

**SECOND QUARTER 2021 SITE MONITORING DATA
AND NO FURTHER ACTION REQUEST
UPRC 33-4F, 5F, HUNT FEDERAL K 33-19**

COGCC SPILL TRACKING # 464229
COGCC REMEDIATION # 13785

Prepared for:



2115 117th Avenue
Greeley, CO 80631

Prepared by:



6855 West 119th Avenue
Broomfield, CO 80020



April 26, 2021
Mr. Jacob Evans
Noble Energy, Inc.
2115 117th Avenue
Greeley, CO 80631

**Subject: Second Quarter 2021 Groundwater Monitoring Report and
No Further Action Request
UPRC 33-4F, 5F, Hunt Federal K 33-19
Spill/Release Point ID #: 464229
Remediation Project #: 13785
SWNW S33 T4N R66W
Weld County, Colorado**

Dear Mr. Evans:

Tasman Geosciences, Inc. (Tasman) has prepared this *Second Quarter 2021 Site Monitoring Data and No Further Action Request* (Report) for Noble Energy, Inc. (Noble) for the UPRC 33-4F, 5F, Hunt Federal K 33-19 site (Site). This Report presents the results of groundwater sampling activities completed on April 2, 2021. The data collected was used to develop the analytical summary tables, groundwater elevation map and analytical results map that are provided in the Report.

Facility Background

The Site is located approximately 0.4 miles south of the town of Gilcrest in Weld County, Colorado, as shown on Figure 1. The Site is surrounded by non-crop land, and the legal description is the southwest ¼ of the northwest ¼ of Section 33, Township 4 North, Range 66 West, of the 6th Principal Meridian. The Site is located on relatively flat terrain and is approximately 140 feet northwest of Highway 85, with coordinates of 40.269523°, -104.791329°.

As reported on the initial Form 19 submitted on April 29, 2019, a historic release was discovered beneath the separator during the plugging and abandonment of the UPRC 33-4F, 5F, Hunt Federal K 33-19 tank battery. The Colorado Oil and Gas Conservation Commission (COGCC) subsequently issued Spill/Release Point ID Number 464229. Remediation of the discovered impacts was completed under COGCC assigned remediation number 13755. The summary of the assessment of soil and groundwater can be referenced in the *UPRC 33-4F, 5F, Hunt Federal K 33-19 Site Assessment Report* (COGCC Document # 402144032).

Groundwater Sampling

Tasman completed quarterly groundwater monitoring between July 2019 and April 2021 at Site monitoring wells BH01 through BH08. Second quarter 2021 groundwater sampling was completed on April 2, 2021. Laboratory analytical data for groundwater samples collected during the second quarter 2021 sampling event indicate groundwater concentrations are below the COGCC Table

910-1 groundwater standards. Four consecutive quarters of groundwater sample results compliant with COGCC Table 910-1 groundwater standards has been achieved.

No Further Action Request

Based on the four consecutive quarters of COGCC Table 910-1 compliant groundwater results, a No Further Action (NFA) designation is being requested from the COGCC for this project. Following NFA approval by the COGCC, the Site monitoring wells will be properly plugged and abandoned, and Site reclamation will be completed in compliance with COGCC Rule 1004.

Please contact me at (720) 431-1190 or at bbruns@tasman-geo.com if you require additional information or have questions regarding this project.

Sincerely,

A handwritten signature in blue ink that reads "Brandon Bruns". The signature is fluid and cursive, with a long horizontal stroke at the end.

Brandon Bruns, PE
Principal Engineer

Attachments:

Table 1 – Groundwater Elevation Data

Table 2 – Groundwater Analytical Data

Figure 1 – Site Location Map

Figure 2 – Site Overview Map

Figure 3 – Groundwater Potentiometric Surface Contour Map (04/02/2021)

Figure 4 – Groundwater Analytical Results (04/02/2021)

Figure 5 – Average Quarterly Benzene Concentrations

Attachment A – Laboratory Analytical Groundwater Data Report

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - UPRC 33-4F, 5F, HUNT FEDERAL K 33-19

Monitoring Well ID	Date	Top of Casing Elevation (ft. AMSL)	Total Depth (ft.BTOC)	Depth to Water (ft.) ¹	Depth to LNAPL (ft.) ¹	LNAPL Thickness (ft.)	Groundwater Elevation* (ft. AMSL)
BH01	07/22/19	4761.40	13.77	1.56	ND	ND	4757.34
BH01	10/24/19	4761.40	13.66	2.06	ND	ND	4756.84
BH01	01/21/20	4761.40	13.64	2.55	ND	ND	4756.35
BH01	04/08/20	4761.40	13.61	1.96	ND	ND	4756.94
BH01	07/17/20	4761.40	13.51	1.59	ND	ND	4757.31
BH01	10/19/20	4761.40	13.62	2.02	ND	ND	4756.88
BH01	01/04/21	4761.40	12.98	3.47	ND	ND	4755.43
BH01	04/02/21	4761.40	12.96	2.69	ND	ND	4756.21
BH02	07/22/19	4762.85	14.50	1.90	ND	ND	4757.59
BH02	10/24/19	4762.85	14.39	2.40	ND	ND	4757.09
BH02	01/21/20	4762.85	14.37	2.88	ND	ND	4756.61
BH02	04/08/20	4762.85	14.30	2.23	ND	ND	4757.26
BH02	07/17/20	4762.85	14.35	1.95	ND	ND	4757.54
BH02	10/19/20	4762.85	14.40	2.34	ND	ND	4757.15
BH02	01/04/21	4762.85	14.41	3.76	ND	ND	4755.73
BH02	04/02/21	4762.85	14.40	2.76	ND	ND	4756.73
BH02	07/22/19	4761.87	14.02	1.54	ND	ND	4757.23
BH03	10/24/19	4761.87	13.95	2.09	ND	ND	4756.68
BH03	01/21/20	4761.87	13.97	2.60	ND	ND	4756.17
BH03	04/08/20	4761.87	13.98	1.88	ND	ND	4756.89
BH03	07/17/20	4761.87	13.92	1.56	ND	ND	4757.21
BH03	10/19/20	4761.87	13.98	2.01	ND	ND	4756.76
BH03	01/04/21	4761.87	14.01	3.48	ND	ND	4755.29
BH03	04/02/21	4761.87	14.03	2.58	ND	ND	4756.19
BH04	07/22/19	4758.25	10.70	1.57	ND	ND	4756.97
BH04	10/24/19	4758.25	10.43	2.08	ND	ND	4756.46
BH04	01/21/20	4758.25	10.35	2.58	ND	ND	4755.96
BH04	04/08/20	4758.25	10.35	1.93	ND	ND	4756.61
BH04	07/17/20	4758.25	10.35	1.56	ND	ND	4756.98
BH04	10/19/20	4758.25	10.38	2.05	ND	ND	4756.49
BH04	01/04/21	4758.25	10.60	3.65	ND	ND	4754.89
BH04	04/02/21	4758.25	10.49	2.51	ND	ND	4756.03
BH05	07/22/19	4761.67	13.55	1.60	ND	ND	4757.39
BH05	10/24/19	4761.67	13.46	2.02	ND	ND	4756.97
BH05	01/21/20	4761.67	13.64	2.52	ND	ND	4756.47
BH05	04/08/20	4761.67	13.65	1.96	ND	ND	4757.03
BH05	07/17/20	4761.67	14.65	1.67	ND	ND	4757.32
BH05	10/19/20	4761.67	13.66	1.98	ND	ND	4757.01
BH05	01/04/21	4761.67	13.68	3.32	ND	ND	4755.67
BH05	04/02/21	4761.67	13.7	2.36	ND	ND	4756.63

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - UPRC 33-4F, 5F, HUNT FEDERAL K 33-19

Monitoring Well ID	Date	Top of Casing Elevation (ft. AMSL)	Total Depth (ft.BTOC)	Depth to Water (ft.) ¹	Depth to LNAPL (ft.) ¹	LNAPL Thickness (ft.)	Groundwater Elevation* (ft. AMSL)
BH06	07/22/19	4761.54	12.65	1.79	ND	ND	4757.61
BH06	10/24/19	4761.54	8.71	2.20	ND	ND	4757.20
BH06	01/21/20	4761.54	12.46	2.69	ND	ND	4756.71
BH06	04/08/20	4761.54	12.39	2.14	ND	ND	4757.26
BH06	07/17/20	4761.54	12.41	1.87	ND	ND	4757.53
BH06	10/19/20	4761.54	12.49	2.17	ND	ND	4757.23
BH06	01/04/21	4761.54	12.48	3.52	ND	ND	4755.88
BH06	04/02/21	4761.54	12.48	2.53	ND	ND	4756.87
BH07	07/22/19	4762.40	13.94	1.69	ND	ND	4757.40
BH07	10/24/19	4762.40	13.77	2.03	ND	ND	4757.06
BH07	01/21/20	4762.40	13.42	2.53	ND	ND	4756.56
BH07	04/08/20	4762.40	13.37	2.04	ND	ND	4757.05
BH07	07/17/20	4762.40	13.45	1.77	ND	ND	4757.32
BH07	10/19/20	4762.40	13.54	2.02	ND	ND	4757.07
BH07	01/04/21	4762.40	13.52	3.27	ND	ND	4755.82
BH07	04/02/21	4762.40	13.62	2.40	ND	ND	4756.69
BH08	07/22/19	4757.80	11.12	0.94	ND	ND	4757.20
BH08	10/24/19	4757.80	11.71	2.27	ND	ND	4755.87
BH08	01/21/20	4757.80	10.68	1.90	ND	ND	4756.24
BH08	04/08/20	4757.80	10.65	1.32	ND	ND	4756.82
BH08	07/17/20	4757.80	10.65	1.01	ND	ND	4757.13
BH08	10/19/20	4757.80	10.65	1.36	ND	ND	4756.78
BH08	01/04/21	4757.80	10.69	2.68	ND	ND	4755.46
BH08	04/02/21	4757.80	10.76	1.77	ND	ND	4756.37

Notes:

ft. = Feet

AMSL = Above mean sea level

BTOC = Below top of casing

LNAPL = Light non-aqueous phase liquid

ND = No LNAPL detected

* Groundwater elevation was corrected for product thickness (when present) using the following calculation:

Groundwater elevation = (TOC Elevation - Measured Depth to Water)+(LNAPL Thickness in Well x LNAPL Relative Density)

LNAPL relative density was estimated to be approximately 0.75

1) Depth to water measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

TABLE 2
GROUNDWATER ANALYTICAL DATA
NOBLE ENERGY, INC. - UPRC 33-4F, 5F, HUNT FEDERAL K 33-19

Monitoring Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Standard		5	560	700	1,400
GW01	04/18/19	410	340	68	1,500
GW02	07/02/19	17	<1.0	35	200
BH01	07/22/19	<1.0	<1.0	<1.0	<2.0
BH01	10/24/19	<1.0	<1.0	<1.0	<2.0
BH01	01/21/20	<1.0	<1.0	<1.0	<2.0
BH01	04/08/20	<1.0	<1.0	<1.0	<2.0
BH01	07/17/20	<1.0	<1.0	<1.0	<2.0
BH01	10/19/20	<1.0	<1.0	<1.0	<2.0
BH01	01/04/21	<1.0	<1.0	<1.0	<2.0
BH01	04/02/21	<1.0	<1.0	<1.0	<2.0
BH02	07/22/19	<1.0	<1.0	<1.0	<2.0
BH02	10/24/19	<1.0	<1.0	<1.0	<2.0
BH02	01/21/20	<1.0	<1.0	<1.0	<2.0
BH02	04/08/20	<1.0	<1.0	<1.0	<2.0
BH02	07/17/20	<1.0	<1.0	<1.0	<2.0
BH02	10/19/20	<1.0	<1.0	<1.0	<2.0
BH02	01/04/21	<1.0	<1.0	<1.0	<2.0
BH02	04/02/21	<1.0	<1.0	<1.0	<2.0
BH03	07/22/19	<1.0	<1.0	<1.0	<2.0
BH03	10/24/19	<1.0	<1.0	<1.0	<2.0
BH03	01/21/20	<1.0	<1.0	<1.0	<2.0
BH03	04/08/20	<1.0	<1.0	<1.0	<2.0
BH03	07/17/20	<1.0	<1.0	<1.0	<2.0
BH03	10/19/20	<1.0	<1.0	<1.0	<2.0
BH03	01/04/21	<1.0	<1.0	<1.0	<2.0
BH03	04/02/21	<1.0	<1.0	<1.0	<2.0
BH04	07/22/19	<1.0	<1.0	<1.0	<2.0
BH04	10/24/19	<1.0	<1.0	<1.0	<2.0
BH04	01/21/20	<1.0	<1.0	<1.0	<2.0
BH04	04/08/20	<1.0	<1.0	<1.0	<2.0
BH04	07/17/20	<1.0	<1.0	<1.0	<2.0
BH04	10/19/20	<1.0	<1.0	<1.0	<2.0
BH04	01/04/21	<1.0	<1.0	<1.0	<2.0
BH04	04/02/21	<1.0	<1.0	<1.0	<2.0
BH05	07/22/19	<1.0	<1.0	<1.0	<2.0
BH05	10/24/19	10	<1.0	5.6	28
BH05	01/21/20	31	<1.0	14	120
BH05	04/08/20	42	<1.0	25	130
BH05	07/17/20	<1.0	<1.0	<1.0	<2.0
BH05	10/19/20	<1.0	<1.0	<1.0	<2.0
BH05	01/04/21	<1.0	<1.0	<1.0	<2.0
BH05	04/02/21	<1.0	<1.0	<1.0	<2.0

TABLE 2
GROUNDWATER ANALYTICAL DATA
NOBLE ENERGY, INC. - UPRC 33-4F, 5F, HUNT FEDERAL K 33-19

Monitoring Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Standard		5	560	700	1,400
BH06	07/22/19	<1.0	<1.0	<1.0	<2.0
BH06	10/24/19	<1.0	<1.0	<1.0	<2.0
BH06	01/21/20	<1.0	<1.0	<1.0	<2.0
BH06	04/08/20	<1.0	<1.0	<1.0	<2.0
BH06	07/17/20	<1.0	<1.0	<1.0	<2.0
BH06	10/19/20	<1.0	<1.0	<1.0	<2.0
BH06	01/04/21	<1.0	<1.0	<1.0	<2.0
BH06	04/02/21	<1.0	<1.0	<1.0	<2.0
BH07	07/22/19	<1.0	<1.0	<1.0	<2.0
BH07	10/24/19	<1.0	<1.0	<1.0	<2.0
BH07	01/21/20	<1.0	<1.0	<1.0	<2.0
BH07	04/08/20	<1.0	<1.0	<1.0	<2.0
BH07	07/17/20	<1.0	<1.0	<1.0	<2.0
BH07	10/19/20	<1.0	<1.0	<1.0	<2.0
BH07	01/04/21	<1.0	<1.0	<1.0	<2.0
BH07	04/02/21	<1.0	<1.0	<1.0	<2.0
BH08	07/22/19	<1.0	<1.0	<1.0	<2.0
BH08	10/24/19	<1.0	<1.0	<1.0	<2.0
BH08	01/21/20	<1.0	<1.0	<1.0	<2.0
BH08	04/08/20	<1.0	<1.0	<1.0	<2.0
BH08	07/17/20	<1.0	<1.0	<1.0	<2.0
BH08	10/19/20	<1.0	<1.0	<1.0	<2.0
BH08	01/04/21	<1.0	<1.0	<1.0	<2.0
BH08	04/02/21	<1.0	<1.0	<1.0	<2.0

Notes:

COGCC = Colorado Oil and Gas Conservation Commission

µg/L = Micrograms per liter

< = Analytical result is less than the indicated laboratory reporting limit

Groundwater standards referenced from COGCC Table 910-1

Highlighted results are equal to or exceed the COGCC Table 910-1 standard

FIGURES

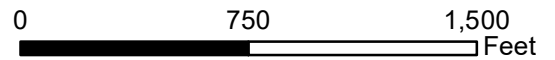
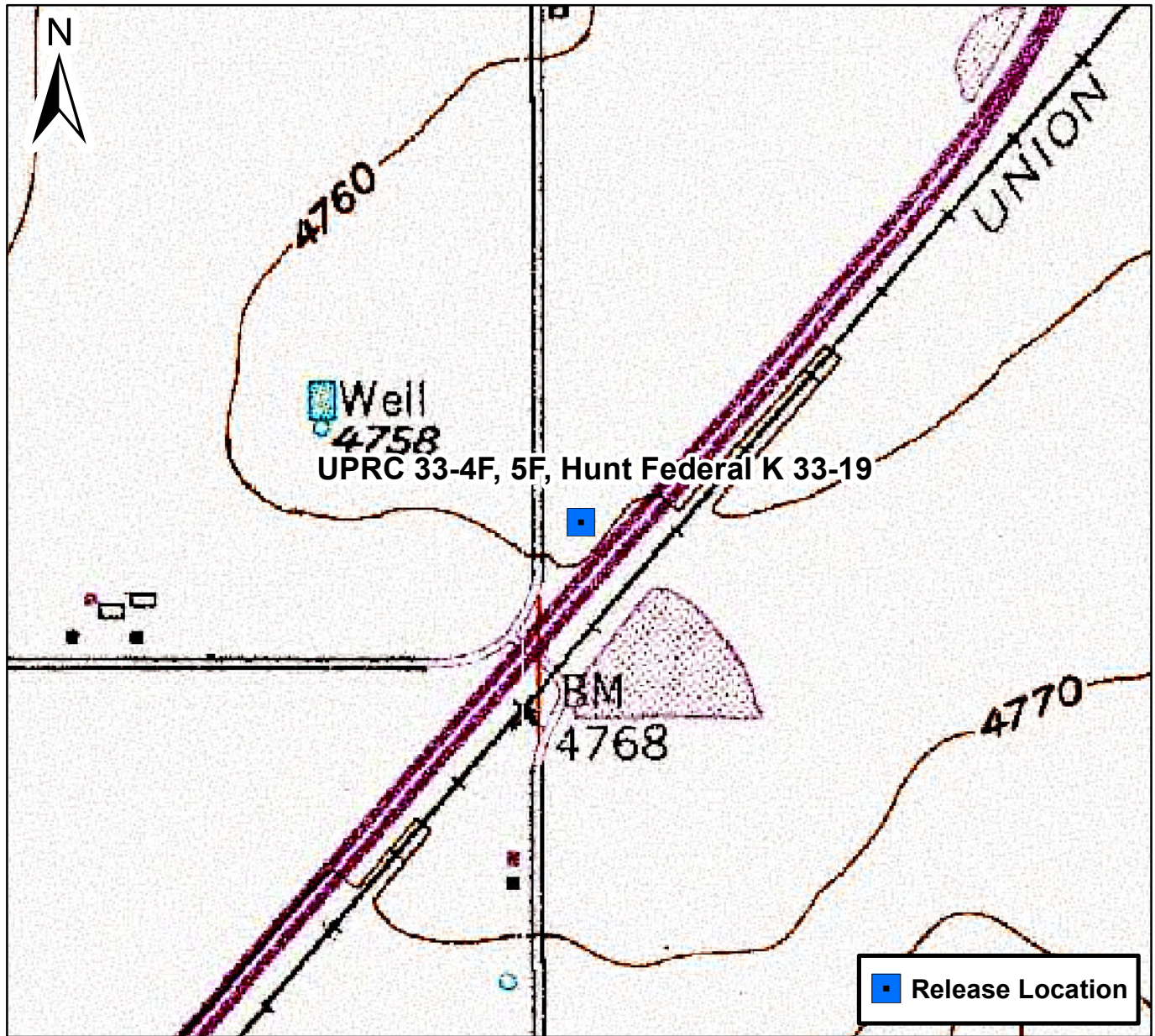









Figure 1

Site Location Map
 UPRC 33-4F, 5F, Hunt Federal K 33-19
 SWNW S33 T4N R66W
 Weld County, Colorado





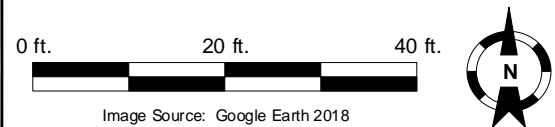
Legend

-  Monitoring Well
(Collected via Trimble GPS)
-  Fence
(Collected via Trimble GPS)
-  Release Location
-  Excavation Extents - 2019
(Collected via Trimble GPS)
-  Noble Dump Line
(Collected via Trimble GPS)
-  Noble Flowline
(Collected via Trimble GPS)
-  DCP Line
(Collected via Trimble GPS)


Notes

- 1) All locations are approximate unless otherwise noted.
- 2) Buried infrastructure has been spatially projected.
- 3) Site infrastructure has been removed; shown for illustrative purposes only

GPS – Global Positioning System



DATE:	04/17/2020
DESIGNED BY:	JW
DRAWN BY:	TC



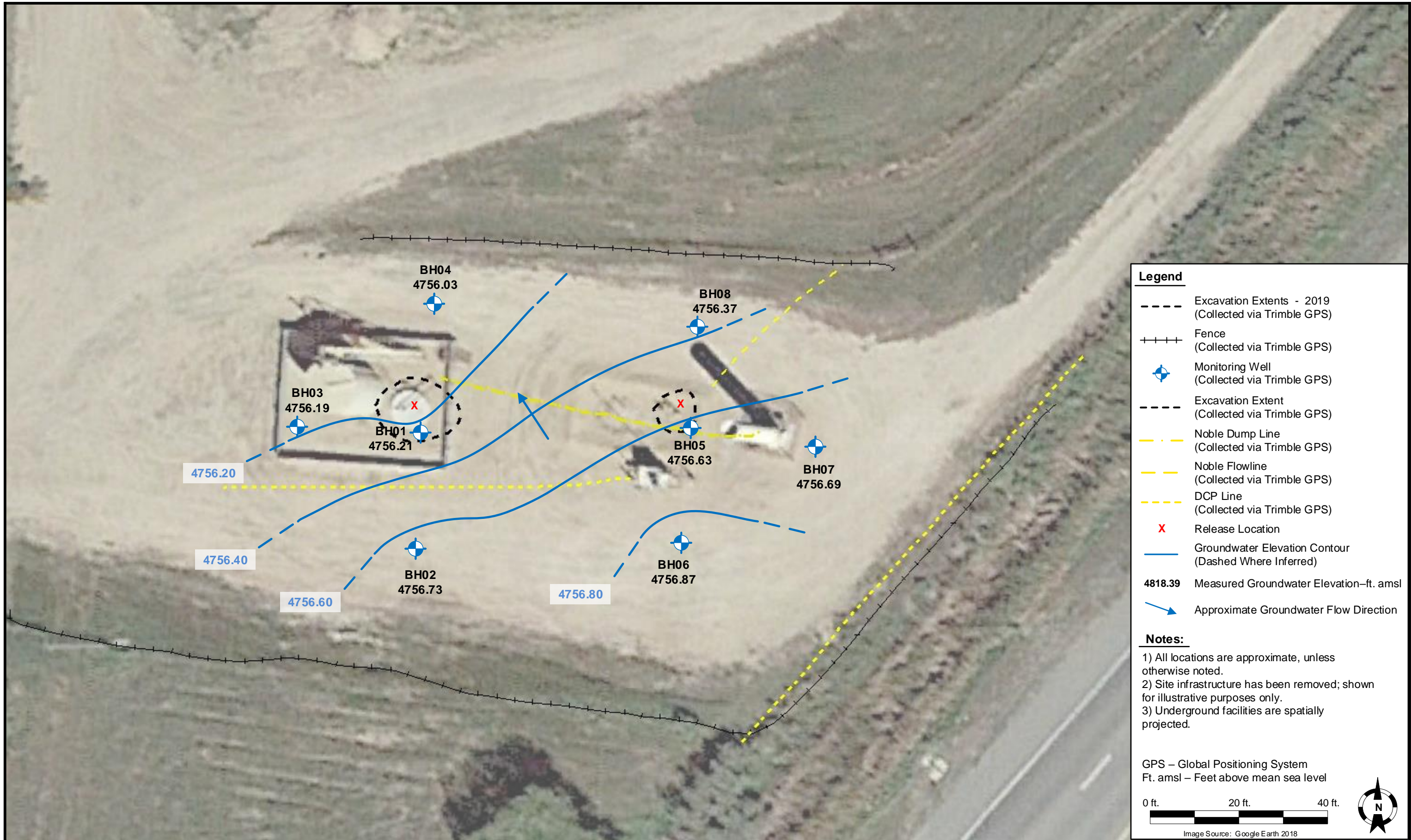
TASMAN
GEOSCIENCES

Tasman Geosciences, Inc.
6855 W 119th Ave.
Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
UPRC 33-4F, 5F, Hunt Federal K 33-19
 SWNW, Section 33, Township 4 North, Range 66 West
 Weld County, Colorado

Site Overview Map

FIGURE
2



- Legend**
- Excavation Extents - 2019 (Collected via Trimble GPS)
 - ++++ Fence (Collected via Trimble GPS)
 - ⊕ Monitoring Well (Collected via Trimble GPS)
 - - - Excavation Extent (Collected via Trimble GPS)
 - . - Noble Dump Line (Collected via Trimble GPS)
 - - - Noble Flowline (Collected via Trimble GPS)
 - - - DCP Line (Collected via Trimble GPS)
 - X Release Location
 - Groundwater Elevation Contour (Dashed Where Inferred)
 - 4818.39 Measured Groundwater Elevation—ft. amsl
 - ➔ Approximate Groundwater Flow Direction

- Notes:**
- 1) All locations are approximate, unless otherwise noted.
 - 2) Site infrastructure has been removed; shown for illustrative purposes only.
 - 3) Underground facilities are spatially projected.

GPS – Global Positioning System
 Ft. amsl – Feet above mean sea level

0 ft. 20 ft. 40 ft.

Image Source: Google Earth 2018

DATE: 04/26/2021

DESIGNED BY: JW

DRAWN BY: JW



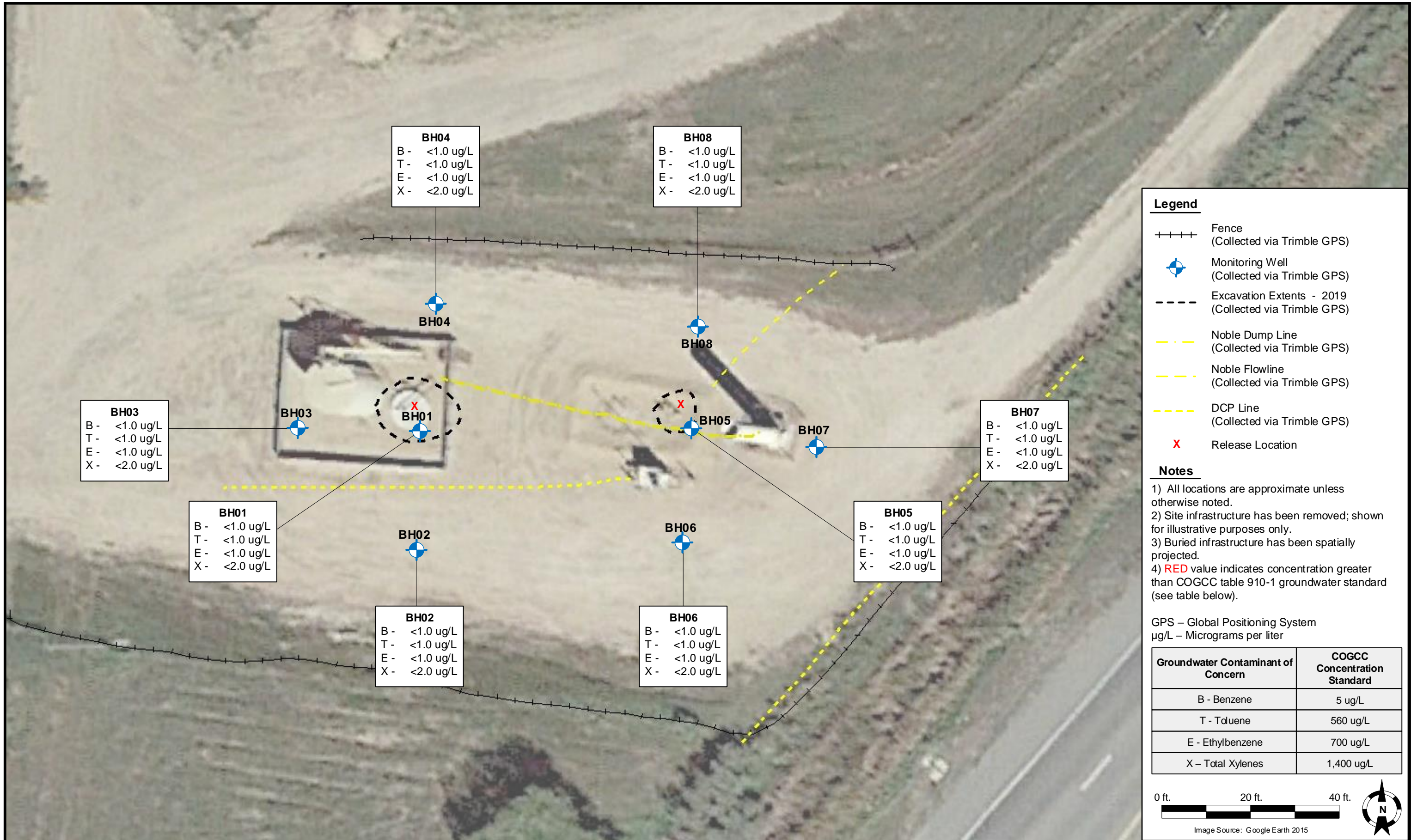
TASMAN
 GEOSCIENCES

Tasman Geosciences, Inc.
 6855 W 119th Avenue
 Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
UPRC 33-4F, 5F, Hunt Federal K 33-19
 SWNW, Section 33, Township 4 North, Range 66 West
 Weld County, Colorado

Groundwater Potentiometric
 Surface Contour Map
 (04/02/2021)

FIGURE
 3



Legend

- ++++ Fence (Collected via Trimble GPS)
- Monitoring Well (Collected via Trimble GPS)
- Excavation Extents - 2019 (Collected via Trimble GPS)
- .-.- Noble Dump Line (Collected via Trimble GPS)
- .-.- Noble Flowline (Collected via Trimble GPS)
- .-.- DCP Line (Collected via Trimble GPS)
- X Release Location

Notes

- 1) All locations are approximate unless otherwise noted.
- 2) Site infrastructure has been removed; shown for illustrative purposes only.
- 3) Buried infrastructure has been spatially projected.
- 4) RED value indicates concentration greater than COGCC table 910-1 groundwater standard (see table below).

GPS – Global Positioning System
 µg/L – Micrograms per liter

Groundwater Contaminant of Concern	COGCC Concentration Standard
B - Benzene	5 µg/L
T - Toluene	560 µg/L
E - Ethylbenzene	700 µg/L
X – Total Xylenes	1,400 µg/L

0 ft. 20 ft. 40 ft.

Image Source: Google Earth 2015

DATE: 4/26/2021

DESIGNED BY: JW

DRAWN BY: JW

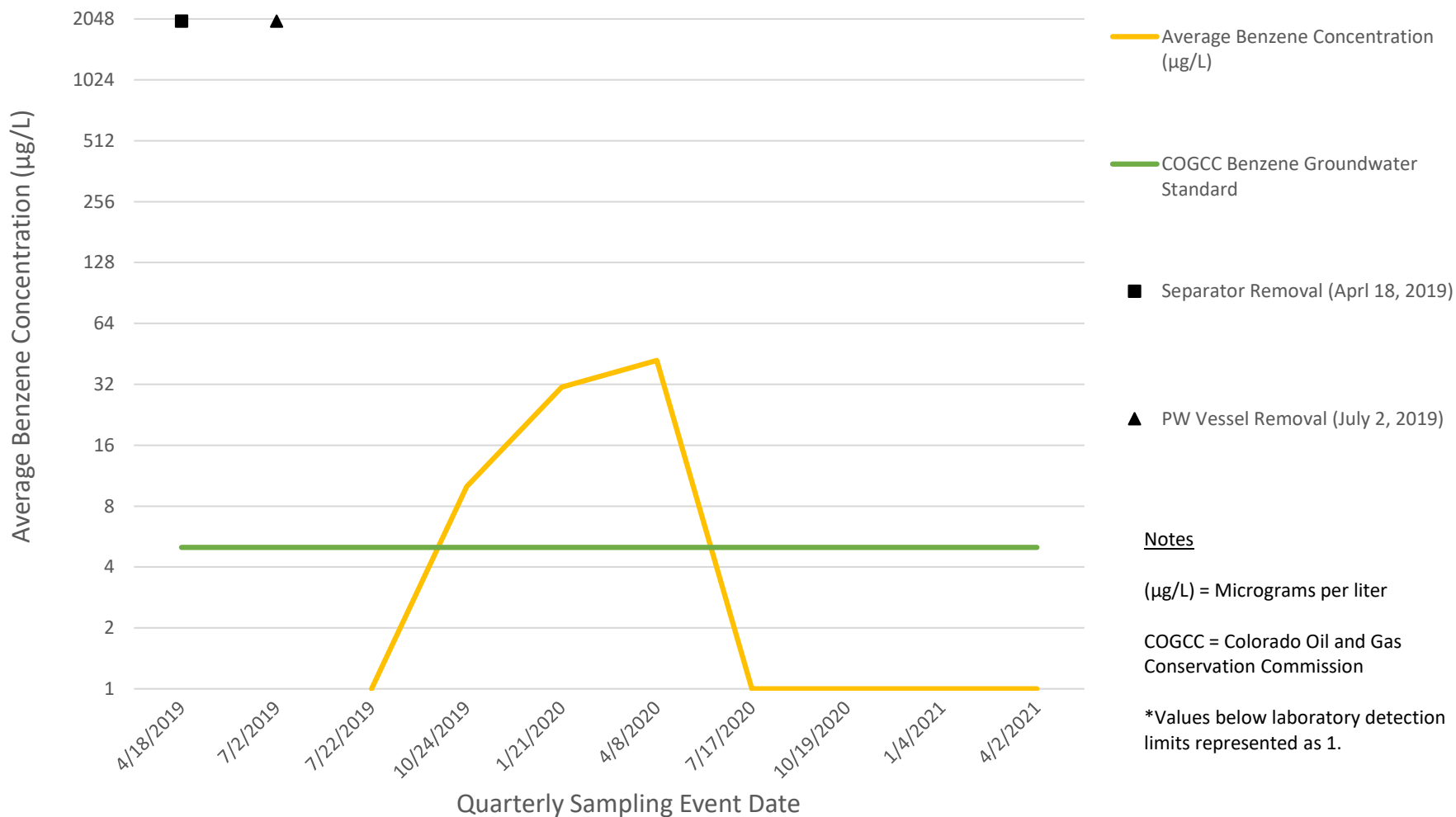
TASMAN GEOSCIENCES
 Tasman Geosciences, Inc.
 6855 W 119th Avenue
 Broomfield, CO 80020

Noble Energy, Inc. – DJ Basin
UPRC 33-4F, 5F, Hunt Federal K 33-19
 SWNW, Section 33, Township 4 North, Range 66 West
 Weld County, Colorado

Groundwater Analytical
 Results Map
 (04/02/2021)

FIGURE
 4

FIGURE 5
 UPRC 33-4F, 5F, HUNT FEDERAL K 33-19
 Average Quarterly Benzene Concentrations



ATTACHMENT A

LABORATORY ANALYTICAL GROUNDWATER DATA REPORT

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 12, 2021

Brandon Bruns

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Work Order #2104041

Enclosed are the results of analyses for samples received by Summit Scientific on 04/02/21 17:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury

President



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	2104041-01	Water	04/02/21 14:57	04/02/21 17:20
BH02	2104041-02	Water	04/02/21 15:14	04/02/21 17:20
BH03	2104041-03	Water	04/02/21 14:49	04/02/21 17:20
BH04	2104041-04	Water	04/02/21 15:05	04/02/21 17:20
BH05	2104041-05	Water	04/02/21 15:10	04/02/21 17:20
BH06	2104041-06	Water	04/02/21 14:58	04/02/21 17:20
BH07	2104041-07	Water	04/02/21 14:48	04/02/21 17:20
BH08	2104041-08	Water	04/02/21 15:20	04/02/21 17:20

Summit Scientific

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

2104041

Summit Scientific

S₂

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

Page 1 of 1

Client: Noble / Tasman Project Manager: Brandon Bruns, Invoice: Jacob Evans
 Address: 6425 W 119th Ave E-Mail: bbruns@tasman-geo.com
 City/State/Zip: Broomfield, CO 80020
 Phone: 303-457-1228 Project Name: UPRF 33-4F, 5F, Hunt Federal K 33-19
 Sampler Name: Brandon J. 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							
1	BH01	4/2/21	1457	2			X		X					X						
2	BH02		1514																	
3	BH03		1449																	
4	BH04		1505																	
5	BH05		1510																	
6	BH06		1458																	
7	BH07		1448																	
8	BH08		1520																	
9																				
10																				

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
<u>Brandon Van Horn</u>	<u>4/2/21 1700</u>	<u>Tasman lockbox</u>	<u>4/2/21 1700</u>	Same Day	<input type="checkbox"/>	72 hours
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	<input type="checkbox"/>	Standard <input checked="" type="checkbox"/>
<u>Tasman lockbox</u>	<u>17:20</u>	<u>Jacob Bruns</u>	<u>4/2/21 17:20</u>	48 hours	<input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:		
				Temperature Upon Receipt:	<u>12.5</u>	
				Samples Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Sample Receipt Checklist

S2 Work Order 2104041

Client Noble / Tasman Client Project ID UPRC 33-4F, 5F, Hunt Federal K33-19

Shipped Via: H.D. P.U. FedEx UPS USPS Other _____ Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____ (Describe)

Temp (°C) 12.5

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice.
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<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"/>	
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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽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, H2SO4, NaOH, HNO3, ect	<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.

JB
Custodian Printed Name or Initials

Quik Bon
Signature of Custodian

4/2/21 18:50
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

BH01
2104041-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 14:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **04/02/21 14:57**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		99.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Brun

Reported:
04/12/21 14:33

BH02
2104041-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 15:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 15:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

BH03
2104041-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 14:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 14:49**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		99.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		90.5 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

BH04
2104041-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 15:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 15:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		99.5 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.0 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Brun

Reported:
04/12/21 14:33

BH05
2104041-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		99.0 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.2 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

BH06
2104041-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 14:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 14:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		100 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

BH07
2104041-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 14:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 14:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		100 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.2 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

BH08
2104041-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/02/21 15:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BED0078	04/06/21	04/07/21	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/02/21 15:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		91.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %		21-167		"	"	"	"	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
04/12/21 14:33

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BED0078 - EPA 5030 Water MS

Blank (BED0078-BLK1)

Prepared & Analyzed: 04/06/21

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.3		104		23-173		
Surrogate: Toluene-d8	13.2		"	13.3		99.3		20-170		
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.4		21-167		

LCS (BED0078-BS1)

Prepared & Analyzed: 04/06/21

Benzene	32.8	1.0	ug/l	33.3		98.5		51-132		
Toluene	35.0	1.0	"	33.3		105		51-138		
Ethylbenzene	40.3	1.0	"	33.3		121		58-146		
m,p-Xylene	76.8	2.0	"	66.7		115		57-144		
o-Xylene	40.2	1.0	"	33.3		121		53-146		
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.3		95.1		23-173		
Surrogate: Toluene-d8	12.3		"	13.3		92.5		20-170		
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.9		21-167		

Matrix Spike (BED0078-MS1)

Source: 2104040-01

Prepared & Analyzed: 04/06/21

Benzene	32.3	1.0	ug/l	33.3	ND	96.9		34-141		
Toluene	34.8	1.0	"	33.3	ND	104		27-151		
Ethylbenzene	40.8	1.0	"	33.3	ND	123		29-160		
m,p-Xylene	78.0	2.0	"	66.7	ND	117		20-166		
o-Xylene	40.3	1.0	"	33.3	ND	121		33-159		
Surrogate: 1,2-Dichloroethane-d4	12.7		"	13.3		95.0		23-173		
Surrogate: Toluene-d8	12.2		"	13.3		91.9		20-170		
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.3		21-167		

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Brunns

Reported:
04/12/21 14:33

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 BED0078 - EPA 5030 Water MS

Matrix Spike Dup (BED0078-MSD1)	Source: 2104040-01			Prepared & Analyzed: 04/06/21							
Benzene	30.8	1.0	ug/l	33.3	ND	92.3	34-141	4.89	30		
Toluene	35.2	1.0	"	33.3	ND	106	27-151	1.06	30		
Ethylbenzene	41.0	1.0	"	33.3	ND	123	29-160	0.367	30		
m,p-Xylene	77.6	2.0	"	66.7	ND	116	20-166	0.514	30		
o-Xylene	40.6	1.0	"	33.3	ND	122	33-159	0.593	30		
Surrogate: 1,2-Dichloroethane-d4	12.2		"	13.3		91.3	23-173				
Surrogate: Toluene-d8	12.2		"	13.3		91.9	20-170				
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.2	21-167				

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - UPRC 33-4F, 5F, Hunt Federal K33-19

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
04/12/21 14:33

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