

July 9, 2024

## Noble Energy, Inc – Frenzel B 15-25

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### Groundwater Monitoring Report

NWSW Sec. 15, T5N, R64W

Weld County, Colorado

Fremont Project No. C022-196

Facility # 285641, Remediation #24600

### Site Overview – Site History

The site consists of the former Frenzel B 15-25 Flowline. A historical release was identified at the flowline during decommissioning activities on October 21, 2022. A comprehensive site investigation was undertaken to define the magnitude and extent of soil impacts. Soil impacts will be removed via excavation at and adjacent to the former flowline location. The proposed dimensions of the excavation extent are estimated to be 25'x25'x3' deep. Groundwater was encountered during the site investigation.

### Conceptual Site Model\*

\*Data presented represents the most recent sampling event

- **Land Use** – Agricultural (Crop)
- **Soil Type (USCS)** – SW
- **Potential Receptors within ¼ mile** – Flowline is located in a Freshwater Emergent Wetland
- **Inferred Groundwater Gradient (Ft/Ft) and Flow Direction** – 0.04 (ft/ft) to the NE
- **Average Depth to Groundwater** – 2-3 ft
- **Impacted Media and Extent** – Groundwater, soil
- **LNAPL Present** – No
- **Points of Compliance** – Yes, in all cardinal and ordinal directions
- **Number of Consecutive ECMC Compliant Quarters** – two
- **Remediation Type** – MNA
- **Remediation System Operation Date(s)** – NA

### Contaminants of Concern (COC)

The laboratory data indicates that the dissolved phase organic constituents were below their respective ECMC Table 915-1 standards in all six wells sampled during the May 2024 quarterly monitoring event. A copy of the laboratory's report, quality control data, and chain-of-custody documentation is attached.

### Remedial Actions

Monitored natural attenuation (MNA) will be implemented at the site to address dissolved phase groundwater impacts. A no further action designation will be requested from the ECMC following observation of four consecutive quarters of groundwater compliant with the applicable ECMC Table 915-1 standards, under static conditions, at the site. The Q2 2024 sampling event marks the second consecutive quarter of ECMC-compliant groundwater at the site.

## 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.

Please contact me at (813) 514-7730 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

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



7/9/2024

Date\_\_\_\_\_

\_\_\_\_\_  
Joshua J. Belanger

Consultant

Reviewed by:



8/15/2024

Date\_\_\_\_\_

\_\_\_\_\_  
Ethan D. Black

Consultant

Attachments:

Tables

Figures

Laboratory Report

TABLE 5  
SUMMARY OF GROUNDWATER ELEVATION DATA AND ORGANIC CHEMISTRY DATA  
NOBLE ENERGY INC.  
FRENZEL B15-25, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-196

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4- Trimethyl- Benzene (µg/L)	1,3,5- Trimethyl- Benzene (µg/L)	TOC Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	LNAPL Thickness (ft)
ECMC Table 915-1 Limits		5.0	560	700	1400	140	67	67				
GW-01	10/21/2022	<b>32.5</b>	39	7.06	46.1	3.17	18.4	7.50	NA	NA	NA	NA
GW01	12/7/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
GW02	12/7/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
MW1	01/04/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.76	2.15	4.61	NP
	05/21/24	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		2.39	4.37	NP
MW2	01/04/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.56	2.31	4.25	NP
	05/21/24	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		2.55	4.01	NP
MW3	01/04/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.87	2.06	4.81	NP
	05/21/24	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		2.32	4.55	NP
MW4	01/04/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.45	2.01	4.44	NP
	05/21/24	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		2.26	4.19	NP
MW5	01/04/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.33	2.47	3.86	NP
	05/21/24	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		2.70	3.63	NP
MW6	01/04/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.59	2.42	4.17	NP
	05/21/24	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		2.65	3.94	NP

Bold face values exceed the ECMC concentration limits

Red highlighted 915-1 Limits indicate the referenced groundwater screening level

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

TABLE 6  
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA  
NOBLE ENERGY INC.  
FRENZEL B15-25, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C022-196

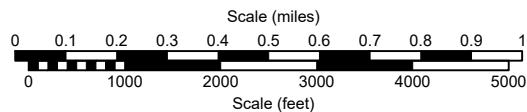
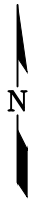
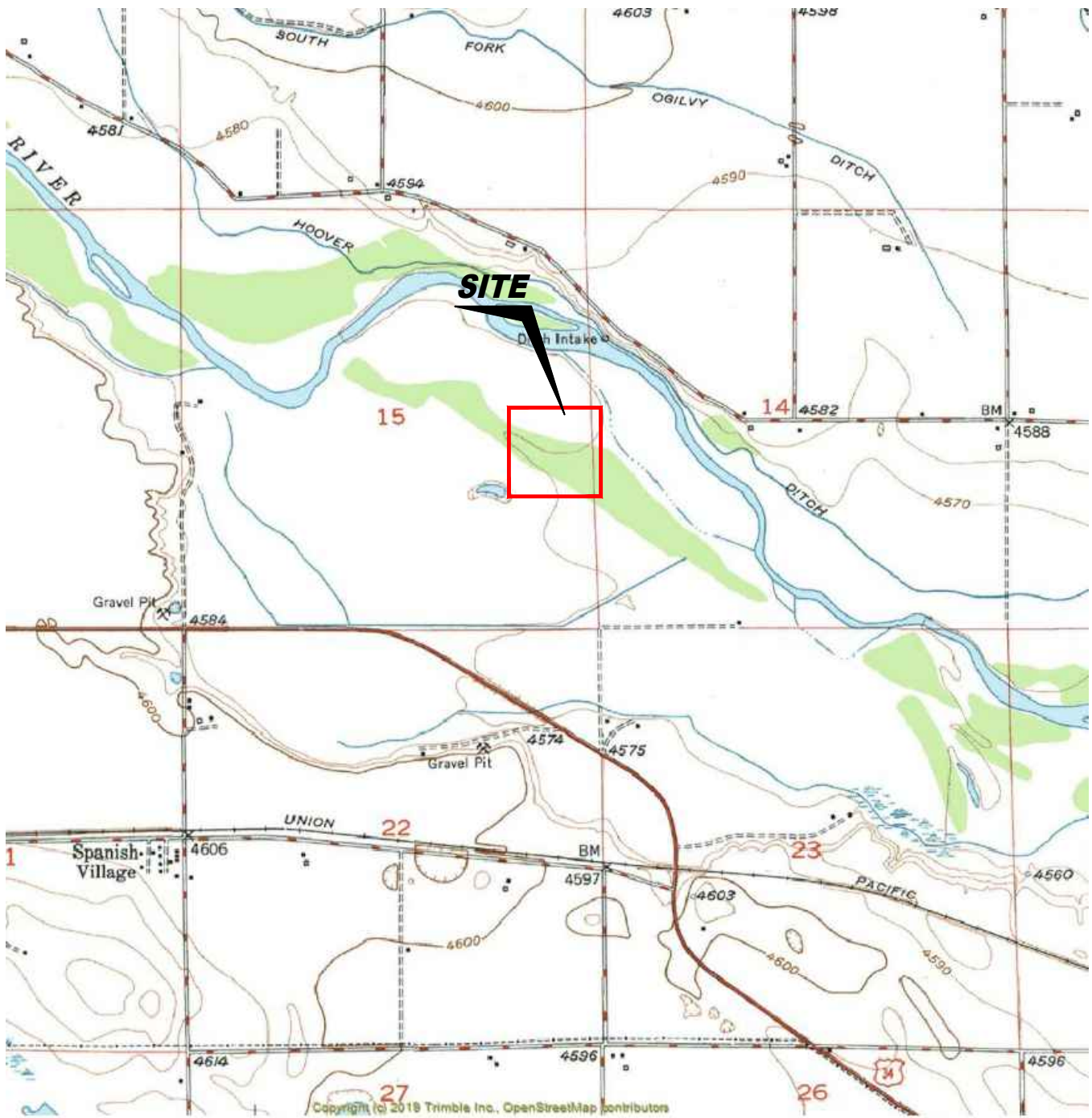
Sample ID	Sample Date	Total Dissolved Solids (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
ECMC Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background
MW1	01/04/2024	931	162	419
	5/21/24	994	199	719
MW2	01/04/2024	923	154	374
	5/21/24	878	175	695
MW3	01/04/2024	899	152	371
	5/21/24	829	199	646
MW4	01/04/2024	861	142	338
	5/21/24	794	144	603
MW5	01/04/2024	1160	210	509
	5/21/24	874	160	618
MW6	01/04/2024	1080	179	493
	5/21/24	872	141	662
Background Concentration(Current)		<b>1036</b>	<b>249</b>	<b>807</b>

Bold face values exceed the ECMC concentration limits

Yellow highlighted 915-1 Limits indicate the referenced groundwater screening level

NP - No measurable LNAPL, NA - Not Analyzed, INA - Inaccessible, IW - Insufficient Water, DES - Destroyed

MW-3 was chosen as the upgradient/cross gradient background well.



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**NOBLE ENERGY, INC. ~ FRENZEL B15-25**  
NWSW Sec. 15, T5N, R64W, 6th PM  
Weld County, Colorado  
40.395921 °, -104.540770°

Project # <b>C022-196</b>	API # <b>05-123-24009</b>	Facility # <b>285641</b>
Date <b>6/24/2024</b>	Remediation # <b>24600</b>	Filename <b>22196T</b>






#### LEGEND

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

**Figure 2  
SITE MAP**

**NOBLE ENERGY, INC. ~ FRENZEL B 15-25**  
 NWSW Sec.15, T5N, R64W, 6th PM  
 Weld County, Colorado  
 40.395921 ° , -104.540770°

Project No. <b>C022-196</b>	Facility # <b>05-123-24009</b>	Drawn By <b>285641</b>	
Date <b>6/24/2024</b>	Reviewed By <b>24600</b>	Filename <b>22196Q</b>	






#### LEGEND

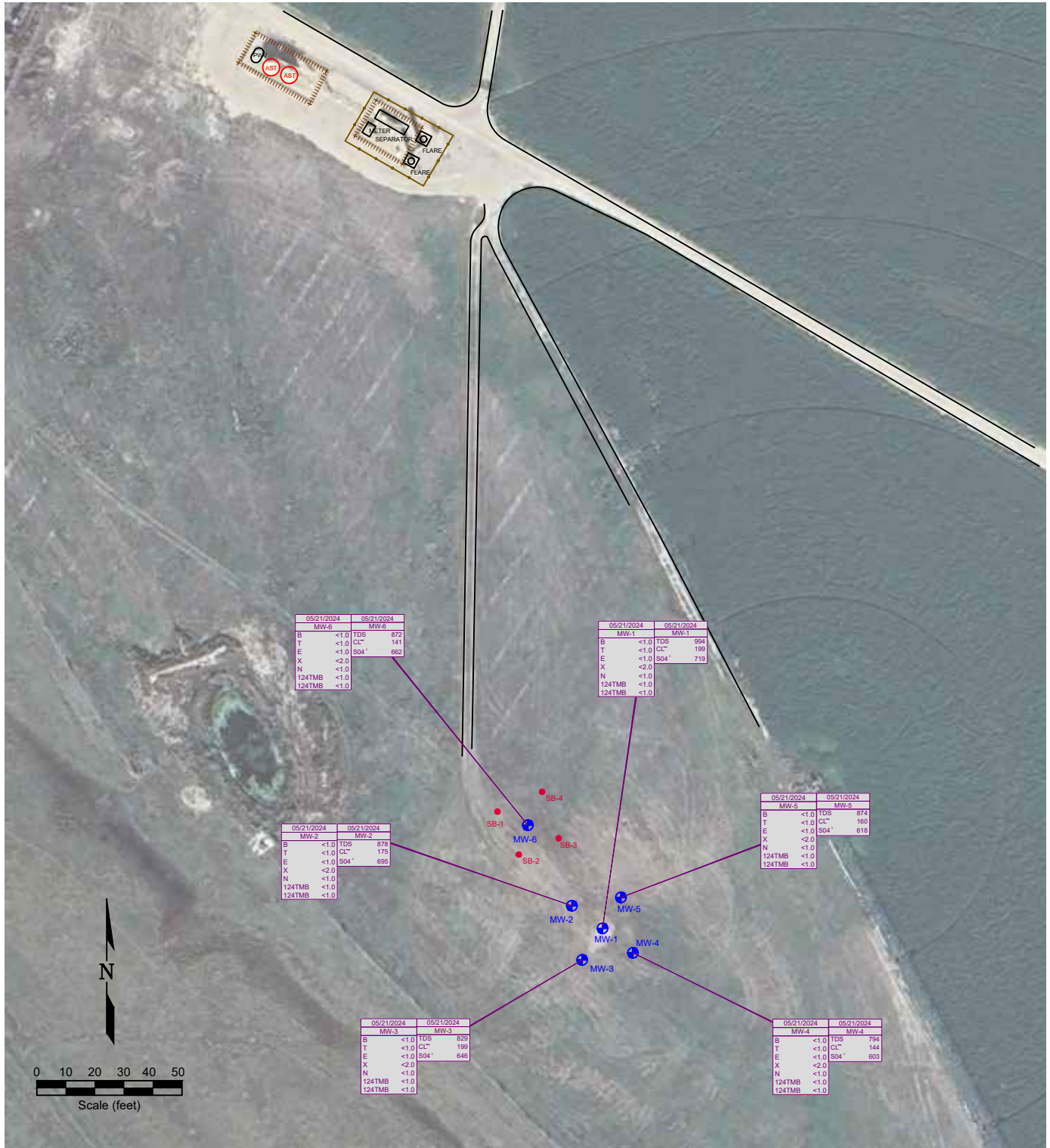
- SOIL BORING LOCATION
- ABOVE GROUND STORAGE TANK
- ⊕ MONITORING WELL LOCATION
- FORMER FACILITY
- CONTAINMENT WALL
- CONTAINMENT BERM
- FENCE LINE
- (4.01) GROUND WATER ELEVATION (ft above arbitrary datum)
- WATER TABLE CONTOUR
- GROUND WATER FLOW DIRECTION

Figure 3

### INFERRED GROUNDWATER CONTOUR MAP May 21, 2024

**NOBLE ENERGY, INC. ~ FRENZEL B 15-25**  
NWSW Sec.15, T5N, R64W, 6th PM  
Weld County, Colorado  
40.395921 ° , -104.540770°

Project No. <b>C022-196</b>	Facility # <b>05-123-24009</b>	Drawn By <b>285641</b>	
Date <b>6/24/2024</b>	Reviewed By <b>24600</b>	Filename <b>22196Q</b>	



# LEGEND

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

05/21/2024	DATE SAMPLED	05/21/2024	DATE SAMPLED
MW-1	SAMPLE ID	MW-1	SAMPLE ID
B	<1.0	TDS	937
T	<1.0	CL <sup>-</sup>	162
E	<1.0	S04 <sup>-</sup>	419
X	<2.0		
N	<1.0		
124TMB	<1.0		
124TMB	<1.0		

Figure 4  
GROUNDWATER CHEMISTRY MAP  
May 21, 2024

NOBLE ENERGY, INC. ~ FRENZEL B 15-25  
NWSW Sec.15, T5N, R64W, 6th PM  
Weld County, Colorado  
40.395921 ° , -104.540770°

Project No. <b>C022-196</b>	Facility # <b>05-123-24009</b>	Drawn By <b>285641</b>	<b>REMONTE</b> <b>ENVIRONMENTAL</b>
Date <b>6/24/2024</b>	Reviewed By <b>24600</b>	Filename <b>22196Q</b>	



# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 20, 2024

Paul Henchan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549  
RE: Noble - Frenzel B15-25  
Work Order #2405321

Enclosed are the results of analyses for samples received by Summit Scientific on 05/21/24 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is fluid and cursive, with the first name being more prominent.

Natalie Tessier For Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Frenzel B15-25

Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW 1	2405321-01	Water	05/21/24 09:00	05/21/24 16:30
MW 2	2405321-02	Water	05/21/24 09:15	05/21/24 16:30
MW 3	2405321-03	Water	05/21/24 09:30	05/21/24 16:30
MW 4	2405321-04	Water	05/21/24 09:45	05/21/24 16:30
MW 5	2405321-05	Water	05/21/24 10:00	05/21/24 16:30
MW 6	2405321-06	Water	05/21/24 10:15	05/21/24 16:30

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

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

Lab ID	Page of
2405321	

Send Data To:		Send Invoice To:	
Client: Fremont Environmental, Inc.	Project Manager: <u>Paul Henehan</u>	Company: <u>FREMONT ENV</u>	
Address: 8305 6th St.,	E-Mail: Fremont Distribution List	Project Name/Location: <u>FRENZEL B15-25</u>	
City/State/Zip: Wellington, CO, 80549		AFE#:	
Phone: 603-477-6907	Project Name: <u>NOBLE FRENZEL B15-25</u>	PO/Billing Codes: <u>UWRWE-A2534-ABN</u>	
Sampler Name:	Project Number: <u>CO22-196</u>	Contact:	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____	BTEX, Naphthalene, TMBs	TPH (C6-C36)	PAH	SAR, EC, pH, Boron	TDS, Chloride, Sulfate		Metals (915-1)
1	MW 1	5/21	0900	4	3		1		✓				✓				✓		
2	MW 2	5/21	0915	4	3		1		✓				✓				✓		
3	MW 3	5/21	0930	4	3		1		✓				✓				✓		
4	MW 4	5/21	0945	4	3		1		✓				✓				✓		
5	MW 5	5/21	1000	4	3		1		✓				✓				✓		
6	MW 6	5/21	1015	4	3		1		✓				✓				✓		
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <u>Toshua T. Taylor</u>	Date/Time: <u>5/21/20</u>	Received by: <u>SZ</u>	Date/Time: <u>5/21 1430</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>SL</u>	Date/Time: <u>5/21/24 1630</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5/21/24 1630</u>	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by: <u>[Signature]</u>	Date/Time: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Date/Time: <u>[Signature]</u>	Standard	Field Turb.	
Temperature Upon Receipt: <u>7.0</u>		Corrected Temperature: <u>8</u>		IR gun #: <u>[Signature]</u>	HNO3 lot #: <u>[Signature]</u>	

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order# 2405321Client: FremontClient Project ID: None FRENZEL B19-29Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #: ☐
☐ ☐ ☐ ☐ ☐
Matrix (Check all that apply) Air ☐ Soil/Solid ☐ Water ☒ Other ☐Temp (°C) 7.0Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	once
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	
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"/>	
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"/>	
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"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
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.
AS  
Custodian Printed Name

5/21/24  
Date/Time





Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Frenzel B15-25  
Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**MW 1**  
**2405321-01 (Water)**

**Summit Scientific**

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

Date Sampled: **05/21/24 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHE0691	05/22/24	05/24/24	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: **05/21/24 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	13.8	103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	98.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.0	90.1 %		21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **05/21/24 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	199	0.0600		mg/L	1	BHF0433	06/14/24	06/19/24	EPA 300.0	
Sulfate	719	0.300		"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **05/21/24 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	994	10.0		mg/L	1	BHE0666	05/22/24	05/22/24	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 - Frenzel B15-25  
Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**MW 2**  
**2405321-02 (Water)**

**Summit Scientific**

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

Date Sampled: **05/21/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHE0691	05/22/24	05/24/24	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: **05/21/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.8	103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	98.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.1	90.5 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **05/21/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	175	0.0600	mg/L	1	BHF0433	06/14/24	06/19/24	EPA 300.0	
Sulfate	695	0.300	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **05/21/24 09:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	878	10.0	mg/L	1	BHE0666	05/22/24	05/22/24	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Frenzel B15-25  
Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**MW 3**  
**2405321-03 (Water)**

**Summit Scientific**

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

Date Sampled: **05/21/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHE0691	05/22/24	05/24/24	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: **05/21/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.0	105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	99.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	11.9	89.4 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **05/21/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	<b>199</b>	0.0600	mg/L	1	BHF0433	06/14/24	06/19/24	EPA 300.0	
Sulfate	<b>646</b>	0.300	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **05/21/24 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	<b>829</b>	10.0	mg/L	1	BHE0666	05/22/24	05/22/24	SM2540C	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Frenzel B15-25  
Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**MW 4**  
**2405321-04 (Water)**

**Summit Scientific**

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

Date Sampled: **05/21/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHE0691	05/22/24	05/24/24	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: **05/21/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	13.7	102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.1	90.8 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **05/21/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	144	0.0600	mg/L	1	BHF0433	06/14/24	06/19/24	EPA 300.0	
Sulfate	603	0.300	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **05/21/24 09:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	794	10.0	mg/L	1	BHE0666	05/22/24	05/22/24	SM2540C	

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Project: Noble - Frenzel B15-25  
Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**MW 5**  
**2405321-05 (Water)**

**Summit Scientific**

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

Date Sampled: **05/21/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHE0691	05/22/24	05/24/24	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: **05/21/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.1	106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.1	90.8 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **05/21/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	160	0.0600	mg/L	1	BHF0433	06/14/24	06/19/24	EPA 300.0	
Sulfate	618	0.300	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **05/21/24 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	874	10.0	mg/L	1	BHE0666	05/22/24	05/22/24	SM2540C	

Summit Scientific

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Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**MW 6**  
**2405321-06 (Water)**

**Summit Scientific**

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

Date Sampled: **05/21/24 10:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	BHE0691	05/22/24	05/24/24	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: **05/21/24 10:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	14.3	107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.0	89.8 %	21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **05/21/24 10:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chloride	141	0.0600	mg/L	1	BHF0433	06/14/24	06/19/24	EPA 300.0	
Sulfate	662	0.300	"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **05/21/24 10:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Total Dissolved Solids	872	10.0	mg/L	1	BHE0666	05/22/24	05/22/24	SM2540C	

Summit Scientific

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Project: Noble - Frenzel B15-25  
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Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

## 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 BHE0691 - EPA 5030 Water MS

##### Blank (BHE0691-BLK1)

Prepared: 05/22/24 Analyzed: 05/24/24

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	12.5		"	13.3		93.6	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		96.5	20-170			
Surrogate: 4-Bromofluorobenzene	11.6		"	13.3		87.0	21-167			

##### LCS (BHE0691-BS1)

Prepared: 05/22/24 Analyzed: 05/24/24

Benzene	36.4	1.0	ug/l	33.3		109	51-132			
Toluene	35.0	1.0	"	33.3		105	51-138			
Ethylbenzene	39.6	1.0	"	33.3		119	58-146			
m,p-Xylene	68.5	2.0	"	66.7		103	57-144			
o-Xylene	29.2	1.0	"	33.3		87.5	53-146			
Naphthalene	25.6	1.0	"	33.3		76.8	70-130			
1,2,4-Trimethylbenzene	29.8	1.0	"	33.3		89.4	70-130			
1,3,5-Trimethylbenzene	30.8	1.0	"	33.3		92.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.0	23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	11.7		"	13.3		87.5	21-167			

##### Matrix Spike (BHE0691-MS1)

Source: 2405320-01

Prepared: 05/22/24 Analyzed: 05/24/24

Benzene	38.4	1.0	ug/l	33.3	ND	115	34-141			
Toluene	36.6	1.0	"	33.3	ND	110	27-151			
Ethylbenzene	41.6	1.0	"	33.3	ND	125	29-160			
m,p-Xylene	72.3	2.0	"	66.7	ND	108	20-166			
o-Xylene	30.4	1.0	"	33.3	ND	91.3	33-159			
Naphthalene	30.6	1.0	"	33.3	ND	91.8	70-130			
1,2,4-Trimethylbenzene	31.3	1.0	"	33.3	ND	94.0	70-130			
1,3,5-Trimethylbenzene	32.2	1.0	"	33.3	ND	96.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.5		"	13.3		101	23-173			
Surrogate: Toluene-d8	13.7		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	11.8		"	13.3		88.9	21-167			

Summit Scientific

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Project: Noble - Frenzel B15-25  
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Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**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 BHE0691 - EPA 5030 Water MS**

Matrix Spike Dup (BHE0691-MSD1)	Source: 2405320-01			Prepared: 05/22/24 Analyzed: 05/24/24						
Benzene	37.6	1.0	ug/l	33.3	ND	113	34-141	2.18	30	
Toluene	36.4	1.0	"	33.3	ND	109	27-151	0.822	30	
Ethylbenzene	41.4	1.0	"	33.3	ND	124	29-160	0.482	30	
m,p-Xylene	71.2	2.0	"	66.7	ND	107	20-166	1.55	30	
o-Xylene	30.5	1.0	"	33.3	ND	91.4	33-159	0.0657	30	
Naphthalene	32.6	1.0	"	33.3	ND	97.7	70-130	6.30	30	
1,2,4-Trimethylbenzene	31.2	1.0	"	33.3	ND	93.7	70-130	0.384	30	
1,3,5-Trimethylbenzene	32.1	1.0	"	33.3	ND	96.2	70-130	0.467	30	
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.6	23-173			
Surrogate: Toluene-d8	13.5		"	13.3		101	20-170			
Surrogate: 4-Bromofluorobenzene	11.5		"	13.3		86.0	21-167			

Summit Scientific

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Project: Noble - Frenzel B15-25  
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Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

**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 BHF0433 - General Preparation**

**Blank (BHF0433-BLK1)**

Prepared: 06/14/24 Analyzed: 06/19/24

Chloride	ND	0.0600	mg/L
Sulfate	ND	0.300	"

**LCS (BHF0433-BS1)**

Prepared: 06/14/24 Analyzed: 06/19/24

Chloride	3.17	0.0600	mg/L	3.00	106	90-110
Sulfate	15.2	0.300	"	15.0	102	90-110

**Duplicate (BHF0433-DUP1)**

Source: 2405294-01

Prepared: 06/14/24 Analyzed: 06/19/24

Chloride	390	0.0600	mg/L	378	2.92	20
Sulfate	2150	0.300	"	1990	7.79	20

**Matrix Spike (BHF0433-MS1)**

Source: 2405294-01

Prepared: 06/14/24 Analyzed: 06/19/24

Chloride	1650	0.0600	mg/L	600	378	212	80-120	QM-01
Sulfate	8130	0.300	"	3000	1990	205	80-120	QM-01

Summit Scientific

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Project: Noble - Frenzel B15-25

Project Number: UWRWE-A2534-ABN CO22-196

Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

### Total Dissolved Solids by SM2540C - Quality Control

#### Summit Scientific

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

#### Batch BHE0666 - General Preparation

##### Blank (BHE0666-BLK1)

Prepared & Analyzed: 05/22/24

Total Dissolved Solids ND 10.0 mg/L

##### Duplicate (BHE0666-DUP1)

Source: 2405315-01

Prepared & Analyzed: 05/22/24

Total Dissolved Solids 1440 10.0 mg/L 1490 3.21 20

Summit Scientific

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Project: Noble - Frenzel B15-25

Project Number: UWRWE-A2534-ABN CO22-196  
Project Manager: Paul Henchan

**Reported:**  
06/20/24 10:42

### Notes and Definitions

QM-01      The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

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