

# FREMONT ENVIRONMENTAL INC.

March 31, 2023

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

Subject:       **Groundwater Data Submittal**  
                  Lockman C #14-30  
                  API # 05-123-30892  
                  SESE Sec. 10, T4N, R64W  
                  Weld County, Colorado  
                  Fremont Project No. C022-023  
                  Facility #414921, Remediation #19296

Dear Mr. Peterson:

Enclosed please find a copy of the above referenced Groundwater Data Submittal for the Lockman C #14-30 site in Weld County, Colorado. The enclosed data describes the groundwater quality at the site during the recent quarterly sampling and monitoring event.

The site's monitoring well has achieved Colorado Oil and Gas Conservation Commission compliant standards under static groundwater conditions for four consecutive quarters. Noble should request a no further action (NFA) determination for groundwater monitoring at the site.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,  
**FREMONT ENVIRONMENTAL INC.**



Paul V. Henehan, P.E.  
Senior Consultant

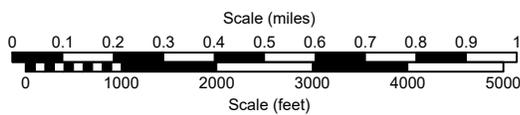
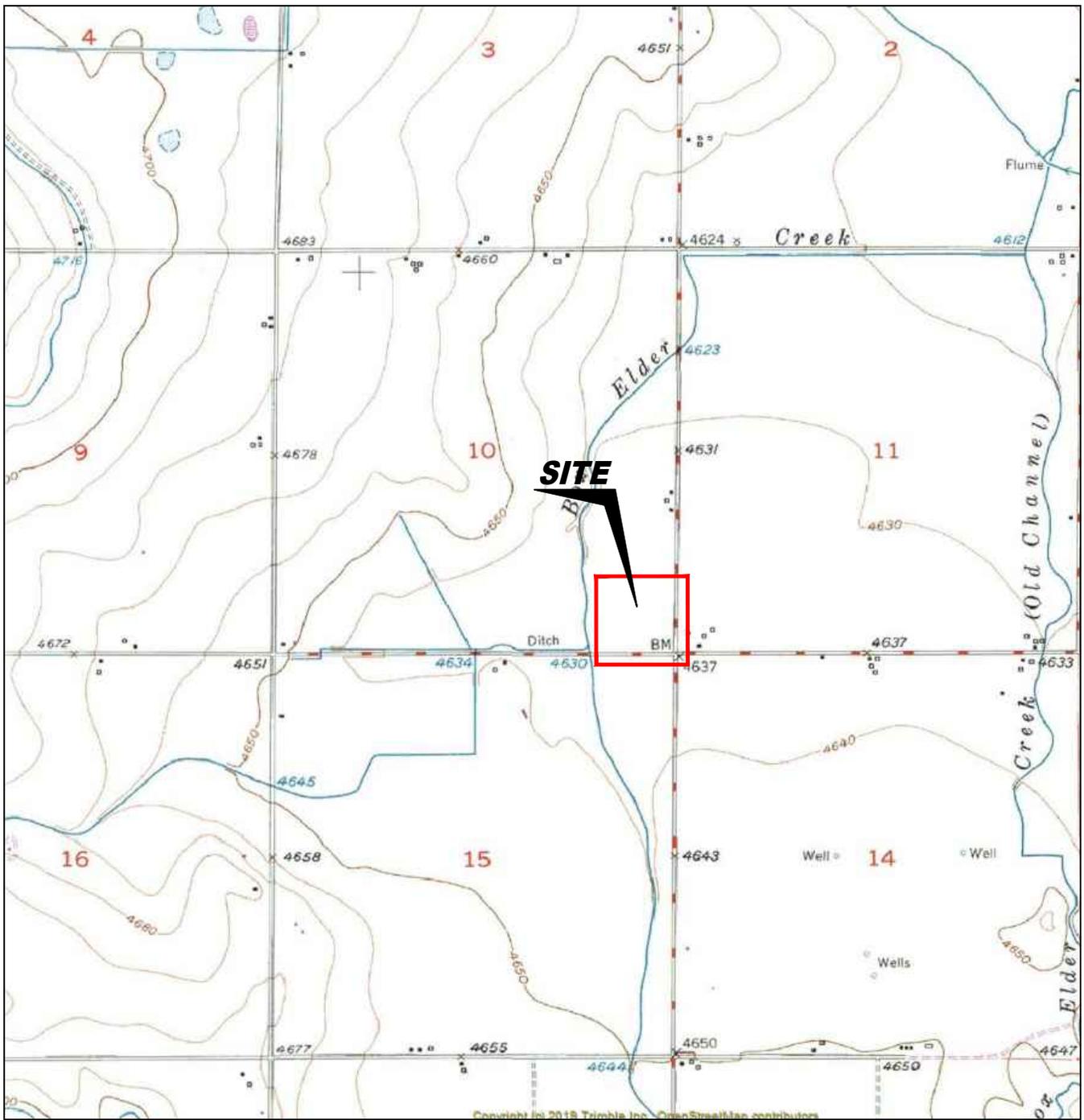
Enclosure

**1759 REDWING LANE, BROOMFIELD, CO 80020**  
**(303) 956-8714 (DIRECT)**

**TABLE 1**  
**SUMMARY OF ORGANIC GROUNDWATER CHEMISTRY DATA**  
**NOBLE ENERGY INC.**  
**LOCKMAN C14-30**  
**FREMONT PROJECT NO. C022-023**

<b>SAMPLE LOCATION</b>	<b>DATE</b>	<b>BENZENE (µg/L)</b>	<b>TOLUENE (µg/L)</b>	<b>ETHYL BENZENE (µg/L)</b>	<b>TOTAL XYLENES (µg/L)</b>	<b>NAPH- THALENE (µg/L)</b>	<b>1,2,4 TMB (µg/L)</b>	<b>1,3,5 TMB (µg/L)</b>
MW-1	03/25/22	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
	06/21/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	09/22/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	12/30/22	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
Table 915-1 Limits		5	560	700	1,400	140	67	67

Bold face values exceed the COGCC limits



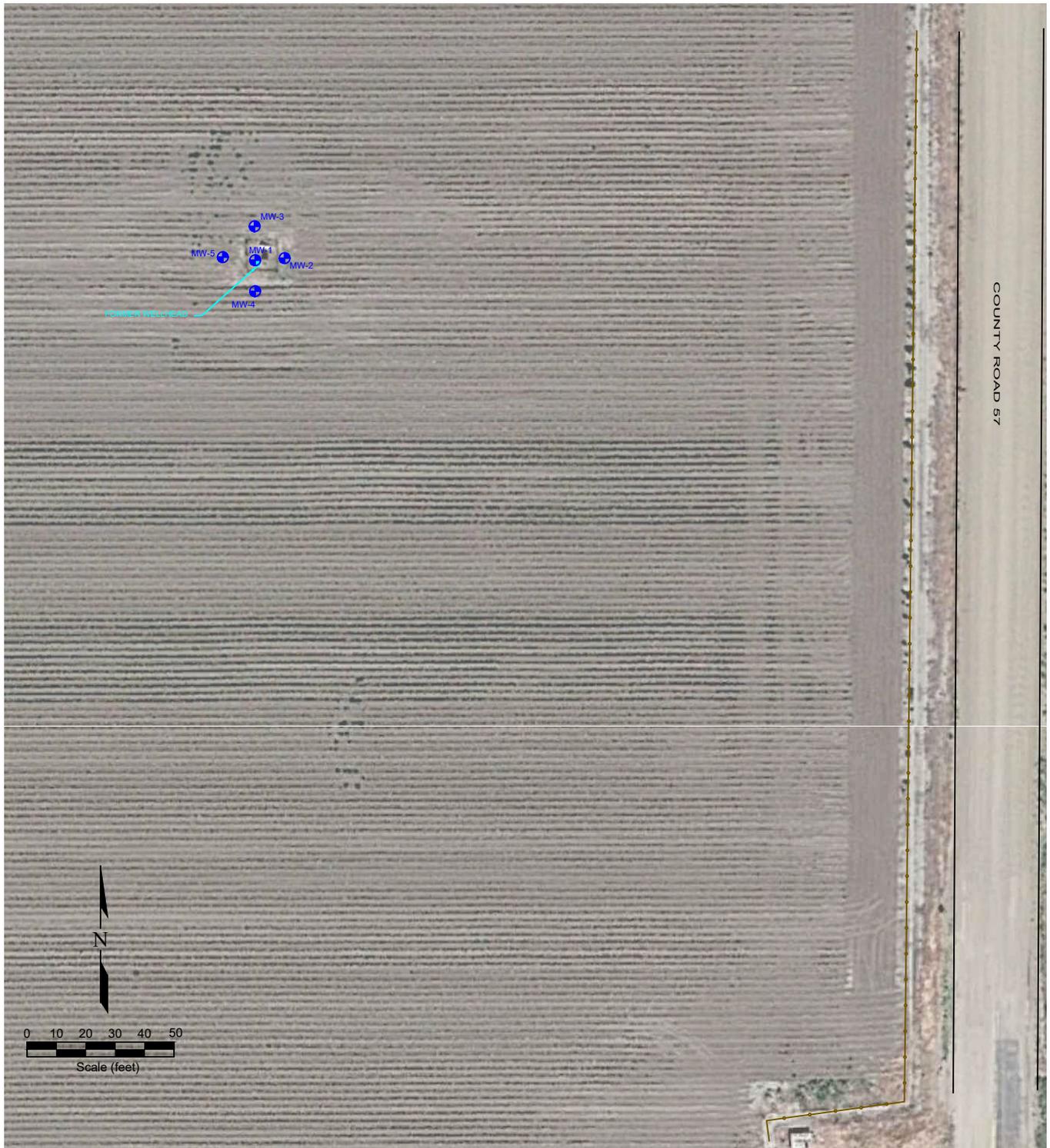
USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
**SITE LOCATION MAP**

**Noble Energy, Inc. ~ Lockman C #14-30**  
 SESE Sec. 10, T4N, R64W, 6th PM  
 Weld County, Colorado  
 40.320651°, -104.528093°

Project # <b>C022-023</b>	API # <b>05-123-30892</b>	Location ID
Date <b>3/29/23</b>	Remediation # <b>19296</b>	Filename <b>22023T</b>





**LEGEND**

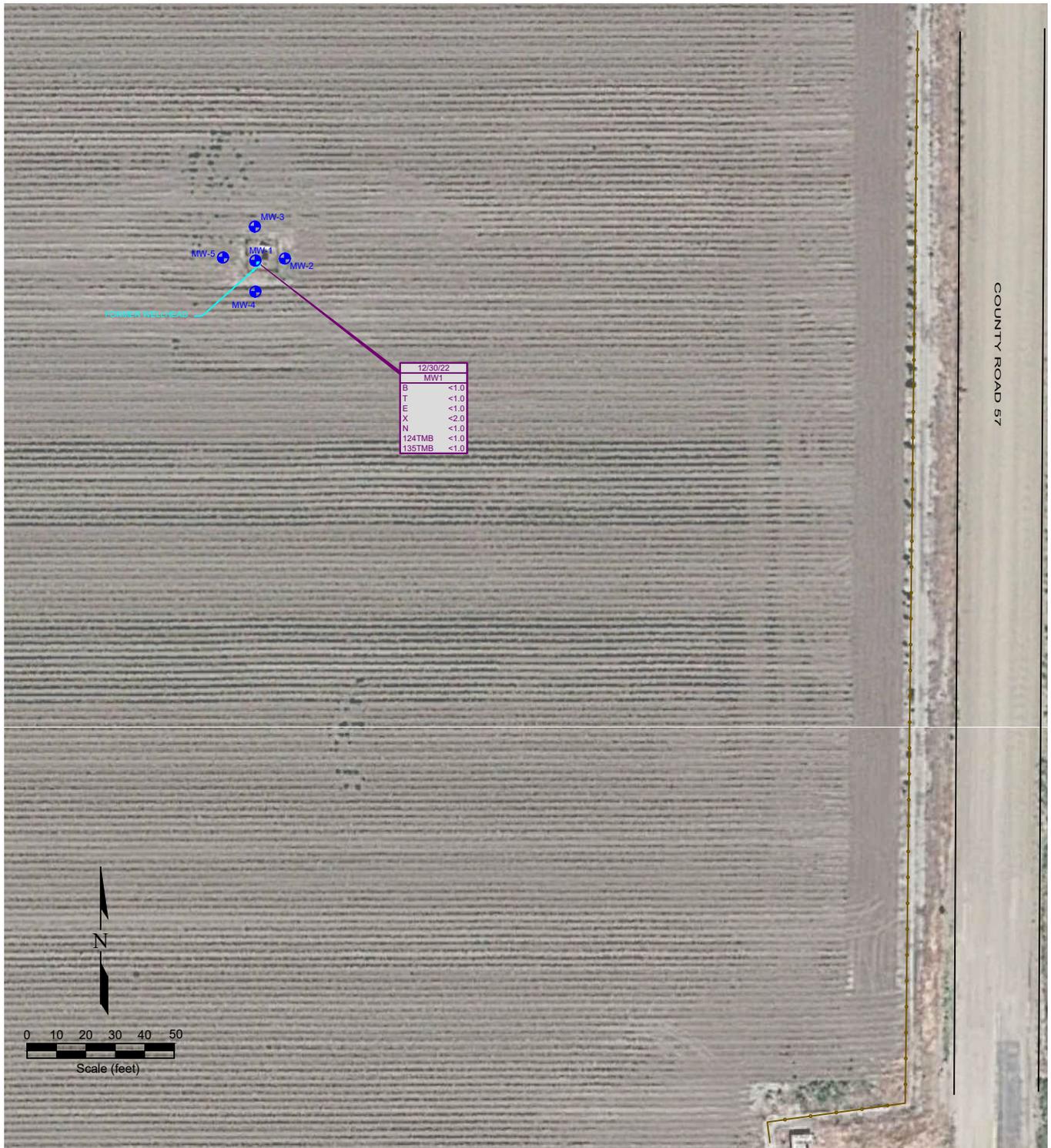
- RISER LOCATION
- ⊕ MONITORING WELL LOCATION
- FORMER FACILITY
- CONTAINMENT BERM FENCE LINE

**Figure 2  
SITE MAP**

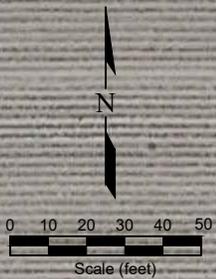
**Noble Energy, Inc. ~ Lockman C #14-30**  
 SESE Sec. 10, T4N, R64W, 6th PM  
 Weld County, Colorado  
 40.320651°, -104.528093°

Project No. <b>C022-023</b>	API # <b>05-123-30892</b>	Facility #
Date <b>3/29/23</b>	Remediation # <b>19296</b>	Filename <b>22023Q1</b>





12/30/22	
MW1	
B	<1.0
T	<1.0
E	<1.0
X	<2.0
N	<1.0
124TMB	<1.0
135TMB	<1.0



**LEGEND**

- RISER LOCATION
- ⊕ MONITORING WELL LOCATION
- ▭ FORMER FACILITY
- ▬ CONTAINMENT BERM FENCE LINE

09/22/2022	
MW1	
B	<1.0
T	<1.0
E	<1.0
X	<2.0
N	<1.0
124TMB	<1.0
135TMB	<1.0

Figure 3  
**GROUNDWATER CHEMISTRY MAP**  
**December 30, 2022**  
**Noble Energy, Inc. ~ Lockman C #14-30**  
 SESE Sec. 10, T4N, R64W, 6th PM  
 Weld County, Colorado  
 40.320651°, -104.528093°

Project No. <b>C022-023</b>	API # <b>05-123-30892</b>	Facility #
Date <b>3/29/23</b>	Remediation # <b>19296</b>	Filename <b>22023Q1</b>



# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 11, 2023

Paul Henchan  
Fremont Environmental  
PO Box 1289  
Wellington, CO 80549  
RE: Noble - Lockman  
Work Order #2301111

Enclosed are the results of analyses for samples received by Summit Scientific on 01/06/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Scott Sheely For Paul Shrewsbury  
President



Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Lockman

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/11/23 14:31

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2301111-01	Water	12/30/22 00:00	01/06/23 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

S<sub>2</sub>

2301111

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

Client: Fremont Environmental

Project Manager: Paul Henehan

Address:

E-Mail: Fremont Distribution List: PaulH, EthanB, JeffG and ChrisL. @fremontenv.com

City/State/Zip:

Bill to : Dan P

Phone:

Project Name: Noble- Lockman

Sampler Name: EB

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested					Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, pH, Boron		Metals (915)	TDS, Chloride, Sulfate
1	MW-1	12/30/22		2			X		X				X						
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by: <i>Ethan Black</i>	Date/Time: 1/6/23 1605	Received by: <i>S2</i>	Date/Time: 1/6/23 1605	<b>Turn Around Time</b> (Check) Same Day _____ 72 hours 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____ <b>Sample Integrity:</b> Temperature Upon Receipt: <u>7.1</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Notes:</b>
Relinquished by: <i>S2</i>	Date/Time: 1/6/23 1630	Received by: <i>S2</i>	Date/Time: 1/6/23 1630		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2301111

Client: Fremont Client Project ID: Lockman

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

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

Temp (°C) 7.1 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°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"/>	<i>w/ COE</i>
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 type="checkbox"/>	<input checked="" 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 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

1-6-23 1630  
Date/Time



Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Lockman

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 01/11/23 14:31

**MW-1**  
**2301111-01 (Water)**

**Summit Scientific**

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

Date Sampled: **12/30/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BGA0153	01/09/23	01/10/23	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: **12/30/22 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	13.2	98.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	12.8	96.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.2	99.4 %	21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Lockman

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/11/23 14:31

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch BGA0153 - EPA 5030 Water MS

##### Blank (BGA0153-BLK1)

Prepared & Analyzed: 01/09/23

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	12.6		"	13.3		94.8		23-173			
<i>Surrogate: Toluene-d8</i>	12.8		"	13.3		95.6		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.9		"	13.3		96.9		21-167			

##### LCS (BGA0153-BS1)

Prepared & Analyzed: 01/09/23

Benzene	37.9	1.0	ug/l	41.7		90.9		51-132			
Toluene	37.4	1.0	"	41.7		89.6		51-138			
Ethylbenzene	41.2	1.0	"	41.7		98.9		58-146			
m,p-Xylene	82.5	2.0	"	83.3		99.0		57-144			
o-Xylene	39.4	1.0	"	41.7		94.6		53-146			
Naphthalene	31.4	1.0	"	41.7		75.3		70-130			
1,2,4-Trimethylbenzene	42.5	1.0	"	41.7		102		70-130			
1,3,5-Trimethylbenzene	44.3	1.0	"	41.7		106		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	12.9		"	13.3		96.5		23-173			
<i>Surrogate: Toluene-d8</i>	12.7		"	13.3		95.6		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.8		"	13.3		96.1		21-167			

##### Matrix Spike (BGA0153-MS1)

Source: 2301103-01

Prepared & Analyzed: 01/09/23

Benzene	37.9	1.0	ug/l	41.7	ND	91.0		34-141			
Toluene	38.1	1.0	"	41.7	ND	91.5		27-151			
Ethylbenzene	40.7	1.0	"	41.7	ND	97.6		29-160			
m,p-Xylene	82.1	2.0	"	83.3	ND	98.5		20-166			
o-Xylene	39.3	1.0	"	41.7	ND	94.4		33-159			
Naphthalene	35.2	1.0	"	41.7	ND	84.6		70-130			
1,2,4-Trimethylbenzene	42.1	1.0	"	41.7	ND	101		70-130			
1,3,5-Trimethylbenzene	44.0	1.0	"	41.7	ND	106		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	12.9		"	13.3		96.7		23-173			
<i>Surrogate: Toluene-d8</i>	13.0		"	13.3		97.5		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.6		"	13.3		94.3		21-167			

Summit Scientific

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Fremont Environmental  
 PO Box 1289  
 Wellington CO, 80549

Project: Noble - Lockman

Project Number: [none]  
 Project Manager: Paul Henchan

**Reported:**  
 01/11/23 14:31

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

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

**Batch BGA0153 - EPA 5030 Water MS**

Matrix Spike Dup (BGA0153-MSD1)	Source: 2301103-01			Prepared & Analyzed: 01/09/23							
Benzene	38.3	1.0	ug/l	41.7	ND	91.8	34-141	0.893	30		
Toluene	37.9	1.0	"	41.7	ND	90.9	27-151	0.605	30		
Ethylbenzene	40.4	1.0	"	41.7	ND	96.9	29-160	0.765	30		
m,p-Xylene	81.6	2.0	"	83.3	ND	98.0	20-166	0.537	30		
o-Xylene	39.0	1.0	"	41.7	ND	93.5	33-159	0.971	30		
Naphthalene	37.5	1.0	"	41.7	ND	89.9	70-130	6.14	30		
1,2,4-Trimethylbenzene	41.9	1.0	"	41.7	ND	100	70-130	0.477	30		
1,3,5-Trimethylbenzene	43.2	1.0	"	41.7	ND	104	70-130	1.81	30		
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	23-173				
Surrogate: Toluene-d8	13.1		"	13.3		98.0	20-170				
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.4	21-167				

Summit Scientific

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Fremont Environmental  
PO Box 1289  
Wellington CO, 80549

Project: Noble - Lockman

Project Number: [none]  
Project Manager: Paul Henchan

**Reported:**  
01/11/23 14:31

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference