

FREMONT ENVIRONMENTAL INC.

January 5, 2021

Mr. Jacob Evans
Noble Energy Inc.
2115 117th Ave,
Greeley, CO 80634

Subject: **Site Investigation Report**
 Northrup C8-73HN
 API # 05-123-34287
 NWNE Sec 8, T4N, R64W
 Weld County, Colorado
 Fremont Project No. C020-101
 Facility #478799, Remediation #16173

Dear Mr. Evans:

Enclosed please find a copy of the above referenced Site Investigation Report for the Northrup C8-73HN site in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil quality 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

SITE INVESTIGATION REPORT
NOBLE ENERGY INC.
NORTHRUP C8-73HN
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C020-101
FACILITY #478799, REMEDIATION #16173

Prepared by:

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

January 5, 2021

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SITE INVESTIGATION REPORT
NOBLE ENERGY INC.
NORTHRUP C8-73HN
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C020-101
FACILITY #478799, REMEDIATION #16173

1.0 INTRODUCTION

The purpose of this document is to present information collected during a two-day site investigation at the Northrup C8-73HN release location in Weld County, Colorado. Impacted soil was identified at the water vault location during its abandonment. Thirteen soil borings were advanced at this site on December 22 and 29, 2020 to delineate the magnitude and extent of subsurface impacts.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The Northrup C8-73HN site is located approximately 3.7 miles south of Kersey, Colorado in Weld County as shown on Figure 1. The site is located in an agricultural area approximately 0.4 miles west of the intersection of County Road 48 and County Road 53. The location is further described as the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 8, Township 4N, Range 64W.

2.2 Site History

The site's excavation area consisted of the former Northrup C8-73HN water vaults. The Northrup C8-73HN well was drilled in 2011 to a vertical depth of approximately 6,856 feet. Soil impacts were identified at the water vault location during facility abandonment.

No additional excavation was undertaken during the facility's abandonment to remove impacted soil. A total of 11 soil samples were collected from the water vault excavation

for laboratory analyses. Eight samples were collected from the excavation sidewalls and three samples from the floor. The laboratory analyses of the soil samples indicated that 10 of the 11 samples did not exceed the Colorado Oil and Gas Conservation Commission's (COGCC's) Table 910-1 standards for benzene, toluene, ethylbenzene and xylenes (BTEX) and total petroleum hydrocarbons (TPH). However, the one soil sample exceeding COGCC's Table 910-1 standard for TPH constituents of 500 mg/kg was collected in the eastern portion of the excavation floor and had a combined TPH concentration of 1,970 mg/kg. As a result, a site investigation to determine the extent of subsurface impacts was conducted.

3.0 SITE INVESTIGATION ACTIVITIES

3.1 Soil Borings

A two-day site investigation was conducted at the facility on December 22 and 29, 2020. A total of 13 soil borings were advanced utilizing a Geoprobe rig. Due to a lack of groundwater, monitoring wells were not installed and the 13 borings were subsequently backfilled. These borings were used to delineate the extent of soil impacts at the site. The locations of the soil borings are illustrated on the attached figures.

Generally, the subsurface is comprised of clay that extends to a depth of approximately nine feet. The clay is underlain by a moist, fine sand which extends to a depth of approximately 12 feet. Clay is then present to a depth of approximately 15 feet. The maximum depth of the borings was 15 feet. Groundwater was not observed at the site within the explored interval. Geologic cross sections illustrating the soil lithology are presented on Figure 4.

Soil samples from each of the borings were evaluated in the field using a photoionization detector (PID). Logs of the soil borings are presented in Appendix A.

Soil samples were collected from each of the borings and sent to Summit Scientific, Inc. in Golden, Colorado for the analyses of BTEX, naphthalene, TPH-gasoline range organics (TPH-GRO), and TPH-diesel range organics (TPH-DRO).

Soil impacts above the COGCC's Table 910-1 standards were observed in six of the 13 borings. The soil chemistry is presented on Figure 5 and summarized on Table 1. The laboratory's report is provided in Appendix B.

4.0 DISCUSSION

A two-day site investigation was conducted at the Northrup C8-73HN wellhead location in December 2020 as a result of an historical release from the former water vault. Thirteen soil boings were advanced and backfilled on site to delineate the magnitude and extent of soil impacts. No groundwater was present in the interval sampled during the site investigation.

Soil impacts above the COGCC Table 910-1 standards were observed in six of the 13 soil borings and have been delineated during the site investigation. Excavation will be conducted to remove residual subsurface soil impacts defined by the site investigation.

The data collected from the borings indicates residual soil impacts exist between six and 11 feet within the subsurface. Further, the BTEX and TPH concentrations of seven of the 13 soil borings were less than the COGCC Table 910-1 standards. Soil boring SB-7 had the highest benzene and TPH concentrations of 0.20 mg/kg and 3,700 mg/kg, respectively, at 10 feet below the ground surface. The soil data are shown on Figure 5.

Noble will excavate and backfill the impacted area measuring approximately 40' x 60' x 11' deep, as defined by the soil borings, to remove the remaining subsurface impacts. Noble will request closure of this site following analyses of the excavation sidewalls and

floor confirming the impacts have been removed and the remaining soil is compliant with the COGCC Table 910-1 standards.

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.**



Ethan D. Black
Geologist

1/5/21
Date_____

Reviewed by:



Paul V. Henehan, P.E.
Senior Consultant

1/5/21
Date_____

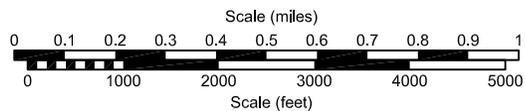
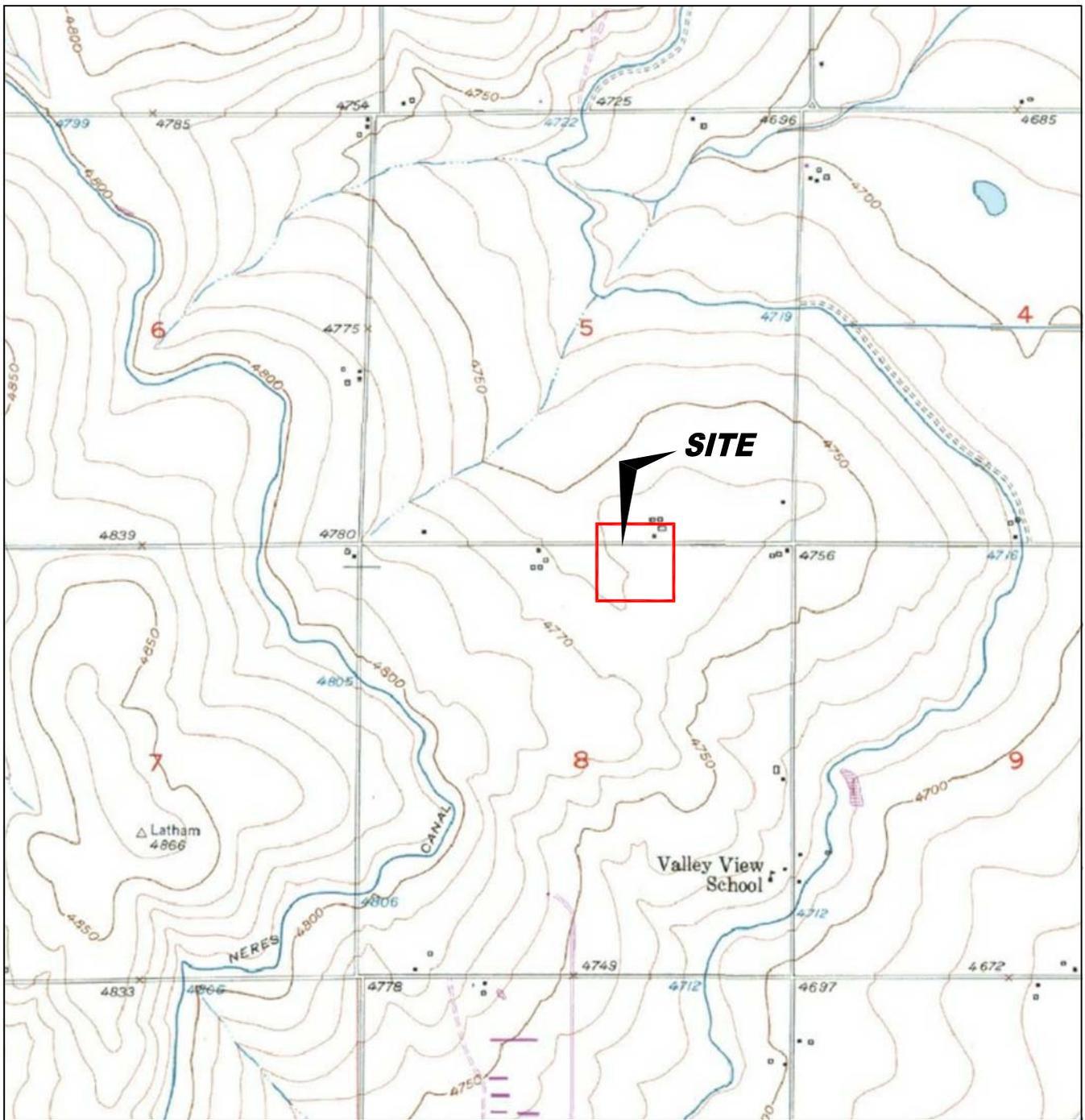
TABLE

**TABLE 1
SUMMARY OF SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
NORTHRUP C8-73HN, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C020-101**

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
SB-1 8 Ft	8	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	0.012	<50	140
SB-1 9 Ft	9	12/22/2020	Boring	0.0044	<0.005	0.049	5.1	0.044	350	920
SB-1 11 Ft	11	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-2 8 Ft	8	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-3 9 Ft	9	12/22/2020	Boring	0.010	<0.005	0.54	13	0.34	790	1100
SB-3 10 Ft	10	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-4 9 Ft	9	12/22/2020	Boring	0.0370	<0.005	0.091	0.18	0.075	460	770
SB-4 10 Ft	10	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-5 7 Ft	7	12/22/2020	Boring	0.0087	<0.005	0.10	0.015	0.28	1500	1600
SB-5 8 Ft	8	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	140
SB-6 10 Ft	10	12/22/2020	Boring	0.20	<0.005	5.1	45	0.81	1600	2100
SB-6 11 Ft	11	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-7 10 Ft	10	12/22/2020	Boring	0.0087	<0.005	0.33	1.2	0.12	570	430
SB-7 11 Ft	11	12/22/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-8 10 Ft	10	12/29/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-9 10 Ft	10	12/29/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-11 4 Ft	4	12/29/2020	Boring	0.085	0.69	0.053	0.95	0.012	<50	110
SB-11 8 Ft	8	12/29/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-12 8 Ft	8	12/29/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<50	<50
SB-13 10 Ft	10	12/29/2020	Boring	<0.002	<0.005	<0.005	<0.010	<0.010	<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. ~ Northrup C8-73HN
NWNE Sec. 8, T4N, R68W ~ 40.33379°, -104.571996°
Weld County, Colorado

Project No. CO20-101	Prepared by	Drawn by TA
Date 1/5/21	Reviewed by EB	Filename 20101T





LEGEND

- SOIL BORING
- ABOVE GROUND STORAGE TANK
- FORMER FORMER FACILITY
- CONTAINMENT BERM
- EXTENT OF EXCAVATION
- DCP FLOW LINE
- FENCE LINE

**Figure 2
SITE MAP**

Noble Energy, Inc. ~ Northrup C8-73HN
 NWNE Sec. 8, T4N, R68W ~ 40.33379°, -104.571996°
 Weld County, Colorado

Project No. CO20-101	Prepared by	Drawn by TA
Date 1/5/21	Reviewed by EB	Filename 20101QQ





LEGEND

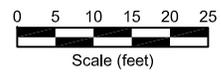
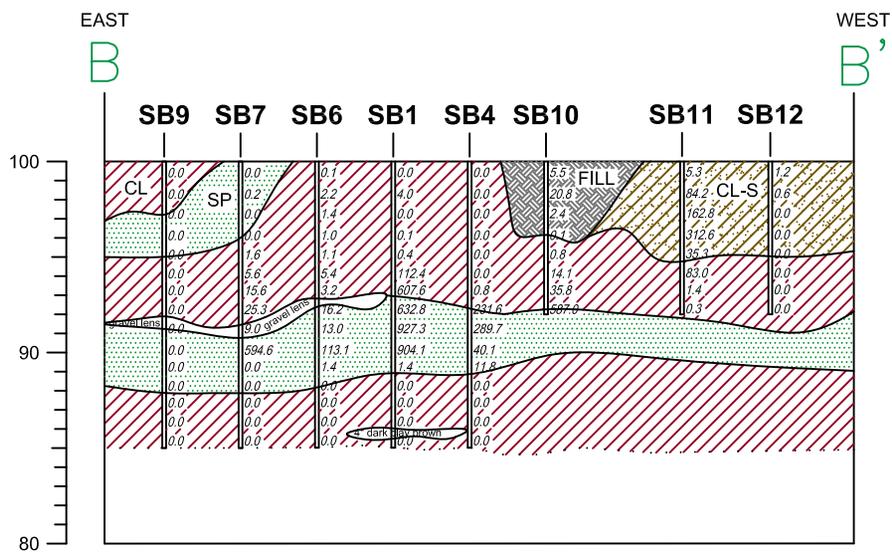
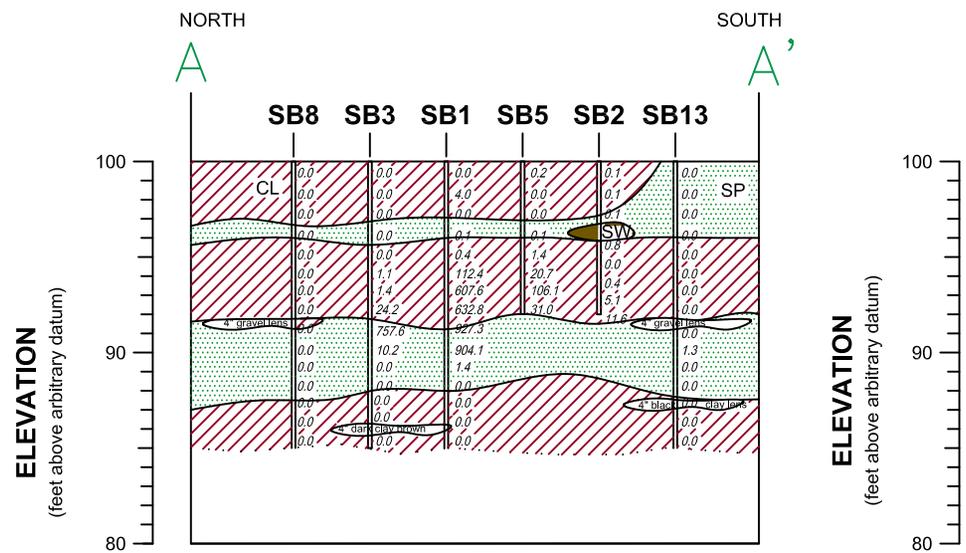
- SOIL BORING
- ABOVE GROUND STORAGE TANK
- FORMER FORMER FACILITY
- CONTAINMENT BERM
- - - - - EXTENT OF EXCAVATION
- - - - - DCP FLOW LINE
- ○ ○ ○ ○ FENCE LINE
- A-A CUT LINE FOR CROSS SECTION

**Figure 3
CROSS SECTION A-A' and B-B'**

Noble Energy, Inc. ~ Northrup C8-73HN
 NWNE Sec. 8, T4N, R68W ~ 40.33379°, -104.571996°
 Weld County, Colorado

Project No. CO20-101	Prepared by	Drawn by TA
Date 1/5/21	Reviewed by EB	Filename 20101QQ





LEGEND

CH	Clay, high plasticity	SW	Sand, well-graded	FILL	FILL
CL	Clay, low plasticity	SP	Sand, poorly-graded	Asphalt	Asphalt
MH	Silt, high plasticity	CL-S	Sand, clayey	Concrete	Concrete
ML	Silt, low plasticity	SM	Sand silty	Basin fill	Basin fill
CH-MH	Clay, silty high plasticity	GW	Gravel, well-graded	Claystone	Claystone
CL-ML	Clay, silty, low plasticity	GP	Gravel, poorly-graded	Siltstone	Siltstone
MH-CH	Silt, clayey high plasticity	GC	Gravel, clayey	Shale	Shale
ML-CL	Silt, clayey low plasticity	GM	Gravel, silty	Sandstone	Sandstone

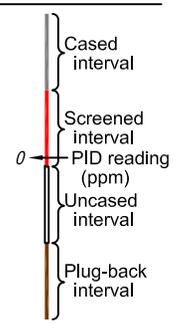


Figure 4
CROSS SECTION A-A' and B-B'

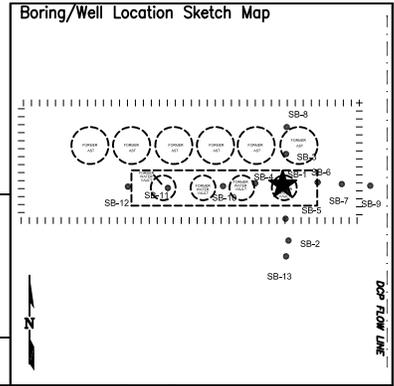
Noble Energy, Inc. ~ Northrup C8-73HN
NWNE Sec. 8, T4N, R68W ~ 40.33379°, -104.571996°
Weld County, Colorado

Project No. CO20-101	Prepared by	Drawn by TA	
Date 1/5/21	Reviewed by EB	Filename 20101X	

APPENDIX A
BORING LOGS



BORING/WELL CONSTRUCTION LOG



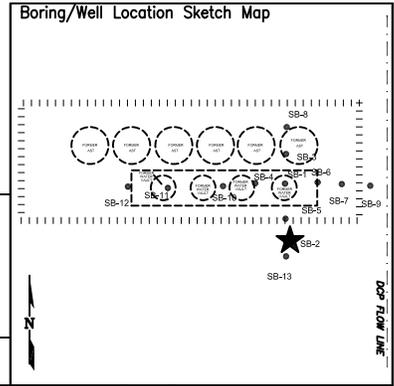
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Boring/Well No. SB-1		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		CL	Clay: brown to dark brown, non-plastic, slightly moist, some interspersed sand and gravel				0.0
			4.0				
			0.0				
			0.1				
			0.4				
10		SP	- slightly increase plasticity, color change to gray, mottled, oxidized				112.4
			607.6				
			632.8				
			927.3				
			904.1				
15		CL	Clay: tan to rust, non-plastic, slightly moist				1.4
			0.0				
			0.0				
			0.0				
			0.0				
20			4" (OL) clay layer dark brown				0.0
			- TD 15'				0.0



BORING/WELL CONSTRUCTION LOG



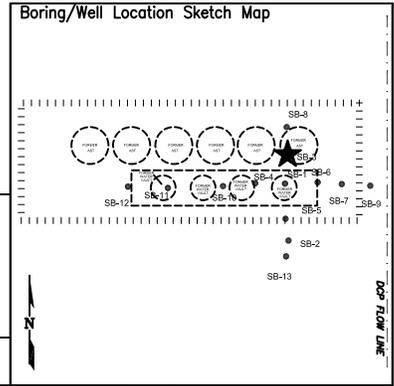
Page 1 of 1

Boring/Well No. SB-2		Total Depth 8'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado			
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN			Approved By			
Drilling Contractor/Driller Eagle Environmental			Geologist/Office Ethan Black/Fremont Environmental, Inc.			
Drilling Equipment/Method Geoprobe			Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)	
				GRAPHIC LOG	VISUAL DESCRIPTION					
5				CL	Clay: brown, slightly plastic				0.1	
				SW	Sand: brown, fine, slightly moist				0.1	
				CL	Clay: beige, slightly plastic, slightly moist			0.8		
				CL	- mottled			0.0		
				CL	- oxidized, chert shards, transitioning to black Hit refusal @ 8' TD 8'			0.4		
10									5.1	
										11.6
15										
20										



BORING/WELL CONSTRUCTION LOG



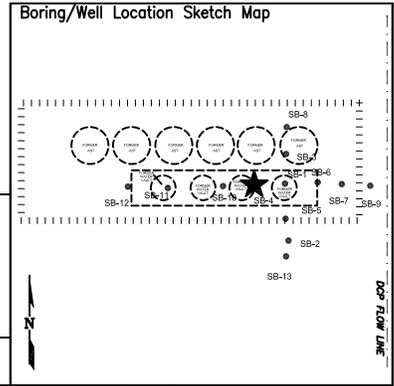
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Boring/Well No. SB-3		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado			
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental				
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By				
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20		
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type . Mtrl. . Length . Dia. . Slot Size .			
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		CL	Clay: brown, slightly plastic, moist, interspersed gravel				0.0
		SP	Sand: brown, fine to medium, slightly moist gravel				0.0
		CL	Clay: brown with gray inclusions, slightly plastic, moist				0.0
		CL					1.1
		CL					1.4
10		CL					24.2
		SP	Sand: gray to tan, very fine, moist to very moist				757.6
		SP					10.2
15		CL	Clay: tan to rust, non-plastic, slightly moist				0.0
		CL	4" (OL) clay layer dark brown				0.0
		CL	TD 15'				0.0
20							



BORING/WELL CONSTRUCTION LOG



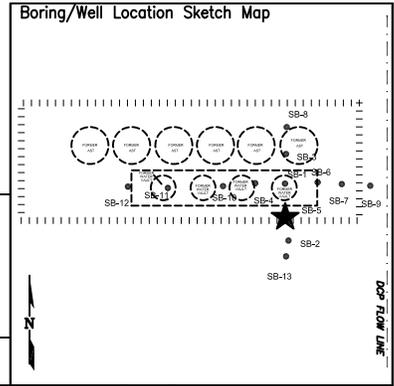
Page 1 of 1

Boring/Well No. SB-4		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		CL	Clay: brown, slightly plastic, moist, interspersed gravels				0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.8
					- transitioning to gray		231.6
							289.7
10		SP	Sand: gray to tan, very fine, moist to very moist				40.1
							11.8
							0.0
15		CL	Clay: tan, non-plastic, slightly moist, oxidized inclusions				0.0
							0.0
							0.0
							0.0
							0.0
20			TD 15'				0.0



BORING/WELL CONSTRUCTION LOG



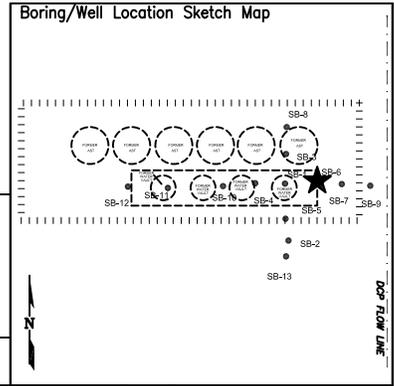
Page 1 of 1

Boring/Well No. SB-5		Total Depth 8'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5	[Empty well construction column]	CL	Clay: brown, non-plastic, slightly moist, interspersed gravels				0.2
		SP	Sand: brown, fine to medium, slightly moist				0.0
		CL	Clay: dark brown, non-plastic, moist,				0.1
		CL	- chert shards, transitioning to black Hit refusal @ 8' TD 8'				1.4
		CL					20.7
10	[Empty well construction column]						106.1
							31.0
15	[Empty well construction column]						
20	[Empty well construction column]						



BORING/WELL CONSTRUCTION LOG



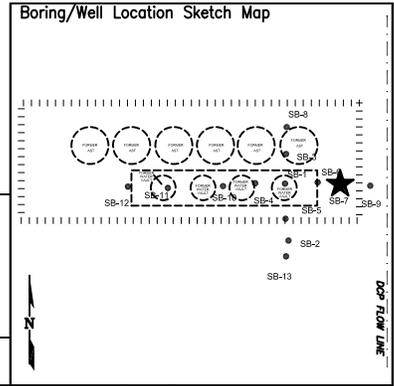
Page 1 of 1

Boring/Well No. SB-6		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		CL	Clay: brown, non-plastic, slightly moist				0.1
							2.2
							1.4
							1.0
							1.1
10						5.4	
						3.2	
		SP	- gravel lens 5" Sand: gray and black to tan, moist to very moist, very fine			16.2	
						13.0	
						113.1	
15		CL	Clay: tan, non-plastic, slightly moist			1.4	
						0.0	
						0.0	
						0.0	
						0.0	
20			TD 15'			0.0	



BORING/WELL CONSTRUCTION LOG



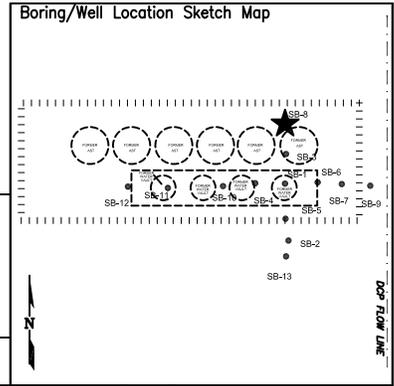
Page 1 of 1

Boring/Well No. SB-7		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/22/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		SP	Clay: tan, very fine, slightly moist				0.0 0.2 0.0 0.0 1.6
		CL	Clay: brown, slightly plastic, moist				5.6 15.6 25.3 9.0
		SP	Sand: gray to tan, very fine, moist very fine				594.6
		SP	- gravel lens 5"				0.0 0.0 0.0 0.0
		CL	Clay:				0.0
15			Clay: - TD 15'				0.0
20							



BORING/WELL CONSTRUCTION LOG



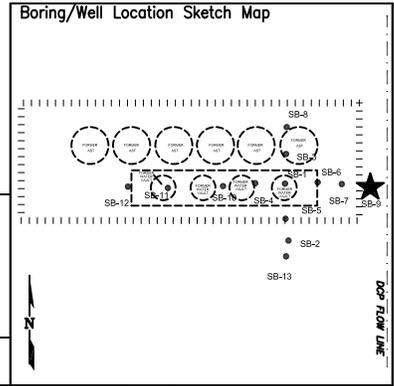
Page 1 of 1

Boring/Well No. SB-8		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN			Approved By				
Drilling Contractor/Driller Eagle Environmental			Geologist/Office Ethan Black/Fremont Environmental, Inc.				
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/29/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
				GRAPHIC LOG	VISUAL DESCRIPTION				
5				CL	Clay: dark brown, slightly plastic, slightly moist				0.0
				SP	Sand: brown, fine to very fine sand, moist				0.0
				CL	Clay: light brown, slightly plastic, slightly moist, oxidized, mottled				0.0
				CL					0.0
				CL					0.0
				CL					0.0
				CL					0.0
				CL					0.0
				CL					0.0
				CL					0.0
10				SP	Sand: black to light gray, fine, slightly moist				0.0
				SP	- increasing fines				0.0
15				CL	Clay: tan, non-plastic, slightly moist				0.0
				CL	- TD 15'				0.0
20				CL					0.0
				CL					0.0



BORING/WELL CONSTRUCTION LOG



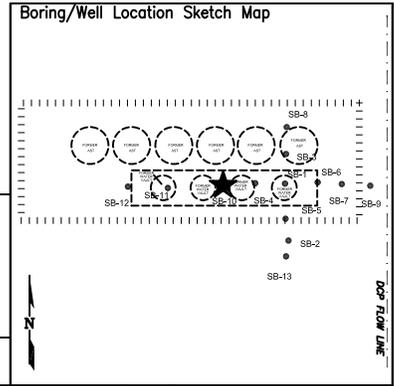
Page 1 of 1

Boring/Well No. SB-9		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/29/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		CL	Clay: dark brown, slightly plastic, slightly moist				0.0
		SP	Sand: brown				0.0
		CL	Clay: beige, non-plastic, slightly moist, oxidized throughout, some mottling with depth				0.0
			- claystone and chert fragments				0.0
			- gravel lens 4"				0.0
10		SP	Sand: tan, fine, moist to very moist				0.0
			- increasing fines				0.0
		CL	Clay: black, non-plastic, moist				0.0
15		CL	Clay: beige, non-plastic, moist				0.0
			- TD 15'				0.0
20							0.0



BORING/WELL CONSTRUCTION LOG



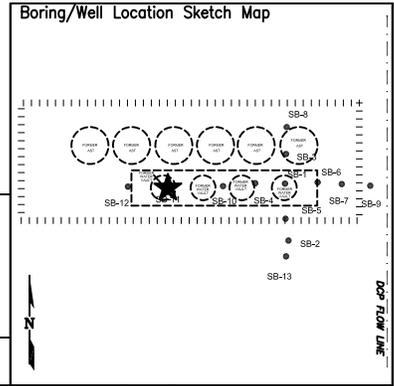
Page 1 of 1

Boring/Well No. SB-10		Total Depth 8'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/29/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		SC	Fill dirt: mix of sand Clayey - sand and gravel				5.5 20.8 2.4 0.1 0.8
		CL	Clay: beige and gray, non-plastic, slightly moist				14.1 35.8
10			Hit refusal @ 8' TD 8'				587.0
15							
20							



BORING/WELL CONSTRUCTION LOG



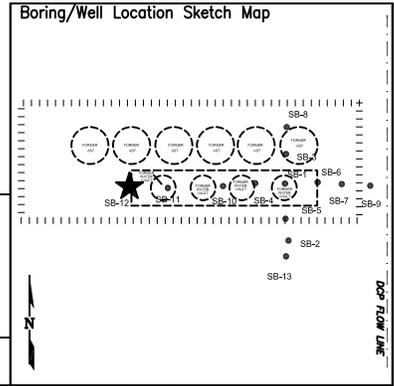
Page 1 of 1

Boring/Well No. SB-11		Total Depth 8'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado			
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental				
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By				
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/29/20		
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type . Mtrl. . Length . Dia. . Slot Size .			
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5	[Empty well construction box]	CS	Fill dirt: mix of brown sand Sandy clay and gravel				5.3
			- transitioning color to gray				84.2
							162.8
							312.6
							35.3
10	[Empty well construction box]	CL	Clay: beige and gray, non-plastic, slightly moist				83.0
			Hit refusal @ 8' TD 8'				1.4
							0.3
15	[Empty well construction box]						
20	[Empty well construction box]						



BORING/WELL CONSTRUCTION LOG



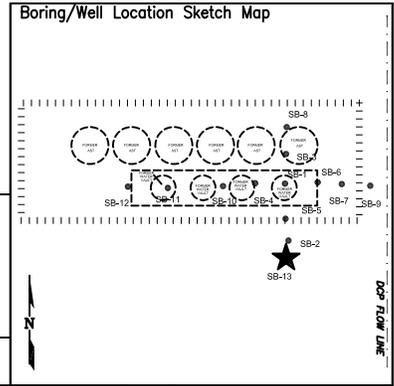
Page 1 of 1

Boring/Well No. SB-12		Total Depth 8'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN			Drilling Contractor/Driller Eagle Environmental				
Geologist/Office Ethan Black/Fremont Environmental, Inc.			Approved By				
Drilling Equipment/Method Geoprobe			Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/29/20		
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION	LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
		GRAPHIC LOG	VISUAL DESCRIPTION				
5		CS	Fill dirt: mix of brown sand Sandy clay and gravel				1.2 0.6 0.0 0.0 0.0
10		CL	Clay: beige and brown, non-plastic, slightly moist				0.0 0.0 0.0
15			Hit refusal @ 8' TD 8'				0.0
20							



BORING/WELL CONSTRUCTION LOG



Page 1 of 1

Boring/Well No. SB-13		Total Depth 15'	Location Noble Energy, Inc. Northrup C8-73HN NW NE Sec 8, T4N, R68W Weld County, Colorado				
Project No./Name C020-101/Noble Energy, Inc. ~ Northrup C8-723HN		Drilling Contractor/Driller Eagle Environmental					
Geologist/Office Ethan Black/Fremont Environmental, Inc.		Approved By					
Drilling Equipment/Method Geoprobe		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 12/29/20			
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length	Dia.	Slot Size
Elevation of: (ft. above datum)		Ground Surface	Top of Well Casing	Top of Screen	Bottom of Screen	Ground Water Surface/Date Measured	

DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
				GRAPHIC LOG	VISUAL DESCRIPTION				
5				SP	Sand: brown, fine to very fine, dry				0.0
				CL	Clay: beige, non-plastic, dry				0.0
				CL				0.0	
				SP	- gravel lens 4" Sand:			0.0	
				CL	Clay: tan and brown, non-plastic, moist - 4" black clay (OL) lens			0.0	
10				SP				1.3	
15				CL				0.0	
				CL				0.0	
				CL				0.0	
20								0.0	

APPENDIX B

LABORATORY DOCUMENTATION

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 23, 2020

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Northrup C8-73HN

Work Order #2012248

Enclosed are the results of analyses for samples received by Summit Scientific on 12/22/20 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/23/20 15:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 8FT	2012248-01	Soil	12/22/20 00:00	12/22/20 17:15
SB-1 9FT	2012248-02	Soil	12/22/20 00:00	12/22/20 17:15
SB-1 11FT	2012248-03	Soil	12/22/20 00:00	12/22/20 17:15
SB-2 8FT	2012248-04	Soil	12/22/20 00:00	12/22/20 17:15
SB-3 9FT	2012248-05	Soil	12/22/20 00:00	12/22/20 17:15
SB-3 10FT	2012248-06	Soil	12/22/20 00:00	12/22/20 17:15
SB-4 9FT	2012248-07	Soil	12/22/20 00:00	12/22/20 17:15
SB-4 10FT	2012248-08	Soil	12/22/20 00:00	12/22/20 17:15
SB-5 7FT	2012248-09	Soil	12/22/20 00:00	12/22/20 17:15
SB-5 8FT	2012248-10	Soil	12/22/20 00:00	12/22/20 17:15
SB-6 10FT	2012248-11	Soil	12/22/20 00:00	12/22/20 17:15
SB-6 11FT	2012248-12	Soil	12/22/20 00:00	12/22/20 17:15
SB-7 10FT	2012248-13	Soil	12/22/20 00:00	12/22/20 17:15
SB-7 11FT	2012248-14	Soil	12/22/20 00:00	12/22/20 17:15

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

2012248

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310 ♦ 303-374-5933 (f)

Page 1 of 2

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: Noble - Northrup CS - 734N Jacob

Phone: 303-956-8714

Project Name: Noble - Northrup CS - 734N

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	SB-1 8FT	12/22/20		1			X			X				X	X	X	X				
2	SB-1 9FT																				
3	SB-1 11FT																				
4	SB-2 8FT																				
5	SB-3 9FT																				
6	SB-3 10FT																				
7	SB-4 9FT																				
8	SB-4 10FT																				
9	SB-5 7FT																				
10	SB-5 8FT																				

Relinquished by: <i>Ethan Black</i>	Date/Time: <i>12:15</i>	Received by: <i>[Signature]</i>	Date/Time: <i>12-22-20 17:15</i>	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <i>3.8</i> Samples Intact: <input checked="" type="radio"/> Yes No	Notes: Send as soon as results are available. Thanks, EB
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Summit Scientific 2012248

S₂

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

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-Northrup CS-73HN

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	SB-6 10 FT	12/22/20		1			X			X				X	X	X	X						
2	SB-6 11 FT	I		I						I				I	I	I	I						
3	SB-7 10 FT																						
4	SB-7 11 FT																						
5																							
6																							
7																							
8																							
9																							
10																							
Relinquished by: <i>Ethan Black</i>		Date/Time: 12/22/20	Received by: <i>[Signature]</i>		Date/Time: 12-22-20 17:15	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"/> Sample Integrity: Temperature Upon Receipt: 3.8 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No							Notes: Send results as soon as available. Thanks, EB								
Relinquished by:		Date/Time:	Received by:		Date/Time:																		
Relinquished by:		Date/Time:	Received by:		Date/Time:																		

Sample Receipt Checklist

S2 Work Order 2012248

Client: FREMONT ENV. Client Project ID: NOBLE-NORTHROP C8-73HN

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

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

Temp (°C)	<u>3.8</u>
-----------	------------

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"/>	<u>SAME DAY TAT</u>
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.

Muri P.
Custodian Printed Name or Initials


Signature of Custodian

12-22-20
Date/Time



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-1 8FT
2012248-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BDL0280	12/22/20	12/22/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Naphthalene	0.012	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50		"	"	"	"	"	"	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		121 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		93.3 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	140	50		mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		128 %		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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-1 9FT
2012248-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0044	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.049	0.0050	"	"	"	"	"	"	
Xylenes (total)	5.1	0.10	"	10	"	"	"	"	
Naphthalene	0.044	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	350	50	"	10	"	"	"	"	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.2 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		76.1 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		148 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	920	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: o-Terphenyl</i>		126 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-1 11FT
2012248-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		147 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		133 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-2 8FT
2012248-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		137 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		120 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-3 9FT
2012248-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.010	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.54	0.0050	"	"	"	"	"	"	
Xylenes (total)	13	0.10	"	10	"	"	12/22/20	"	
Naphthalene	0.34	0.010	"	1	"	"	12/22/20	"	
Gasoline Range Hydrocarbons	790	50	"	10	"	"	12/22/20	"	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		171 %	23-173	"	"	"	12/22/20	"	
Surrogate: Toluene-d8		126 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		176 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1100	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		151 %	30-150	"	"	"	"	"	S-02

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-3 10FT
2012248-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		139 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		145 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-4 9FT
2012248-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.037	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.091	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.18	0.010	"	"	"	"	"	"	
Naphthalene	0.075	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	460	50	"	10	"	"	12/22/20	"	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173	"	"	"	12/22/20	"	
Surrogate: Toluene-d8		114 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		146 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	770	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		144 %	30-150	"	"	"	"	"	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-4 10FT
2012248-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		130 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		136 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-5 7FT
2012248-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0087	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.10	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.015	0.010	"	"	"	"	"	"	
Naphthalene	0.28	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1500	50	"	10	"	"	"	"	E

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173	"	"	"	"	"	
Surrogate: Toluene-d8		125 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		288 %	21-167	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	1600	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		159 %	30-150	"	"	"	"	"	S-02

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-5 8FT
2012248-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		113 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		149 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	140	50	mg/kg	1	BDL0281	12/22/20	12/22/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		148 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-6 10FT
2012248-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.20	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	5.1	0.050	"	10	"	"	12/22/20	"	
Xylenes (total)	45	0.10	"	"	"	"	12/22/20	"	E
Naphthalene	0.81	0.010	"	1	"	"	"	"	
Gasoline Range Hydrocarbons	1600	50	"	10	"	"	12/22/20	"	E

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	12/22/20	"	
Surrogate: Toluene-d8		127 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		317 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	2100	50	mg/kg	1	BDL0281	12/22/20	12/23/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		151 %	30-150		"	"	"	"	S-02

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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-6 11FT
2012248-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		132 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0281	12/22/20	12/23/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.2 %	30-150		"	"	"	"	

Summit Scientific

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Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-7 10FT
2012248-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0087	0.0020	mg/kg	1	BDL0280	12/22/20	12/23/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.33	0.0050	"	"	"	"	"	"	
Xylenes (total)	1.2	0.010	"	"	"	"	"	"	
Naphthalene	0.12	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	570	50	"	10	"	"	12/22/20	"	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		129 %	23-173	"	"	"	12/23/20	"	
Surrogate: Toluene-d8		115 %	20-170	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		135 %	21-167	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	430	50	mg/kg	1	BDL0281	12/22/20	12/23/20	EPA 8015M	

Date Sampled: **12/22/20 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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

SB-7 11FT
2012248-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BDL0280	12/22/20	12/22/20	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: **12/22/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		136 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0281	12/22/20	12/23/20	EPA 8015M	

Date Sampled: **12/22/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		109 %	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 - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/23/20 15:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BDL0280 - EPA 5030 Soil MS

Blank (BDL0280-BLK1)

Prepared: 12/22/20 Analyzed: 12/23/20

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	0.0402		"	0.0400		100	23-173			
Surrogate: Toluene-d8	0.0441		"	0.0400		110	20-170			
Surrogate: 4-Bromofluorobenzene	0.0427		"	0.0400		107	21-167			

LCS (BDL0280-BS1)

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.160	0.0020	mg/kg	0.150		107	70-130			
Toluene	0.156	0.0050	"	0.150		104	70-130			
Ethylbenzene	0.163	0.0050	"	0.150		109	70-130			
m,p-Xylene	0.312	0.010	"	0.300		104	70-130			
o-Xylene	0.148	0.0050	"	0.150		98.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0665		"	0.0400		166	23-173			
Surrogate: Toluene-d8	0.0443		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0418		"	0.0400		104	21-167			

Matrix Spike (BDL0280-MS1)

Source: 2012248-01

Prepared: 12/22/20 Analyzed: 12/23/20

Benzene	0.158	0.0020	mg/kg	0.150	ND	105	70-130			
Toluene	0.153	0.0050	"	0.150	ND	102	70-130			
Ethylbenzene	0.158	0.0050	"	0.150	ND	105	70-130			
m,p-Xylene	0.307	0.010	"	0.300	ND	102	70-130			
o-Xylene	0.145	0.0050	"	0.150	ND	96.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0730		"	0.0400		182	23-173			S-02
Surrogate: Toluene-d8	0.0453		"	0.0400		113	20-170			
Surrogate: 4-Bromofluorobenzene	0.0484		"	0.0400		121	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BDL0280 - EPA 5030 Soil MS

Matrix Spike Dup (BDL0280-MSD1)	Source: 2012248-01			Prepared: 12/22/20 Analyzed: 12/23/20						
Benzene	0.165	0.0020	mg/kg	0.150	ND	110	70-130	4.30	30	
Toluene	0.160	0.0050	"	0.150	ND	106	70-130	4.28	30	
Ethylbenzene	0.157	0.0050	"	0.150	ND	105	70-130	0.324	30	
m,p-Xylene	0.306	0.010	"	0.300	ND	102	70-130	0.519	30	
o-Xylene	0.147	0.0050	"	0.150	ND	98.2	70-130	1.29	30	
Surrogate: 1,2-Dichloroethane-d4	0.0725		"	0.0400		181	23-173			S-02
Surrogate: Toluene-d8	0.0457		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0461		"	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/23/20 15:02

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 BDL0281 - EPA 3550A

Blank (BDL0281-BLK1)

Prepared: 12/22/20 Analyzed: 12/23/20

C10-C28 (DRO) ND 50 mg/kg

LCS (BDL0281-BS1)

Prepared: 12/22/20 Analyzed: 12/23/20

C10-C28 (DRO) 468 50 mg/kg 500 93.6 70-130

Matrix Spike (BDL0281-MS1)

Source: 2012248-01

Prepared: 12/22/20 Analyzed: 12/23/20

C10-C28 (DRO) 425 50 mg/kg 500 138 57.4 70-130 QM-07

Matrix Spike Dup (BDL0281-MSD1)

Source: 2012248-01

Prepared: 12/22/20 Analyzed: 12/23/20

C10-C28 (DRO) 581 50 mg/kg 500 138 88.7 70-130 31.1 20 QM-07

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 - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/23/20 15:02

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.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 30, 2020

Paul Henchan
Fremont Environmental
PO Box 1289
Wellington, CO 80549

RE: Noble - Northrup C8-73HN

Work Order #2012303

Enclosed are the results of analyses for samples received by Summit Scientific on 12/29/20 15:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/30/20 11:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-8 10FT	2012303-01	Soil	12/29/20 00:00	12/29/20 15:15
SB-9 10FT	2012303-02	Soil	12/29/20 00:00	12/29/20 15:15
SB-11 4FT	2012303-03	Soil	12/29/20 00:00	12/29/20 15:15
SB-11 8FT	2012303-04	Soil	12/29/20 00:00	12/29/20 15:15
SB-12 8FT	2012303-05	Soil	12/29/20 00:00	12/29/20 15:15
SB-13 10FT	2012303-06	Soil	12/29/20 00:00	12/29/20 15:15

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 2012303

S₂

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

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 - Northrup C8-73HN

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	SB-8 10FT	12/29/20		1			X			X				X	X	X	X					
2	SB-9 10FT																					
3	SB-11 4FT																					
4	SB-11 8FT																					
5	SB-12 8FT																					
6	SB-13 10FT																					
7																						
8																						
9																						
10																						

Relinquished by: <i>Ethan Black</i>	Date/Time: 12/29/20 15:15	Received by: <i>[Signature]</i>	Date/Time: 12-29-20 15:15	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: 4.6 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2012303

Client: Fremont Environmental Client Project ID: Noble - Northrup C8- 73HN

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

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

Temp (°C)	4.6
-----------	-----

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"/>	On Ice
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"/>	Same Day TAT
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.				

MP
Custodian Printed Name or Initials

Muri Premer
Signature of Custodian

12/29/20
Date/Time



Fremont Environmental
 PO Box 1289
 Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

SB-8 10FT
2012303-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BDL0340	12/29/20	12/29/20	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: **12/29/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0333	12/29/20	12/29/20	EPA 8015M	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		120 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

SB-9 10FT
2012303-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0340	12/29/20	12/29/20	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: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0333	12/29/20	12/29/20	EPA 8015M	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		121 %	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 - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/30/20 11:42

SB-11 4FT
2012303-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.085	0.0020	mg/kg	1	BDL0340	12/29/20	12/29/20	EPA 8260B	
Toluene	0.69	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.053	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.95	0.010	"	"	"	"	"	"	
Naphthalene	0.012	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	50	"	"	"	"	"	"	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	BDL0333	12/29/20	12/29/20	EPA 8015M	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		124 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

SB-11 8FT
2012303-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0340	12/29/20	12/29/20	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: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0333	12/29/20	12/29/20	EPA 8015M	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		126 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

SB-12 8FT
2012303-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0340	12/29/20	12/29/20	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: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0333	12/29/20	12/29/20	EPA 8015M	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		123 %	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

SB-13 10FT
2012303-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BDL0340	12/29/20	12/29/20	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: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BDL0333	12/29/20	12/29/20	EPA 8015M	

Date Sampled: **12/29/20 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		128 %	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 - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/30/20 11:42

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BDL0340 - EPA 5030 Soil MS

Blank (BDL0340-BLK1)

Prepared & Analyzed: 12/29/20

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	0.0392		"	0.0400		98.1	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0400		94.6	21-167			

LCS (BDL0340-BS1)

Prepared & Analyzed: 12/29/20

Benzene	0.110	0.0020	mg/kg	0.100		110	70-130			
Toluene	0.107	0.0050	"	0.100		107	70-130			
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130			
m,p-Xylene	0.216	0.010	"	0.200		108	70-130			
o-Xylene	0.105	0.0050	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0423		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0409		"	0.0400		102	21-167			

Matrix Spike (BDL0340-MS1)

Source: 2012303-01

Prepared & Analyzed: 12/29/20

Benzene	0.108	0.0020	mg/kg	0.100	ND	108	70-130			
Toluene	0.107	0.0050	"	0.100	ND	107	70-130			
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130			
m,p-Xylene	0.221	0.010	"	0.200	ND	110	70-130			
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0431		"	0.0400		108	23-173			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100	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 - Northrup C8-73HN

Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BDL0340 - EPA 5030 Soil MS

Matrix Spike Dup (BDL0340-MSD1)	Source: 2012303-01			Prepared & Analyzed: 12/29/20						
Benzene	0.107	0.0020	mg/kg	0.100	ND	107	70-130	1.45	30	
Toluene	0.106	0.0050	"	0.100	ND	106	70-130	0.310	30	
Ethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	1.09	30	
m,p-Xylene	0.220	0.010	"	0.200	ND	110	70-130	0.381	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	0.866	30	
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	21-167			

Summit Scientific

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Project Number: [none]
 Project Manager: Paul Henchan

Reported:
 12/30/20 11:42

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 BDL0333 - EPA 3550A

Blank (BDL0333-BLK1)

Prepared & Analyzed: 12/29/20

C10-C28 (DRO) ND 50 mg/kg

LCS (BDL0333-BS1)

Prepared & Analyzed: 12/29/20

C10-C28 (DRO) 499 50 mg/kg 500 99.7 70-130

Matrix Spike (BDL0333-MS1)

Source: 2012253-01

Prepared & Analyzed: 12/29/20

C10-C28 (DRO) 495 50 mg/kg 500 13.9 96.3 70-130

Matrix Spike Dup (BDL0333-MSD1)

Source: 2012253-01

Prepared & Analyzed: 12/29/20

C10-C28 (DRO) 482 50 mg/kg 500 13.9 93.7 70-130 2.72 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Northrup C8-73HN

Project Number: [none]
Project Manager: Paul Henchan

Reported:
12/30/20 11:42

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