

# **FREMONT ENVIRONMENTAL INC.**

June 1, 2022

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

Subject:     **Site Investigation Report**  
Wardlaw 20-28, 16-28, Webster 15-28  
API # 05-123-22511  
SWSE Sec 28, T6N, R64W  
Weld County, Colorado  
Fremont Project No. C022-029  
Location #450476, Remediation # 20876

Dear Mr. Peterson:

Enclosed please find a copy of the above referenced Site Investigation Report for the Wardlaw 20-28, 16-28, Webster 15-28 (Wardlaw) site in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil and water 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. Henahan, P.E.  
Senior Consultant

Enclosure

**SITE INVESTIGATION REPORT**

**NOBLE ENERGY INC.**

**WARDLAW 20-28, 16-28, WEBSTER 15-28**

**WELD COUNTY, COLORADO**

**FREMONT PROJECT NO. C022-026**

**LOCATION #450476, REMEDIATION #20876**

**Prepared by:**

**Fremont Environmental Inc.**

**1759 Redwing Lane  
Broomfield, CO 80020  
(303) 956-8714**

**June 1, 2022**

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**SITE INVESTIGATION REPORT**  
**NOBLE ENERGY INC.**  
**WARDLAW 20-28, 16-28, WEBSTER 15-28**  
**WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C022-026**  
**LOCATION #450476, REMEDIATION #20876**

**1.0 INTRODUCTION**

The purpose of this document is to present soil and groundwater quality data collected during a site investigation at the Wardlaw tank battery site in Weld County, Colorado. Impacted soil and groundwater were identified at the former facility during abandonment activities. Prior to the project's transition to Fremont Environmental, Inc. (Fremont), Eagle Environmental Consulting, Inc. (Eagle) advanced 14 soil borings at the former Wardlaw facility on February 17, 2022. Soil impacts exceeding the COGCC Table 915-1 concentration standards necessitated further delineation of the magnitude and extent of these subsurface impacts within the vadose and saturated zones. The multi-day site investigation was continued by Fremont between March 29, 2022 and March 31, 2022.

**2.0 BACKGROUND INFORMATION**

**2.1 Site Location**

The Wardlaw site is located approximately four miles north of Kersey, Colorado in Weld County as shown on Figure 1. The site is located in a rural and agricultural area approximately 0.5 miles east of the intersection of County Road 64 and County Road 53. The location is further described as the SW  $\frac{1}{4}$  of the SE  $\frac{1}{4}$  of Section 28, Township 6N, Range 64W.

## **2.2 Site History**

The site consists of the former tank battery for the Wardlaw and Webster natural gas wells. The Wardlaw 20-28 well was drilled in 2005 to a depth of approximately 6,691 feet. Soil impacts were identified at the former tank battery location following the facility's abandonment. As a result, a site investigation was undertaken to determine the magnitude and extent of impacts at the former Wardlaw tank battery location.

## **3.0 SITE INVESTIGATION ACTIVITIES**

### **3.1 Soil Borings/Monitoring Wells**

As noted above, 14 soil borings were advanced by Eagle at the former Wardlaw facility prior to the transfer of site investigation responsibilities to Fremont. Impacts exceeding the COGCC Table 915-1 soil standards were observed in five of the 14 borings advanced by Eagle prompting Fremont to advance 13 additional borings to gain further definition of soil impacts within the unsaturated and saturated zones at the former tank battery. During the site investigation conducted between February 2022 and March 2022, a total of 27 soil borings were advanced with nine of the borings completed as monitoring wells. The borings and wells illustrated on Figure 2 were used to determine the magnitude and extent of soil and groundwater impacts at the site.

Generally, the subsurface consists of fine sand to a depth of approximately 11 feet, which is then underlain by sandy silt to a depth approximately 17 feet, then transitions to sandy clay at 20 feet. The maximum depth of the borings was 20 feet. Groundwater is present across the site at a depth of approximately 11 feet. Geologic cross sections are presented on Figure 4.

Nine of the 27 soil borings advanced on site were completed as one-inch PVC monitoring wells. The one-inch diameter monitoring wells were constructed with ten-foot sections of well screen placed at a total depth of approximately 18 feet and completed at the ground

surface with flush-mounted vaults. Soil samples from each of the borings were evaluated in the field using a photoionization detector (PID). Logs of the borings advanced by Fremont are presented in Appendix A.

Soil samples were collected from each of the borings and sent to Origins Laboratory, Inc. and Summit Scientific, Inc. in Golden, Colorado for the analyses of benzene, toluene, ethylbenzene and total xylenes (BTEX), naphthalene, Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO) by EPA method 8260B, TPH – Diesel Range Organics (TPH-DRO), Extended Range Organics (TPH-ORO) by EPA method 8015, Polycyclic Aromatic Hydrocarbons (PAHs) by EPA method 8270D, Specific Conductance (EC) by EPA Method 120.1 saturated paste extraction, saturated paste extraction of soluble nutrients by EPA method 6020/USDA60 6(2) for calculated analysis of Sodium Absorption Ratio (SAR), pH by saturated paste extraction APHA/ASTM/EPA methods, Total Metals by EPA method 6020B, and Hexavalent Chromium by EPA method 7196.

Soil impacts were observed above the COGCC Table 915-1 standards for organic petroleum constituents in 15 of the 27 soil borings at various depths. Four borings were sampled for metals and exceeded the COGCC Table 915-1 concentration standard for arsenic. A background sample was collected at a depth of one foot in native soil adjacent to the former Wardlaw tank battery; arsenic exceeded the Table 915-1 standard in this sample. Since elevated levels of arsenic were observed in both the onsite samples and the background sample, these elevated concentrations can be attributed to native soil conditions. The soil chemistry is presented on Figure 5 and summarized in Tables 1 through 4. The laboratory reports are provided in Appendix C.

### **3.2 Groundwater Monitoring**

Groundwater levels were measured in nine monitoring wells on March 31, 2022 in accordance with the Sampling Plan included in Appendix B. The data are summarized in Tables 5 and 6.

Water table contours inferred from the March 31, 2022 data are illustrated on Figure 6. Based on these data, groundwater is inferred to flow south. The water table gradient was calculated at approximately 0.008 feet per foot (ft/ft) for the March 2022 data.

### **3.3 Groundwater Sampling and Analysis**

Groundwater samples were collected from nine monitoring wells on March 31, 2022. All groundwater samples were submitted to Summit Scientific, Inc. in Golden, Colorado for analyses of BTEX, naphthalene, 1,2,4 and 1,3,5 trimethylbenzene (TMB) by EPA Method 8260B, inorganic petroleum constituents chloride and sulfate by EPA Method 300.0 and total dissolved solids (TDS) by Standard Method 2540C.

Groundwater in four of the nine monitoring wells achieved the COGCC Table 915-1 standards. However, benzene concentrations in MW-2 (410 µg/L) and MW-6 (11 µg/L), exceeded the COGCC Table 915-1 standard of 5 µg/L. MW-3 exceeded the COGCC standards for xylenes, 1,2,4 TMB and 1,3,5 TMB with concentrations of 5,400 µg/L, 640 µg/L and 310 µg/L; respectively. Furthermore, MW-4 and MW-5 exceeded the COGCC standard of 67 µg/L for 1,3,5 TMB with concentrations of 120 µg/L and 160 µg/L, respectively. The groundwater chemistry data are shown on Figure 7. The groundwater analytical data are summarized in Tables 5 and 6 and a copy of the laboratory's report is presented in Appendix C.

## **4.0 DISCUSSION**

A site investigation at the Wardlaw tank battery was initiated by Eagle in February 2022 and completed by Fremont in March 2022 in response to an historical release. Twenty-



seven soil boings were advanced with nine borings completed as monitoring wells on site to delineate the magnitude and extent of soil and groundwater impacts.

Soil impacts exceeding the COGCC Table 915-1 standards were observed in 15 of the 27 soil borings as summarized in Tables 1 through 4 and Figure 5. These impacts were present at varying depths in each boring between 0.5 feet and 10 feet.

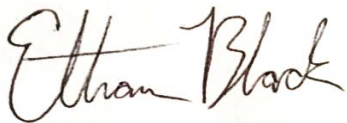
The data collected from the monitoring wells indicates that the groundwater flow direction is to the south. Further, the benzene, xylenes, 1,2,4 trimethylbenzene and/or 1,3,5 trimethylbenzene concentrations in groundwater samples from five of the nine monitoring wells exceeded the COGCC Table 915-1 standards. These data are summarized in Table 5 and illustrated on Figure 7.

Remedial actions for this site are currently being evaluated. Excavation of soil impacts within the vadose zone is recommended to gain clean closure once dissolved phase impacts in the groundwater have attenuated. Groundwater will be sampled at the Wardlaw location on a quarterly basis to evaluate the dissolved phase petroleum concentrations relative to COGCC's Table 915-1 requirements. Currently, the site has points of compliance (POC) for monitoring wells in three of four cardinal directions. Additional monitoring wells will need to be advanced south of MW-6 to achieve POC in all directions at the Wardlaw location.

## **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.**



6/1/22

Date\_\_\_\_\_

\_\_\_\_\_  
Ethan Black, P.G.

Geologist

Reviewed by:



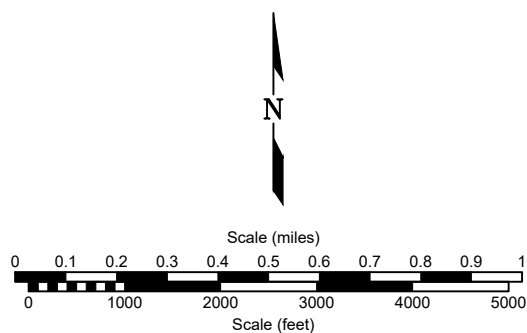
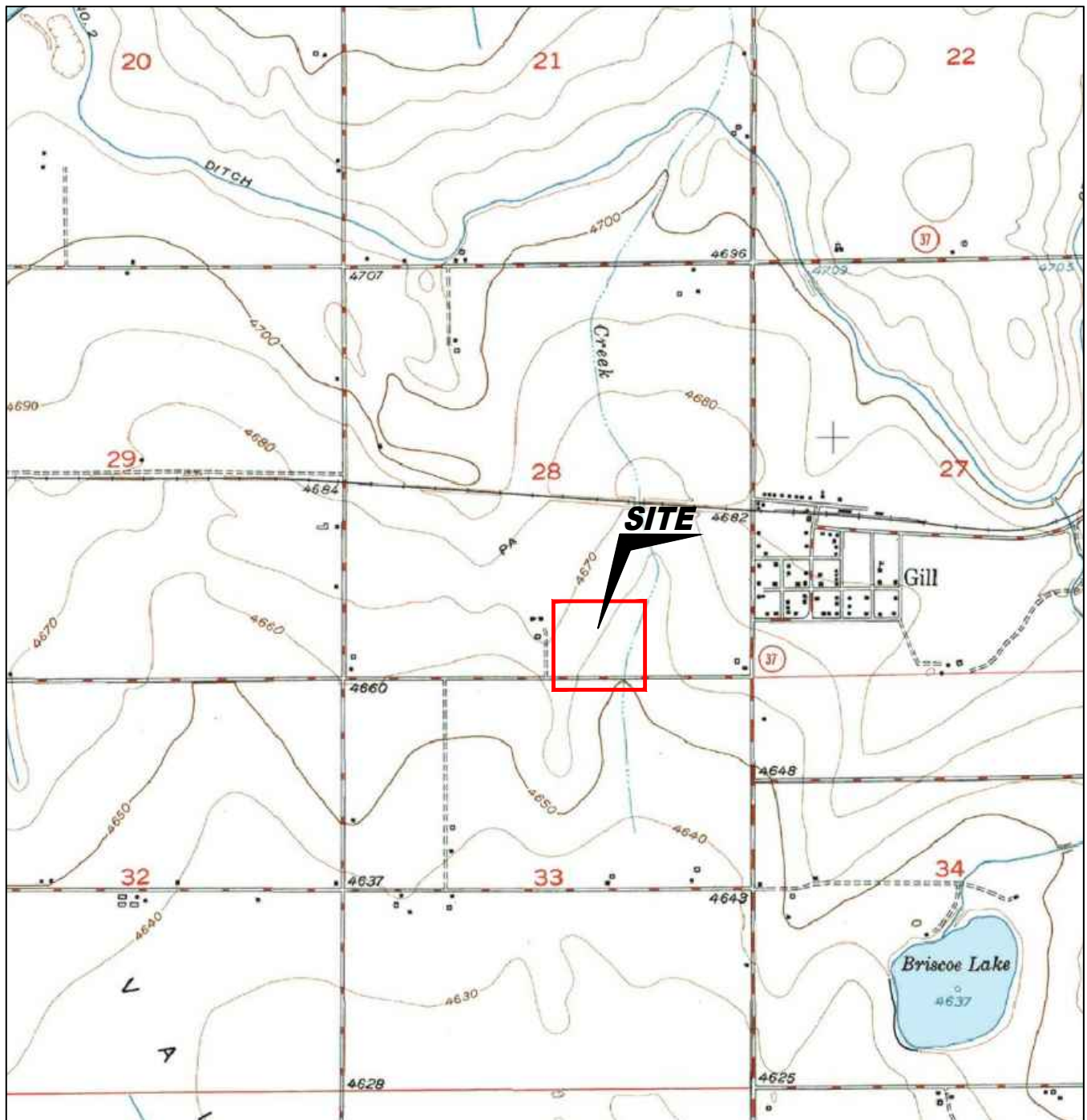
6/1/22

Date\_\_\_\_\_

\_\_\_\_\_  
Paul V. Henehan, P.E.

Senior Consultant

## TABLES



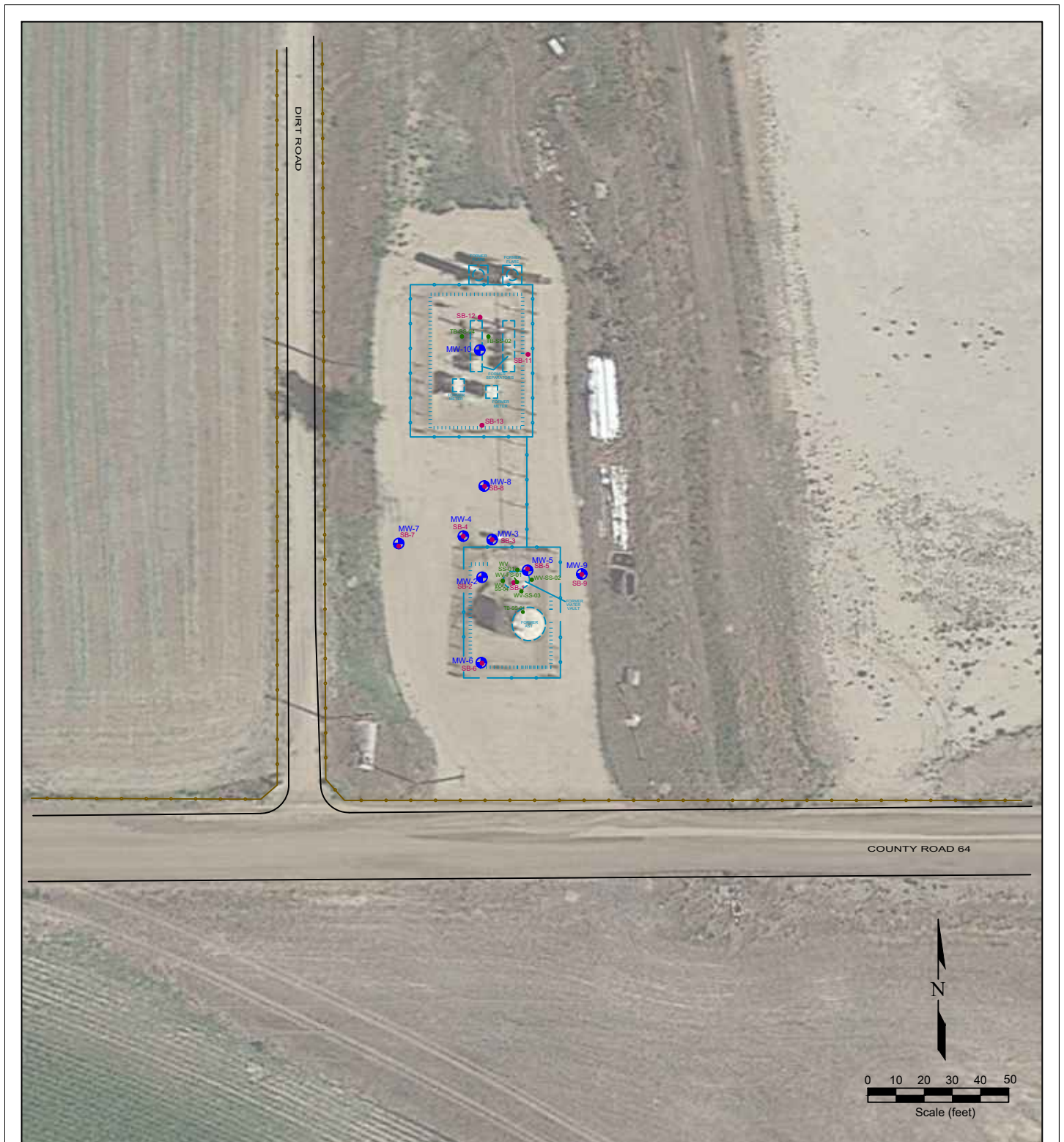
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**Noble Energy, Inc.**  
**Wardlaw 20-28, 16-28, Webster 15-28 Tank Battery**  
 SWSE Sec. 28, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.450055°, -104.555029°

Project # <b>C022-029</b>	API # <b>05-123-22511</b>	Location # <b>450476</b>
Date <b>6/13/22</b>	Remediation # <b>20876</b>	Filename <b>22029T</b>





# LEGEND

- SOIL BORING LOCATION
- EAGLE ENVIRONMENTAL SOIL BORING LOCATION
- MONITORING WELL LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- FENCE LINE

## Figure 2 SITE MAP

**Noble Energy, Inc.**  
**Wardlaw 20-28, 16-28, Webster 15-28 Tank Battery**  
 SWSE Sec. 28, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.450055°, -104.555029°

Project No. <b>C022-029</b>	API # <b>05-123-22511</b>	Location # <b>450476</b>
Date <b>6/13/22</b>	Remediation # <b>20876</b>	Filename <b>22029Q</b>







#### LEGEND

- SOIL BORING LOCATION
- EAGLE ENVIRONMENTAL SOIL BORING LOCATION
- MONITORING WELL LOCATION
- ABOVE GROUND STORAGE TANK
- A—A' CUT LINE FOR CROSS SECTION
- FORMER FACILITY
- CONTAINMENT BERM
- FENCE LINE

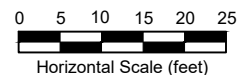
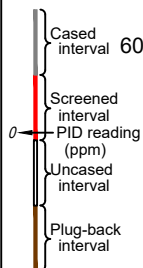
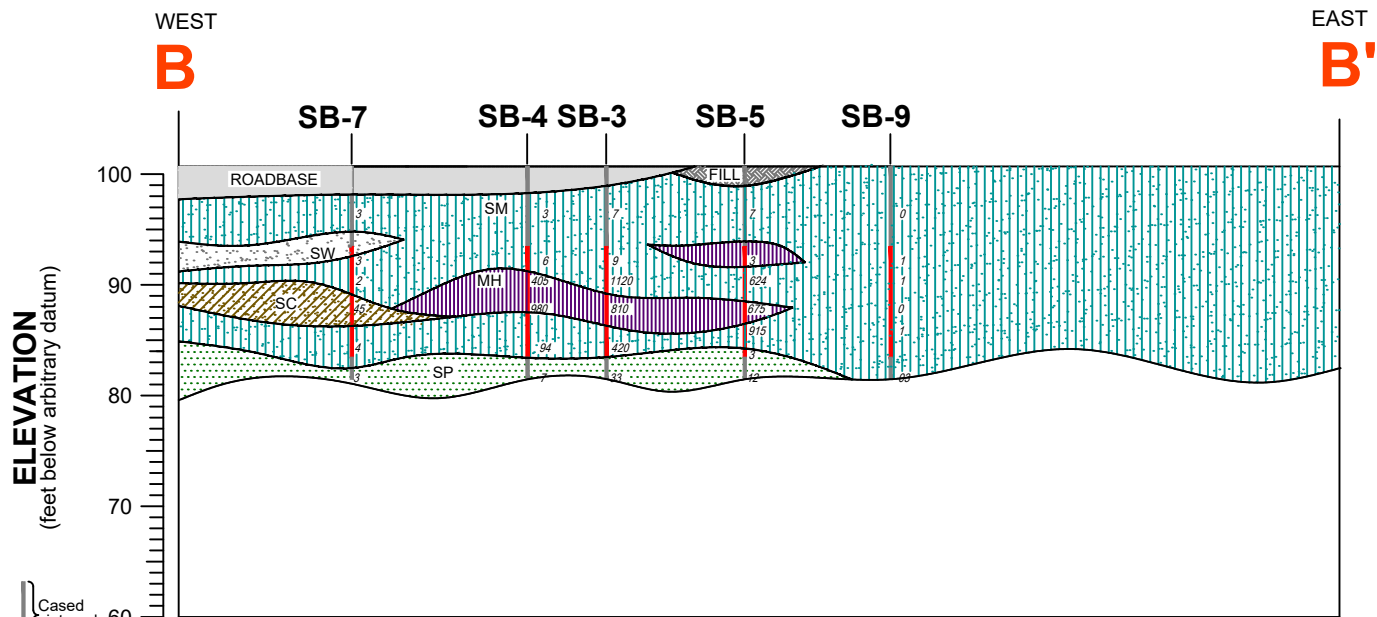
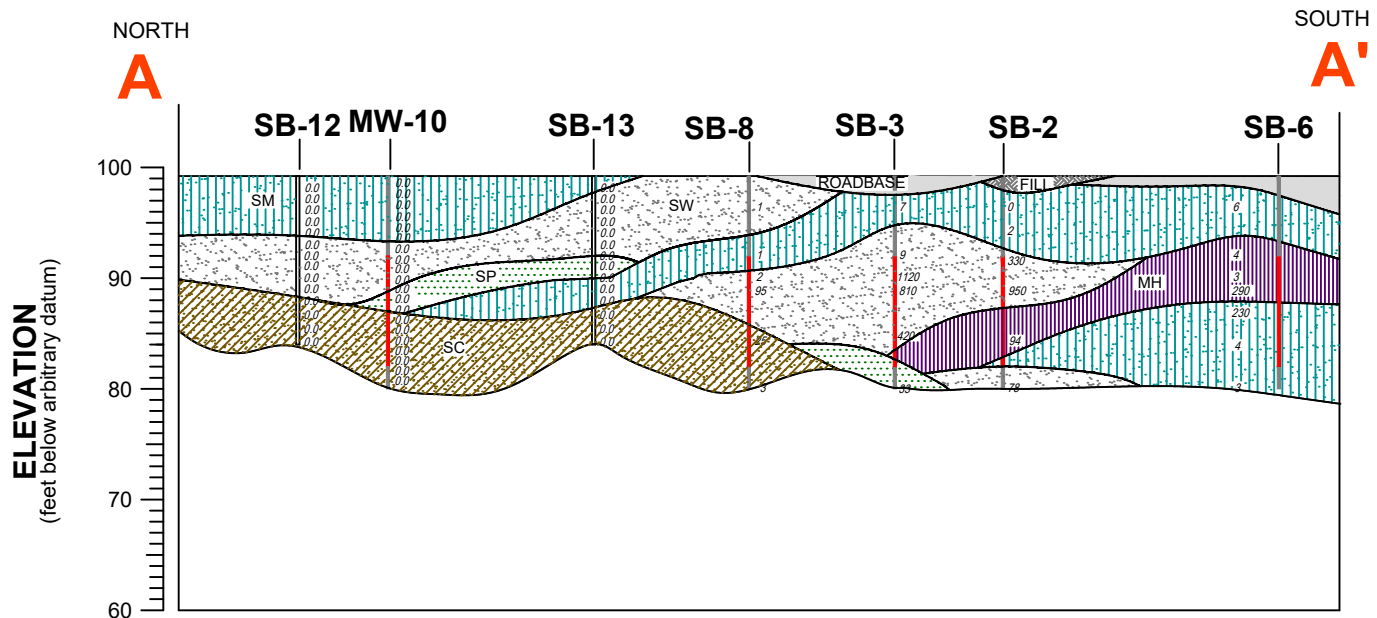
Figure 3

#### CROSS SECTION MAP

**Noble Energy, Inc.**  
**Wardlaw 20-28, 16-28, Webster 15-28 Tank Battery**  
 SWSE Sec. 28, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.450055°, -104.555029°

Project No. <b>C022-029</b>	API # <b>05-123-22511</b>	Location # <b>450476</b>
Date <b>6/13/22</b>	Remediation # <b>20876</b>	Filename <b>22029Q</b>





#### LEGEND

CH Clay, high plasticity	SW Sand, well-graded	Fill
CL Clay, low plasticity	SP Sand, poorly-graded	Asphalt
MH Silt, high plasticity	SC Sand, clayey	Roadbase
ML Silt, low plasticity	SM Sand silty	Basin fill
CH-MH Clay, silty high plasticity	GW Gravel, well-graded	Claystone
CL-ML Clay, silty, low plasticity	GP Gravel, poorly-graded	Firm sandy clay
MH-CH Silt, clayey high plasticity	GC Gravel, clayey	Shale
ML-CL Silt, clayey low plasticity	GM Gravel, silty	Sandstone

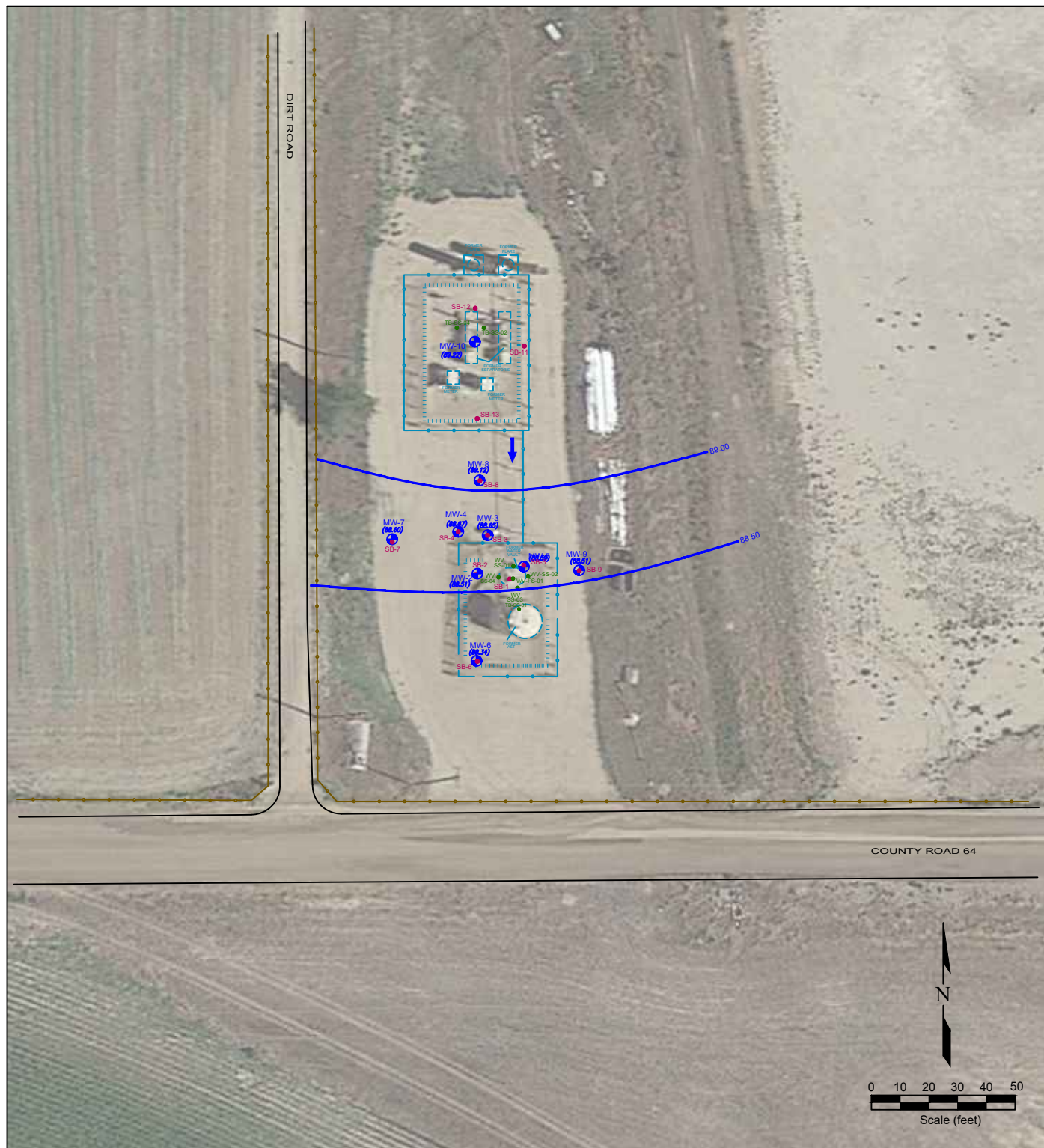
Figure 4  
**CROSS SECTION A-A' and B-B'**  
**Noble Energy, Inc.**  
**Wardlaw 20-28, 16-28, Webster 15-28 Tank Battery**  
SWSE Sec. 28, T6N, R64W, 6th PM  
Weld County, Colorado  
40.450055°, -104.555029°

Project No. <b>C022-029</b>	API # <b>05-123-22511</b>	Location # <b>450476</b>
Date <b>6/13/22</b>	Remediation # <b>20876</b>	Filename <b>22029Q</b>









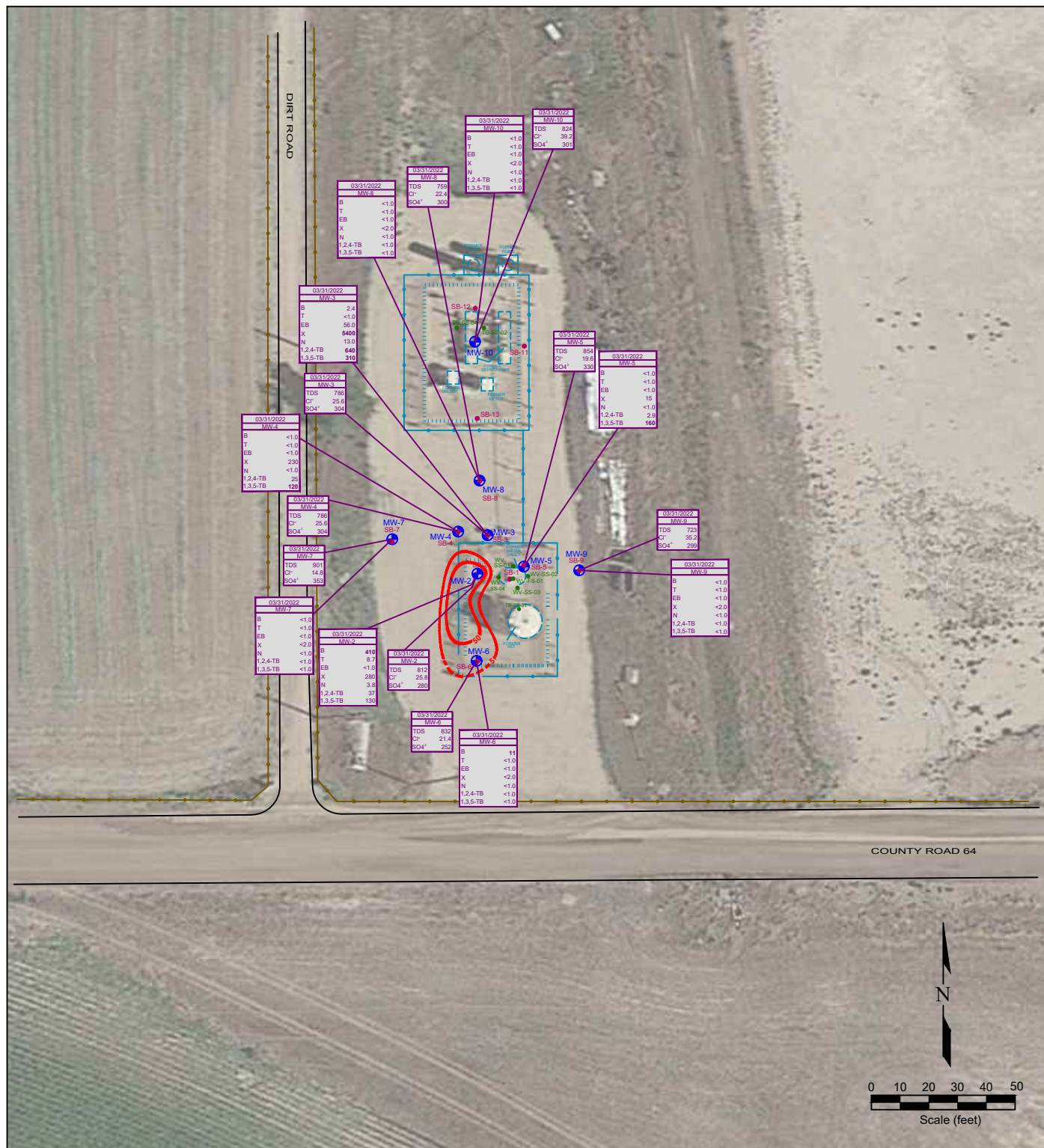
#### LEGEND

- SOIL BORING LOCATION
- EAGLE ENVIRONMENTAL SOIL BORING LOCATION
- MONITORING WELL LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- FENCE LINE
- GROUNDWATER ELEVATION (73.54)
- GROUNDWATER FLOW DIRECTION (B above arbitrary datum)
- WATER TABLE CONTOUR (73.00)

Figure 6  
**INFERRED GROUNDWATER CONTOUR MAP**  
 March 31, 2022  
 Noble Energy, Inc.  
 Wardlaw 20-28, 16-28, Webster 15-28 Tank Battery  
 SWSE Sec. 28, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.450055°, -104.555029°

Project No. <b>C022-029</b>	API # <b>05-123-22511</b>	Location # <b>450476</b>
Date <b>6/13/22</b>	Remediation # <b>20876</b>	Filename <b>22029Q</b>





**Figure 7**  
**GROUNDWATER CHEMISTRY MAP**  
 March 31, 2022  
 Noble Energy, Inc.  
 Wardlaw 20-28, 16-28, Webster 15-28 Tank Battery  
 SWSE Sec. 28, T6N, R64W, 6th PM  
 Weld County, Colorado  
 40.450055°, -104.555029°

Project No. <b>C022-029</b>	API # <b>05-123-22511</b>	Location # <b>450476</b>	<b>REMONT ENVIRONMENTAL</b>
Date <b>6/13/22</b>	Remediation # <b>20876</b>	Filename <b>22029Q</b>	

## TABLES

TABLE 1  
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
WARDLAW 20-28, WEBSTER 15-28, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-029

Sample	Date Sampled	Depth (ft)	Location	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
TB-SS-01 @ 0.5'	2/17/2022	0.5	Boring	<0.002	<0.002	0.00858	0.125	<b>0.405</b>	<b>0.233</b>	<0.00067	5.58	<25.0	117
TB-SS-02 @ 3'	2/17/2022	3	Boring	<0.002	<0.002	<0.002	0.0127	<b>0.0221</b>	<b>0.00962</b>	<0.00067	<0.200	<25.0	<100
TB-SS-04 @ 3'	2/17/2022	3	Boring	<0.002	<0.002	<0.002	0.00704	<0.002	<0.002	<0.00067	<0.200	<25.0	<100
WV-SS-01 @ 6'	2/17/2022	6	Boring	<0.002	<0.002	<0.002	0.00794	0.00244	<0.002	<0.00067	<0.200	<25.0	<100
WV-SS-02 @ 6'	2/17/2022	6	Boring	<0.002	<0.002	<0.002	0.0213	<b>0.0599</b>	<b>0.0272</b>	<b>0.00907</b>	0.515	63.3	<100
WV-SS-03 @ 6'	2/17/2022	6	Boring	<0.002	<0.002	<0.002	0.041	<b>0.231</b>	<b>0.0918</b>	<b>0.0124</b>	1.81	40.2	<100
WV-SS-04 @ 6'	2/17/2022	6	Boring	<0.002	<0.002	<0.002	<0.002	0.00206	0.00336	0.000508	<0.200	<25.0	<100
WV-FS-01 @ 7'	2/17/2022	7	Boring	<b>0.0317</b>	<0.002	<b>5.97</b>	<b>138</b>	<b>63.2</b>	<b>28.8</b>	<b>2.42</b>	<b>872</b>	<b>4240</b>	<b>1120</b>
SB-1 3 Ft	3/29/2022	3	Boring	<0.002	<0.002	<0.002	0.00496	0.00204	<0.002	<0.002	<0.200	NA	NA
MW-2 12 Ft	3/29/2022	12	Boring	<b>1.45</b>	<b>0.864</b>	<b>6.35</b>	<b>66.3</b>	<b>25.0</b>	<b>11.9</b>	<b>0.786</b>	<b>854</b>	<b>3130</b>	<b>898</b>
MW-2 16 Ft	3/29/2022	16	Boring	<0.002	<0.002	<0.002	0.00766	<b>0.00954</b>	0.00476	<0.00380	<0.200	<25.0	<100
MW-2 20 Ft	3/29/2022	20	Boring	<0.002	<0.002	<0.002	0.0108	<b>0.0254</b>	<b>0.0117</b>	<0.00380	1.15	<25.0	<100
MW-3 8 Ft	3/29/2022	8	Boring	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.00380	1.73	<25.0	<100
MW-3 10 Ft	3/29/2022	10	Boring	<b>0.00936</b>	0.00946	<b>4.25</b>	<b>90.9</b>	<b>46.3</b>	<b>20.4</b>	<b>2.23</b>	<b>843</b>	<b>3470</b>	<b>1100</b>
MW-4 10 Ft	3/29/2022	10	Boring	0.00212	0.00380	<0.002	<b>17.6</b>	<b>42.1</b>	<b>8.61</b>	<0.00380	<b>336</b>	<b>1960</b>	<b>645</b>
MW-4 12 Ft	3/29/2022	12	Boring	<b>0.00380</b>	0.00554	<b>2.64</b>	0.0068	<b>24.3</b>	<b>5.50</b>	<b>0.259</b>	<b>325</b>	<b>849</b>	<b>270</b>
MW-5 10 Ft	3/29/2022	10	Boring	<b>0.00588</b>	0.00420	<b>1.94</b>	<b>10.1</b>	<b>39.9</b>	<b>15.7</b>	<b>0.367</b>	<b>188</b>	<b>1550</b>	<b>491</b>
MW-5 14 Ft	3/29/2022	14	Boring	<0.002	<0.002	0.175	0.0258	<b>2.08</b>	<b>1.25</b>	<b>0.0288</b>	40.9	177	<100
MW-6 10 Ft	3/29/2022	10	Boring	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.00380	<0.200	<25.0	<100
MW-6 12 Ft	3/29/2022	12	Boring	<b>0.0498</b>	<0.002	<0.002	0.178	<b>15.1</b>	<b>2.54</b>	<b>0.102</b>	60.0	128	<100
MW-7 10 Ft	3/29/2022	10	Boring	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.00380	<0.200	<25.0	<100
MW-7 12 Ft	3/29/2022	12	Boring	<0.002	<0.002	<0.002	<0.002	<b>0.0590</b>	<b>1.01</b>	<0.00380	15.7	280	<100
MW-8 10 Ft	3/29/2022	10	Boring	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.00380	<0.200	<25.0	<100
MW-8 12 Ft	3/29/2022	12	Boring	<0.002	0.00210	0.00414	0.00202	<b>0.172</b>	<b>0.0223</b>	<b>0.0168</b>	<b>274</b>	<b>1360</b>	<b>450</b>
MW-9 10 Ft	3/29/2022	10	Boring	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.00380	<0.200	25.3	<100
MW-9 12 Ft	3/29/2022	12	Boring	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.00380	<0.200	<25.0	<100
MW-10 20ft	3/31/2022	20	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
MW-10 3ft	3/31/2022	3	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
MW-10 6ft	3/31/2022	6	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
MW-10 8ft	3/31/2022	8	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-11 20ft	3/31/2022	20	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-11 3ft	3/31/2022	3	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50



Sample	Date Sampled	Depth (ft)	Location	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl-Benzene (mg/kg)	1,3,5-Trimethyl-Benzene (mg/kg)	Naphthalene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
SB-11 6ft	3/31/2022	6	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-11 8ft	3/31/2022	8	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-12 16ft	3/31/2022	16	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-12 3ft	3/31/2022	3	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-12 6ft	3/31/2022	6	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-12 8ft	3/31/2022	8	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-13 16ft	3/31/2022	16	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-13 3ft	3/31/2022	3	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-13 6ft	3/31/2022	6	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
SB-13 8ft	3/31/2022	8	Boring	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.5	<50	<50
COGCC Table 915-1 Limits (Residential SSL)				1.2	490	5.8	58	30	27	2	500	500	500
COGCC Table 915-1 Limits (Protection of Groundwater SSL)				0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	500	500

Bold faced values exceed the COGCC Table 915-1 concentrations

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

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

TABLE 2  
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
WARDLAW 20-28, WEBSTER 15-28, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-029

Sample	Date Sampled	Depth (ft)	Location	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Pyrene (mg/kg)	1-Methyl - naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)
TB-SS-01 @ 0.5'	2/17/2022	0.5	Boring	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
TB-SS-02 @ 3'	2/17/2022	3	Boring	<0.00067	<0.00067	<0.00067	0.000665	0.000836	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067
TB-SS-04 @ 3'	2/17/2022	3	Boring	<0.00067	<0.00067	<0.00067	0.000756	0.000686	<0.00067	<0.00067	<0.00067	0.000542	<0.00067	<0.00067	<0.00067	0.000482	0.00137
WV-SS-01 @ 6'	2/17/2022	6	Boring	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.000658
WV-SS-02 @ 6'	2/17/2022	6	Boring	0.00481	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00334	<0.00067	<0.00067	0.0135	<0.00067	<0.00067	<b>0.0409</b>	<b>0.055</b>
WV-SS-03 @ 6'	2/17/2022	6	Boring	0.0048	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00111	<0.00067	<0.00067	0.00812	<0.00067	0.000715	<b>0.0286</b>	<b>0.0659</b>
WV-SS-04 @ 6'	2/17/2022	6	Boring	0.000724	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00147	<0.00067	<0.00067	0.000752	<0.00067	0.000715	0.00199	0.00294
WV-FS-01 @ 7'	2/17/2022	7	Boring	0.394	0.027	<b>0.0276</b>	0.00771	0.00708	<0.00067	0.137	<0.00067	0.00896	<b>0.766</b>	<0.00067	0.0753	<b>5.73</b>	<b>10.7</b>
MW-2 12 Ft	3/29/2022	12	Boring	0.147	0.00814	<0.00986	<0.00936	<0.0134	<0.0134	0.0405	<0.0134	<0.0134	0.271	<0.0134	0.0201	<b>1.33</b>	<b>2.61</b>
MW-10 3ft	3/31/2022	3	Boring	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
COGCC Table 915-1 Limits (Residential SSL)				360	1800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
COGCC Table 915-1 Limits (Protection of Groundwater SSL)				0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019

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

TABLE 3  
SUMMARY OF INORGANIC SOIL CHEMISTRY DATA  
NOBLE ENERGY INC.  
WARDLAW 20-28, WEBSTER 15-28, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-029

SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	EC mmhos/cm	pH pH units	SAR units	BORON mg/L
TB-SS-01 @ 0.5'	2/17/2022	0.5	0.09	7.82	0.204	<0.100
TB-SS-02 @ 3'	2/17/2022	3	0.270	8.13	0.148	0.181
TB-SS-04 @ 3'	2/17/2022	3	0.397	8.14	0.559	0.261
WV-SS-01 @ 6'	2/17/2022	6	0.495	8.06	0.435	0.420
WV-SS-02 @ 6'	2/17/2022	6	0.308	8.27	0.481	0.396
WV-SS-03 @ 6'	2/17/2022	6	0.354	8.07	0.439	0.178
WV-SS-04 @ 6'	2/17/2022	6	0.257	8.13	0.237	0.14
WV-FS-01 @ 7'	2/17/2022	7	0.724	<b>8.98</b>	<b>27.9</b>	0.835
SB-1 3 Ft	3/29/2022	3	0.210	7.63	0.214	0.159
MW-10 3ft	03/31/2022	3	0.470	8.09	0.505	0.115
Table 915-1 Limits			<4	6-8.3	<6	2

Bold face values exceed the COGCC Limits

**TABLE 4**  
**SUMMARY OF METALS IN SOIL CHEMISTRY DATA**  
**NOBLE ENERGY INC.**  
**WARDLAW 20-28, WEBSTER 15-28, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C022-029**

Sample	Date Sampled	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)	Chromium (mg/kg)
WV-FS-01 @ 7'	2/17/2022	7	<b>1.48</b>	33.2	0.0682	4.28	3.32	2.67	0.161	0.0116	30.5	<0.244
SB-1 3 Ft	3/29/2022	3	<b>2.73</b>	43.9	0.0837	3.91	4.02	4.52	0.37	0.0121	17.8	<1.22
MW-2 12 Ft	3/29/2022	12	<b>2.76</b>	<b>83.1</b>	0.0539	3.37	4.65	4.6	0.255	0.0105	17.8	<0.244
MW-10 3ft	3/31/2022	3	<b>2.65</b>	62.2	<0.218	4.30	4.20	5.59	0.486	<0.0218	20.3	<0.30
BKG 1 1 Ft	4/7/2022	1	<b>3.41</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA
COGCC Table 915-1 Limits (Residential SSL)			0.68	15000	71	3100	400	1500	390	390	23000	0.3
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	46	14	26	0.26	0.8	370	0.00067

Bold faced values exceed the COGCC Table 915-1 concentrations

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

NA- Not analyzed



TABLE 5  
SUMMARY OF ORGANIC GROUNDWATER CHEMISTRY DATA  
NOBLE ENERGY INC.  
WARDLAW 20-28, WEBSTER 15-28, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-029

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	NAPHTHALENE (µg/L)	1,2,4 TRIMETHYL-BENZENE (µg/L)	1,3,5 TRIMETHYL-BENZENE (µg/L)	TOC ELEVATION (feet)	DEPTH OF GROUND WATER (ft)	GROUND WATER ELEVATION	FREE PRODUCT THICKNESS (in)
MW-2	3/31/2022	<b>410</b>	8.7	<1.0	280	3.8	37	130	99.79	11.28	88.51	NP
MW-3	3/31/2022	2.4	<1.0	56.0	<b>5400</b>	13.0	<b>640</b>	<b>310</b>	99.78	11.13	88.65	NP
MW-4	3/31/2022	<1.0	<1.0	<1.0	230	<1.0	25	<b>120</b>	99.85	11.18	88.67	NP
MW-5	3/31/2022	<1.0	<1.0	<1.0	15	<1.0	2.9	<b>160</b>	99.84	11.25	88.59	NP
MW-6	3/31/2022	<b>11</b>	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.00	11.66	88.34	NP
MW-7	3/31/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.12	11.52	88.60	NP
MW-8	3/31/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	99.97	10.85	89.12	NP
MW-9	3/31/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.67	12.16	88.51	NP
MW-10	3/31/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.87	11.65	89.22	NP
Table 915-1 Limits		5	560	700	1,400	140	67	67				

Bold face values exceed the COGCC limits

NS- No Sample

IW - Insufficient Water

NP - No Free Product

**TABLE 6**  
**SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA**  
**NOBLE ENERGY INC.**  
**WARDLAW 20-28, WEBSTER 15-28, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C022-029**

<b>SAMPLE LOCATION</b>	<b>DATE</b>	<b>TOTAL DISSOLVED SOLIDS (mg/L)</b>	<b>CHLORIDE ION (mg/L)</b>	<b>SULFATE ION (mg/L)</b>
MW-2	3/31/2022	812	25.8	280
MW-3	3/31/2022	748	20.2	286
MW-4	3/31/2022	786	25.6	304
MW-5	3/31/2022	854	19.6	330
MW-6	3/31/2022	832	21.4	252
MW-7	3/31/2022	901	14.8	353
MW-8	3/31/2022	759	22.4	300
MW-9	3/31/2022	723	35.2	299
MW-10	3/31/2022	824	39.2	301
Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background

Bold face values exceed the COGCC limits

NP - No Free Product

NA - Not Analyzed

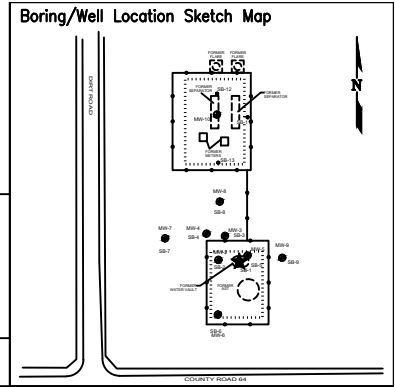
NAP - Not Applicable

## **FIGURES**

APPENDIX A

**BORING LOGS**

## **BORING/WELL CONSTRUCTION LOG**

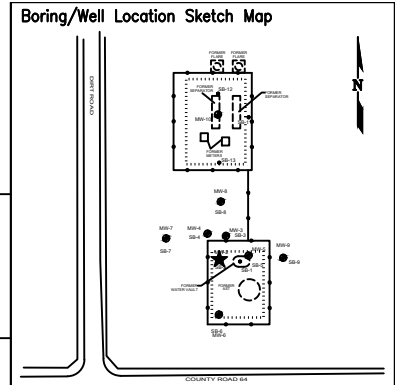


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Boring/Well No. <b>SB-1</b>		Total Depth <b>4'</b>	Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>		
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>		Drilling Contractor/Driller <b>Drill Pro</b>			
Geologist/Office <b>Paul Henehan / Fremont Environmental, Inc.</b>		Approved By			
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>	Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Casing Mtrl./Dia.	Screen: Type	Mtrl.	Length
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				
		<b>RB</b>	Road base to 2' then silty fine to medium sand, no stain, no odor				
		<b>SM</b>	- color change to beige				
			TD 4' (TMB HIT WAS @ 0.5')				
5							
10							
15							
20							

## BORING/WELL CONSTRUCTION LOG

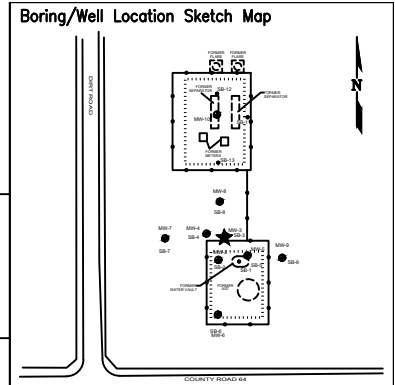


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Boring/Well No. <b>SB-2</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>					
Drilling Contractor/Driller <b>Drill Pro</b>					
Geologist/Office <b>Paul Henehan/ Fremont Environmental, Inc.</b>		Approved By			
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>		Sampling Method <b>direct push</b>	
				Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
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				
	Bentonite	1" Blank	FILL	Fill to 2' then silty fine to medium sand, brown, moist, no stain, no odor				
			SM					
5			SW	Fine to medium sand, brown to 7' then gray with moderate odor, moist				0
								2
								330
10	#10-20 Silica Sand	1" Screen		Fine to medium sand to 11' then silty fine sand, gray, very moist, strong odor				
								950
15			MH	Firm sandy silt, gray, wet ~ 11', moderate odor				
			SM	Silty sand to 19' then fine to medium sand, wet, light odor				94
			SW					
20				TD 20'				78

## BORING/WELL CONSTRUCTION LOG

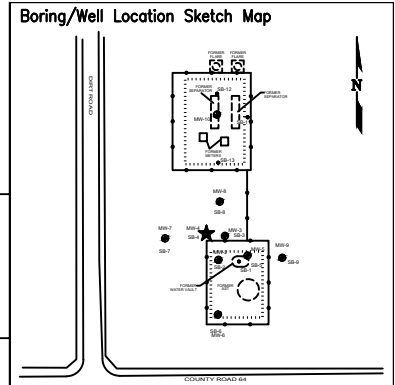


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Boring/Well No. <b>SB-3</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>					
Drilling Contractor/Driller <b>Drill Pro</b>					
Geologist/Office <b>Paul Henehan/ Fremont Environmental, Inc.</b>		Approved By			
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>		Sampling Method <b>direct push</b>	
				Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
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				
	Bentonite	1" Blank	RB	Road base, silty fine to medium sand, brown, no stain, no odor				
5			SM	Silty fine to medium sand, light gray at 7.5' with light odor				7
10	#10-20 Silica Sand	1" Screen		Silty fine to medium sand, light gray to 9' then black to 11' then gray, strong odor				9
								1120
15			MH	Silty fine to medium sand to 14' then firm sandy silt to 15.5' then fine to medium sand. Black to 13' then gray brown, mottled				810
			SM	Silty sand to 19' then medium to coarse sand, wet				420
20			SP					
				TD 20'				33

## BORING/WELL CONSTRUCTION LOG



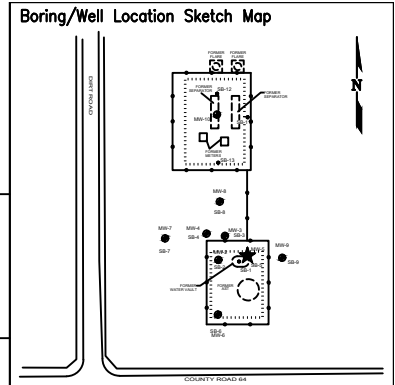
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Boring/Well No. <b>SB-4</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>					
Drilling Contractor/Driller <b>Drill Pro</b>					
Geologist/Office <b>Paul Henehan/ Fremont Environmental, Inc.</b>		Approved By			
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>		Sampling Method <b>direct push</b>	
				Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
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				
	Bentonite	1" Blank	RB	Road base to 1' then silty fine to medium sand, moist, brown, no stain, no odor				
5			SM	Silty fine to medium sand, no stain, no odor				3
10	#10-20 Silica Sand	1" Screen	MH	Silty fine to medium sand to 10' then sandy silt, gray 9' to 12' with moderate odor, moist				6
			SM	Silty fine to medium sand, gray with moderate odor, wet				405
15			SM	Silty fine to medium sand, gray to 17' then brown, medium to coarse sand 19' to 20'				980
20			SP					94
				TD 20'				7



## BORING/WELL CONSTRUCTION LOG



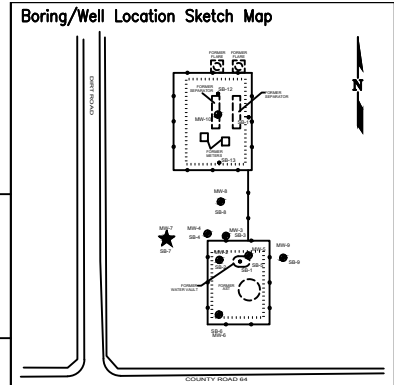
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Boring/Well No. <b>SB-5</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>					
Drilling Contractor/Driller <b>Drill Pro</b>		Approved By			
Geologist/Office <b>Paul Henehan/ Fremont Environmental, Inc.</b>					
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>		Sampling Method <b>direct push</b>	
				Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
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				
		<b>FILL</b>	Fill (silty sand, small rocks) moist, no stain, no				
	Bentonite	1" Blank					
5		<b>SM</b>	Fill to 5' then silty fine to medium sand, brown, no stain, no odor				7
	#10-20 Silica Sand	1" Screen					
10		<b>MH</b>	Silty fine to medium sand to 11' then sandy silt to 11.5' then silty sand, brown to 9' then dark gray to 10.5' then light gray to 12', wet ~ 11'				3
		<b>SM</b>					624
		<b>MH</b>	Sandy silt to 15' then silty to fine to medium sand, gray to 15' then brown, wet				675
15		<b>SM</b>					915
		<b>SP</b>	Medium to coarse sand, wet, brown, no stain, no odor				3
20			TD 20'				12



## BORING/WELL CONSTRUCTION LOG

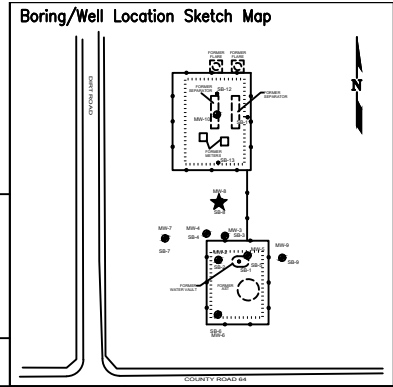


Page 1 of 1

Boring/Well No. <b>SB-7</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>				Approved By	
Drilling Contractor/Driller <b>Drill Pro</b>				Geologist/Office <b>Paul Henehan / Fremont Environmental, Inc.</b>	
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>		Sampling Method <b>direct push</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing	

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
	Bentonite	1" Blank	RB	Road base, silty fine to medium sand, moist, brown, no stain, no odor				
			SM					
5			SW	Fine to medium sand, brown, no stain, no odor				3
10	#10-20 Silica Sand	1" Screen	SM	Silty fine to medium sand to 10' then sandy silt, brown to 11.5' then dark gray, wet ~ 11' with light odor				3
			SC					2
			SM	Silty sand with clayey sand lens 10.5' to 11.5', gray to 15' then brown, wet				45
15								
			SM					
				Silty sand to 18' then medium to coarse sand, wet brown, no stain, no odor				4
20			SP					
				TD 20'				3

## BORING/WELL CONSTRUCTION LOG

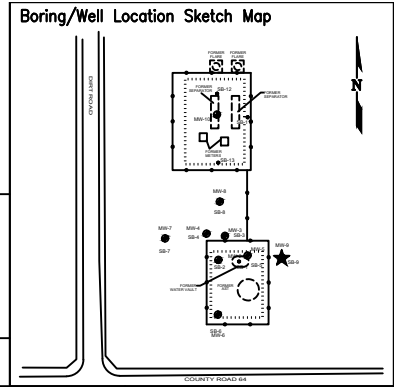


Page 1 of 1

Boring/Well No. <b>SB-8</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>					
Drilling Contractor/Driller <b>Drill Pro</b>					
Geologist/Office <b>Paul Henehan / Fremont Environmental, Inc.</b>				Approved By	
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>				Size/Type of Bit <b>2.5" direct push</b>	
				Sampling Method	
				Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
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				
			<b>RB</b>	Road base, silty fine to medium sand, moist, brown, no stain, no odor				
	Bentonite	1" Blank	<b>SM</b>	Fine to medium sand, brown, no stain, no odor				1
5			<b>SW</b>	Fine to medium sand, brown to 11' then light gray with light odor, wet ~ 10.5'				1
10	#10-20 Silica Sand	1" Screen		Fine to medium sand, wet, gray to 15' then brown with light odor				2
15				Fine to medium sand to 18.5' then medium to coarse sand, wet, brown, no stain, no odor				95
20			<b>SP</b>					28
				TD 20'				3

## **BORING/WELL CONSTRUCTION LOG**

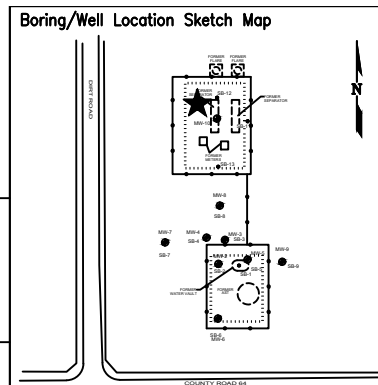


Page 1 of 1

Boring/Well No. <b>SB-9</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>					
Drilling Contractor/Driller <b>Drill Pro</b>					
Geologist/Office <b>Paul Henehan / Fremont Environmental, Inc.</b>		Approved By			
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>		Sampling Method	
				Start/Finish Date <b>03/29/2022</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>1" PVC</b>		Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>	
Elevation of: (ft. above datum)		Ground Surface		Top of Well Casing	
		Top of Screen		Bottom of Screen	
				Ground Water Surface/Date Measured	







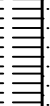

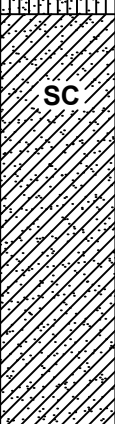



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
	Bentonite	1" Blank	SM	Silty fine to medium sand, brown, moist, no stain, no odor				
5				Silty fine to medium sand, brown, moist, no stain, no odor				0
10	#10-20 Silica Sand	1" Screen		Silty fine to medium sand, brown, wet ~ 11'				1
15				Silty fine to medium sand, brown, wet				0
20				Silty fine to medium sand, brown				1
				TD 20'				03

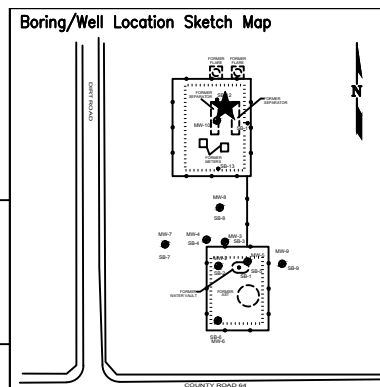
## BORING/WELL CONSTRUCTION LOG



Page 1 of 1

Boring/Well No. <b>MW-10</b>		Total Depth <b>20'</b>	Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>		
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>			Approved By		
Drilling Contractor/Driller <b>Drill Pro / Terrence, Hayward and Glen</b>			Geologist/Office <b>Ethan Black / Fremont Environmental, Inc.</b>		
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>			Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>	Start/Finish Date <b>3/31/22</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. <b>1" PVC</b>	Screen: Type <b>SCH40</b> Mtrl. <b>PVC</b> Length <b>15'</b> Dia. <b>1"</b> Slot Size <b>0.01"</b>			
Elevation of: (ft. above datum)	Ground Surface <b>2.43</b>	Top of Well Casing <b>100.87</b>	Top of Screen <b>.</b>	Bottom of Screen <b>.</b>	Ground Water Surface/Date Measured <b>11.65 3/31/22</b>

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5				Loam 3"				0.0
				Silty sand: dark brown, fine with some gravel, slightly moist				0.0
								0.0
								0.0
								0.0
10				Sand: tan, very fine sand, moist				0.0
								0.0
								0.0
								0.0
								0.0
15				Silty sand: brown, fine, wet				0.0
								0.0
								0.0
								0.0
								0.0
20				Clayey sand: tan with white inclusions, medium to fine sand				0.0
								0.0
								0.0
								0.0
								0.0
				3" Gravel lens				0.0
				TD 20'				0.0

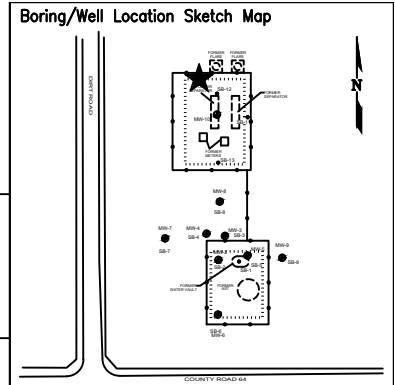


Page 1 of 1

Boring/Well No. <b>SB-11</b>		Total Depth <b>20'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>									
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>				Approved By									
Drilling Contractor/Driller <b>Drill Pro / Terrence, Hayward and Glen</b>													
Geologist/Office <b>Ethan Black / Fremont Environmental, Inc.</b>				Size/Type of Bit <b>2.5" direct push</b>		Sampling Method <b>direct push</b>		Start/Finish Date <b>3/31/22</b>					
Drilling Equipment/Method <b>Geoprobe / Direct Push</b>													
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					<div>SP</div>	Sand: brown to tan, fine to very fine, silty, moist slightly moist				0.0
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
10					<div>SM</div>	- increasing moisture - wet				0.0
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
15					<div>GP</div>	Sandy silt: beige, very fine sand, wet, elastic, silt				0.0
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
						0.0				
20						- medium to coarse sand, grains interspersed				0.0
						0.0				
						0.0				
						0.0				
						Gravel: reddish, tan, saturated				0.0
						TD 20'				0.0

## **BORING/WELL CONSTRUCTION LOG**



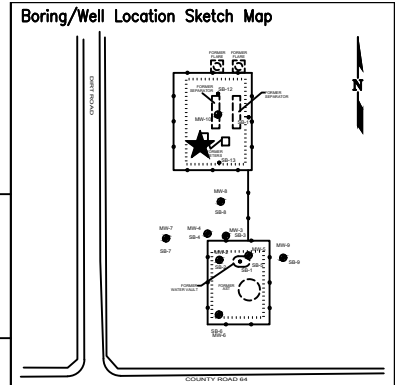
Page 1 of 1

Boring/Well No. <b>SB-12</b>		Total Depth <b>16'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>		Drilling Contractor/Driller <b>Drill Pro / Terrence, Hayward and Glen</b>		Approved By	
Geologist/Office <b>Ethan Black / Fremont Environmental, Inc.</b>		Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>	
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		SM	Silty sand: dark brown, fine sand, moist slightly moist - increasing moisture - wet				0.0
10		SW	Sand: tan, fine, moist				0.0
15		SC	Sandy clay: tan with white inclusions, medium to fine sand, wet				0.0
20			TD 16'				0.0



## **BORING/WELL CONSTRUCTION LOG**



Page 1 of 1

Boring/Well No. <b>SB-13</b>		Total Depth <b>16'</b>		Location <b>Noble Energy, Inc. Wardlaw 20-28, 16-28 Webster 15-28 SWSE Sec 28, T6N, R64W, 6th PM Weld County, Colorado</b>	
Project No./Name <b>C022-029 / Noble ~ Wardlaw 20-28, 16-28 Webster 15-28 Tank Battery</b>		Drilling Contractor/Driller <b>Drill Pro / Terrence, Hayward and Glen</b>		Approved By	
Geologist/Office <b>Ethan Black / Fremont Environmental, Inc.</b>		Drilling Equipment/Method <b>Geoprobe / Direct Push</b>		Size/Type of Bit <b>2.5" direct push</b>	
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		SW	Sand: tan, fine, slightly moist				0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
10							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
15		SC	Sandy clay: tan with white claystone, clasts, medium to fine sand, plastic clay, wet				0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
20			TD 16'				0.0

**APPENDIX B**

**SAMPLING PLAN**

## **SAMPLING METHODS AND PROCEDURES**

### **Water Level Measurements**

All groundwater level measurements will be obtained using an electric measuring device, which indicates when a probe is in contact with groundwater. Measurements will be obtained by lowering the device into the well until the water surface had been encountered, and by measuring the distance from the top of the inside riser pipe to the probe. All measurements will be recorded to the nearest 0.01 ft. To minimize cross-contamination, the water level indicator will be decontaminated with isopropyl alcohol and distilled water between each well.

### **Monitoring Well Sampling**

All monitoring wells were sampled from the “cleanest” to the “most contaminated” according to the protocols listed below.

#### **Field Protocol**

- |        |  |
|--------|--|
| Step 1 | Measure water level in each well.  |
| Step 2 | Purge each monitoring well by evacuating a minimum of three well bore volumes using a disposable polyethylene bailer.    |
| Step 3 | Collect water samples using a disposable polyethylene bailer.  |
| Step 4 | Cool samples to approximately 4°C for transportation.  |
| Step 5 | Store water samples and transport to a specific laboratory, following all documentation and chain-of-custody procedures. |

Upon completion of groundwater sampling, a chain-of-custody log will be completed. Chain-of-custody records include the following information: project, project number, shipped by, shipped to, suspected hazard, sampling point, location, field identification number, date collected, sample type, number of containers, analysis required, and sampler's signature.

The chain-of-custody records will be shipped with the samples to the laboratory. Upon arrival at the laboratory the samples will be checked in and signed by the appropriate laboratory personnel. Laboratory identification numbers will be noted on the chain-of-custody record. Upon completion of the laboratory analysis, the completed chain-of-custody record will be returned to the project manager.

### **Analytical Methods**

The following list identifies the various chemical constituents and analytical methods which will be used for their quantification.

<u>Chemical Parameter</u>	<u>Method</u>
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX), Naphthalene, 1,2,4 and 1,3,5 Trimethylbenzene (TMB)	EPA Method - 8260B
Chloride and Sulfate	EPA Method - 300.0
Total Dissolved Solids (TDS)	Standard Method - 2540C.

## APPENDIX C

### LABORATORY DOCUMENTATION



April 15, 2022

Fremont Environmental

Paul Henehan

8305 6th St, PO Box 1289

Wellington CO 80549

**Project Name - Noble - Wardlaw 20-28**

**Project Number - C022-029**

Attached are your analytical results for Noble - Wardlaw 20-28 received by Origins Laboratory, Inc. March 30, 2022. This project is associated with Origins project number Y203766-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.  
303.433.1322  
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 3FT	Y203766-01	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-2 12FT	Y203766-02	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-2 16FT	Y203766-03	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-2 20FT	Y203766-04	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-3 8FT	Y203766-05	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-3 10FT	Y203766-06	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-4 10FT	Y203766-07	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-4 12FT	Y203766-08	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-5 10FT	Y203766-09	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-5 14FT	Y203766-10	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-6 10FT	Y203766-11	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-6 12FT	Y203766-12	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-7 10FT	Y203766-13	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-7 12FT	Y203766-14	Soil	March 29, 2022 0:00	03/30/2022 12:30

Origins Laboratory, Inc.



*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  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-8 10FT	Y203766-15	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-8 12FT	Y203766-16	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-9 10FT	Y203766-17	Soil	March 29, 2022 0:00	03/30/2022 12:30
MW-9 12FT	Y203766-18	Soil	March 29, 2022 0:00	03/30/2022 12:30

Origins Laboratory, Inc.



*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  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

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7205746

page 1 of 2

ORIGINS  
LABORATORY, INC

Client: Fremont Environmental Inc.  
Address:  
Telephone Number:  
Email Address:

Project Manager: Henehan  
Project Name: Noble - Wardlaw 20-28  
Project Number: C022-029  
Samples Collected By: Henehan

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis	Sample Instructions
SB-1 3 FT	3/29/22		1	Unpreserved	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	1
MW-2 12 FT	"		2	HCl	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	2
MW-2 16 FT			1	HNO <sub>3</sub>	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	3
MW-2 20 FT			1	HCl	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	4
MW-3 8 FT			1	Unpreserved	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	5
MW-3 10 FT			1	HCl	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	6
MW-4 10 FT			1	HNO <sub>3</sub>	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	7
MW-4 12 FT			1	HCl	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	8
MW-5 10 FT			1	Unpreserved	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	9
MW-5 14 FT			1	HCl	Soil	PT, EC, SAR, P, H, DRO/ORO, GTEEN+TNBS, Arsenic, BTEX+N+TNBS, TDS, Cl, S <sub>2</sub>	10
Relinquished By: [Signature]	Date: 3/30/22	Time:	Received By: [Signature]	Date: 3/30/22	Time: 1230	Turnaround Time: Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard	
Relinquished By: [Signature]	Date:	Time:	Received By:	Date:	Time:		

5.8

Date Results Needed

Origins Laboratory, Inc.

[Signature]

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  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

Client: Fremont Environmental Inc.  
Address:  
Telephone Number:  
Email Address:

Project Manager: Henehan  
Project Name: NOBLE - WARDLAW 20-28  
Project Number:  
Samples Collected By: HENEHAN

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions			
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Sample	Other	DR/ORO	PATs	PT, HCSAR	Boron	915 metals	Aspheric	RTXN+TMBs
MW-6 10 FT	3/29/22		1															1
MW-6 12 FT																		2
MW-7 10 FT																		3
MW-7 12 FT																		4
MW-8 10 FT																		5
MW-8 12 FT																		6
MW-9 10 FT																		7
MW-9 12 FT																		8
																		9
																		10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
Paul Henehan	3/30/22		[Signature]	3/30/22	12:00	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

Date Results Needed

5.8

Origins Laboratory, Inc.

*J. Bynon*

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  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

Origins Laboratory F-012207-01-R1  
Effective Date: 01/09/12

**Sample Receipt Checklist**

Origins Work Order: Y203766 Client: Fremont  
Client Project ID: Wardlaw 20-28

Checklist Completed by: SG Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
Date/time completed: 3/30/22 Airbill #: N/A

Matrix(s) Received: (Check all that apply): X Soil/Solid      Water      Other:     

Cooler Number/Temperature: 1 / 5.8 °C      /      °C      /      °C (Describe)      °C

Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>No sample times</u>
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) 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 and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)(pH < 2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) JB Date/Time Reviewed 3-30-22

Origins Laboratory, Inc.

*Bynon*

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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C022-029

Project: Noble - Wardlaw 20-28

## SB-1 3FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc.

Y203766-01 (Soil)

### Boron (DTPA Sorbitol)

Boron	0.159	0.0992	mg/L	1	B2C3122	03/31/2022	04/01/2022
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.00204	0.00200	mg/kg	1	B2C3028	03/30/2022	04/03/2022
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	U
Xylenes, total	0.00496	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	105 %	70-130	"	"	"
Surrogate: Toluene-d8	98.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	93.4 %	70-130	"	"	"

### Metals by Saturated Paste by EPA 6010

Calcium	1.07	0.499	meq/L	10	[CALC]	03/30/2022	04/01/2022
Magnesium	ND	0.823	"	"	"	"	"
Sodium	ND	0.435	"	"	"	"	"

Origins Laboratory, Inc.



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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C022-029

Project: Noble - Wardlaw 20-28

## SB-1 3FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc.

Y203766-01 (Soil)

### pH in Soil by 9045D

pH	7.63			pH Units	1	B2C3019	03/31/2022	04/01/2022	
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### SAR by 20B Saturated Paste

SAR	0.214			SAR	1	B2C3018	03/30/2022	04/01/2022	
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### Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.210		0.00500	mmhos/cm	1	B2C3020	03/31/2022	04/01/2022	
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### Total Metals by 6020B

Arsenic	2.73	0.0855	0.25	mg/Kg	5	L608957	04/05/2022	04/06/2022	
Barium	43.9	0.042	0.25	"	"	"	"	"	
Cadmium	0.0837	0.0259	0.25	"	"	"	"	"	J
Copper	3.91	0.0806	0.25	"	"	"	"	"	
Lead	4.02	0.031	0.25	"	"	"	"	"	
Nickel	4.52	0.0633	0.25	"	"	"	"	"	
Selenium	0.37	0.103	0.25	"	"	"	"	"	
Silver	0.0121	0.0067	0.25	"	"	"	"	"	J
Zinc	17.8	0.534	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	1.22	2.5	mg/Kg	5	L609418	03/29/2022	04/07/2022	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-2 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-02 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	3130		25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	
Residual Range Organics (C28-C40)	898		100	"	"	"	"	"	

Surrogate: o-Terphenyl 105 % 50-150 " " " S-04

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	25.0		0.500	mg/kg	250	B2C3028	03/30/2022	04/09/2022	
1,3,5-Trimethylbenzene	11.9		0.500	"	"	"	"	"	
Benzene	1.45		0.0500	"	25	"	"	04/03/2022	
Ethylbenzene	6.35		0.500	"	250	"	"	04/09/2022	
Toluene	0.864		0.0500	"	25	"	"	04/03/2022	
Xylenes, total	66.3		0.500	"	250	"	"	04/09/2022	
Gasoline Range Hydrocarbons	854		50.0	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 139 % 70-130 " " 04/03/2022 S-GC  
Surrogate: Toluene-d8 107 % 70-130 " " " " S-GC  
Surrogate: 4-Bromofluorobenzene 182 % 70-130 " " " " S-GC

### PAH by 8270D SIM

1-Methylnaphthalene	1.33	0.00728	0.0134	mg/Kg	20	L609000	04/06/2022	04/06/2022	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-2 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y203766-02 (Soil)

### PAH by 8270D SIM

2-Methylnaphthalene	2.61	0.0129	0.0134	mg/Kg	20	L609000	04/06/2022	04/06/2022	
Acenaphthene	0.147	0.00608	0.0134	"	"	"	"	"	
Anthracene	0.00814	0.00668	0.0134	"	"	"	"	"	J
Benzo(a)anthracene	ND	0.00986	0.0134	"	"	"	"	"	
Benzo(a)pyrene	ND	0.00936	0.0134	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.0117	0.0134	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00874	0.0134	"	"	"	"	"	
Chrysene	0.0405	0.0125	0.0134	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0123	0.0134	"	"	"	"	"	
Fluoranthene	ND	0.00788	0.0134	"	"	"	"	"	
Fluorene	0.271	0.00572	0.0134	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0125	0.0134	"	"	"	"	"	
Naphthalene	0.786	0.00968	0.0134	"	"	"	"	"	
Pyrene	0.0201	0.0129	0.0134	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	83.4 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	90.5 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	58.5 %	29-110	"	"	"

### Total Metals by 6020B

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-2 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Waypoint Analytical, Inc. Y203766-02 (Soil)

### Total Metals by 6020B

Arsenic	2.76	0.0855	0.25	mg/Kg	5	L608405	04/01/2022	04/05/2022	
Barium	83.1	0.042	0.25	"	"	"	"	"	
Cadmium	0.0539	0.0259	0.25	"	"	"	"	"	J
Copper	3.37	0.0806	0.25	"	"	"	"	"	
Lead	4.65	0.031	0.25	"	"	"	"	"	
Nickel	4.6	0.0633	0.25	"	"	"	"	"	
Selenium	0.255	0.103	0.25	"	"	"	"	"	
Silver	0.0105	0.0067	0.25	"	"	"	"	"	J
Zinc	17.8	0.534	2.5	"	"	"	"	"	

### Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L609418	03/29/2022	04/07/2022	
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Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-2 16FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-03 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 99.0 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.00954	0.00200	mg/kg	1	B2C3028	03/30/2022	04/03/2022	
1,3,5-Trimethylbenzene	0.00476	0.00200	"	"	"	"	"	
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	0.00766	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 102 % 70-130 " " "  
Surrogate: Toluene-d8 95.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.8 % 70-130 " " "

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-2 20FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-04 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 87.5 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.0254	0.00200	mg/kg	1	B2C3028	03/30/2022	04/03/2022	
1,3,5-Trimethylbenzene	0.0117	0.00200	"	"	"	"	"	
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	0.0108	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.15	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "  
Surrogate: Toluene-d8 94.1 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.7 % 70-130 " " "

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-3 8FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-05 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	1010	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022
Residual Range Organics (C28-C40)	540	100	"	"	"	"	"

Surrogate: o-Terphenyl	127 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C3028	03/30/2022	04/03/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	1.73	0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	104 %	70-130	"	"	"
Surrogate: Toluene-d8	98.4 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	100 %	70-130	"	"	"

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-3 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-06 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	3470	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022
Residual Range Organics (C28-C40)	1100	100	"	"	"	"	"

Surrogate: o-Terphenyl	131 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	46.3	0.500	mg/kg	250	B2C3028	03/30/2022	04/12/2022
1,3,5-Trimethylbenzene	20.4	0.500	"	"	"	"	"
Benzene	0.00936	0.00200	"	1	"	"	04/03/2022
Ethylbenzene	4.25	0.500	"	250	"	"	04/12/2022
Naphthalene	2.23	0.250	"	25	"	"	04/09/2022
Toluene	0.00946	0.00200	"	1	"	"	04/03/2022
Xylenes, total	90.9	0.00200	"	"	"	"	04/09/2022
Gasoline Range Hydrocarbons	843	50.0	"	250	"	"	04/12/2022

Surrogate: 1,2-Dichloroethane-d4	76.2 %	70-130	"	"	04/09/2022
Surrogate: Toluene-d8	138 %	70-130	"	"	" S-GC
Surrogate: 4-Bromofluorobenzene	105 %	70-130	"	"	"

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-4 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-07 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	1960	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022
Residual Range Organics (C28-C40)	645	100	"	"	"	"	"

Surrogate: o-Terphenyl	107 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	42.1	0.500	mg/kg	250	B2C3028	03/30/2022	04/14/2022	0-9
1,3,5-Trimethylbenzene	8.61	0.0500	"	25	"	"	04/09/2022	
Benzene	0.00212	0.00200	"	1	"	"	04/03/2022	
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	0.00380	0.00200	"	"	"	"	"	
Xylenes, total	17.6	0.0500	"	25	"	"	04/09/2022	
Gasoline Range Hydrocarbons	336	5.00	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	79.8 %	70-130	"	"	"
Surrogate: Toluene-d8	110 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	107 %	70-130	"	"	"

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Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-4 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-08 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	849	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022
Residual Range Organics (C28-C40)	270	100	"	"	"	"	"

Surrogate: o-Terphenyl	88.7 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	24.3	0.500	mg/kg	250	B2C3028	03/30/2022	04/14/2022	0-9
1,3,5-Trimethylbenzene	5.50	0.0500	"	25	"	"	04/09/2022	
Benzene	0.00380	0.00200	"	1	"	"	04/03/2022	
Ethylbenzene	2.64	0.0500	"	25	"	"	04/09/2022	
Naphthalene	0.259	0.0100	"	1	"	"	04/03/2022	
Toluene	0.00554	0.00200	"	"	"	"	"	
Xylenes, total	0.00680	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	325	5.00	"	25	"	"	04/09/2022	

Surrogate: 1,2-Dichloroethane-d4	79.3 %	70-130	"	"	"
Surrogate: Toluene-d8	120 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130	"	"	"

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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-5 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-09 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	1550	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022
Residual Range Organics (C28-C40)	491	100	"	"	"	"	"

Surrogate: o-Terphenyl	98.9 %	50-150	"	"	"
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	39.9	0.500	mg/kg	250	B2C3028	03/30/2022	04/13/2022
1,3,5-Trimethylbenzene	15.7	0.500	"	"	"	"	"
Benzene	0.00588	0.00200	"	1	"	"	04/03/2022
Ethylbenzene	1.94	0.0500	"	25	"	"	04/12/2022
Naphthalene	0.367	0.0100	"	1	"	"	04/03/2022
Toluene	0.00420	0.00200	"	"	"	"	"
Xylenes, total	10.1	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	188	5.00	"	25	"	"	04/09/2022

Surrogate: 1,2-Dichloroethane-d4	79.6 %	70-130	"	"	"
Surrogate: Toluene-d8	103 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	70-130	"	"	"

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Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-5 14FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-10 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	177		25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 97.9 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	2.08		0.0500	mg/kg	25	B2C3028	03/30/2022	04/09/2022	
1,3,5-Trimethylbenzene	1.25		0.0500	"	"	"	"	"	
Benzene	ND		0.00200	"	1	"	"	04/03/2022	U
Ethylbenzene	0.175		0.00200	"	"	"	"	"	
Naphthalene	0.0288		0.0100	"	"	"	"	"	
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	0.0258		0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	40.9		5.00	"	25	"	"	04/09/2022	

Surrogate: 1,2-Dichloroethane-d4 78.5 % 70-130 " " "

Surrogate: Toluene-d8 98.8 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

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Project: Noble - Wardlaw 20-28

## MW-6 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-11 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 97.0 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.2 % 70-130 " " "  
Surrogate: Toluene-d8 97.9 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.5 % 70-130 " " "

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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-6 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-12 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	128	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 85.3 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	15.1	0.500	mg/kg	250	B2C3028	03/30/2022	04/14/2022	0-9
1,3,5-Trimethylbenzene	2.54	0.500	"	"	"	"	"	0-9
Benzene	0.0498	0.00200	"	1	"	"	04/04/2022	
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	0.102	0.0100	"	"	"	"	"	
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	0.178	0.00200	"	"	"	"	"	
Gasoline Range Hydrocarbons	60.0	5.00	"	25	"	"	04/14/2022	0-9

Surrogate: 1,2-Dichloroethane-d4 98.3 % 70-130 " " 04/04/2022  
Surrogate: Toluene-d8 93.6 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 211 % 70-130 " " " S-GC

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Project: Noble - Wardlaw 20-28

## MW-7 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-13 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C3022	03/30/2022	04/05/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 96.2 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.4 % 70-130 " " "  
Surrogate: Toluene-d8 93.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.0 % 70-130 " " "

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Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-7 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-14 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	280		25.0	mg/kg	1	B2C3023	03/30/2022	04/06/2022	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 113 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.0590		0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022	
1,3,5-Trimethylbenzene	1.01		0.0500	"	25	"	"	04/14/2022	0-9
Benzene	ND		0.00200	"	1	"	"	04/04/2022	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Naphthalene	ND		0.00380	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	15.7		0.200	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 96.9 % 70-130 " " "

Surrogate: Toluene-d8 93.4 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 166 % 70-130 " " " S-GC

Origins Laboratory, Inc.



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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-8 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-15 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C3023	03/30/2022	04/06/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 113 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 96.3 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 91.4 % 70-130 " " "

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Project: Noble - Wardlaw 20-28

## MW-8 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-16 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	1360	25.0	mg/kg	1	B2C3023	03/30/2022	04/06/2022
Residual Range Organics (C28-C40)	450	100	"	"	"	"	"

Surrogate: o-Terphenyl	120 %	50-150	"	"	"	"	S-04
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### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	0.172	0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022
1,3,5-Trimethylbenzene	0.0223	0.00200	"	"	"	"	"
Benzene	ND	0.00200	"	"	"	"	U
Ethylbenzene	0.00414	0.00200	"	"	"	"	"
Naphthalene	0.0168	0.0100	"	"	"	"	"
Toluene	0.00210	0.00200	"	"	"	"	"
Xylenes, total	0.00202	0.00200	"	"	"	"	"
Gasoline Range Hydrocarbons	274	5.00	"	25	"	"	04/09/2022

Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130	"	"	"	04/04/2022
Surrogate: Toluene-d8	102 %	70-130	"	"	"	"
Surrogate: 4-Bromofluorobenzene	351 %	70-130	"	"	"	S-GC

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Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-9 10FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-17 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	25.3	25.0	mg/kg	1	B2C3023	03/30/2022	04/06/2022	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 120 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.4 % 70-130 " " "

Surrogate: Toluene-d8 96.4 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 93.3 % 70-130 " " "

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Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## MW-9 12FT

3/29/2022 12:00:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y203766-18 (Soil)

### DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2C3023	03/30/2022	04/06/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 120 % 50-150 " " "

### GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2C3028	03/30/2022	04/04/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 96.8 % 70-130 " " "  
Surrogate: Toluene-d8 96.0 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 93.2 % 70-130 " " "

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Project: Noble - Wardlaw 20-28

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3022 - EPA 3550B										
Blank (B2C3022-BLK1)					Prepared: 03/30/2022 Analyzed: 04/05/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	22		"	24.9		86.5	50-150			

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3022 - EPA 3550B										
LCS (B2C3022-BS1)					Prepared: 03/30/2022 Analyzed: 04/05/2022					
Diesel (C10-C28)	769	50.0	mg/kg	1000		76.9	70-130			
Residual Range Organics (C28-C40)	916	200	"	1000		91.6	70-130			
Surrogate: o-Terphenyl	43		"	49.8		86.0	50-150			

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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B2C3022 - EPA 3550B

Matrix Spike (B2C3022-MS1)		Source: Y203762-03			Prepared: 03/30/2022 Analyzed: 04/05/2022					
Diesel (C10-C28)	862	50.0	mg/kg	1000	ND	86.2	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000	ND	103	70-130			
Surrogate: o-Terphenyl	55		"	49.8		111	50-150			

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Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3022 - EPA 3550B										
Matrix Spike Dup (B2C3022-MSD1)		Source: Y203762-03			Prepared: 03/30/2022 Analyzed: 04/05/2022					
Diesel (C10-C28)	746	50.0	mg/kg	1000	ND	74.6	70-130	14.4	35	
Residual Range Organics (C28-C40)	917	200	"	1000	ND	91.7	70-130	11.8	35	
Surrogate: o-Terphenyl	42		"	49.8		84.1	50-150			

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Project: Noble - Wardlaw 20-28

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3023 - EPA 3550B										
Blank (B2C3023-BLK1)					Prepared: 03/30/2022 Analyzed: 04/06/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	31		"	24.9		126	50-150			

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## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B2C3023 - EPA 3550B

### LCS (B2C3023-BS1)

Prepared: 03/30/2022 Analyzed: 04/06/2022

Diesel (C10-C28)	1120	50.0	mg/kg	1000		112	70-130			
Residual Range Organics (C28-C40)	1180	200	"	1000		118	70-130			
Surrogate: o-Terphenyl	66		"	49.8		133	50-150			

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Project: Noble - Wardlaw 20-28

Extractable Petroleum Hydrocarbons by 8015D - Quality Control  
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3023 - EPA 3550B										
Matrix Spike (B2C3023-MS1)		Source: Y203766-15			Prepared: 03/30/2022 Analyzed: 04/06/2022					
Diesel (C10-C28)	1130	50.0	mg/kg	1000	ND	113	70-130			
Residual Range Organics (C28-C40)	1190	200	"	1000	ND	119	70-130			
Surrogate: o-Terphenyl	60		"	49.8		121	50-150			

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## Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3023 - EPA 3550B										
<b>Matrix Spike Dup (B2C3023-MSD1)</b>			<b>Source: Y203766-15</b>		Prepared: 03/30/2022 Analyzed: 04/06/2022					
Diesel (C10-C28)	1070	50.0	mg/kg	1000	ND	107	70-130	6.02	35	
Residual Range Organics (C28-C40)	1100	200	"	1000	ND	110	70-130	7.93	35	
Surrogate: o-Terphenyl	57		"	49.8		115	50-150			

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Project: Noble - Wardlaw 20-28

## Extractable Petroleum Hydrocarbons by 8015D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3028 - EPA 5030 (soil)										
Blank (B2C3028-BLK1)					Prepared: 03/30/2022 Analyzed: 04/03/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.0100	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.091		"	0.125		72.8	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		95.1	70-130			

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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C3028 - EPA 5030 (soil)</b>										
<b>LCS (B2C3028-BS1)</b>					Prepared: 03/30/2022 Analyzed: 04/03/2022					
1,2,4-Trimethylbenzene	0.101	0.00200	mg/kg	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.102	0.00200	"	0.100		102	70-130			
Benzene	0.104	0.00200	"	0.100		104	70-130			
Ethylbenzene	0.100	0.00200	"	0.100		100	70-130			
Naphthalene	0.0968	0.0100	"	0.100		96.8	70-130			
Toluene	0.103	0.00200	"	0.100		103	70-130			
o-Xylene	0.0995	0.00200	"	0.100		99.5	70-130			
m,p-Xylene	0.201	0.00400	"	0.200		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2C3028 - EPA 5030 (soil)										
Matrix Spike (B2C3028-MS1)		Source: Y203740-01			Prepared: 03/30/2022 Analyzed: 04/06/2022					
1,2,4-Trimethylbenzene	0.0732	0.00200	mg/kg	0.100	ND	73.2	70-130			
1,3,5-Trimethylbenzene	0.0749	0.00200	"	0.100	ND	74.9	70-130			
Benzene	0.0860	0.00200	"	0.100	ND	86.0	70-130			
Ethylbenzene	0.0856	0.00200	"	0.100	ND	85.6	70-130			
Naphthalene	0.0798	0.0100	"	0.100	0.000900	78.9	70-130			
Toluene	0.0876	0.00200	"	0.100	ND	87.6	70-130			
o-Xylene	0.0825	0.00200	"	0.100	ND	82.5	70-130			
m,p-Xylene	0.167	0.00400	"	0.200	ND	83.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.1	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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Project: Noble - Wardlaw 20-28

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B2C3028 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B2C3028-MSD1)</b>		<b>Source: Y203740-01</b>			Prepared: 03/30/2022 Analyzed: 04/06/2022					
1,2,4-Trimethylbenzene	0.0764	0.00200	mg/kg	0.100	ND	76.4	70-130	4.36	20	
1,3,5-Trimethylbenzene	0.0779	0.00200	"	0.100	ND	77.9	70-130	3.90	20	
Benzene	0.0876	0.00200	"	0.100	ND	87.6	70-130	1.87	20	
Ethylbenzene	0.0849	0.00200	"	0.100	ND	84.9	70-130	0.797	20	
Naphthalene	0.0878	0.0100	"	0.100	0.000900	86.9	70-130	9.59	20	
Toluene	0.0885	0.00200	"	0.100	ND	88.5	70-130	1.05	20	
o-Xylene	0.0835	0.00200	"	0.100	ND	83.5	70-130	1.18	20	
m,p-Xylene	0.166	0.00400	"	0.200	ND	83.0	70-130	0.661	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.5	70-130			

Origins Laboratory, Inc.



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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Saturated Paste - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B2C3019 - NO PREP

##### Duplicate (B2C3019-DUP1)

Source: Y203760-05

Prepared: 03/31/2022 Analyzed: 04/01/2022

pH	7.98		pH Units	8.05		0.873	25
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#### Batch B2C3020 - NO PREP

##### Blank (B2C3020-BLK1)

Prepared: 03/31/2022 Analyzed: 04/01/2022

Specific Conductance (EC)	0.000900	0.00500	mmhos/cm
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##### Duplicate (B2C3020-DUP1)

Source: Y203760-05

Prepared: 03/31/2022 Analyzed: 04/01/2022

Specific Conductance (EC)	1.54	0.00500	mmhos/cm	1.61		4.30	25
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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L609000 - 3550B**

MSD (L 86265-MSD-L609000)		Source: 86265			Prepared: 04/06/2022 Analyzed: 04/06/2022					
Benzo(a)pyrene	0.12	0.000468	mg/Kg	0.167	86265	71.8	30-130	3.3	30	
Benzo(b)fluoranthene	0.147	0.000585	"	0.167	86265	88	30-130	15.3	30	
Dibenz(a,h)anthracene	0.172	0.000614	"	0.167	86265	103	30-130	5.9	30	
Benzo(a)anthracene	0.125	0.000493	"	0.167	86265	74.8	30-130	1.6	30	
Anthracene	0.13	0.000334	"	0.167	86265	77.8	30-130	1.5	30	
Acenaphthene	0.113	0.000304	"	0.167	86265	67.6	30-130	0.8	30	
Benzo(k)fluoranthene	0.109	0.000437	"	0.167	86265	65.2	30-130	14.4	30	
Chrysene	0.113	0.000624	"	0.167	86265	67.6	30-130	0.8	30	
Fluoranthene	0.14	0.000394	"	0.167	86265	83.8	30-130	4.1	30	
2-Methylnaphthalene	0.118	0.000645	"	0.167	86265	70.6	30-130	3.4	30	
1-Methylnaphthalene	0.119	0.000364	"	0.167	86265	71.2	30-130	3.4	30	
Pyrene	0.142	0.000643	"	0.167	86265	85	30-130	2	30	
Naphthalene	0.113	0.000484	"	0.167	86265	67.6	30-130	3.6	30	
Indeno(1,2,3-cd)pyrene	0.161	0.000627	"	0.167	86265	96.4	30-130	3.7	30	
Fluorene	0.125	0.000286	"	0.167	86265	74.8	30-130	0.7	30	
Surrogate: 4-Terphenyl-d14	101		"	0.333	259	101	33-122			
Surrogate: Nitrobenzene-d5	55.8		"	0.333	177	55.8	29-110			
Surrogate: 2-Fluorobiphenyl	75.6		"	0.333	222	75.6	33-115			

MS (L 86265-MS-L609000)		Source: 86265			Prepared: 04/06/2022 Analyzed: 04/06/2022					
Dibenz(a,h)anthracene	0.162	0.000614	mg/Kg	0.163	86265	99.3	30-130			
Fluoranthene	0.146	0.000394	"	0.163	86265	89.5	30-130			
Fluorene	0.126	0.000286	"	0.163	86265	77.3	30-130			
Indeno(1,2,3-cd)pyrene	0.155	0.000627	"	0.163	86265	95	30-130			
Naphthalene	0.109	0.000484	"	0.163	86265	66.8	30-130			
Chrysene	0.112	0.000624	"	0.163	86265	68.7	30-130			
Pyrene	0.145	0.000643	"	0.163	86265	88.9	30-130			

Origins Laboratory, Inc.



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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L609000 - 3550B**

MS (L 86265-MS-L609000)		Source: 86265			Prepared: 04/06/2022 Analyzed: 04/06/2022					
Acenaphthene	0.112	0.000304	mg/Kg	0.163	86265	68.7	30-130			
Benzo(k)fluoranthene	0.126	0.000437	"	0.163	86265	77.3	30-130			
Benzo(b)fluoranthene	0.126	0.000585	"	0.163	86265	77.3	30-130			
Benzo(a)pyrene	0.116	0.000468	"	0.163	86265	71.1	30-130			
Anthracene	0.132	0.000334	"	0.163	86265	80.9	30-130			
2-Methylnaphthalene	0.114	0.000645	"	0.163	86265	69.9	30-130			
1-Methylnaphthalene	0.115	0.000364	"	0.163	86265	70.5	30-130			
Benzo(a)anthracene	0.123	0.000493	"	0.163	86265	75.4	30-130			
Surrogate: Nitrobenzene-d5	56.4		"	0.326	177	56.4	29-110			
Surrogate: 4-Terphenyl-d14	120		"	0.326	259	120	33-122			
Surrogate: 2-Fluorobiphenyl	80.6		"	0.326	222	80.6	33-115			

LCS (LCS-L609000)		Prepared: 04/06/2022 Analyzed: 04/06/2022								
Fluoranthene	0.147	0.000394	mg/Kg	0.167		88	30-130			
Benzo(a)anthracene	0.126	0.000493	"	0.167		75.4	30-130			
Chrysene	0.125	0.000624	"	0.167		74.8	30-130			
Naphthalene	0.122	0.000484	"	0.167		73	30-130			
Indeno(1,2,3-cd)pyrene	0.166	0.000627	"	0.167		99.4	30-130			
Fluorene	0.135	0.000286	"	0.167		80.8	30-130			
Dibenz(a,h)anthracene	0.167	0.000614	"	0.167		100	30-130			
Benzo(k)fluoranthene	0.128	0.000437	"	0.167		76.6	30-130			
Benzo(a)pyrene	0.12	0.000468	"	0.167		71.8	30-130			
Pyrene	0.149	0.000643	"	0.167		89.2	30-130			
Anthracene	0.143	0.000334	"	0.167		85.6	30-130			
Acenaphthene	0.12	0.000304	"	0.167		71.8	30-130			
2-Methylnaphthalene	0.127	0.000645	"	0.167		76	30-130			
1-Methylnaphthalene	0.129	0.000364	"	0.167		77.2	30-130			

Origins Laboratory, Inc.



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Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

**PAH by 8270D SIM - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch L609000 - 3550B**

**LCS (LCS-L609000)**

Prepared: 04/06/2022 Analyzed: 04/06/2022

Benzo(b)fluoranthene	0.141	0.000585	mg/Kg	0.167		84.4	30-130			
Surrogate: Nitrobenzene-d5	64.8		"	0.333		64.8	29-110			
Surrogate: 4-Terphenyl-d14	119		"	0.333		119	33-122			
Surrogate: 2-Fluorobiphenyl	93		"	0.333		93	33-115			

**LRB (LRB-L609000)**

Prepared: 04/06/2022 Analyzed: 04/06/2022

Dibenz(a,h)anthracene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Surrogate: 2-Fluorobiphenyl	69.6		"	0.333		69.6	33-115			
Surrogate: 4-Terphenyl-d14	77.4		"	0.333		77.4	33-122			
Surrogate: Nitrobenzene-d5	51.9		"	0.333		51.9	29-110			

Origins Laboratory, Inc.



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  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

**Total Metals by 6020B - Quality Control**  
**Waypoint Analytical, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L608957 - 3050B</b>										
<b>MSD (L 92213-MSD-L608957)</b>			<b>Source: 92213</b>		Prepared: 04/05/2022 Analyzed: 04/06/2022					
Cadmium	0.464	0.0259	mg/Kg	0.459	0.0407	92	75-125	2.1	80	
Copper	5.94	0.0806	"	2.3	3.69	98	75-125	14.4	80	
Lead	4.68	0.031	"	2.3	5.26	NR	75-125	10.1	80	*
Nickel	5.79	0.0633	"	2.3	3.88	83	75-125	14	80	
Selenium	3.4	0.103	"	4.59	92213	74	75-125	2	80	*
Zinc	35.4	0.534	"	23	13.6	95	75-125	6.4	80	
Arsenic	2.25	0.0855	"	2.3	1.42	36	75-125	5.6	80	*
Barium	16.9	0.042	"	4.59	18.1	NR	75-125	14.6	80	*
Silver	0.458	0.0067	"	0.459	92213	100	75-125	0.2	80	
<b>MS (L 92213-MS-L608957)</b>			<b>Source: 92213</b>		Prepared: 04/05/2022 Analyzed: 04/06/2022					
Arsenic	2.38	0.0855	mg/Kg	2.34	1.42	41	75-125			*
Zinc	33.2	0.534	"	23.4	13.6	84	75-125			
Silver	0.457	0.0067	"	0.468	92213	98	75-125			
Selenium	3.47	0.103	"	4.68	92213	74	75-125			*
Nickel	5.03	0.0633	"	2.34	3.88	49	75-125			*
Lead	5.18	0.031	"	2.34	5.26	NR	75-125			*
Copper	5.14	0.0806	"	2.34	3.69	62	75-125			*
Cadmium	0.454	0.0259	"	0.468	0.0407	88	75-125			
Barium	14.6	0.042	"	4.68	18.1	NR	75-125			*
<b>LCS (LCS-L608957)</b>			Prepared: 04/05/2022 Analyzed: 04/06/2022							
Copper	2.63	0.0806	mg/Kg	2.5		105	80-120			
Cadmium	0.483	0.0259	"	0.5		97	80-120			
Barium	4.9	0.042	"	5		98	80-120			
Zinc	25.1	0.534	"	25		100	80-120			
Silver	0.502	0.0067	"	0.5		100	80-120			

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L608957 - 3050B

#### LCS (LCS-L608957)

Prepared: 04/05/2022 Analyzed: 04/06/2022

Selenium	4.77	0.103	mg/Kg	5		95	80-120			
Nickel	2.53	0.0633	"	2.5		101	80-120			
Lead	2.4	0.031	"	2.5		96	80-120			
Arsenic	2.4	0.0855	"	2.5		96	80-120			

#### LRB (LRB-L608957)

Prepared: 04/05/2022 Analyzed: 04/06/2022

Barium	0.0719	0.25	mg/Kg				-			J
Cadmium	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Selenium	ND	0.25	"				-			
Silver	ND	0.25	"				-			
Zinc	ND	2.5	"				-			
Arsenic	ND	0.25	"				-			

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L608405 - 3050B</b>										
<b>MSD (L 86402-MSD-L608405)</b>			<b>Source: 86402</b>		Prepared: 04/01/2022 Analyzed: 04/05/2022					
Zinc	65.5	0.534	mg/Kg	24.2	45	85	75-125	0.1	80	
Copper	8.69	0.0806	"	2.42	6.81	78	75-125	4.7	80	
Arsenic	3.45	0.0855	"	2.42	1.16	95	75-125	14	80	
Barium	25.7	0.042	"	4.84	19.6	126	75-125	12.3	80	*
Cadmium	0.537	0.0259	"	0.484	0.136	83	75-125	4.3	80	
Lead	9.31	0.031	"	2.42	6.99	96	75-125	17.5	80	
Nickel	10.2	0.0633	"	2.42	7.66	105	75-125	5.2	80	
Silver	0.501	0.0067	"	0.484	0.0203	99	75-125	0.4	80	
Selenium	4.54	0.103	"	4.84	0.41	85	75-125	5.3	80	
<b>MS (L 86402-MS-L608405)</b>			<b>Source: 86402</b>		Prepared: 04/01/2022 Analyzed: 04/05/2022					
Zinc	65.4	0.534	mg/Kg	23.5	45	87	75-125			
Arsenic	3.97	0.0855	"	2.35	1.16	119	75-125			
Barium	22.7	0.042	"	4.71	19.6	66	75-125			*
Cadmium	0.561	0.0259	"	0.471	0.136	90	75-125			
Copper	9.11	0.0806	"	2.35	6.81	98	75-125			
Lead	11.1	0.031	"	2.35	6.99	175	75-125			*
Nickel	9.68	0.0633	"	2.35	7.66	86	75-125			
Selenium	4.79	0.103	"	4.71	0.41	93	75-125			
Silver	0.499	0.0067	"	0.471	0.0203	102	75-125			
<b>LCS (LCS-L608405)</b>			Prepared: 04/01/2022 Analyzed: 04/05/2022							
Cadmium	0.485	0.0259	mg/Kg	0.5		97	80-120			
Barium	4.92	0.042	"	5		98	80-120			
Copper	2.39	0.0806	"	2.5		96	80-120			
Lead	2.36	0.031	"	2.5		94	80-120			
Nickel	2.48	0.0633	"	2.5		99	80-120			

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch L608405 - 3050B

#### LCS (LCS-L608405)

Prepared: 04/01/2022 Analyzed: 04/05/2022

Selenium	4.96	0.103	mg/Kg	5		99	80-120			
Silver	0.478	0.0067	"	0.5		96	80-120			
Zinc	24.3	0.534	"	25		97	80-120			
Arsenic	2.56	0.0855	"	2.5		102	80-120			

#### LRB (LRB-L608405)

Prepared: 04/01/2022 Analyzed: 04/05/2022

Arsenic	ND	0.25	mg/Kg				-			
Zinc	ND	2.5	"				-			
Silver	ND	0.25	"				-			
Selenium	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Cadmium	ND	0.25	"				-			
Barium	ND	0.25	"				-			

Origins Laboratory, Inc.



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  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

## Total Metals by 7196A - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch L609418 -</b>										
<b>DUP (L 86271-DUP)</b>		<b>Source: 86271</b>			Prepared: Analyzed: 04/07/2022					
Chromium, Hexavalent	ND	1.22	mg/Kg		86271	-		0	20	
<b>MS (L 86271-MS)</b>		<b>Source: 86271</b>			Prepared: Analyzed: 04/07/2022					
Chromium, Hexavalent	9.87	1.27	mg/Kg	8.33	86271	118	75-125			
<b>LCS (LCS)</b>					Prepared: Analyzed: 04/07/2022					
Chromium, Hexavalent	7.52	0.244	mg/Kg	8		94	75-125			
<b>LRB (LRB)</b>					Prepared: Analyzed: 04/07/2022					
Chromium, Hexavalent	ND	0.5	mg/Kg							

Origins Laboratory, Inc.



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Fremont Environmental  
8305 6th St, PO Box 1289  
Wellington CO 80549

Paul Henehan  
Project Number: C022-029  
Project: Noble - Wardlaw 20-28

### Notes and Definitions

- U Sample is Non-Detect.
- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- J Estimated Value. Analyte below reported quantitation limit.
- 0-9 The sample was reanalyzed outside EPA recommended hold time. Reanalysis confirms original result analyzed within EPA recommended hold time.
- \* QC Failure
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



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

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 15, 2022

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Wardlaw 20-28, 16-28

Work Order #2204024

Enclosed are the results of analyses for samples received by Summit Scientific on 04/01/22 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-10 3ft	2204024-01	Soil	03/31/22 00:00	04/01/22 15:00
MW-10 6ft	2204024-02	Soil	03/31/22 00:00	04/01/22 15:00
MW-10 8ft	2204024-03	Soil	03/31/22 00:00	04/01/22 15:00
MW-10 20ft	2204024-04	Soil	03/31/22 00:00	04/01/22 15:00
SB-11 3ft	2204024-05	Soil	03/31/22 00:00	04/01/22 15:00
SB-11 6ft	2204024-06	Soil	03/31/22 00:00	04/01/22 15:00
SB-11 8ft	2204024-07	Soil	03/31/22 00:00	04/01/22 15:00
SB-11 20ft	2204024-08	Soil	03/31/22 00:00	04/01/22 15:00
SB-12 3ft	2204024-09	Soil	03/31/22 00:00	04/01/22 15:00
SB-12 6ft	2204024-10	Soil	03/31/22 00:00	04/01/22 15:00
SB-12 8ft	2204024-11	Soil	03/31/22 00:00	04/01/22 15:00
SB-12 16ft	2204024-12	Soil	03/31/22 00:00	04/01/22 15:00
SB-13 3ft	2204024-13	Soil	03/31/22 00:00	04/01/22 15:00
SB-13 6ft	2204024-14	Soil	03/31/22 00:00	04/01/22 15:00
SB-13 8ft	2204024-15	Soil	03/31/22 00:00	04/01/22 15:00
SB-13 16ft	2204024-16	Soil	03/31/22 00:00	04/01/22 15:00

Summit Scientific

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



# Summit Scientific

2204024.1

S<sub>2</sub>

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: Jacob

Phone: 303-956-8714

Project Name: NOBE - Wardlaw 20-28, 16-28

Sampler Name: EB

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other	CBTEXN - 915	THS	OF	THS	DRO/ORO	SAR	EC	pH	Boron	PAH - 915	
1	MW-10 3FT	3/31/22		3			X			X				X	X	X	X	X	X	X	X		
2	MW-10 6FT			2										X	X	X	X	X	X	X	X		
3	MW-10 8FT																						
4	MW-10 20FT																						
5	SB-11 3FT																						
6	SB-11 6FT																						
7	SB-11 8FT																						
8	SB-11 20FT																						
9	SB-12 3FT																						
10	SB-12 6FT																						

Relinquished by: <i>Ethan Henehan</i>	Date/Time: 4/1/22	Received by: <i>[Signature]</i>	Date/Time: 4/1/22 1500	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/>	72 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: <u>4.3</u> Temperature Upon Receipt: <u>4.3</u> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

# Summit Scientific

2204024.2

S<sub>2</sub>

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

Page 2 of 2

Client: Fremont Environmental

Project Manager: Paul Henchan

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-Wardlaw 20-28, 16-28

Sampler Name: ER

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions	
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 915	THOS	GRO	DRO/ORO	SAR	EC	pH	Boron	PAH - 915			
1	SB-12 8FT	3/3/22		2			X			X				X	X	X								
2	SB-12 16FT																							
3	SB-13 3FT																							
4	SB-13 6FT																							
5	SB-13 8FT																							
6	SB-13 16FT																							
7																								
8																								
9																								
10																								

Relinquished by: <i>Ethan Black</i>	Date/Time: 4/1/22	Received by: <i>[Signature]</i>	Date/Time: 4/22 1500	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: 4.3 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		



2/2  
Sample Receipt Checklist

S2 Work Order# 2204024

Client: Fremont

Client Project ID: Noble-Wardlaw 20-28, 16-28

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

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

Temp (°C) 4.3

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>on ICE</u>
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<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) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

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

[Signature]  
Custodian Printed Name or Initials

4.1.22  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**MW-10 3ft**  
**2204024-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		146 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		83.3 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**MW-10 3ft**  
**2204024-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0046	04/04/22	04/05/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		56.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		41.0 %	40-150		"	"	"	"	

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.115</b>	0.0100	mg/L	1	BFD0140	04/07/22	04/14/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**MW-10 3ft**  
**2204024-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.65	0.218	mg/kg dry	1	BFD0069	04/04/22	04/09/22	EPA 6020B
Barium	62.2	0.437	"	"	"	"	"	"
Cadmium	ND	0.218	"	"	"	"	"	"
Copper	4.30	0.437	"	"	"	"	"	"
Lead	4.20	0.218	"	"	"	"	"	"
Nickel	5.59	0.437	"	"	"	"	"	"
Selenium	0.486	0.284	"	"	"	"	"	"
Silver	ND	0.0218	"	"	"	"	"	"
Zinc	20.3	0.437	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFD0230	04/12/22	04/12/22	EPA 7196A	

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.7	0.0546	mg/L dry	1	BFD0202	04/11/22	04/13/22	EPA 6020B	
Magnesium	11.6	0.0546	"	"	"	"	"	"	
Sodium	13.2	0.0546	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.505	0.00100	units	1	BFD0273	04/13/22	04/13/22	Calculation	

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

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**MW-10 3ft**  
**2204024-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.6		%	1	BFD0163	04/08/22	04/11/22	Calculation	

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.470	0.0100	mmhos/cm	1	BFD0229	04/12/22	04/12/22	EPA 120.1	

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.09		pH Units	1	BFD0228	04/12/22	04/12/22	EPA 9045D	

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Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**MW-10 6ft**  
**2204024-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		140 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		80.1 %	30-150		"	"	"	"	

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Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**MW-10 8ft**  
**2204024-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		140 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.8 %	30-150		"	"	"	"	

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Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**MW-10 20ft**  
**2204024-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		144 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		76.2 %	30-150		"	"	"	"	

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Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-11 3ft**  
**2204024-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		141 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		85.1 %	30-150		"	"	"	"	

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Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**SB-11 6ft**  
**2204024-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		135 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		95.1 %	30-150		"	"	"	"	

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Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**SB-11 8ft**  
**2204024-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		130 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

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Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-11 20ft**  
**2204024-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		131 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

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

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Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-12 3ft**  
**2204024-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		136 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		81.9 %	30-150		"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**SB-12 6ft**  
**2204024-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		143 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		86.7 %	30-150		"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-12 8ft**  
**2204024-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		140 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		82.1 %	30-150		"	"	"	"	

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Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-12 16ft**  
**2204024-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		146 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		86.1 %	30-150		"	"	"	"	

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Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-13 3ft**  
**2204024-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		144 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		79.3 %	30-150		"	"	"	"	

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Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-13 6ft**  
**2204024-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		139 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/05/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		79.9 %	30-150		"	"	"	"	

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Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-13 8ft**  
**2204024-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		136 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.8 %	30-150		"	"	"	"	

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**SB-13 16ft**  
**2204024-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFD0041	04/04/22	04/07/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		137 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0042	04/04/22	04/06/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		97.9 %	30-150		"	"	"	"	

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

## 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 BFD0041 - EPA 5030 Soil MS

##### Blank (BFD0041-BLK1)

Prepared: 04/04/22 Analyzed: 04/07/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0584		"	0.0400		146	50-150			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0412		"	0.0400		103	50-150			

##### LCS (BFD0041-BS1)

Prepared: 04/04/22 Analyzed: 04/07/22

Benzene	0.0957	0.0020	mg/kg	0.100		95.7	70-130			
Toluene	0.103	0.0050	"	0.100		103	70-130			
Ethylbenzene	0.0885	0.0050	"	0.100		88.5	70-130			
m,p-Xylene	0.184	0.010	"	0.200		92.0	70-130			
o-Xylene	0.0954	0.0050	"	0.100		95.4	70-130			
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.0956	0.0050	"	0.100		95.6	70-130			
Naphthalene	0.105	0.0038	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0567		"	0.0400		142	50-150			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0436		"	0.0400		109	50-150			

##### Matrix Spike (BFD0041-MS1)

Source: 2204021-01

Prepared: 04/04/22 Analyzed: 04/07/22

Benzene	0.0860	0.0020	mg/kg	0.100	ND	86.0	70-130			
Toluene	0.0935	0.0050	"	0.100	ND	93.5	70-130			
Ethylbenzene	0.0789	0.0050	"	0.100	ND	78.9	70-130			
m,p-Xylene	0.167	0.010	"	0.200	ND	83.3	70-130			
o-Xylene	0.0854	0.0050	"	0.100	ND	85.4	70-130			
1,2,4-Trimethylbenzene	0.0950	0.0050	"	0.100	ND	95.0	70-130			
1,3,5-Trimethylbenzene	0.0887	0.0050	"	0.100	ND	88.7	70-130			
Naphthalene	0.111	0.0038	"	0.100	ND	111	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0556		"	0.0400		139	50-150			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0441		"	0.0400		110	50-150			

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**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 BFD0041 - EPA 5030 Soil MS**

Matrix Spike Dup (BFD0041-MSD1)		Source: 2204021-01			Prepared: 04/04/22 Analyzed: 04/07/22					
Benzene	0.0912	0.0020	mg/kg	0.100	ND	91.2	70-130	5.82	30	
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	10.5	30	
Ethylbenzene	0.0935	0.0050	"	0.100	ND	93.5	70-130	17.0	30	
m,p-Xylene	0.195	0.010	"	0.200	ND	97.4	70-130	15.5	30	
o-Xylene	0.101	0.0050	"	0.100	ND	101	70-130	17.0	30	
1,2,4-Trimethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130	14.5	30	
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	15.6	30	
Naphthalene	0.126	0.0038	"	0.100	ND	126	70-130	12.7	30	
<hr/>										
Surrogate: 1,2-Dichloroethane-d4	0.0553		"	0.0400		138	50-150			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0442		"	0.0400		111	50-150			

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

**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 BFD0042 - EPA 3550A**

**Blank (BFD0042-BLK1)**

Prepared & Analyzed: 04/04/22

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

**LCS (BFD0042-BS1)**

Prepared & Analyzed: 04/04/22

C10-C28 (DRO)	448	50	mg/kg	500		89.7	70-130				
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**Matrix Spike (BFD0042-MS1)**

Source: 2204021-01

Prepared & Analyzed: 04/04/22

C10-C28 (DRO)	990	50	mg/kg	500	494	99.3	70-130				
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**Matrix Spike Dup (BFD0042-MSD1)**

Source: 2204021-01

Prepared: 04/04/22 Analyzed: 04/05/22

C10-C28 (DRO)	932	50	mg/kg	500	494	87.5	70-130	6.12	20		
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

### Summit Scientific

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

#### Batch BFD0046 - EPA 5030 Soil MS

##### Blank (BFD0046-BLK1)

Prepared & Analyzed: 04/04/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0178		"	0.0333		53.5	40-150			
Surrogate: Fluoranthene-d10	0.0161		"	0.0333		48.3	40-150			

##### LCS (BFD0046-BS1)

Prepared: 04/04/22 Analyzed: 04/05/22

Acenaphthene	0.0202	0.00500	mg/kg	0.0333		60.5	31-137			
Anthracene	0.0198	0.00500	"	0.0333		59.5	30-120			
Benzo (a) anthracene	0.0208	0.00500	"	0.0333		62.5	30-120			
Benzo (a) pyrene	0.0188	0.00500	"	0.0333		56.4	30-120			
Benzo (b) fluoranthene	0.0197	0.00500	"	0.0333		59.2	30-120			
Benzo (k) fluoranthene	0.0202	0.00500	"	0.0333		60.5	30-120			
Chrysene	0.0193	0.00500	"	0.0333		57.9	30-120			
Dibenz (a,h) anthracene	0.0202	0.00500	"	0.0333		60.6	30-120			
Fluoranthene	0.0204	0.00500	"	0.0333		61.2	30-120			
Fluorene	0.0177	0.00500	"	0.0333		53.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0295	0.00500	"	0.0333		88.4	30-120			
Pyrene	0.0212	0.00500	"	0.0333		63.6	35-142			
1-Methylnaphthalene	0.0211	0.00500	"	0.0333		63.2	35-142			
2-Methylnaphthalene	0.0188	0.00500	"	0.0333		56.4	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0194		"	0.0333		58.2	40-150			
Surrogate: Fluoranthene-d10	0.0201		"	0.0333		60.4	40-150			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

### Summit Scientific

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

#### Batch BFD0046 - EPA 5030 Soil MS

##### Matrix Spike (BFD0046-MS1)

Source: 2204021-01

Prepared: 04/04/22 Analyzed: 04/05/22

Acenaphthene	0.0541	0.00500	mg/kg	0.0333	ND	162	31-137			S-02
Anthracene	0.0236	0.00500	"	0.0333	ND	70.7	30-120			
Benzo (a) anthracene	0.0235	0.00500	"	0.0333	ND	70.4	30-120			
Benzo (a) pyrene	0.0549	0.00500	"	0.0333	0.0645	NR	30-120			S-02
Benzo (b) fluoranthene	0.0352	0.00500	"	0.0333	ND	106	30-120			
Benzo (k) fluoranthene	0.0247	0.00500	"	0.0333	ND	74.1	30-120			
Chrysene	0.0518	0.00500	"	0.0333	0.0488	9.27	30-120			S-02
Dibenz (a,h) anthracene	0.0346	0.00500	"	0.0333	ND	104	30-120			
Fluoranthene	0.0166	0.00500	"	0.0333	ND	49.7	30-120			
Fluorene	0.0444	0.00500	"	0.0333	ND	133	30-120			S-02
Indeno (1,2,3-cd) pyrene	0.0394	0.00500	"	0.0333	ND	118	30-120			
Pyrene	0.0390	0.00500	"	0.0333	0.00703	95.9	35-142			
1-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.6	15-130			
2-Methylnaphthalene	0.0222	0.00500	"	0.0333	ND	66.6	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0222		"	0.0333		66.7	40-150			
Surrogate: Fluoranthene-d10	0.0174		"	0.0333		52.2	40-150			

##### Matrix Spike Dup (BFD0046-MSD1)

Source: 2204021-01

Prepared: 04/04/22 Analyzed: 04/05/22

Acenaphthene	0.0174	0.00500	mg/kg	0.0333	ND	52.1	31-137	103	30	S-02
Anthracene	0.0246	0.00500	"	0.0333	ND	73.9	30-120	4.34	30	
Benzo (a) anthracene	0.0270	0.00500	"	0.0333	ND	81.1	30-120	14.1	30	
Benzo (a) pyrene	0.0735	0.00500	"	0.0333	0.0645	26.9	30-120	28.9	30	S-02
Benzo (b) fluoranthene	0.0339	0.00500	"	0.0333	ND	102	30-120	3.96	30	
Benzo (k) fluoranthene	0.0175	0.00500	"	0.0333	ND	52.5	30-120	34.1	30	S-02
Chrysene	0.0814	0.00500	"	0.0333	0.0488	98.0	30-120	44.4	30	S-02
Dibenz (a,h) anthracene	0.0331	0.00500	"	0.0333	ND	99.4	30-120	4.19	30	
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.8	30-120	9.86	30	
Fluorene	0.00687	0.00500	"	0.0333	ND	20.6	30-120	146	30	S-02
Indeno (1,2,3-cd) pyrene	0.0604	0.00500	"	0.0333	ND	181	30-120	42.2	30	S-02
Pyrene	0.0453	0.00500	"	0.0333	0.00703	115	35-142	15.1	30	
1-Methylnaphthalene	0.0252	0.00500	"	0.0333	ND	75.6	15-130	5.08	50	
2-Methylnaphthalene	0.0247	0.00500	"	0.0333	ND	74.1	15-130	10.7	50	
Surrogate: 2-Methylnaphthalene-d10	0.0243		"	0.0333		72.9	40-150			
Surrogate: Fluoranthene-d10	0.0171		"	0.0333		51.4	40-150			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

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

**Batch BFD0140 - EPA 3050B**

**Blank (BFD0140-BLK1)**

Prepared: 04/07/22 Analyzed: 04/14/22

Boron ND 0.0100 mg/L

**LCS (BFD0140-BS1)**

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 5.09 0.0100 mg/L 5.00 102 80-120

**Duplicate (BFD0140-DUP1)**

Source: 2204024-01

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 0.106 0.0100 mg/L 0.115 7.93 20

**Matrix Spike (BFD0140-MS1)**

Source: 2204024-01

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 5.50 0.0100 mg/L 5.00 0.115 108 75-125

**Matrix Spike Dup (BFD0140-MSD1)**

Source: 2204024-01

Prepared: 04/07/22 Analyzed: 04/14/22

Boron 5.38 0.0100 mg/L 5.00 0.115 105 75-125 2.23 25

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

### Total Metals by EPA 6020B - Quality Control

#### Summit Scientific

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

#### Batch BFD0069 - EPA 3050B

##### Blank (BFD0069-BLK1)

Prepared: 04/04/22 Analyzed: 04/09/22

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

##### LCS (BFD0069-BS1)

Prepared: 04/04/22 Analyzed: 04/09/22

Arsenic	38.2	0.200	mg/kg wet	40.0	95.5	80-120
Barium	35.3	0.400	"	40.0	88.4	80-120
Cadmium	1.72	0.200	"	2.00	85.8	80-120
Copper	37.7	0.400	"	40.0	94.2	80-120
Lead	17.1	0.200	"	20.0	85.3	80-120
Nickel	35.7	0.400	"	40.0	89.2	80-120
Selenium	3.52	0.260	"	4.00	87.9	80-120
Silver	1.66	0.0200	"	2.00	83.0	80-120
Zinc	40.0	0.400	"	40.0	100	80-120

##### Duplicate (BFD0069-DUP1)

Source: 2203186-01

Prepared: 04/04/22 Analyzed: 04/09/22

Arsenic	0.576	0.207	mg/kg dry	0.503	13.6	20
Barium	26.7	0.413	"	22.9	15.5	20
Cadmium	0.0299	0.207	"	0.0322	7.65	20
Copper	2.24	0.413	"	2.44	8.73	20
Lead	3.44	0.207	"	3.42	0.476	20
Nickel	2.09	0.413	"	2.23	6.17	20
Selenium	0.489	0.269	"	0.500	2.26	20
Silver	0.0183	0.0207	"	0.0200	8.55	20
Zinc	15.0	0.413	"	15.2	1.23	20

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

### Total Metals by EPA 6020B - Quality Control

#### Summit Scientific

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

#### Batch BFD0069 - EPA 3050B

##### Matrix Spike (BFD0069-MS1)

Source: 2203186-01

Prepared: 04/04/22 Analyzed: 04/09/22

Arsenic	40.6	0.207	mg/kg dry	41.3	0.503	97.1	75-125
Barium	61.6	0.413	"	41.3	22.9	93.6	75-125
Cadmium	1.88	0.207	"	2.07	0.0322	89.2	75-125
Copper	40.8	0.413	"	41.3	2.44	92.7	75-125
Lead	20.4	0.207	"	20.7	3.42	82.1	75-125
Nickel	39.8	0.413	"	41.3	2.23	91.0	75-125
Selenium	4.05	0.269	"	4.13	0.500	85.9	75-125
Silver	1.76	0.0207	"	2.07	0.0200	84.3	75-125
Zinc	59.6	0.413	"	41.3	15.2	107	75-125

##### Matrix Spike Dup (BFD0069-MSD1)

Source: 2203186-01

Prepared: 04/04/22 Analyzed: 04/09/22

Arsenic	39.6	0.207	mg/kg dry	41.3	0.503	94.5	75-125	2.66	25
Barium	55.5	0.413	"	41.3	22.9	78.8	75-125	10.4	25
Cadmium	1.81	0.207	"	2.07	0.0322	86.1	75-125	3.48	25
Copper	39.3	0.413	"	41.3	2.44	89.2	75-125	3.65	25
Lead	19.4	0.207	"	20.7	3.42	77.5	75-125	4.77	25
Nickel	38.1	0.413	"	41.3	2.23	86.7	75-125	4.50	25
Selenium	3.82	0.269	"	4.13	0.500	80.3	75-125	5.90	25
Silver	1.69	0.0207	"	2.07	0.0200	80.9	75-125	4.05	25
Zinc	55.2	0.413	"	41.3	15.2	96.7	75-125	7.77	25

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henehan

**Reported:**  
04/15/22 09:19

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BFD0230 - 3060A Mod**

**Blank (BFD0230-BLK1)**

Prepared & Analyzed: 04/12/22

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BFD0230-BS1)**

Prepared & Analyzed: 04/12/22

Chromium, Hexavalent 29.8 0.30 mg/kg wet 25.0 119 80-120

**Duplicate (BFD0230-DUP1)**

**Source: 2203549-01**

Prepared & Analyzed: 04/12/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BFD0230-MS1)**

**Source: 2203549-01**

Prepared & Analyzed: 04/12/22

Chromium, Hexavalent 28.4 0.30 mg/kg dry 26.7 ND 106 75-125

**Matrix Spike Dup (BFD0230-MSD1)**

**Source: 2203549-01**

Prepared & Analyzed: 04/12/22

Chromium, Hexavalent 28.1 0.30 mg/kg dry 26.7 ND 105 75-125 1.13 20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

**Summit Scientific**

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

**Batch BFD0202 - General Preparation**

**Blank (BFD0202-BLK1)**

Prepared: 04/11/22 Analyzed: 04/13/22

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

**LCS (BFD0202-BS1)**

Prepared: 04/11/22 Analyzed: 04/13/22

Calcium	5.43	0.0500	mg/L wet	5.00	109	70-130
Magnesium	5.68	0.0500	"	5.00	114	70-130
Sodium	4.74	0.0500	"	5.00	94.8	70-130

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

**Summit Scientific**

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

**Batch BFD0163 - General Preparation**

**Duplicate (BFD0163-DUP1)**

**Source: 2203550-05**

Prepared: 04/08/22 Analyzed: 04/11/22

% Solids	97.5	%	98.0	0.542	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

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

**Batch BFD0229 - General Preparation**

**Blank (BFD0229-BLK1)**

Prepared & Analyzed: 04/12/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFD0229-BS1)**

Prepared & Analyzed: 04/12/22

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 101 95-105

**Duplicate (BFD0229-DUP1)**

**Source: 2203553-01**

Prepared & Analyzed: 04/12/22

Specific Conductance (EC) 0.832 0.0100 mmhos/cm 0.843 1.35 20

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

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

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

**Batch BFD0228 - General Preparation**

**LCS (BFD0228-BS1)**

Prepared & Analyzed: 04/12/22

pH	9.07	pH Units	9.18	98.8	95-105
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**Duplicate (BFD0228-DUP1)**

Source: 2203553-01

Prepared & Analyzed: 04/12/22

pH	7.84	pH Units	7.65	2.45	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:19

### 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.
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

April 15, 2022

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Wardlaw 20-28, 16-28

Work Order #2204042

Enclosed are the results of analyses for samples received by Summit Scientific on 04/04/22 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	2204042-01	Water	03/31/22 00:00	04/04/22 16:00
MW-3	2204042-02	Water	03/31/22 00:00	04/04/22 16:00
MW-4	2204042-03	Water	03/31/22 00:00	04/04/22 16:00
MW-5	2204042-04	Water	03/31/22 00:00	04/04/22 16:00
MW-6	2204042-05	Water	03/31/22 00:00	04/04/22 16:00
MW-7	2204042-06	Water	03/31/22 00:00	04/04/22 16:00
MW-8	2204042-07	Water	03/31/22 00:00	04/04/22 16:00
MW-9	2204042-08	Water	03/31/22 00:00	04/04/22 16:00
MW-10	2204042-09	Water	03/31/22 00:00	04/04/22 16:00

Summit Scientific

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# Summit Scientific

2204042

S<sub>2</sub>

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: Noble - Jacob

Phone: 303-956-8714

Project Name: Noble - Hardlaw 20-28, 16-28

Sampler Name: EB

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions	
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBS	Naphthalene	Heavy Metals	DOC	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	EC	pH		
1	MW-2	3/31/22		1			X		X					X	X	X	X	X				
2	MW-3																					
3	MW-4																					
4	MW-5																					
5	MW-6																					
6	MW-7																					
7	MW-8																					
8	MW-9																					
9	MW-10																					
10																						

Relinquished by: <u>Ethan Blake</u>	Date/Time: <u>4/1/22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>4-1-22 1600</u>	Turn Around Time (Check) Same Day <u>    </u> 72 hours <u>    </u> 24 hours <u>    </u> Standard <u>X</u> 48 hours <u>    </u> Sample Integrity: Temperature Upon Receipt: <u>5-1</u> Samples Intact: <u>Yes</u> No	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S<sub>2</sub>

2204042

## Sample Receipt Checklist

S2 Work Order# \_\_\_\_\_

Client: Fremont Client Project ID: Noble-Wardlow 20-28, 16-28

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

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply) Air ☐ Soil/Solid ☐ Water ☒ Other ☐Temp (°C) 5.1 Thermometer # 

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

Custodian Printed Name

Date/Time

4-1-22 1600





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-2**  
**2204042-01 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	410	10	ug/l	10	BFD0152	04/08/22	04/09/22	EPA 8260B	
Toluene	8.7	1.0	"	1	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	280	20	"	10	"	"	04/11/22	"	
Naphthalene	3.8	1.0	"	1	"	"	04/09/22	"	
1,2,4-Trimethylbenzene	37	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	130	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	25.8	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
Sulfate	280	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	812	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-3**  
**2204042-02 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>2.4</b>	1.0	ug/l	1	BFD0152	04/08/22	04/09/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>56</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>5400</b>	20	"	10	"	"	"	"	
<b>Naphthalene</b>	<b>13</b>	1.0	"	1	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>640</b>	10	"	10	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>310</b>	10	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		125 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		95.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Chloride</b>	<b>20.2</b>	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
<b>Sulfate</b>	<b>286</b>	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Total Dissolved Solids</b>	<b>748</b>	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-4**  
**2204042-03 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BFD0152	04/08/22	04/09/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>230</b>	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>25</b>	1.0	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>120</b>	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Chloride</b>	<b>25.6</b>	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
<b>Sulfate</b>	<b>304</b>	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Total Dissolved Solids</b>	<b>786</b>	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-5**  
**2204042-04 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BFD0152	04/08/22	04/10/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>15</b>	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>2.9</b>	1.0	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>160</b>	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Chloride</b>	<b>19.6</b>	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
<b>Sulfate</b>	<b>330</b>	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Total Dissolved Solids</b>	<b>854</b>	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-6**  
**2204042-05 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Benzene</b>	<b>11</b>	1.0	ug/l	1	BFD0152	04/08/22	04/10/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Chloride</b>	<b>21.4</b>	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
<b>Sulfate</b>	<b>252</b>	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<b>Total Dissolved Solids</b>	<b>832</b>	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-7**  
**2204042-06 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BFD0152	04/08/22	04/10/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	14.8	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
Sulfate	353	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	901	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-8**  
**2204042-07 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BFD0152	04/08/22	04/10/22	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		109 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	22.4	12.0		mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
Sulfate	300	60.0		"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	759	10.0		mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-9**  
**2204042-08 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BFD0152	04/08/22	04/10/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	35.2	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
Sulfate	299	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	723	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**MW-10**  
**2204042-09 (Water)**

**Summit Scientific**

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

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BFD0152	04/08/22	04/10/22	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.9 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	39.2	12.0	mg/L	200	BFD0125	04/06/22	04/06/22	EPA 300.0	
Sulfate	301	60.0	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/31/22 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	824	10.0	mg/L	1	BFD0156	04/06/22	04/08/22	SM2540C	

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 - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

## 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 BFD0152 - EPA 5030 Water MS

##### Blank (BFD0152-BLK1)

Prepared: 04/08/22 Analyzed: 04/09/22

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	15.0		"	13.3		112	23-173			
Surrogate: Toluene-d8	12.2		"	13.3		91.9	20-170			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.3	21-167			

##### LCS (BFD0152-BS1)

Prepared: 04/08/22 Analyzed: 04/09/22

Benzene	35.0	1.0	ug/l	41.7		84.0	51-132			
Toluene	37.9	1.0	"	41.7		90.9	51-138			
Ethylbenzene	41.5	1.0	"	41.7		99.6	58-146			
m,p-Xylene	83.7	2.0	"	83.3		100	57-144			
o-Xylene	41.8	1.0	"	41.7		100	53-146			
Naphthalene	37.9	1.0	"	41.7		91.0	70-130			
1,2,4-Trimethylbenzene	48.9	1.0	"	41.7		117	70-130			
1,3,5-Trimethylbenzene	47.7	1.0	"	41.7		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	15.6		"	13.3		117	23-173			
Surrogate: Toluene-d8	12.8		"	13.3		95.6	20-170			
Surrogate: 4-Bromofluorobenzene	13.5		"	13.3		101	21-167			

##### Matrix Spike (BFD0152-MS1)

Source: 2204042-01

Prepared: 04/08/22 Analyzed: 04/09/22

Benzene	413	1.0	ug/l	41.7	408	12.8	34-141			E, QM-07
Toluene	49.1	1.0	"	41.7	8.71	97.0	27-151			
Ethylbenzene	42.1	1.0	"	41.7	ND	101	29-160			
m,p-Xylene	408	2.0	"	83.3	280	154	20-166			E, QM-07
o-Xylene	234	1.0	"	41.7	210	56.4	33-159			E, QM-07
Naphthalene	43.8	1.0	"	41.7	3.79	96.0	70-130			
1,2,4-Trimethylbenzene	82.1	1.0	"	41.7	36.7	109	70-130			
1,3,5-Trimethylbenzene	171	1.0	"	41.7	127	106	70-130			
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.3		110	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		96.5	20-170			
Surrogate: 4-Bromofluorobenzene	14.5		"	13.3		109	21-167			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**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 BFD0152 - EPA 5030 Water MS**

**Matrix Spike Dup (BFD0152-MSD1)**

**Source: 2204042-01**

Prepared: 04/08/22 Analyzed: 04/09/22

Benzene	354	1.0	ug/l	41.7	408	NR	34-141	15.4	30	E, QM-07
Toluene	47.0	1.0	"	41.7	8.71	92.0	27-151	4.35	30	
Ethylbenzene	41.5	1.0	"	41.7	ND	99.6	29-160	1.44	30	
m,p-Xylene	359	2.0	"	83.3	280	94.9	20-166	12.9	30	
o-Xylene	205	1.0	"	41.7	210	NR	33-159	12.8	30	E, QM-07
Naphthalene	44.9	1.0	"	41.7	3.79	98.6	70-130	2.44	30	
1,2,4-Trimethylbenzene	77.4	1.0	"	41.7	36.7	97.6	70-130	5.87	30	
1,3,5-Trimethylbenzene	152	1.0	"	41.7	127	61.1	70-130	11.6	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	15.1		"	13.3		113	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.8	20-170			
Surrogate: 4-Bromofluorobenzene	14.3		"	13.3		107	21-167			

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

### Anions by EPA Method 300.0 - Quality Control

#### Summit Scientific

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

#### Batch BFD0125 - General Preparation

##### Blank (BFD0125-BLK1)

Prepared & Analyzed: 04/06/22

Chloride	ND	0.0600	mg/L
Sulfate	ND	0.300	"

##### LCS (BFD0125-BS1)

Prepared & Analyzed: 04/06/22

Chloride	3.17	0.0600	mg/L	3.00	106	90-110
Sulfate	15.2	0.300	"	15.0	101	90-110

##### Duplicate (BFD0125-DUP1)

Source: 2204014-01

Prepared & Analyzed: 04/06/22

Chloride	70.6	12.0	mg/L	71.4	1.13	20
Sulfate	1100	60.0	"	1150	4.50	20

##### Matrix Spike (BFD0125-MS1)

Source: 2204014-01

Prepared & Analyzed: 04/06/22

Chloride	666	12.0	mg/L	600	71.4	99.1	80-120
Sulfate	4720	60.0	"	3000	1150	119	80-120

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

**Total Dissolved Solids by SM2540C - Quality Control**  
**Summit Scientific**

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

**Batch BFD0156 - General Preparation**

**Blank (BFD0156-BLK1)**

Prepared: 04/06/22 Analyzed: 04/08/22

Total Dissolved Solids ND 10.0 mg/L

**Duplicate (BFD0156-DUP1)**

Source: 2204042-01

Prepared: 04/06/22 Analyzed: 04/08/22

Total Dissolved Solids 807 10.0 mg/L 812 0.606 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 - Wardlaw 20-28, 16-28

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:33

### Notes and Definitions

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

April 15, 2022

Paul Henchan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549  
RE: Noble - Wardlaw  
Work Order #2204101

Enclosed are the results of analyses for samples received by Summit Scientific on 04/07/22 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:53

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG1 1ft	2204101-01	Soil	04/07/22 00:00	04/07/22 15:00

Summit Scientific

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



# Summit Scientific

2204101

S<sub>2</sub>

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 - Wardlaw

Sampler Name: Black

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested										Special Instructions		
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other	GBTEXN - 915	BTEX - 910	GRO	DRO/ORO	SAR	EC	Asenic	Boron	PAH - 915				
1	BKG 1 IFT	4/7/22		1			X			X															
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Relinquished by: <u>Ethan Black</u>	Date/Time: <u>4/7/22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>4/7/22 1500</u>	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>43</u> 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# 2204101Client: Fremont Client Project ID: Noble-WardlawShipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: \_\_\_\_\_Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
(Describe)

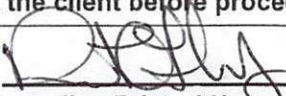
Temp (°C)

4.3

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ICE
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.  
Custodian Printed Name or Initials4-7-22  
Date/Time



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:53

**BKG1 1ft**  
**2204101-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **04/07/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	3.41	0.200		mg/kg dry	1	BFD0178	04/13/22	04/14/22	EPA 6020B	

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

Date Sampled: **04/07/22 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.3			%	1	BFD0263	04/13/22	04/13/22	Calculation	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:53

### Total Metals by EPA 6020B - Quality Control

#### Summit Scientific

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

#### Batch BFD0178 - EPA 3050B

##### Blank (BFD0178-BLK1)

Prepared: 04/13/22 Analyzed: 04/14/22

Arsenic ND 0.200 mg/kg wet

##### LCS (BFD0178-BS1)

Prepared: 04/13/22 Analyzed: 04/14/22

Arsenic 34.3 0.200 mg/kg wet 40.0 85.8 80-120

##### Duplicate (BFD0178-DUP1)

Source: 2204039-01

Prepared: 04/13/22 Analyzed: 04/14/22

Arsenic 0.862 0.200 mg/kg dry 0.820 4.97 20

##### Matrix Spike (BFD0178-MS1)

Source: 2204039-01

Prepared: 04/13/22 Analyzed: 04/14/22

Arsenic 44.5 0.200 mg/kg dry 47.3 0.820 92.4 75-125

##### Matrix Spike Dup (BFD0178-MSD1)

Source: 2204039-01

Prepared: 04/13/22 Analyzed: 04/14/22

Arsenic 42.8 0.200 mg/kg dry 47.3 0.820 88.9 75-125 3.81 25

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:53

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

**Summit Scientific**

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

**Batch BFD0263 - General Preparation**

**Duplicate (BFD0263-DUP1)**

**Source: 2204099-01**

**Prepared & Analyzed: 04/13/22**

% Solids	95.4	%	96.4	1.13	20
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Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Wardlaw

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
04/15/22 09:53

### 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