

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - HSR CHARLTON 08-20

Soil Sample ID	Date	¹ Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4 - TMB (mg/kg)	1,3,5 - TMB (mg/kg)	Naphthalene (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ²		1.2	490	5.8	58	30	27	2	500			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL ^{2,3}		0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500			0.55	6	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
SS01@2.5'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.037	<0.0038	20	160	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0331	<0.00500	0.0115	0.209	0.169
SS02@2.5'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	0.17	<0.010	6.8	120	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.012	<0.00500	<0.00500	0.0859	0.0997
SS03@2.5'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SS04@2.5'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	1.7	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FS01@4'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-A@3'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	1.8	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00855	<0.00500	<0.00500	<0.00500	<0.00500
FL01-B@3'	09/13/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH01@1-2'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0136	<0.00500	<0.00500	0.057	0.021
BH01@2-3'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	0.011	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH01@11-12'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH02@1-2'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH02@2-3'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH02@10-12'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH03@1-2'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH03@2-3'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH03@12-14'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH04@1-2'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH04@2-3'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH04@12-14'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH05@1-2'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH05@2-3'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
BH05@10-12'	10/21/21	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<0.50	<50	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Soil Sample ID	Date	pH	SAR	EC (mmhos/cm)	Boron (mg/L)
Residential SSL ²		6 - 8.3	<6	<4mmhos/cm	2
SS01@2.5'	09/13/21	8.04	0.134	0.708	0.18
SS02@2.5'	09/13/21	8.20	0.138	0.86	0.253
SS03@2.5'	09/13/21	7.94	0.185	0.853	0.142
SS04@2.5'	09/13/21	8.12	0.0809	0.431	0.178
FS01@4'	09/13/21	7.97	0.264	0.572	0.260
FL01-A@3'	09/13/21	7.82	0.102	0.752	0.163
FL01-B@3'	09/13/21	8.52	0.0745	0.311	0.218
BG01@2.5'	09/13/21	7.69	NA	NA	NA

Soil Sample ID	Date	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)
Residential SSL ²		0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
SS01@2.5'	09/13/21	1.92	254	<0.227	<0.30	6.84	6.88	6.39	0.914	0.0231	32.3
SS02@2.5'	09/13/21	2.57	207	<0.227	<0.30	7.76	11.4	6.68	0.730	0.0307	32.0
BG01@2.5'	09/13/21	2.12	64.5	<0.231	<0.30	7.69	7.21	5.87	1.06	0.0356	36.3
BH01@2-3'	10/21/21	NA	129	NA	NA	NA	NA	NA	NA	NA	NA
BH02@2-3'	10/21/21	NA	76.2	NA	NA	NA	NA	NA	NA	NA	NA
BH03@2-3'	10/21/21	NA	63.2	NA	NA	NA	NA	NA	NA	NA	NA
BH04@2-3'	10/21/21	NA	79.1	NA	NA	NA	NA	NA	NA	NA	NA
BH05@2-3'	10/21/21	NA	55.2	NA	NA	NA	NA	NA	NA	NA	NA
BG01@2.5'	08/26/22	NA	79.2	NA	NA	NA	NA	NA	NA	NA	NA
BG01@5'	08/26/22	NA	97.1	NA	NA	NA	NA	NA	NA	NA	NA
BG02@2.5'	08/26/22	NA	85.0	NA	NA	NA	NA	NA	NA	NA	NA
BG02@5'	08/26/22	NA	119	NA	NA	NA	NA	NA	NA	NA	NA
BG03@2.5'	08/26/22	NA	94.4	NA	NA	NA	NA	NA	NA	NA	NA
BG03@5'	08/26/22	NA	111	NA	NA	NA	NA	NA	NA	NA	NA
BG04@2.5'	08/26/22	NA	68.9	NA	NA	NA	NA	NA	NA	NA	NA
BG04@5'	08/26/22	NA	62.2	NA	NA	NA	NA	NA	NA	NA	NA
BG05@2.5'	08/26/22	NA	85.4	NA	NA	NA	NA	NA	NA	NA	NA
BG05@5'	08/26/22	NA	84.1	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

- Compounds referenced from 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

COGCC = Colorado Oil and Gas Conservation Commission

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

SAR = Sodium Adsorption Ratio

EC = Electrical Conductivity

mmhos/cm = Millmhos per centimeter

mg/L = Milligrams per liter

NA = Not analyzed

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

Highlighted results are equal to or exceed the COGCC Table 915-1 standard

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benz(a) = Benzanthracene

Benzo(b) = Benzo(a)fluoranthene

Benzo(k) = Benzo(a)fluoranthene

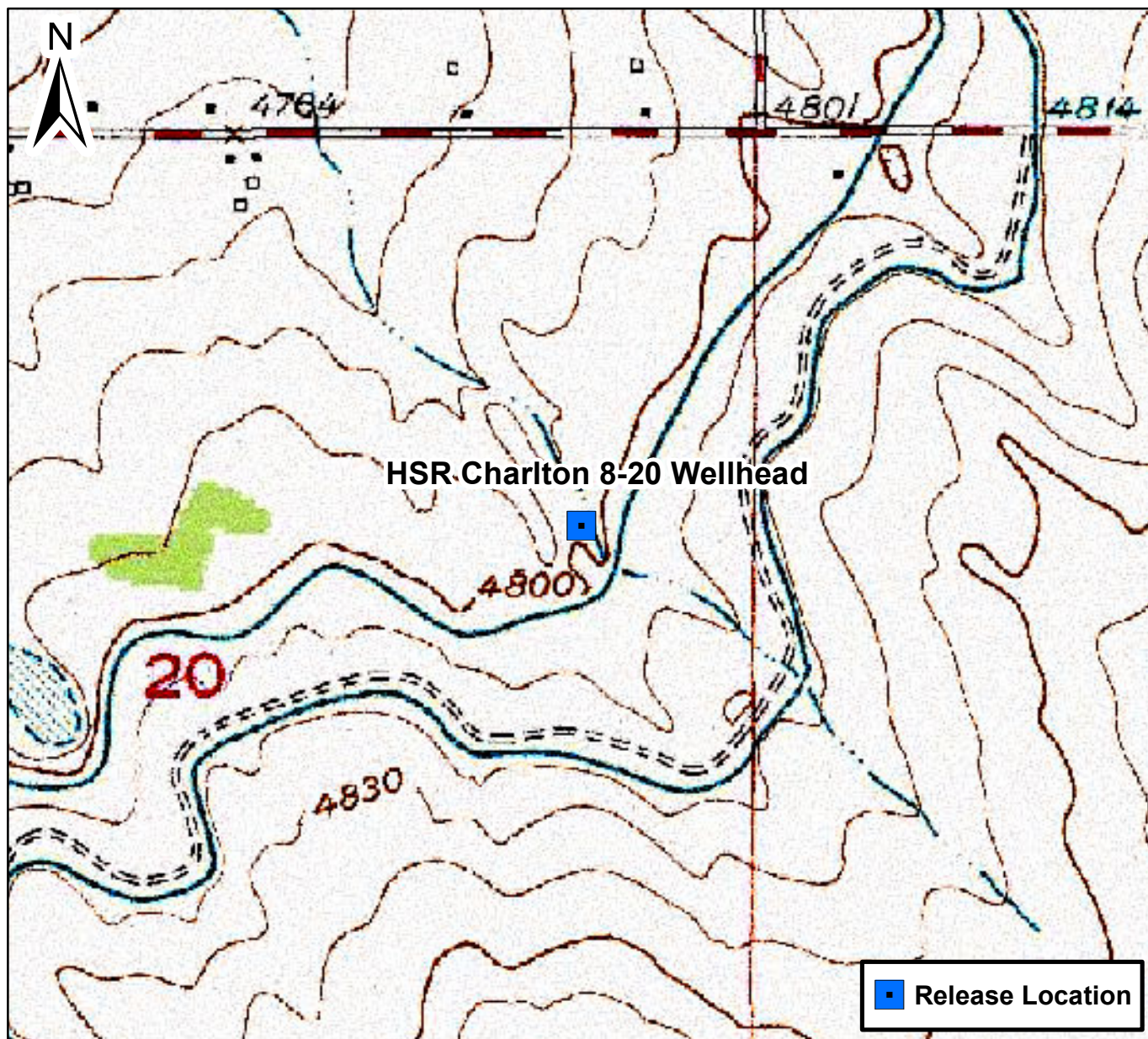
Benzo(a) = Benzopyrene

A,H = Dibenzo(a,h)anthracene

1,2,3-CD = Indeno(1,2,3-cd)pyrene

1-M = 1-methylnaphthalene

2-M = 2

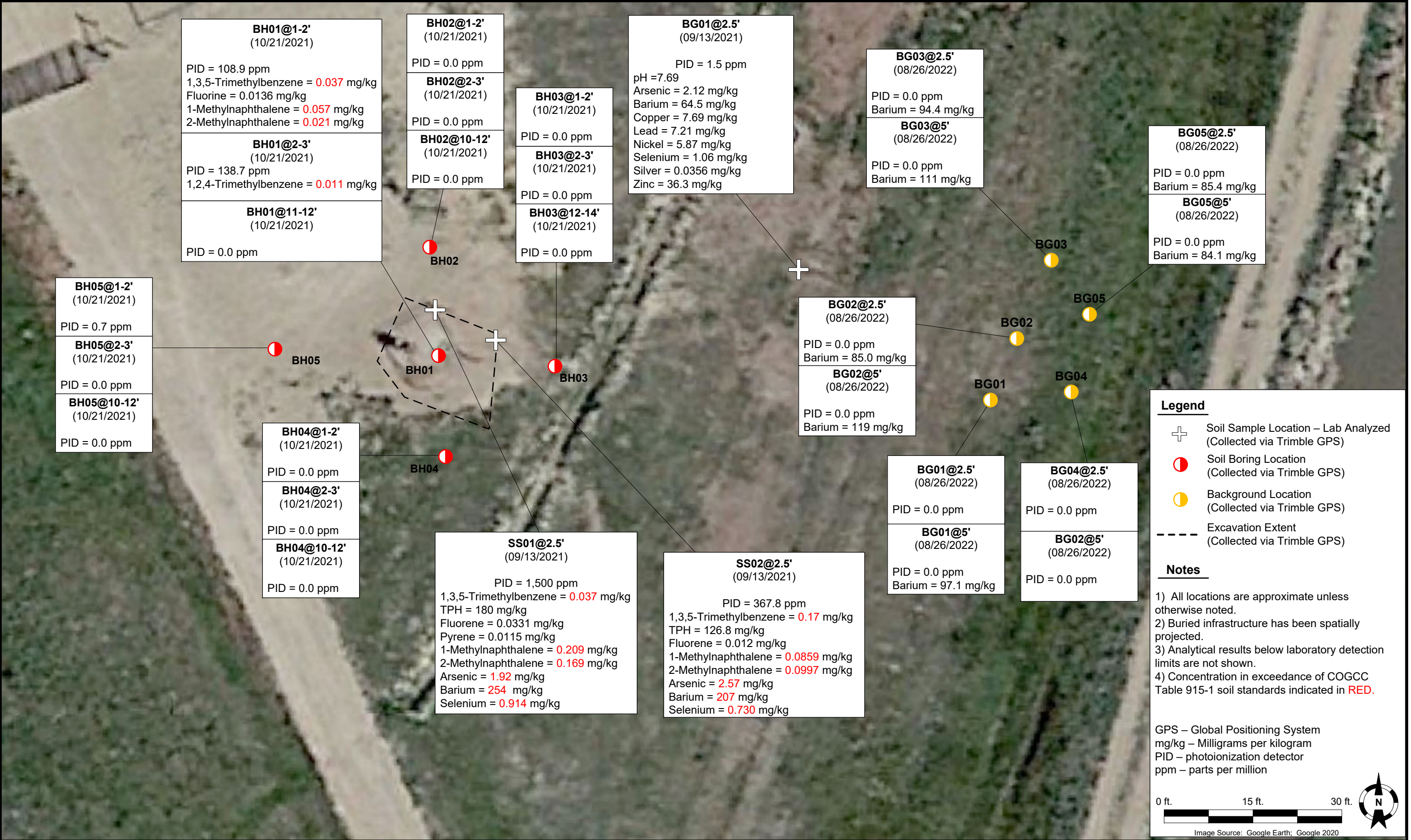


0 875 1,750 Feet

Figure 1

Site Location Map
 HSR Charlton 8-20 Wellhead
 SENE S20 T4N R65W
 Weld County, Colorado





Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 01, 2022

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - HSR Charlton 08-20 WH

Work Order #2208388

Enclosed are the results of analyses for samples received by Summit Scientific on 08/26/22 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury
President



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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG01@2.5'	2208388-01	Soil	08/26/22 11:15	08/26/22 16:30
BG01@5'	2208388-02	Soil	08/26/22 11:20	08/26/22 16:30
BG02@2.5'	2208388-03	Soil	08/26/22 11:25	08/26/22 16:30
BG02@5'	2208388-04	Soil	08/26/22 11:30	08/26/22 16:30
BG03@2.5'	2208388-05	Soil	08/26/22 11:35	08/26/22 16:30
BG03@5'	2208388-06	Soil	08/26/22 11:40	08/26/22 16:30
BG04@2.5'	2208388-07	Soil	08/26/22 11:45	08/26/22 16:30
BG04@5'	2208388-08	Soil	08/26/22 11:50	08/26/22 16:30
BG05@2.5'	2208388-09	Soil	08/26/22 11:55	08/26/22 16:30
BG05@5'	2208388-10	Soil	08/26/22 12:00	08/26/22 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

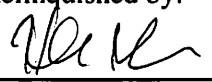
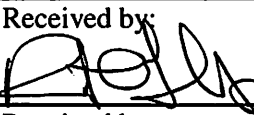
2208388

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: Noble / Tasman Project Manager: Jake Whritenour Invoice: Erica Zuniga
Address: 6855 W. 119th Ave E-Mail: jwhritenour@tasman-geo.com
City/State/Zip: Broomfield, CO 80020
Phone: 303-827-1511 Project Name: HSR Charlton 08-20 WH
Sampler Name: Hunter Merlo 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	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS	HOLD	Barium	pH, EC, SAR by saturated paste	
1	B601 @ 2.5'	8/26/22	1115	1			X			X									X		
2	B601 @ 5'		1120	1																	
3	B602 @ 7.5'		1125	1																	
4	B602 @ 5'		1130	1																	
5	B603 @ 2.5'		1135	1																	
6	B603 @ 5'		1140	1																	
7	B604 @ 2.5'		1145	1																	
8	B604 @ 5'		1150	1																	
9	B605 @ 2.5'		1155	1																	
10	B605 @ 5'	✓	1200	✓			✓			✓									✓		

Relinquished by: 	Date/Time: 8/26/22 1535	Received by: Tasman's Lock Box Summit	Date/Time: 8/26/22 1535	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input checked="" type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 hours <input type="checkbox"/>	Notes:
Relinquished by: Tasman's Lock Box Summit	Date/Time: 8/26/22 1630	Received by: 	Date/Time: 8/26/22 1630	Sample Integrity: Temperature Upon Receipt: 8.3	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

S₂

Sample Receipt Checklist

S2 Work Order# 2208388Client: Noble/Tasman Client Project ID: HSP Charleston 08-20 WH

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

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Matrix (Check all that apply) Air ☐ Soil ☒ Solid ☐ Water ☐ Other ☐Temp (°C) 8.3Thermometer # 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.	-			on ICE
If custody seals are present, are they intact ⁽¹⁾ ?	-			
Are samples due within 48 hours present?		-		
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			-	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	-			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	-			
Were all samples received intact ⁽¹⁾ ?	-			
Was adequate sample volume provided ⁽¹⁾ ?	-			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	-			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
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.			-	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.


 Custodian Printed Name

8/26/22
 Date/Time

19:00



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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

BG01@2.5'
2208388-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	79.2	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	81.5			%	1	BFH0644	08/30/22	08/30/22	Calculation	

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/01/22 15:10

BG01@5'
2208388-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	97.1	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.9			%	1	BFH0644	08/30/22	08/30/22	Calculation	

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.



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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

BG02@2.5'
2208388-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	85.0	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	82.4			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/01/22 15:10

BG02@5'
2208388-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	119	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	82.8			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

BG03@2.5'
2208388-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	94.4	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.6			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

BG03@5'
2208388-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	111	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	84.8			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/01/22 15:10

BG04@2.5'
2208388-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	68.9	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.9			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/01/22 15:10

BG04@5'
2208388-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	62.2	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.6			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

BG05@2.5'
2208388-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	85.4	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	90.6			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/01/22 15:10

BG05@5'
2208388-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **08/26/22 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Barium	84.1	0.400		mg/kg dry	1	BFH0624	08/29/22	08/31/22	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/26/22 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	85.8			%	1	BFH0644	08/30/22	08/30/22	Calculation	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/01/22 15:10

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 BFH0624 - EPA 3050B

Blank (BFH0624-BLK1)

Prepared: 08/29/22 Analyzed: 08/31/22

Barium ND 0.400 mg/kg wet

LCS (BFH0624-BS1)

Prepared: 08/29/22 Analyzed: 08/31/22

Barium 46.3 0.400 mg/kg wet 80-120

Duplicate (BFH0624-DUP1)

Source: 2208346-10

Prepared: 08/29/22 Analyzed: 08/31/22

Barium 109 0.400 mg/kg dry 103 4.77 20

Matrix Spike (BFH0624-MS1)

Source: 2208346-10

Prepared: 08/29/22 Analyzed: 08/31/22

Barium 165 0.400 mg/kg dry 103 75-125

Matrix Spike Dup (BFH0624-MSD1)

Source: 2208346-10

Prepared: 08/29/22 Analyzed: 08/31/22

Barium 164 0.400 mg/kg dry 103 75-125 0.596 25

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

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 BFH0644 - General Preparation

Duplicate (BFH0644-DUP1)		Source: 2208387-01			Prepared & Analyzed: 08/30/22					
% Solids	91.1		%		92.6			1.61	20	

Summit Scientific

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

Project: Noble - HSR Charlton 08-20 WH

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/01/22 15:10

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