

FREMONT ENVIRONMENTAL INC.

Apr. 14, 2023

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

Subject: **Groundwater Data Submittal**
 Miller 16-29
 API # 05-123-12830
 SESE Sec. 29, T6N, R64W
 Weld County, Colorado
 Fremont Project No. C022-056
 Facility #323297, Remediation #22488

Dear Mr. Peterson:

Enclosed please find a copy of the above referenced Groundwater Data Submittal for the Miller 16-29 site in Weld County, Colorado. The enclosed data describes the groundwater quality at the site during the recent quarterly sampling and monitoring event.

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

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA AND ORGANIC CHEMISTRY DATA
NOBLE ENERGY INC.
MILLER 16-29, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-056

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)
COGCC Table 915-1 Limits		5.0	560	700.0	1400	140	67	67				
MW-1	6/23/2022	3200	<1.0	460	2800	<1.0	200	86	100	10.08	89.92	NP
	09/30/2022	1500	<1.0	79	950	21	120	41		10.22	89.78	NP
MW-1R	3/3/2023	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	99.83	14.78	85.05	NP
MW-3	6/23/2022	980	<1.0	190	1500	24	270	110	99.86	9.58	90.28	NP
	09/30/2022	470	<1.0	60	58	36	30	<1.0		9.96	89.9	NP
	3/3/2023	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
MW-4	6/23/2022	NA	NA	NA	NA	NA	NA	NA	100.74	18.36	82.38	NP
	09/30/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		10.90	89.84	NP
	3/3/2023	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
MW-5	6/23/2022	1.1	<1.0	<1.0	4.3	1.9	<1.0	<1.0	99.61	9.36	90.25	NP
	09/30/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		10.75	89.99	NP
MW-5R	3/3/2023	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	99.74	14.58	85.16	NP
MW-6	6/23/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.27	10.61	89.66	NP
	09/30/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		10.84	89.43	NP
	3/3/2023	DES	DES	DES	DES	DES	DES	DES		DES	DES	DES
MW-7	6/23/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.85	11.05	89.8	NP
	09/30/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		10.62	90.23	NP
MW-7R	3/3/2023	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.26	14.48	85.78	NP
MW-8	6/23/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.32	12	88.32	NP
	09/30/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		11.55	88.77	NP
MW-8R	3/3/2023	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.00	19.91	80.09	NP

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)
COGCC Table 915-1 Limits		5.0	560	700.0	1400	140	67	67				
MW-9	6/23/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.43	10.92	89.51	NP
	09/30/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0		11.47	88.96	NP
MW-9R	3/3/2023	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	100.09	14.61	85.48	NP

Bold face values exceed the COGCC limits

NP - No measureable LNAPL

DES - Destroyed

NA - Not Analyzed

TABLE 2
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA
NOBLE ENERGY INC.
MILLER 16-29, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-056

Sample ID	Sample Date	Total Dissolved Solids (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
COGCC Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background
Site Specific Background		2150.0	250	828.0
MW-1	09/30/2022	1750	48.2	628
MW-1R	03/03/2023	1880	71.8	517
MW-3	09/30/2022	1210	39.8	86.0
MW-4	09/30/2022	943	2.20	215
MW-5	09/30/2022	1170	49.2	264
MW-5R	03/03/2023	1840	116	631
MW-6	09/30/2022	1390	41.0	365
MW-7	09/30/2022	1420	28.4	448
MW-7R	03/03/2023	1580	70	633
MW-8	09/30/2022	1170	12.0	216
MW-8R	03/03/2023	IW	IW	IW

Sample ID	Sample Date	Total Dissolved Solids (mg/L)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
COGCC Table 915-1 Limits		<1.25 x local background	250 or <1.25 x local background	250 or <1.25 x local background
Site Specific Background		2150.0	250	828.0
MW-9	09/30/2022	1670	39.2	644
MW-9R	03/03/2023	1720	76.2	721

Bold face values exceed the COGCC limits

MW-7 used as upgradient background

IW - insufficient water

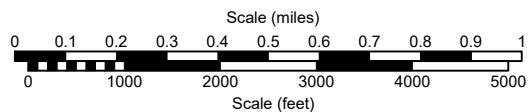
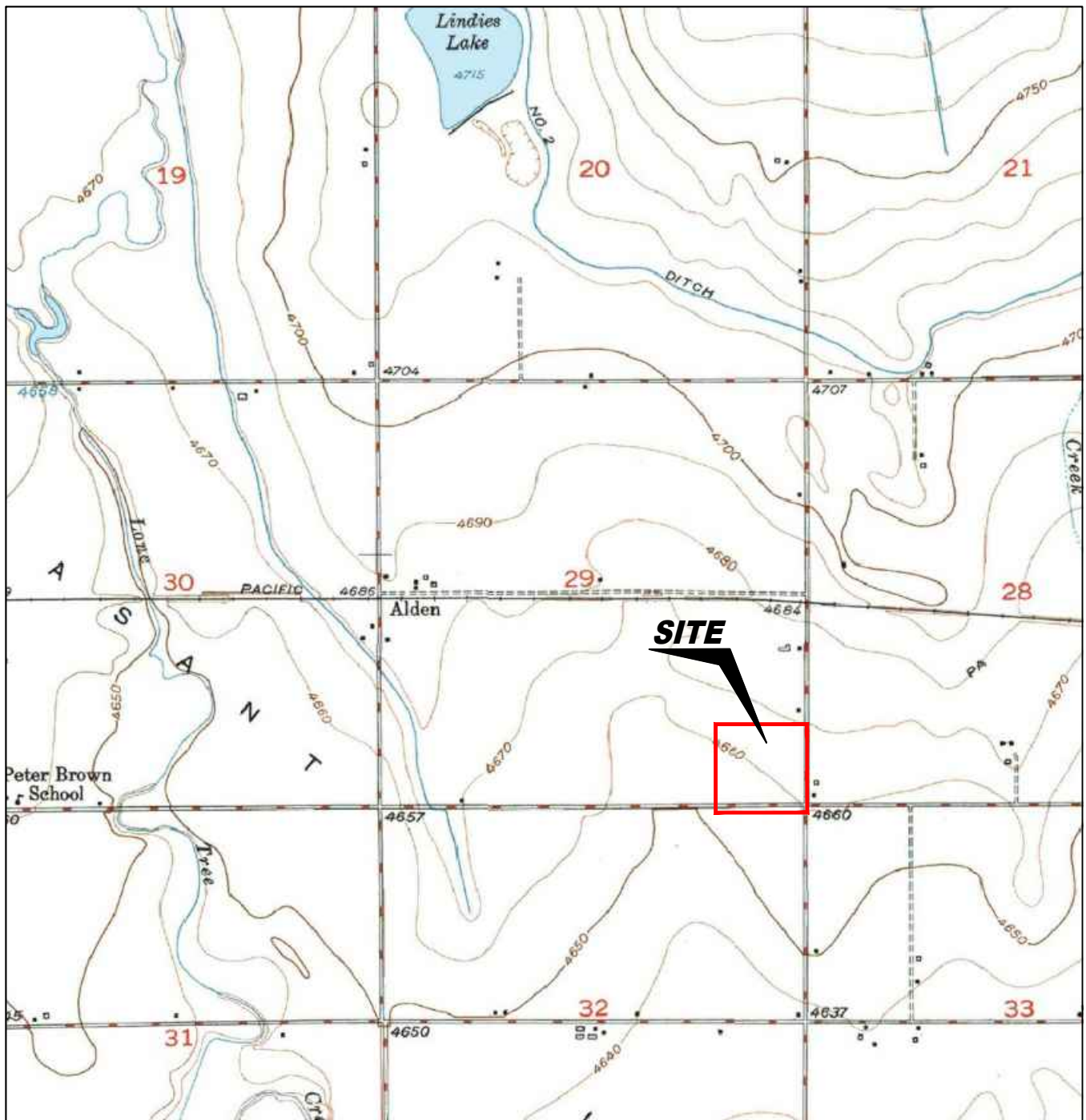
TABLE 3
SUMMARY OF METALS IN SOIL CHEMISTRY DATA
NOBLE ENERGY INC.
MILLER 16-29, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C022-056

Sample ID	Sample Date	Depth (ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
COGCC Table 915-1 Limits (Residential SSL)			0.68	15000	71	0.3	3100	400	1500	390	390	23000
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
Waste Char.	10/19/2022	11-13	2.86	192	0.621	<0.30	7.43	9.93	7.52	0.435	1.12	28.7
W Wall 11 ft	10/19/2022	11	1.68	477	0.401	<0.30	6.36	8.03	7.32	<0.303	1.12	29
W-S Wall 11 Ft	10/21/2022	11	5.56	67.1	0.309	<0.30	8.28	10.9	8.31	<0.306	0.15	37
S-W Wall 11 Ft	10/21/2022	11	9.85	117	0.463	<0.30	7.46	9.48	7.22	<0.303	0.141	35.3
N Wall 11 Ft	10/24/2022	11	1.63	44.6	<0.240	<0.30	6.92	7.93	6.61	<0.313	0.026	31.4
Floor 13 Ft	10/24/2022	13	1.95	77.8	0.256	<0.30	7.62	7.73	8	<0.324	0.0275	34.1
S-W Wall 2 11 Ft	10/25/2022	11	1.99	282	0.408	<0.30	8.3	12.9	8.92	<0.312	0.0437	36.1
E-N Wall 11 Ft	10/25/2022	11	1.8	38.3	0.312	<0.30	10.5	15.1	10.2	<0.313	0.0438	40.5
S-W Wall 3 11 Ft	10/26/2022	11	3.67	194	<0.242	<0.30	7.86	8.72	8.00	<0.315	0.0281	33.2
S-E Wall 11 Ft	10/26/2022	11	4.24	52.1	0.258	<0.30	6.63	7.35	7.04	<0.299	0.0271	29.5
W-N Wall 2 11 Ft	10/27/2022	11	2.04	66.6	<0.235	<0.30	8.43	8.77	6.55	<0.305	0.0258	28.1
N-E Wall 11 Ft	10/27/2022	11	1.34	81.9	0.474	<0.30	4.58	7.26	5.27	<0.302	<0.0232	24.1
E-S Wall 11 Ft	10/28/2022	11	1.93	44.8	0.424	<0.30	7.32	8.97	5.84	<0.310	<0.0239	29.7
Floor E 13 Ft	10/28/2022	13	1.21	23.9	0.325	<0.30	5.07	6.31	4.61	<0.317	<0.0244	23.5
Backfill 1	11/02/2022	NA	1.43	85.2	0.248	<0.30	6.06	8.35	5.18	<0.278	0.0333	20.1
BKG 11ft	11/02/2022	11	1.4	67.2	0.234	<0.30	5.02	6.5	4.74	<0.267	0.0267	17.4
BKG E 13ft	02/27/2023	13	8.41	282	0.476	<0.30	12.4	9.89	17.1	0.99	0.0545	62.5
BKG W 13ft	02/27/2023	13	3.25	26.2	0.125	<0.30	7.4	9.68	9.21	0.667	0.0351	45.3

Bold faced values exceed the COGCC Table 915-1 concentrations

Red & blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

NA - Not analyzed



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1
SITE LOCATION MAP

NOBLE ENERGY, INC. ~ MILLER 16-29
SESE Sec. 29, T6N, R64W, 6th PM
Weld County, Colorado
40.451558°, -104.566222°

Project # C022-056	API # 05-123-12830	Facility ID 323297
Date 6/16/23	Remediation # 22488	Filename 22056T





LEGEND

- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- DESTROYED MONITORING WELL LOCATION
- ABOVE GROUND STORAGE TANK
- FORMER FACILITY
- CONTAINMENT BERM
- EXTENT OF EXCAVATION
- EXTENT OF EXCAVATION DUMP LINES
- FENCE LINE

Figure 2
SITE MAP

NOBLE ENERGY, INC. ~ MILLER 16-29
SESE Sec. 29, T6N, R64W, 6th PM
Weld County, Colorado
40.451558°, -104.566222°

Project No. C022-056	API # 05-123-12830	Facility # 323297
Date 6/16/23	Remediation # 22488	Filename 22056Q





LEGEND

- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- ⊕ DESTROYED MONITORING WELL LOCATION
- ABOVE GROUND STORAGE TANK
- ⌈ FORMER FACILITY
- ⋯ CONTAINMENT BERM
- EXTENT OF EXCAVATION
- EXTENT OF EXCAVATION
- DUMP LINES
- FENCE LINE
- NOT USED FOR CONTOURING
- (80.00) GROUND WATER ELEVATION (feet above mean sea level)
- WATER TABLE CONTOUR (feet above mean sea level)
- INFERRED GROUND WATER FLOW DIRECTION

Figure 3

GROUNDWATER CONTOURS MAP

March 3, 2023

NOBLE ENERGY, INC. ~ MILLER 16-29

SESE Sec. 29, T6N, R64W, 6th PM

Weld County, Colorado

40.451558°, -104.566222°

Project No. C022-056	API # 05-123-12830	Facility # 323297	
Date 6/16/23	Remediation # 22488	Filename 22056Q	

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 22, 2023

Paul Henchan

Fremont Environmental

PO Box 1289

Wellington, CO 80549

RE: Noble - Miller 16-29

Work Order #2303234

Enclosed are the results of analyses for samples received by Summit Scientific on 03/09/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury
President



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1R	2303234-01	Water	03/03/23 00:00	03/09/23 16:30
MW-5R	2303234-02	Water	03/03/23 00:00	03/09/23 16:30
MW-7R	2303234-03	Water	03/03/23 00:00	03/09/23 16:30
MW-8R	2303234-04	Water	03/03/23 00:00	03/09/23 16:30
MW-9R	2303234-05	Water	03/03/23 00:00	03/09/23 16:30
BKG W 13ft	2303234-06	Soil	02/27/23 00:00	03/09/23 16:30
BKG E 13ft	2303234-07	Soil	02/27/23 00:00	03/09/23 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

S₂

2303234

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 - Miller 16-29

Sampler Name: EB

Project Number:

					Preservative				Matrix				Analysis Requested							Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	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-1R	3/3/23		4			X		X				X					X			
2	MW-5R			4																	
3	MW-7R			4																	
4	MW-8R			3																	
5	MW-9R			4																	
6	BKG W 13Ft	2/27/23		2						X							X	X			
7	BKG E 13Ft			2						X							X	X			
8																					
9																					
10																					

Relinquished by: <u>Ethan Black</u>	Date/Time: <u>3/9/23</u> 1630	Received by: <u>S2</u>	Date/Time: <u>3/9/23</u> 1630	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	Notes:
Relinquished by: <u>S2</u>	Date/Time: <u>3/9/23</u> 1630	Received by: <u>[Signature]</u>	Date/Time: <u>3/9/23</u> 1630	Sample Integrity: Temperature Upon Receipt: <u>8.6</u> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

Sample Receipt Checklist

S2 Work Order# 2303234Client: Fremont Client Project ID: Noble-miller 16-29Shipped 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) 8.0Thermometer # 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"/>	on ice
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Custodian Printed Name

Date/Time

3/9/23 1630



Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/23 11:49

MW-1R
2303234-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BGC0360	03/13/23	03/14/23	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: **03/03/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	15.9	119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.9	104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.9	104 %	21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chloride	71.8	12.0	mg/L	200	BGC0316	03/11/23	03/12/23	EPA 300.0	
Sulfate	517	60.0	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	1880	10.0	mg/L	1	BGC0366	03/10/23	03/13/23	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 - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

MW-5R
2303234-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGC0360	03/13/23	03/14/23	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: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	16.7	125 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.8	104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.9	104 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	116	12.0		mg/L	200	BGC0316	03/11/23	03/12/23	EPA 300.0	
Sulfate	631	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1840	10.0		mg/L	1	BGC0366	03/10/23	03/13/23	SM2540C	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

MW-7R
2303234-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGC0360	03/13/23	03/14/23	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: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	16.8	126 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.8	104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.6	102 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	70.0	12.0		mg/L	200	BGC0316	03/11/23	03/12/23	EPA 300.0	
Sulfate	633	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1580	10.0		mg/L	1	BGC0366	03/10/23	03/13/23	SM2540C	

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

MW-8R
2303234-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGC0360	03/13/23	03/14/23	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: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	16.1	121 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.9	104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.6	102 %		21-167		"	"	"	"	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

MW-9R
2303234-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BGC0360	03/13/23	03/14/23	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	1.6	1.0		"	"	"	"	"	"	

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	16.3	122 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.9	105 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.8	103 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	76.2	12.0		mg/L	200	BGC0316	03/11/23	03/12/23	EPA 300.0	
Sulfate	721	60.0		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **03/03/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1720	10.0		mg/L	1	BGC0366	03/10/23	03/13/23	SM2540C	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

BKG W 13ft
2303234-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.483	0.0100	mg/L	1	BGC0458	03/15/23	03/18/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	3.25	0.238	mg/kg dry	1	BGC0357	03/13/23	03/15/23	EPA 6020B	
Barium	26.2	0.475	"	"	"	"	"	"	
Cadmium	0.125	0.238	"	"	"	"	"	"	
Copper	7.40	0.475	"	"	"	"	"	"	
Lead	9.68	0.238	"	"	"	"	"	"	
Nickel	9.21	0.475	"	"	"	"	"	"	
Selenium	0.667	0.260	"	"	"	"	"	"	
Silver	0.0351	0.0238	"	"	"	"	"	"	
Zinc	45.3	0.475	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGC0414	03/14/23	03/14/23	EPA 7196A	

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

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	13.7	0.0594	mg/L dry	1	BGC0438	03/15/23	03/18/23	EPA 6020B	
Magnesium	11.6	0.0594	"	"	"	"	"	"	
Sodium	30.5	0.0594	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/23 11:49

BKG W 13ft
2303234-06 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.47	0.00100	units	1	BGC0575	03/18/23	03/18/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.2		%	1	BGC0309	03/10/23	03/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.533	0.0100	mmhos/cm	1	BGC0494	03/16/23	03/17/23	EPA 120.1	

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

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.16		pH Units	1	BGC0493	03/16/23	03/17/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

BKG E 13ft
2303234-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.473	0.0100	mg/L	1	BGC0458	03/15/23	03/18/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Arsenic	8.41	0.238	mg/kg dry	1	BGC0357	03/13/23	03/15/23	EPA 6020B	
Barium	282	0.475	"	"	"	"	"	"	
Cadmium	0.476	0.238	"	"	"	"	"	"	
Copper	12.4	0.475	"	"	"	"	"	"	
Lead	9.89	0.238	"	"	"	"	"	"	
Nickel	17.1	0.475	"	"	"	"	"	"	
Selenium	0.990	0.260	"	"	"	"	"	"	
Silver	0.0545	0.0238	"	"	"	"	"	"	
Zinc	62.5	0.475	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGC0414	03/14/23	03/14/23	EPA 7196A	

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

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	16.7	0.0594	mg/L dry	1	BGC0438	03/15/23	03/18/23	EPA 6020B	
Magnesium	14.2	0.0594	"	"	"	"	"	"	
Sodium	35.7	0.0594	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henehan

Reported:
03/22/23 11:49

BKG E 13ft
2303234-07 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.55	0.00100	units	1	BGC0575	03/18/23	03/18/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.1		%	1	BGC0309	03/10/23	03/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.650	0.0100	mmhos/cm	1	BGC0494	03/16/23	03/17/23	EPA 120.1	

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

Date Sampled: **02/27/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.12		pH Units	1	BGC0493	03/16/23	03/17/23	EPA 9045D	

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0360 - EPA 5030 Water MS

Blank (BGC0360-BLK1)

Prepared & Analyzed: 03/13/23

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	15.9		"	13.3		119	23-173			
Surrogate: Toluene-d8	14.0		"	13.3		105	20-170			
Surrogate: 4-Bromofluorobenzene	14.3		"	13.3		107	21-167			

LCS (BGC0360-BS1)

Prepared & Analyzed: 03/13/23

Benzene	43.6	1.0	ug/l	33.3		131	51-132			
Toluene	46.1	1.0	"	33.3		138	51-138			
Ethylbenzene	41.8	1.0	"	33.3		125	58-146			
m,p-Xylene	83.5	2.0	"	66.7		125	57-144			
o-Xylene	38.4	1.0	"	33.3		115	53-146			
Naphthalene	32.3	1.0	"	33.3		96.9	70-130			
1,2,4-Trimethylbenzene	40.1	1.0	"	33.3		120	70-130			
1,3,5-Trimethylbenzene	40.4	1.0	"	33.3		121	70-130			
Surrogate: 1,2-Dichloroethane-d4	16.5		"	13.3		124	23-173			
Surrogate: Toluene-d8	14.3		"	13.3		107	20-170			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	21-167			

Matrix Spike (BGC0360-MS1)

Source: 2303232-01

Prepared & Analyzed: 03/13/23

Benzene	44.9	1.0	ug/l	33.3	ND	135	34-141			
Toluene	45.8	1.0	"	33.3	ND	137	27-151			
Ethylbenzene	58.8	1.0	"	33.3	16.9	126	29-160			
m,p-Xylene	140	2.0	"	66.7	53.7	130	20-166			
o-Xylene	45.6	1.0	"	33.3	5.73	119	33-159			
Naphthalene	37.8	1.0	"	33.3	5.92	95.6	70-130			
1,2,4-Trimethylbenzene	57.0	1.0	"	33.3	18.9	114	70-130			
1,3,5-Trimethylbenzene	51.6	1.0	"	33.3	13.4	114	70-130			
Surrogate: 1,2-Dichloroethane-d4	16.9		"	13.3		127	23-173			
Surrogate: Toluene-d8	14.0		"	13.3		105	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 - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0360 - EPA 5030 Water MS

Matrix Spike Dup (BGC0360-MSD1)	Source: 2303232-01			Prepared & Analyzed: 03/13/23						
Benzene	44.6	1.0	ug/l	33.3	ND	134	34-141	0.693	30	
Toluene	45.4	1.0	"	33.3	ND	136	27-151	0.878	30	
Ethylbenzene	55.5	1.0	"	33.3	16.9	116	29-160	5.71	30	
m,p-Xylene	130	2.0	"	66.7	53.7	114	20-166	8.01	30	
o-Xylene	44.3	1.0	"	33.3	5.73	116	33-159	2.69	30	
Naphthalene	39.6	1.0	"	33.3	5.92	101	70-130	4.65	30	
1,2,4-Trimethylbenzene	53.9	1.0	"	33.3	18.9	105	70-130	5.58	30	
1,3,5-Trimethylbenzene	47.8	1.0	"	33.3	13.4	103	70-130	7.51	30	
Surrogate: 1,2-Dichloroethane-d4	17.4		"	13.3		130	23-173			
Surrogate: Toluene-d8	14.0		"	13.3		105	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 - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0458 - EPA 3050B

Blank (BGC0458-BLK1)

Prepared: 03/15/23 Analyzed: 03/18/23

Boron ND 0.0100 mg/L

LCS (BGC0458-BS1)

Prepared: 03/15/23 Analyzed: 03/18/23

Boron 4.91 0.0100 mg/L 5.00 98.3 80-120

Duplicate (BGC0458-DUP1)

Source: 2303234-06

Prepared: 03/15/23 Analyzed: 03/18/23

Boron 0.467 0.0100 mg/L 0.483 3.27 20

Matrix Spike (BGC0458-MS1)

Source: 2303234-06

Prepared: 03/15/23 Analyzed: 03/18/23

Boron 4.96 0.0100 mg/L 5.00 0.483 89.5 75-125

Matrix Spike Dup (BGC0458-MSD1)

Source: 2303234-06

Prepared: 03/15/23 Analyzed: 03/18/23

Boron 4.97 0.0100 mg/L 5.00 0.483 89.8 75-125 0.274 25

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0357 - EPA 3050B

Blank (BGC0357-BLK1)

Prepared: 03/13/23 Analyzed: 03/14/23

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 (BGC0357-BS1)

Prepared: 03/13/23 Analyzed: 03/14/23

Arsenic	41.0	0.200	mg/kg wet	40.0	103	80-120
Barium	39.9	0.400	"	40.0	99.8	80-120
Cadmium	1.97	0.200	"	2.00	98.5	80-120
Copper	37.8	0.400	"	40.0	94.6	80-120
Lead	18.5	0.200	"	20.0	92.7	80-120
Nickel	37.1	0.400	"	40.0	92.8	80-120
Selenium	4.07	0.260	"	4.00	102	80-120
Silver	1.81	0.0200	"	2.00	90.5	80-120
Zinc	40.1	0.400	"	40.0	100	80-120

Duplicate (BGC0357-DUP1)

Source: 2303085-02

Prepared: 03/13/23 Analyzed: 03/14/23

Arsenic	5.64	0.235	mg/kg dry	4.97	12.7	20
Barium	148	0.470	"	149	0.444	20
Cadmium	0.237	0.235	"	0.223	6.03	20
Copper	17.2	0.470	"	14.9	14.2	20
Lead	11.6	0.235	"	11.0	5.65	20
Nickel	14.3	0.470	"	13.1	8.48	20
Selenium	0.943	0.260	"	0.724	26.3	20
Silver	0.0944	0.0235	"	0.0967	2.33	20
Zinc	54.5	0.470	"	48.9	10.8	20

QR-04

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0357 - EPA 3050B

Matrix Spike (BGC0357-MS1)		Source: 2303085-02			Prepared: 03/13/23		Analyzed: 03/14/23				
Arsenic	53.8	0.235	mg/kg dry	47.0	4.97	104	75-125				
Barium	228	0.470	"	47.0	149	169	75-125				QM-02
Cadmium	2.65	0.235	"	2.35	0.223	103	75-125				
Copper	61.0	0.470	"	47.0	14.9	98.2	75-125				
Lead	31.9	0.235	"	23.5	11.0	89.2	75-125				
Nickel	60.5	0.470	"	47.0	13.1	101	75-125				
Selenium	5.38	0.260	"	4.70	0.724	99.1	75-125				
Silver	1.76	0.0235	"	2.35	0.0967	70.7	75-125				QM-07
Zinc	105	0.470	"	47.0	48.9	120	75-125				

Matrix Spike Dup (BGC0357-MSD1)		Source: 2303085-02			Prepared: 03/13/23		Analyzed: 03/14/23				
Arsenic	53.8	0.235	mg/kg dry	47.0	4.97	104	75-125	0.0303	25		
Barium	230	0.470	"	47.0	149	173	75-125	0.714	25		QM-02
Cadmium	2.62	0.235	"	2.35	0.223	102	75-125	1.10	25		
Copper	60.5	0.470	"	47.0	14.9	97.2	75-125	0.793	25		
Lead	32.4	0.235	"	23.5	11.0	91.3	75-125	1.54	25		
Nickel	60.4	0.470	"	47.0	13.1	101	75-125	0.0744	25		
Selenium	5.19	0.260	"	4.70	0.724	95.0	75-125	3.68	25		
Silver	1.74	0.0235	"	2.35	0.0967	69.8	75-125	1.18	25		QM-07
Zinc	105	0.470	"	47.0	48.9	119	75-125	0.241	25		

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0414 - 3060A Mod

Blank (BGC0414-BLK1)

Prepared & Analyzed: 03/14/23

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BGC0414-BS1)

Prepared & Analyzed: 03/14/23

Chromium, Hexavalent 22.6 0.30 mg/kg wet 25.0 90.6 80-120

Duplicate (BGC0414-DUP1)

Source: 2303232-06

Prepared & Analyzed: 03/14/23

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BGC0414-MS1)

Source: 2303232-06

Prepared & Analyzed: 03/14/23

Chromium, Hexavalent 31.3 0.30 mg/kg dry 30.1 ND 104 75-125

Matrix Spike Dup (BGC0414-MSD1)

Source: 2303232-06

Prepared & Analyzed: 03/14/23

Chromium, Hexavalent 32.9 0.30 mg/kg dry 30.1 ND 109 75-125 5.07 20

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0438 - General Preparation

Blank (BGC0438-BLK1)

Prepared: 03/15/23 Analyzed: 03/18/23

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

LCS (BGC0438-BS1)

Prepared: 03/15/23 Analyzed: 03/18/23

Calcium	5.74	0.0500	mg/L wet	5.00	115	70-130
Magnesium	5.49	0.0500	"	5.00	110	70-130
Sodium	5.02	0.0500	"	5.00	100	70-130

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PO Box 1289
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Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0316 - General Preparation

Blank (BGC0316-BLK1)

Prepared: 03/11/23 Analyzed: 03/12/23

Chloride	ND	0.0600	mg/L
Sulfate	ND	0.300	"

LCS (BGC0316-BS1)

Prepared: 03/11/23 Analyzed: 03/12/23

Chloride	2.86	0.0600	mg/L	3.00	95.5	90-110
Sulfate	13.5	0.300	"	15.0	90.3	90-110

Duplicate (BGC0316-DUP1)

Source: 2303228-01

Prepared: 03/11/23 Analyzed: 03/12/23

Chloride	106	12.0	mg/L	99.2	7.00	20
Sulfate	439	60.0	"	402	8.75	20

Matrix Spike (BGC0316-MS1)

Source: 2303228-01

Prepared: 03/11/23 Analyzed: 03/12/23

Chloride	686	12.0	mg/L	600	99.2	97.8	80-120
Sulfate	2910	60.0	"	3000	402	83.7	80-120

Summit Scientific

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PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0309 - General Preparation

Duplicate (BGC0309-DUP1)		Source: 2303226-05		Prepared: 03/10/23 Analyzed: 03/13/23	
% Solids	89.5		%	91.3	2.03 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0366 - General Preparation

Blank (BGC0366-BLK1)

Prepared: 03/10/23 Analyzed: 03/13/23

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BGC0366-DUP1)

Source: 2303215-01

Prepared: 03/10/23 Analyzed: 03/13/23

Total Dissolved Solids 903 10.0 mg/L 867 4.04 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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 BGC0494 - General Preparation

Blank (BGC0494-BLK1)

Prepared: 03/16/23 Analyzed: 03/17/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGC0494-BS1)

Prepared: 03/16/23 Analyzed: 03/17/23

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

Duplicate (BGC0494-DUP1)

Source: 2303229-01

Prepared: 03/16/23 Analyzed: 03/17/23

Specific Conductance (EC) 4.42 0.0100 mmhos/cm 4.51 2.04 20

Summit Scientific

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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

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

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

Batch BGC0493 - General Preparation

LCS (BGC0493-BS1)

Prepared: 03/16/23 Analyzed: 03/17/23

pH	9.08	pH Units	9.18	98.9	95-105
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Duplicate (BGC0493-DUP1)

Source: 2303229-01

Prepared: 03/16/23 Analyzed: 03/17/23

pH	7.82	pH Units	7.89	0.891	20
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Fremont Environmental
PO Box 1289
Wellington CO, 80549

Project: Noble - Miller 16-29

Project Number: [none]
Project Manager: Paul Henchan

Reported:
03/22/23 11:49

Notes and Definitions

QR-04	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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.
QM-02	The RPD and/or percent recovery for this QC sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
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