike (BDJ0364-MS1)

Source: 2010335-01

Prepared: 10/28/20 Analyzed: 10/29/20

Benzene	0.234	0.0020	mg/kg	0.100	0.120	114	70-130			
Toluene	0.101	0.0050	"	0.100	ND	101	70-130			
Ethylbenzene	0.0896	0.0050	"	0.100	0.00441	85.2	70-130			
m,p-Xylene	0.242	0.010	"	0.200	0.0443	98.6	70-130			
o-Xylene	0.0993	0.0050	"	0.100	ND	99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0344		"	0.0400		86.0	23-173			
Surrogate: Toluene-d8	0.0432		"	0.0400		108	20-170			
Surrogate: 4-Bromofluorobenzene	0.0454		"	0.0400		114	21-167			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

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 BDJ0364 - EPA 5030 Soil MS

Matrix Spike Dup (BDJ0364-MSD1)	Source: 2010335-01			Prepared: 10/28/20 Analyzed: 10/29/20							
Benzene	0.233	0.0020	mg/kg	0.100	0.120	113	70-130	0.334	30		
Toluene	0.100	0.0050	"	0.100	ND	100	70-130	0.955	30		
Ethylbenzene	0.0894	0.0050	"	0.100	0.00441	85.0	70-130	0.235	30		
m,p-Xylene	0.214	0.010	"	0.200	0.0443	85.1	70-130	11.9	30		
o-Xylene	0.0988	0.0050	"	0.100	ND	98.8	70-130	0.515	30		
Surrogate: 1,2-Dichloroethane-d4	0.0359		"	0.0400		89.8	23-173				
Surrogate: Toluene-d8	0.0434		"	0.0400		108	20-170				
Surrogate: 4-Bromofluorobenzene	0.0458		"	0.0400		115	21-167				

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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BDJ0365 - EPA 3550A

Blank (BDJ0365-BLK1)

Prepared: 10/28/20 Analyzed: 10/29/20

C10-C28 (DRO) ND 50 mg/kg

LCS (BDJ0365-BS1)

Prepared: 10/28/20 Analyzed: 10/29/20

C10-C28 (DRO) 593 50 mg/kg 500 119 70-130

Matrix Spike (BDJ0365-MS1)

Source: 2010335-01

Prepared: 10/28/20 Analyzed: 10/29/20

C10-C28 (DRO) 563 50 mg/kg 500 33.6 106 70-130

Matrix Spike Dup (BDJ0365-MSD1)

Source: 2010335-01

Prepared: 10/28/20 Analyzed: 10/29/20

C10-C28 (DRO) 568 50 mg/kg 500 33.6 107 70-130 0.921 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 - Ogg 21,22-28

Project Number: [none]
Project Manager: Paul Henchan

Reported:
10/29/20 06:17

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

November 01, 2020

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Ogg 21
Work Order #2010382

Enclosed are the results of analyses for samples received by Summit Scientific on 10/30/20 17:25. 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 For Michelle Clements
Technical Director



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N WALL 3FT	2010382-01	Soil	10/30/20 00:00	10/30/20 17:25
S WALL 3FT	2010382-02	Soil	10/30/20 00:00	10/30/20 17:25
E WALL 3FT	2010382-03	Soil	10/30/20 00:00	10/30/20 17:25
W WALL 3FT	2010382-04	Soil	10/30/20 00:00	10/30/20 17:25
FLOOR 4FT	2010382-05	Soil	10/30/20 00:00	10/30/20 17:25
FILL COMPOSITE	2010382-06	Soil	10/30/20 00:00	10/30/20 17:25

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

S₂

2010382

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 1

Client: Fremont Environmental

Project Manager: Paul Henehan

Address: P.O Box 1289

E-Mail: paulh@fremontenv.com, ethanb@fremontenv.com

City/State/Zip: Wellington, CO 80549

Bill to: JACOB

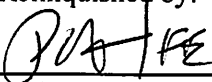
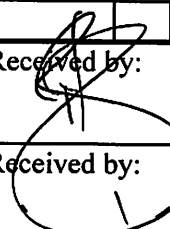
Phone: 303-956-8714

Project Name: NOBLE - OLL 21

Sampler Name: BLACIL

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	BTEX	Naphthalene	GRO	DRO	SAR	EC	pH		
1	N WALL 3 FT	10/30/20		1			✓			✓				✓	✓	✓	✓				
2	S WALL 3 FT																				
3	E WALL 3 FT																				
4	W WALL 3 FT																				
5	FLOOR 4 FT																				
6	FILL COMPOSITE																				
7																					
8																					
9																					
10																					

Relinquished by: 	Date/Time: 10/30/20 1700	Received by: 	Date/Time: 10/30/2020 1700	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Mon. AM PCR Temperature Upon Receipt: 4.5 Samples Intact: <input checked="" type="checkbox"/> Yes No	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2010382
 Client: Fremont Environmental Client Project ID: Noble - Ogg 21
 Shipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____
 Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
 (Describe)

Temp (°C) 4.5

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	
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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽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, H2SO4, NaOH, HNO3, ect	<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.

Custodian Printed Name or Initials LB

Signature of Custodian [Signature]

Date/Time 10/30/2020



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

N WALL 3FT
2010382-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDJ0391	10/30/20	10/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.031	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0392	10/30/20	10/30/20	EPA 8015M	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.9 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

S WALL 3FT
2010382-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.038	0.0020	mg/kg	1	BDJ0391	10/30/20	10/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.015	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.3 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		108 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0392	10/30/20	10/30/20	EPA 8015M	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		83.8 %	30-150		"	"	"	"	

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PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

E WALL 3FT
2010382-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	0.043	0.0020	mg/kg	1	BDJ0391	10/30/20	10/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.064	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0392	10/30/20	10/30/20	EPA 8015M	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		94.1 %	30-150		"	"	"	"	

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PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

W WALL 3FT
2010382-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	0.019	0.0020	mg/kg	1	BDJ0391	10/30/20	10/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.013	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		96.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0392	10/30/20	10/30/20	EPA 8015M	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		94.7 %	30-150		"	"	"	"	

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PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

FLOOR 4FT
2010382-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.026	0.0020	mg/kg	1	BDJ0391	10/30/20	10/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.025	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.48	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0392	10/30/20	10/30/20	EPA 8015M	

Date Sampled: **10/30/20 00:00**

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

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

FILL COMPOSITE
2010382-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BDJ0391	10/30/20	10/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Naphthalene	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		111 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BDJ0392	10/30/20	10/30/20	EPA 8015M	

Date Sampled: **10/30/20 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		95.7 %	30-150		"	"	"	"	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BDJ0391 - EPA 5030 Soil MS

Blank (BDJ0391-BLK1)

Prepared & Analyzed: 10/30/20

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
Naphthalene	ND	0.010	"							
Gasoline Range Hydrocarbons	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0356		"	0.0400		89.0	23-173			
Surrogate: Toluene-d8	0.0445		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

LCS (BDJ0391-BS1)

Prepared & Analyzed: 10/30/20

Benzene	0.0723	0.0020	mg/kg	0.100		72.3	70-130			
Toluene	0.0812	0.0050	"	0.100		81.2	70-130			
Ethylbenzene	0.0925	0.0050	"	0.100		92.5	70-130			
m,p-Xylene	0.170	0.010	"	0.200		84.8	70-130			
o-Xylene	0.0874	0.0050	"	0.100		87.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0321		"	0.0400		80.3	23-173			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

Matrix Spike (BDJ0391-MS1)

Source: 2010382-06

Prepared & Analyzed: 10/30/20

Benzene	0.0782	0.0020	mg/kg	0.100	ND	78.2	70-130			
Toluene	0.0755	0.0050	"	0.100	ND	75.5	70-130			
Ethylbenzene	0.0886	0.0050	"	0.100	ND	88.6	70-130			
m,p-Xylene	0.165	0.010	"	0.200	ND	82.4	70-130			
o-Xylene	0.0850	0.0050	"	0.100	ND	85.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0346		"	0.0400		86.6	23-173			
Surrogate: Toluene-d8	0.0401		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0385		"	0.0400		96.2	21-167			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

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 BDJ0391 - EPA 5030 Soil MS

Matrix Spike Dup (BDJ0391-MSD1)		Source: 2010382-06			Prepared: 10/30/20 Analyzed: 10/31/20					
Benzene	0.0700	0.0020	mg/kg	0.100	ND	70.0	70-130	11.0	30	
Toluene	0.0742	0.0050	"	0.100	ND	74.2	70-130	1.72	30	
Ethylbenzene	0.0885	0.0050	"	0.100	ND	88.5	70-130	0.136	30	
m,p-Xylene	0.164	0.010	"	0.200	ND	82.0	70-130	0.475	30	
o-Xylene	0.0852	0.0050	"	0.100	ND	85.2	70-130	0.176	30	
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0400		84.4	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	21-167			

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henehan

Reported:
11/01/20 15:31

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BDJ0392 - EPA 3550A

Blank (BDJ0392-BLK1)

Prepared & Analyzed: 10/30/20

C10-C28 (DRO) ND 50 mg/kg

LCS (BDJ0392-BS1)

Prepared & Analyzed: 10/30/20

C10-C28 (DRO) 555 50 mg/kg 500 111 70-130

Matrix Spike (BDJ0392-MS1)

Source: 2010325-01

Prepared & Analyzed: 10/30/20

C10-C28 (DRO) 571 50 mg/kg 500 32.6 108 70-130

Matrix Spike Dup (BDJ0392-MSD1)

Source: 2010325-01

Prepared & Analyzed: 10/30/20

C10-C28 (DRO) 617 50 mg/kg 500 32.6 117 70-130 7.76 20

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Ogg 21

Project Number: [none]
Project Manager: Paul Henchan

Reported:
11/01/20 15:31

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