

THIRD QUARTER 2020 SITE MONITORING DATA

DUNCAN D20-12, 20-13

COGCC SPILL TRACKING # 459804

COGCC REMEDIATION # 12461

Prepared for:



2115 117th Avenue
Greeley, CO 80631

Prepared by:



6855 West 119th Avenue
Broomfield, Colorado 80020

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - DUNCAN D20-12, 20-13

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	08/23/19	4772.46	21.77	5.32	ND	ND	4765.17
BH01	11/15/19	4772.46	21.68	5.73	ND	ND	4764.76
BH01	02/05/20	4772.46	21.47	5.38	ND	ND	4765.11
BH01	05/04/20	4772.46	21.21	3.15	ND	ND	4767.34
BH01	08/05/20	4772.46	21.14	5.84	ND	ND	4764.65
BH02	08/23/19	4773.47	17.30	5.47	ND	ND	4765.14
BH02	11/15/19	4773.47	17.23	5.89	ND	ND	4764.72
BH02	02/05/20	4773.47	17.20	5.58	ND	ND	4765.03
BH02	05/04/20	4773.47	17.17	3.33	ND	ND	4767.28
BH02	08/05/20	4773.47	17.16	6.05	ND	ND	4764.56
BH03	08/23/19	4770.68	14.10	5.83	ND	ND	4765.26
BH03	11/15/19	4770.68	13.92	6.27	ND	ND	4764.82
BH03	02/05/20	4770.68	13.94	5.94	ND	ND	4765.15
BH03	05/04/20	4770.68	13.87	3.67	ND	ND	4767.42
BH03	08/05/20	4770.68	13.74	6.38	ND	ND	4764.71
BH04	08/23/19	4773.76	20.74	5.62	ND	ND	4765.20
BH04	11/15/19	4773.76	19.76	6.02	ND	ND	4764.80
BH04	02/05/20	4773.76	20.42	5.69	ND	ND	4765.13
BH04	05/04/20	4773.76	19.72	3.44	ND	ND	4767.38
BH04	08/05/20	4773.76	19.75	6.21	ND	ND	4764.61
BH05	08/23/19	4772.36	20.15	5.56	ND	ND	4765.12
BH05	11/15/19	4772.36	19.69	5.93	ND	ND	4764.75
BH05	02/05/20	4772.36	19.40	5.61	ND	ND	4765.07
BH05	05/04/20	4772.36	19.23	3.36	ND	ND	4767.32
BH05	08/05/20	4772.36	19.05	6.07	ND	ND	4764.61
BH06	08/23/19	4772.64	16.63	5.53	ND	ND	4765.18
BH06	11/15/19	4772.64	16.59	5.90	ND	ND	4764.81
BH06	02/05/20	4772.64	16.52	5.55	ND	ND	4765.16
BH06	05/04/20	4772.64	16.60	3.32	ND	ND	4767.39
BH06	08/05/20	4772.64	16.58	6.07	ND	ND	4764.64
BH07	02/05/20	4772.12	16.01	5.03	ND	ND	4765.00
BH07	05/04/20	4772.12	16.09	2.77	ND	ND	4767.26
BH07	08/05/20	4772.12	16.08	5.53	ND	ND	4764.50
BH08	02/05/20	4770.79	12.65	6.00	ND	ND	4764.86
BH08	05/04/20	4770.79	12.66	3.78	ND	ND	4767.08
BH08	08/05/20	4770.79	12.60	6.48	ND	ND	4764.38

TABLE 1
GROUNDWATER ELEVATION DATA
NOBLE ENERGY, INC. - DUNCAN D20-12, 20-13

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)
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Notes:

BTOC = Below top of casing

ft. = Feet

ND = No LNAPL detected

AMSL = Above mean sea level

LNAPL = Light non-aqueous phase liquid

1) Depth to water measurements collected prior to third quarter 2019 were measured from top of well casing. Subsequent measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

* 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

TABLE 2
GROUNDWATER ANALYTICAL DATA
NOBLE ENERGY, INC. - DUNCAN D20-12, 20-13

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	12/10/18	970	3.2	560	3,800
BH01	08/23/19	440	<1.0	490	1,400
BH01	11/15/19	840	<1.0	420	1,200
BH01	02/05/20	<1.0	<1.0	<1.0	<2.0
BH01	05/04/20	1,100	<1.0	200	1,400
BH01	08/05/20	850	<1.0	800	1,700
BH02	08/23/19	<1.0	<1.0	<1.0	<2.0
BH02	11/15/19	<1.0	<1.0	<1.0	<2.0
BH02	02/05/20	<1.0	<1.0	<1.0	<2.0
BH02	05/04/20	<1.0	<1.0	<1.0	<2.0
BH02	08/05/20	<1.0	<1.0	<1.0	<2.0
BH03	08/23/19	<1.0	<1.0	<1.0	<2.0
BH03	11/15/19	<1.0	<1.0	<1.0	<2.0
BH03	02/05/20	<1.0	<1.0	<1.0	<2.0
BH03	05/04/20	<1.0	<1.0	<1.0	<2.0
BH03	08/05/20	<1.0	<1.0	<1.0	<2.0
BH04	08/23/19	<1.0	<1.0	<1.0	<2.0
BH04	11/15/19	<1.0	<1.0	<1.0	<2.0
BH04	02/05/20	<1.0	<1.0	25	79
BH04	05/04/20	1.1	<1.0	5.9	14
BH04	08/05/20	1.2	<1.0	14	50
BH05	08/23/19	340	<1.0	500	1,700
BH05	11/15/19	530	<1.0	490	1,600
BH05	02/05/20	240	<1.0	450	1,100
BH05	05/04/20	380	<1.0	190	480
BH05	08/05/20	610	<1.0	740	1,900
BH06	08/23/19	<1.0	<1.0	<1.0	<2.0
BH06	11/15/19	<1.0	<1.0	<1.0	<2.0
BH06	02/05/20	<1.0	<1.0	<1.0	<2.0
BH06	05/04/20	<1.0	<1.0	<1.0	<2.0
BH06	08/05/20	<1.0	<1.0	<1.0	<2.0
BH07	02/05/20	<1.0	<1.0	<1.0	<2.0
BH07	05/04/20	<1.0	<1.0	<1.0	<2.0
BH07	08/05/20	<1.0	<1.0	<1.0	<2.0
BH08	02/05/20	<1.0	<1.0	<1.0	2.5
BH08	05/04/20	<1.0	<1.0	<1.0	<2.0
BH08	08/05/20	<1.0	<1.0	<1.0	<2.0

Notes:

µg/L = Micrograms per liter

COGCC = Colorado Oil and Gas Conservation Commission

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

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

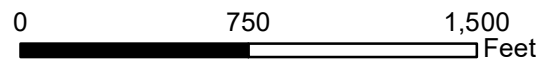
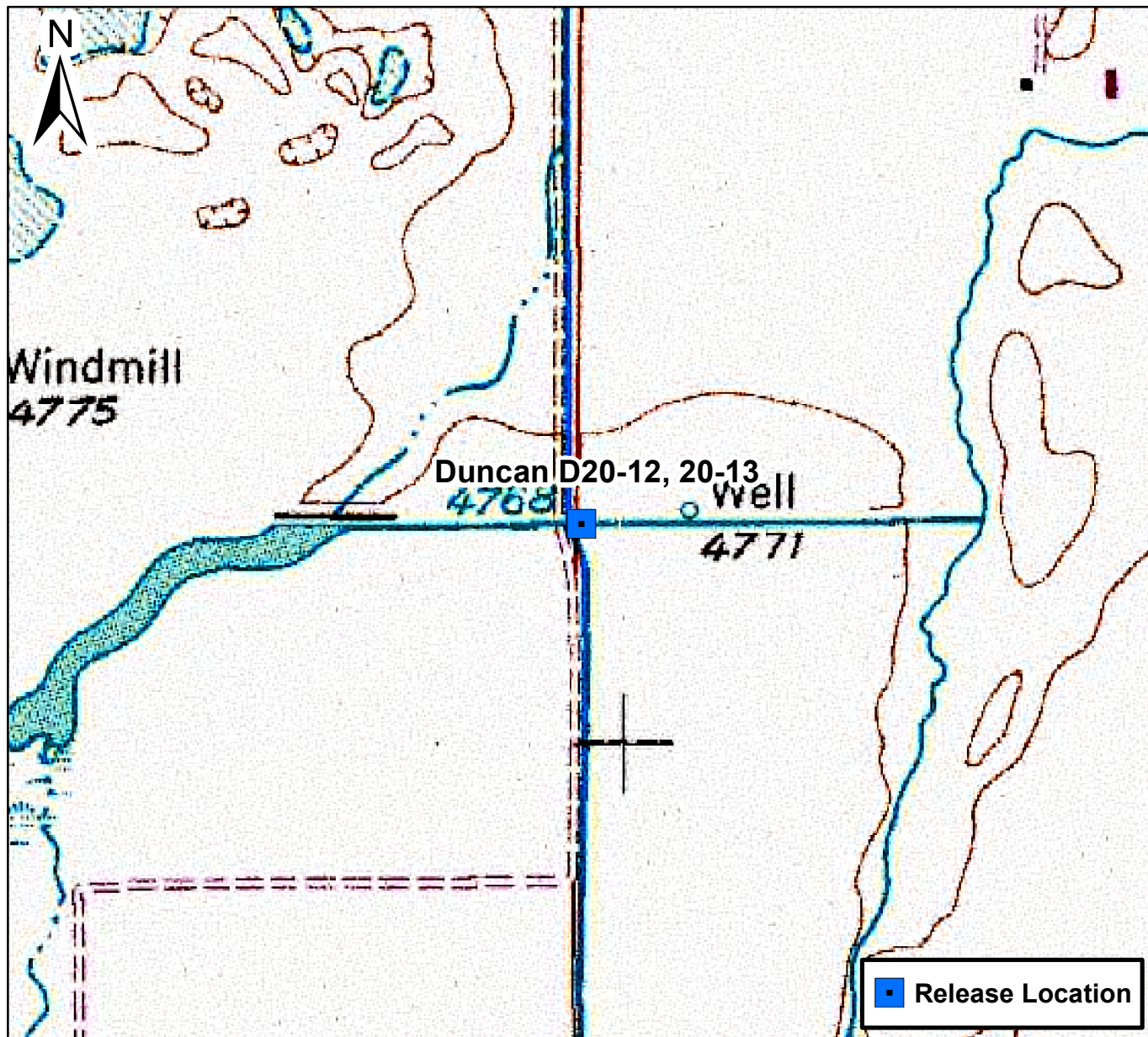
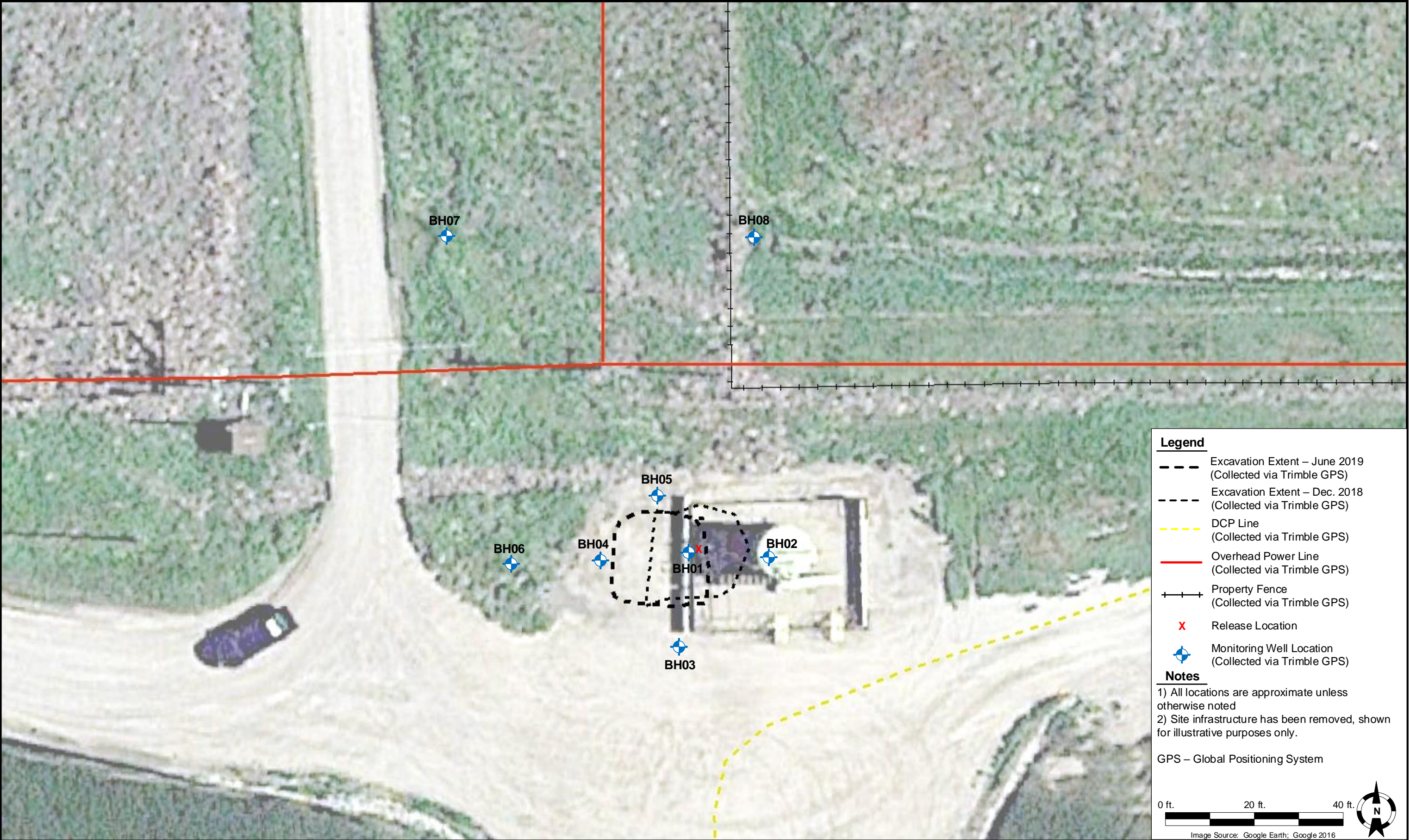


Figure 1

Site Location Map
 Duncan D20-12, 20-13
 NWSW S20 T3N R64W
 Weld County, Colorado






Legend

- - - Excavation Extent – June 2019 (Collected via Trimble GPS)
- - - Excavation Extent – Dec. 2018 (Collected via Trimble GPS)
- - - DCP Line (Collected via Trimble GPS)
- Overhead Power Line (Collected via Trimble GPS)
- + + + Property Fence (Collected via Trimble GPS)
- X Release Location
- Monitoring Well Location (Collected via Trimble GPS)

Notes

- 1) All locations are approximate unless otherwise noted
- 2) Site infrastructure has been removed, shown for illustrative purposes only.

GPS – Global Positioning System

DATE: 02/28/2020	 <div>Tasman Geosciences, Inc. 6855 W. 119th Avenue Broomfield, CO 80020</div>	Noble Energy, Inc. – DJ Basin Duncan D20-12, 20-13 NWSW, Section 20, Township 3 North, Range 64 West Weld County, Colorado	Site Overview Map	FIGURE 2
DESIGNED BY: JW				
DRAWN BY: KC				



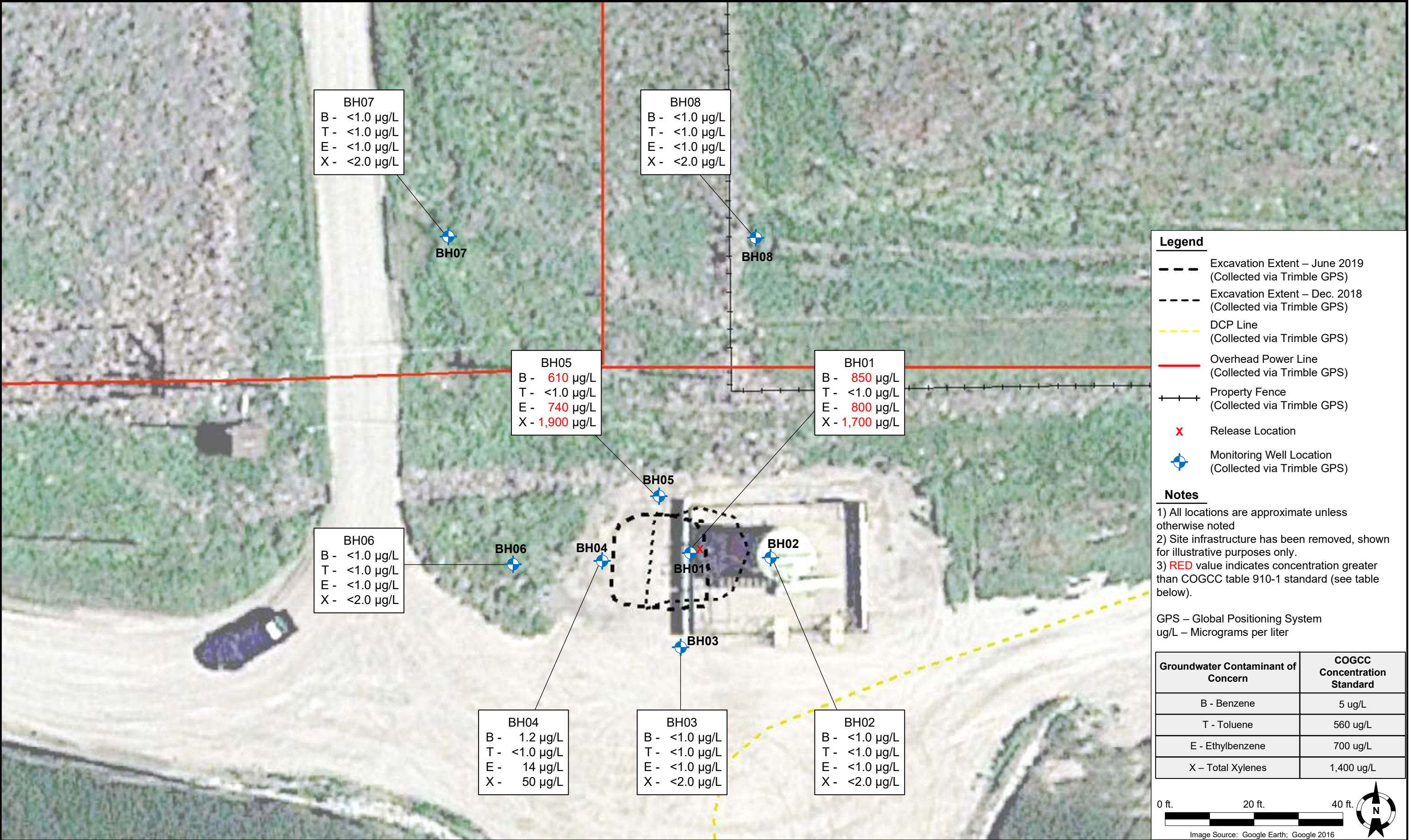


Figure 5
Duncan D20-12, 20-13
Average Quarterly Benzene Concentrations



Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 11, 2020

Brandon Bruns

Tasman Geosciences

6855 W. 119th Ave.

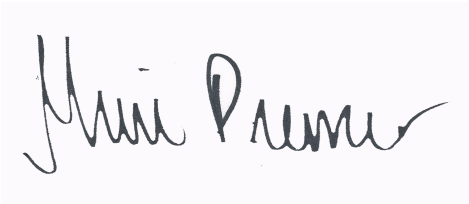
Broomfield, CO 80020

RE: Noble - Duncan D20-12, 20-13

Work Order #2008026

Enclosed are the results of analyses for samples received by Summit Scientific on 08/05/20 17:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	2008026-01	Water	08/05/20 14:29	08/05/20 17:30
BH02	2008026-02	Water	08/05/20 13:36	08/05/20 17:30
BH03	2008026-03	Water	08/05/20 13:51	08/05/20 17:30
BH04	2008026-04	Water	08/05/20 14:12	08/05/20 17:30
BH05	2008026-05	Water	08/05/20 14:24	08/05/20 17:30
BH06	2008026-06	Water	08/05/20 14:09	08/05/20 17:30
BH07	2008026-07	Water	08/05/20 13:38	08/05/20 17:30
BH08	2008026-08	Water	08/05/20 13:56	08/05/20 17:30

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.

2008026

Page 1 of 1

Address:	6855 W 119th Ave
City/State/Zip:	Broomfield, CO 80020
Phone:	303-487-1228
Fax:	—
Sampler Name:	Brandon V.

Project Name: Pineau P20-12, 20-13
Project Number:

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 2008026

Client: Noble/ASMAN

Client Project ID: Duncan D20-12, 20-13

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

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

Temp (°C) 4.8

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"/>	
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 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"/>	
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
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 or Initials TC

Signature of Custodian [Signature]

Date/Time 08/05/2020



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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH01
2008026-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	850	100		ug/l	100	2008053	08/06/20	08/06/20	EPA 8260B	
Toluene	ND	1.0		"	1	"	"	"	"	
Ethylbenzene	800	100		"	100	"	"	"	"	
Xylenes (total)	1700	200		"	"	"	"	"	"	

Date Sampled: **08/05/20 14:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %		21-167		"	"	"	"	

Summit Scientific

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH02
2008026-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:36**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	2008053	08/06/20	08/06/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/05/20 13:36**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH03
2008026-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:51**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	2008053	08/06/20	08/06/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/05/20 13:51**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH04
2008026-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	1.2	1.0		ug/l	1	2008053	08/06/20	08/06/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	14	1.0		"	"	"	"	"	"	
Xylenes (total)	50	2.0		"	"	"	"	"	"	

Date Sampled: **08/05/20 14:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		105 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		21-167		"	"	"	"	

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH05
2008026-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	610	100		ug/l	100	2008053	08/06/20	08/07/20	EPA 8260B	
Toluene	ND	1.0		"	1	"	"	"	"	
Ethylbenzene	740	100		"	100	"	"	"	"	
Xylenes (total)	1900	200		"	"	"	"	"	"	

Date Sampled: **08/05/20 14:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		101 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		21-167		"	"	"	"	

Summit Scientific

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH06
2008026-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 14:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	2008053	08/06/20	08/07/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/05/20 14:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH07
2008026-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:38**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	2008053	08/06/20	08/07/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/05/20 13:38**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

BH08
2008026-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/05/20 13:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	2008053	08/06/20	08/07/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/05/20 13:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	21-167		"	"	"	"	

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Project Number: [none]
Project Manager: Brandon Brunns

Reported:
08/11/20 14:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch 2008053 - EPA 5030 Water MS

Blank (2008053-BLK1)

Prepared & Analyzed: 08/06/20

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3		111	23-173			
Surrogate: Toluene-d8	13.7		"	13.3		103	20-170			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.5	21-167			

LCS (2008053-BS1)

Prepared & Analyzed: 08/06/20

Benzene	32.6	1.0	ug/l	33.3		97.8	51-132			
Toluene	32.2	1.0	"	33.3		96.7	51-138			
Ethylbenzene	34.0	1.0	"	33.3		102	58-146			
m,p-Xylene	58.2	2.0	"	66.7		87.3	57-144			
o-Xylene	31.0	1.0	"	33.3		93.1	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	23-173			
Surrogate: Toluene-d8	13.5		"	13.3		101	20-170			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.7	21-167			

Matrix Spike (2008053-MS1)

Source: 2008030-01

Prepared & Analyzed: 08/06/20

Benzene	32.6	1.0	ug/l	33.3	ND	97.7	34-141			
Toluene	32.6	1.0	"	33.3	ND	97.9	27-151			
Ethylbenzene	33.5	1.0	"	33.3	ND	100	29-160			
m,p-Xylene	57.4	2.0	"	66.7	ND	86.1	20-166			
o-Xylene	30.6	1.0	"	33.3	ND	91.7	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.4		"	13.3		108	23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.9	21-167			

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Project Manager: Brandon Brunns

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08/11/20 14:47

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 2008053 - EPA 5030 Water MS

Matrix Spike Dup (2008053-MSD1)	Source: 2008030-01			Prepared & Analyzed: 08/06/20						
Benzene	32.5	1.0	ug/l	33.3	ND	97.6	34-141	0.123	30	
Toluene	32.0	1.0	"	33.3	ND	96.0	27-151	1.95	30	
Ethylbenzene	33.0	1.0	"	33.3	ND	99.0	29-160	1.38	30	
m,p-Xylene	56.7	2.0	"	66.7	ND	85.1	20-166	1.19	30	
o-Xylene	30.8	1.0	"	33.3	ND	92.5	33-159	0.847	30	
Surrogate: 1,2-Dichloroethane-d4	14.8		"	13.3		111	23-173			
Surrogate: Toluene-d8	13.5		"	13.3		101	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.1	21-167			

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Project: Noble - Duncan D20-12, 20-13

Project Number: [none]
Project Manager: Brandon Bruns

Reported:
08/11/20 14:47

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