

FREMONT ENVIRONMENTAL INC.

May 31, 2023

Mr. Daniel Peterson
Noble Energy Inc.
2115 117th Ave.
Greeley, CO 80634

Subject: **Groundwater Data Submittal**
Cox PM C8-6
API # 05-123-14174
SENW Sec. 8, T4N, R64W
Weld County, Colorado
Fremont Project No. C022-018
Facility # 327111, Remediation # 21024

Dear Mr. Peterson:

Enclosed please find a copy of the above referenced Site Investigation Report for the Cox PM C 8-6 site in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil and groundwater quality at the site.

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.



Ethan D. Black, P.G.
Consultant

Enclosure

TABLE 1
SUMMARY OF ORGANIC GROUNDWATER CHEMISTRY DATA
NOBLE ENERGY INC.
COX PM C 8-6, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-018

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)
MW-1	5/4/2022	1.5	<1.0	<1.0	61	<1.0	1.4	14
	8/26/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	11/16/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	2/27/2023	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	3/23/2023	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	4/28/2023	<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

TABLE 2
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA
NOBLE ENERGY INC.
COX PM C 8-6, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-018

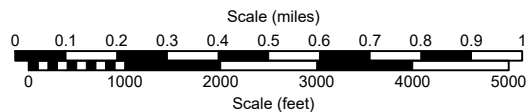
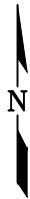
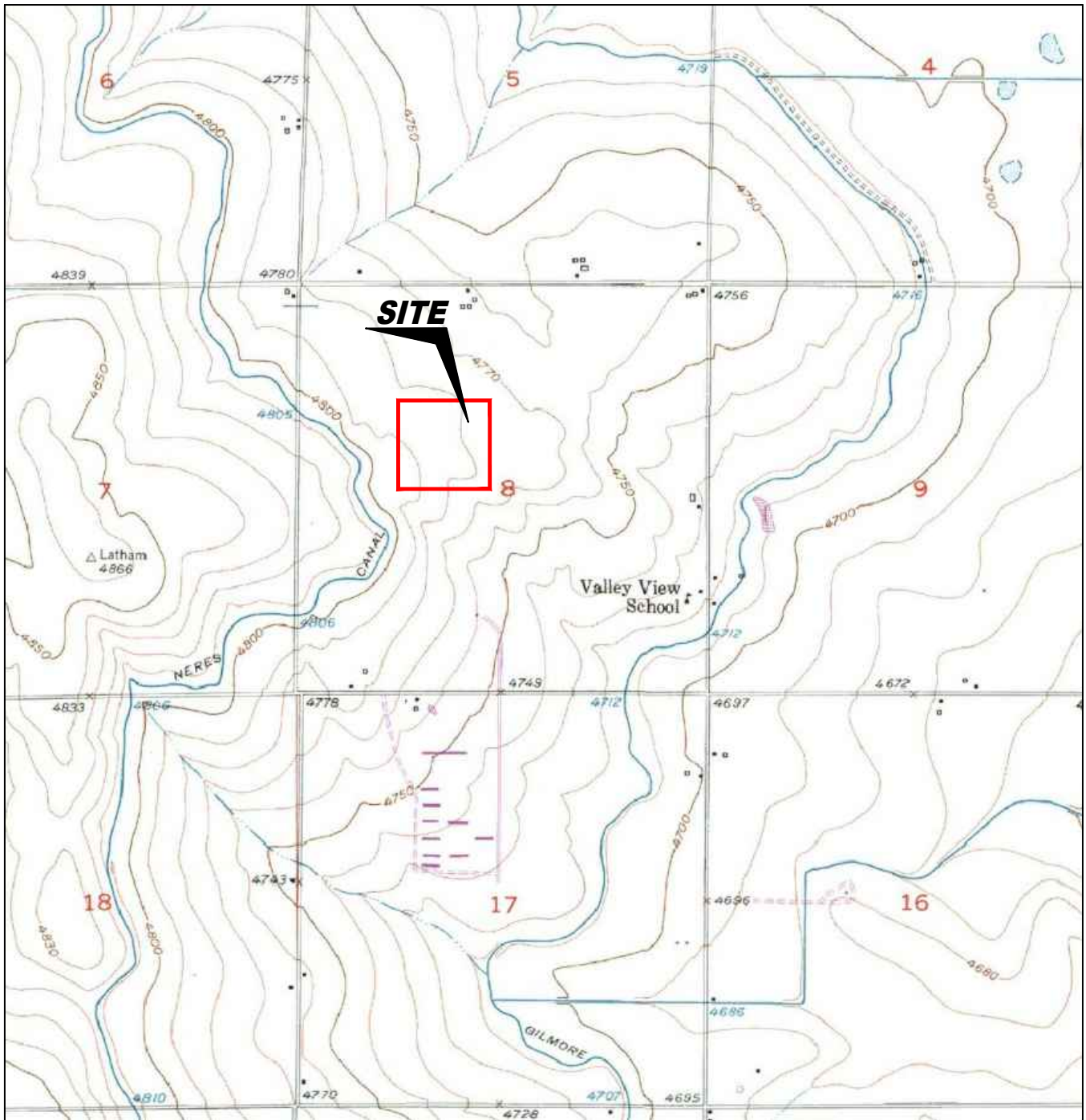
SAMPLE LOCATION	DATE	TOTAL DISSOLVED SOLIDS (mg/L)	CHLORIDE ION (mg/L)	SULFATE ION (mg/L)
MW-1	5/4/2022	2050	367	198
	8/26/2022	1280	205	283.0
	11/16/2022	526	251	98.4
	2/27/2023	DRY	DRY	DRY
	3/23/2023	DRY	DRY	DRY
	4/28/2023	2280	811	933.0
Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local 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



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY INC. ~ COX PMC 8-6
 SENW Sec. 8, T4N, R64W, 6th PM
 Weld County, Colorado
 40.333729°, -104.577017°

Project #
C022-018

Prepared By

Drawn By
TA

Date
6/1/23

Reviewed by
EB

Filename
22018T






LEGEND

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

Figure 2
SITE MAP

NOBLE ENERGY INC. ~ COX PMC 8-6
 SENW Sec. 8, T4N, R64W, 6th PM
 Weld County, Colorado
 40.333729°, -104.577017°

Project No. C022-018	API #	Facility # TA	
Date 6/1/23	Reviewed By EB	Filename 22018QQ	



LEGEND

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

11/18/2022	DATE SAMPLED
MW-1	SAMPLE ID
B	BENZENE (ug/L)
T	TOLUENE (ug/L)
EB	ETHYLBENZENE (ug/L)
X	TOTAL XYLENES (ug/L)
N	NAPHTHALENE (ug/L)
1,2,4-TB	1,2,4-TRIMETHYLBENZENE (ug/L)
1,3,5-TB	1,3,5-TRIMETHYLBENZENE (ug/L)

11/18/2022	DATE SAMPLED
MW-1	SAMPLE ID
TDS	TOTAL DISSOLVED SOLIDS (mg/L)
Cl ⁻	CHLORIDE ION (mg/L)
SO4 ²⁻	SULFATE ION (mg/L)

Figure 3

GROUNDWATER CHEMISTRY MAP


April 28, 2023

NOBLE ENERGY INC. ~ COX PMC 8-6

SENW Sec. 8, T4N, R64W, 6th PM

Weld County, Colorado

40.333729°, -104.577017°

Project No. C022-018	API #	Facility # TA	
Date 6/1/23	Reviewed By EB	Filename 22018QQ	

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 15, 2023

Paul Henehan
Fremont Environmental
PO Box 1289
Wellington, CO 80549
RE: Noble - Cox PMC
Work Order #2305084

Enclosed are the results of analyses for samples received by Summit Scientific on 05/03/23 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 "Scott Sheely".

Scott Sheely For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	2305084-01	Water	04/28/23 00:00	05/03/23 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.

2305084

Summit Scientific

S₂

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:

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

City/State/Zip:

Bill to: Dan

Phone:

Project Name: Noble - Cox PMC

Sampler Name: EB

Project Number:

					Preservative				Matrix				Analysis Requested							Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	BTEX, TMBs, Naph.	TPH	PAH (915)	EC, SAR, pH, Boron	Metals (915)	TDS, Chloride, Sulfate	HOLD	
1	MW-1	4/28/23		4		X	X		X				X					X		
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by:

Date/Time:

Received by:

Date/Time:

Turn Around Time

(Check)

Notes:

Relinquished by:

Date/Time:

Received by:

Date/Time:

Same Day

72 hours

24 hours

Standard

Sample Integrity:

Temperature Upon Receipt:

Samples Intact: Yes No

S₂

Sample Receipt Checklist

S2 Work Order# 2305084Client: FremontClient Project ID: Noble Cox PmcShipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐Airbill #:

<input 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)

11.8

Thermometer #

1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ 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>
If custody seals are present, are they intact? ⁽¹⁾	<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 ²⁺), Hexavalent Chromium (Cr ⁶⁺ , 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? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>COC marked HNO₃ no bottles marked</u>
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any): <u>VOAS may be HCl and there is an error on the COC</u>				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS
Custodian Printed Name

5/3/23
Date/Time



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC
Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

MW-1
2305084-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGE0175	05/05/23	05/10/23	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: **04/28/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	14.1	106 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.2	98.7 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.3	99.6 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **04/28/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	811	12.0		mg/L	200	BGE0144	05/04/23	05/05/23	EPA 300.0	
Sulfate	933	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **04/28/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	2280	10.0		mg/L	1	BGE0152	05/04/23	05/04/23	SM2540C	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

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 BGE0175 - EPA 5030 Water MS

Blank (BGE0175-BLK1)

Prepared: 05/05/23 Analyzed: 05/10/23

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	"							
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3		104	23-173			
Surrogate: Toluene-d8	13.1		"	13.3		98.3	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9	21-167			

LCS (BGE0175-BS1)

Prepared: 05/05/23 Analyzed: 05/10/23

Benzene	37.7	1.0	ug/l	41.7		90.4	51-132			
Toluene	39.1	1.0	"	41.7		93.8	51-138			
Ethylbenzene	44.5	1.0	"	41.7		107	58-146			
m,p-Xylene	103	2.0	"	83.3		124	57-144			
o-Xylene	43.6	1.0	"	41.7		105	53-146			
Naphthalene	43.3	1.0	"	41.7		104	70-130			
1,2,4-Trimethylbenzene	45.4	1.0	"	41.7		109	70-130			
1,3,5-Trimethylbenzene	51.6	1.0	"	41.7		124	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.7		"	13.3		103	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.7	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

Matrix Spike (BGE0175-MS1)

Source: 2305084-01

Prepared: 05/05/23 Analyzed: 05/10/23

Benzene	38.2	1.0	ug/l	41.7	ND	91.7	34-141			
Toluene	39.9	1.0	"	41.7	ND	95.8	27-151			
Ethylbenzene	44.2	1.0	"	41.7	ND	106	29-160			
m,p-Xylene	98.3	2.0	"	83.3	ND	118	20-166			
o-Xylene	43.0	1.0	"	41.7	ND	103	33-159			
Naphthalene	52.2	1.0	"	41.7	ND	125	70-130			
1,2,4-Trimethylbenzene	52.3	1.0	"	41.7	ND	125	70-130			
1,3,5-Trimethylbenzene	50.8	1.0	"	41.7	ND	122	70-130			
Surrogate: 1,2-Dichloroethane-d4	14.6		"	13.3		110	23-173			
Surrogate: Toluene-d8	13.3		"	13.3		99.5	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.8	21-167			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

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 BGE0175 - EPA 5030 Water MS

Matrix Spike Dup (BGE0175-MSD1)

Source: 2305084-01

Prepared: 05/05/23 Analyzed: 05/10/23

Benzene	37.4	1.0	ug/l	41.7	ND	89.7	34-141	2.22	30	
Toluene	42.6	1.0	"	41.7	ND	102	27-151	6.54	30	
Ethylbenzene	54.5	1.0	"	41.7	ND	131	29-160	20.9	30	
m,p-Xylene	130	2.0	"	83.3	ND	156	20-166	27.9	30	
o-Xylene	51.6	1.0	"	41.7	ND	124	33-159	18.2	30	
Naphthalene	52.9	1.0	"	41.7	ND	127	70-130	1.41	30	
1,2,4-Trimethylbenzene	52.2	1.0	"	41.7	ND	125	70-130	0.153	30	
1,3,5-Trimethylbenzene	50.1	1.0	"	41.7	ND	120	70-130	1.27	30	
Surrogate: 1,2-Dichloroethane-d4	16.0		"	13.3		120	23-173			
Surrogate: Toluene-d8	13.8		"	13.3		104	20-170			
Surrogate: 4-Bromofluorobenzene	10.8		"	13.3		80.9	21-167			

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

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 BGE0144 - General Preparation

Blank (BGE0144-BLK1)

Prepared: 05/04/23 Analyzed: 05/05/23

Chloride	ND	0.0600	mg/L
Sulfate	ND	0.300	"

LCS (BGE0144-BS1)

Prepared: 05/04/23 Analyzed: 05/05/23

Chloride	3.24	0.0600	mg/L	3.00	108	90-110
Sulfate	15.9	0.300	"	15.0	106	90-110

Duplicate (BGE0144-DUP1)

Source: 2305083-01

Prepared: 05/04/23 Analyzed: 05/05/23

Chloride	159	12.0	mg/L	181	12.7	20
Sulfate	1320	60.0	"	1430	8.28	20

Matrix Spike (BGE0144-MS1)

Source: 2305083-01

Prepared: 05/04/23 Analyzed: 05/05/23

Chloride	837	12.0	mg/L	600	181	109	80-120
Sulfate	4440	60.0	"	3000	1430	100	80-120

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

Total Dissolved Solids by SM2540C - Quality Control
Summit Scientific

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

Batch BGE0152 - General Preparation

Blank (BGE0152-BLK1)

Prepared & Analyzed: 05/04/23

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BGE0152-DUP1)

Source: 2305083-01

Prepared & Analyzed: 05/04/23

Total Dissolved Solids 1710 10.0 mg/L 1640 4.60 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Cox PMC

Project Number: [none]
Project Manager: Paul Henchan

Reported:
05/15/23 15:01

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