

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - BOOTH C35-27 FAC

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
AST01@0.5'	07/10/23	<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
AST02@0.5'	07/10/23	<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
AST03@0.5'	07/10/23	<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
FS01@5'	07/10/23	<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
FS02@4.5'	07/10/23	<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
FS03@5'	07/10/23	<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
SEP01-FL@2'	07/10/23	<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
SEP01-DL@2.5'	07/10/23	<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
SEP02-FL@2'	07/10/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.50	<50	<50	<0.00500	0.00848	0.0110	0.00702	0.00981	<0.00500	0.00931	<0.00500	0.0283	<0.00500	0.00629	0.0232	<0.00500	<0.00500
SEP02-DL@2.5'	07/10/23	<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
SEP03-FL@3'	07/10/23	<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
SEP03-DL@3.5'	07/10/23	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.010	<0.50	<50	<50	<0.00500	<0.00500	0.0058	<0.00500	0.00546	<0.00500	<0.00500	<0.00500	0.0123	<0.00500	<0.00500	0.0113	<0.00500	<0.00500
SS02@2.5'	07/10/23	<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@3'	09/05/23	<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	0.00523	<0.00500	0.00534	<0.00500	0.00775	<0.00500	<0.00500	0.00714	<0.00500	<0.00500
BH01@7'	09/05/23	<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@3'	09/05/23	<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@7'	09/05/23	<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@3'	09/05/23	<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@7'	09/05/23	<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@3'	09/05/23	<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@7'	09/05/23	<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@3'	09/05/23	<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@7'	09/05/23	<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
AST01@0.5'	07/10/23	8.12	0.0401	0.253	0.0485
AST02@0.5'	07/10/23	7.87	0.0434	0.271	0.0653
AST03@0.5'	07/10/23	7.89	0.406	0.339	0.0784
FS01@5'	07/10/23	8.08	0.161	0.273	0.0801
FS02@4.5'	07/10/23	7.72	0.0131	0.282	0.107
FS03@5'	07/10/23	7.73	0.0264	0.336	0.146
SEP01-FL@2'	07/10/23	7.81	0.0574	0.280	0.282
SEP01-DL@2.5'	07/10/23	7.73	0.0546	0.330	0.452
SEP02-FL@2'	07/10/23	7.51	0.189	0.713	0.175
SEP02-DL@2.5'	07/10/23	7.66	0.0732	0.448	0.250
SEP03-FL@3'	07/10/23	7.60	0.984	0.771	0.337
SEP03-DL@3.5'	07/10/23	7.65	0.0828	0.406	0.372
SS02@2.5'	07/10/23	7.85	0.0686	0.369	0.256
BH01@3'	09/05/23	8.21	0.164	0.248	0.359
BH01@7'	09/05/23	8.30	0.173	0.204	0.0682
BH02@3'	09/05/23	7.92	0.076	0.303	0.291
BH02@7'	09/05/23	8.18	0.0749	0.211	0.0731
BH03@3'	09/05/23	8.39	0.0616	0.172	0.056
BH03@7'	09/05/23	8.15	0.371	0.202	0.0456
BH04@3'	09/05/23	7.77	0.113	0.872	0.221
BH04@7'	09/05/23	8.08	0.166	0.405	0.0904
BH05@3'	09/05/23	8.12	0.0917	0.190	0.0623
BH05@7'	09/05/23	8.44	0.163	0.172	0.0623

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
- SSLs are applicable if a pathway for communication with groundwater is present.

Definitions:

ECMC = Energy and Carbon Management 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

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

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

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

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

Benz(a) = Benzo(a)anthracene

Benzo(b) = Benzo(b)fluoranthene

Benzo(k) = Benzo(k)fluoranthene

Benzo(a) = Benzo(a)pyrene

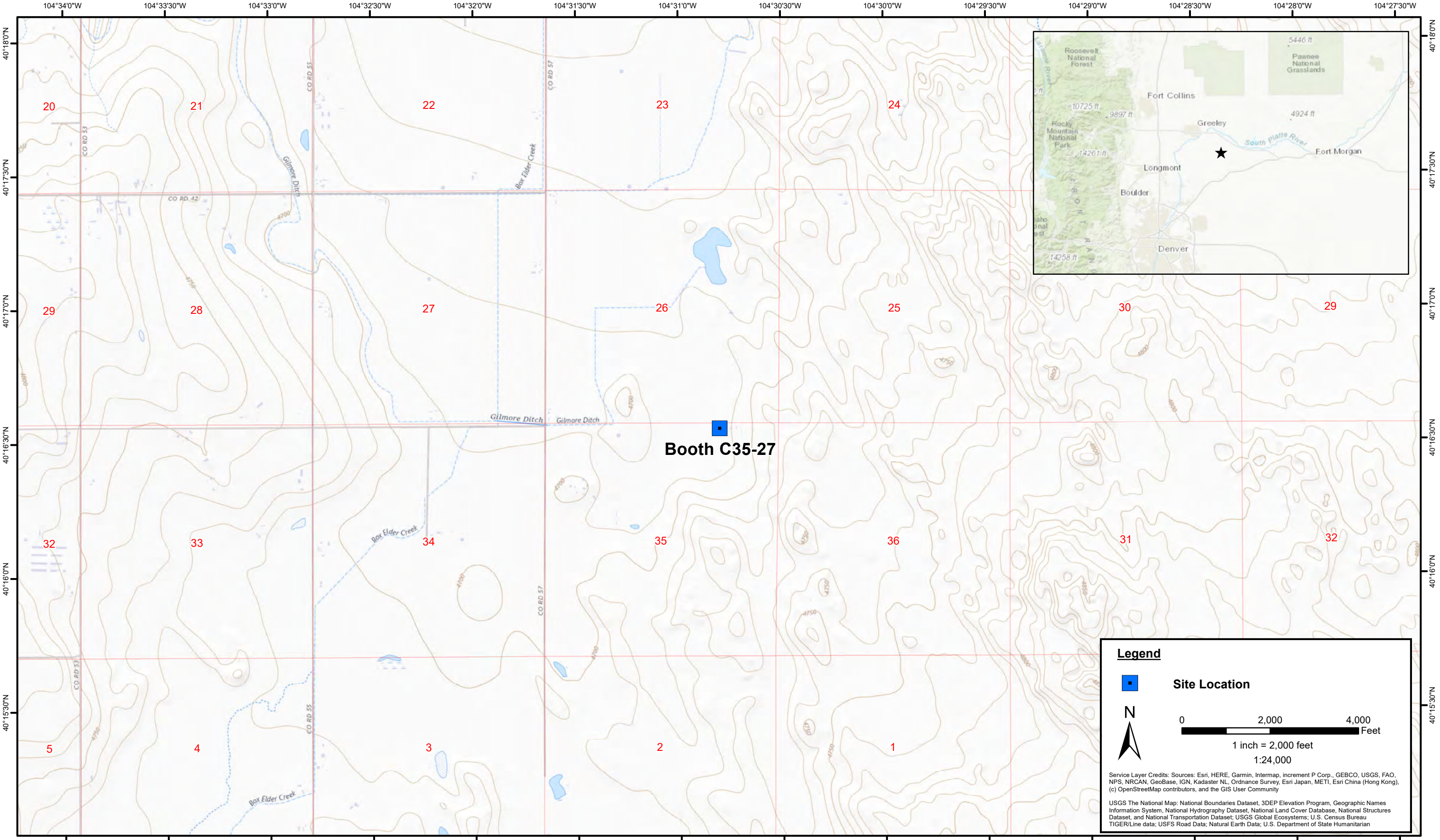
A,H = Dibenzo(a,h)anthracene

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

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene

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 SSL ^{2,3}		0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
SEP02-FL@2'	07/10/23	0.840	38.5	<0.200	<0.30	1.79	2.82	1.27	<0.260	<0.0200	7.18
BH01@3'	09/05/23	0.735	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH01@7'	09/05/23	0.510	NA	NA	NA	NA	NA	NA	NA	NA	NA
BH02@3'	09/05/23	0.834	NA	NA	NA	NA	NA	NA	NA	NA	NA



DATE:	July 2023
DESIGNED BY:	J. Whritenour
DRAWN BY:	L. Reed



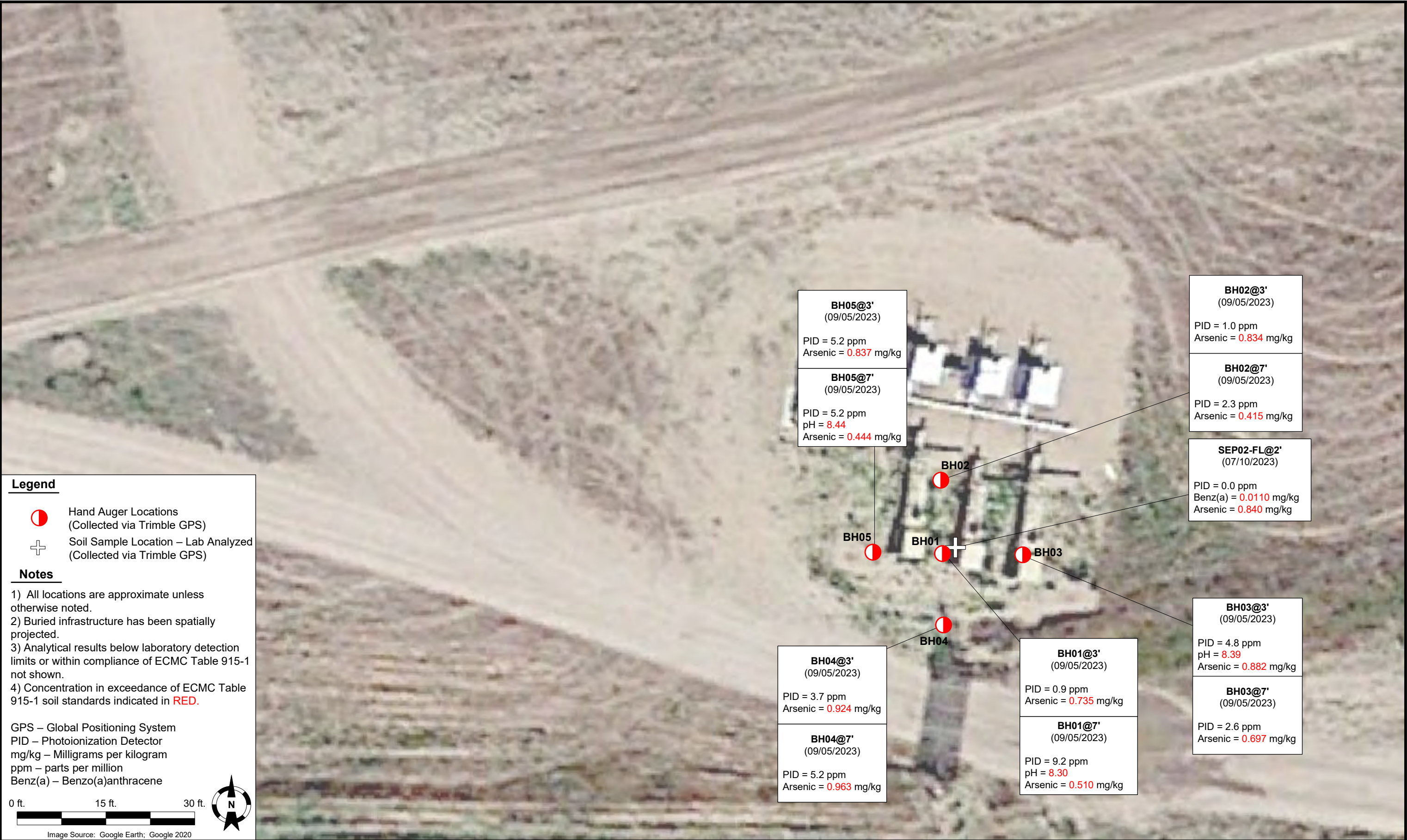
Tasman, Inc.
6855 W. 119th Ave
Broomfield, CO 80020


Noble Energy, Inc - DJ Basin
Booth C35-27
NENE Sec. 35-T4N-R64W
Weld County, Colorado

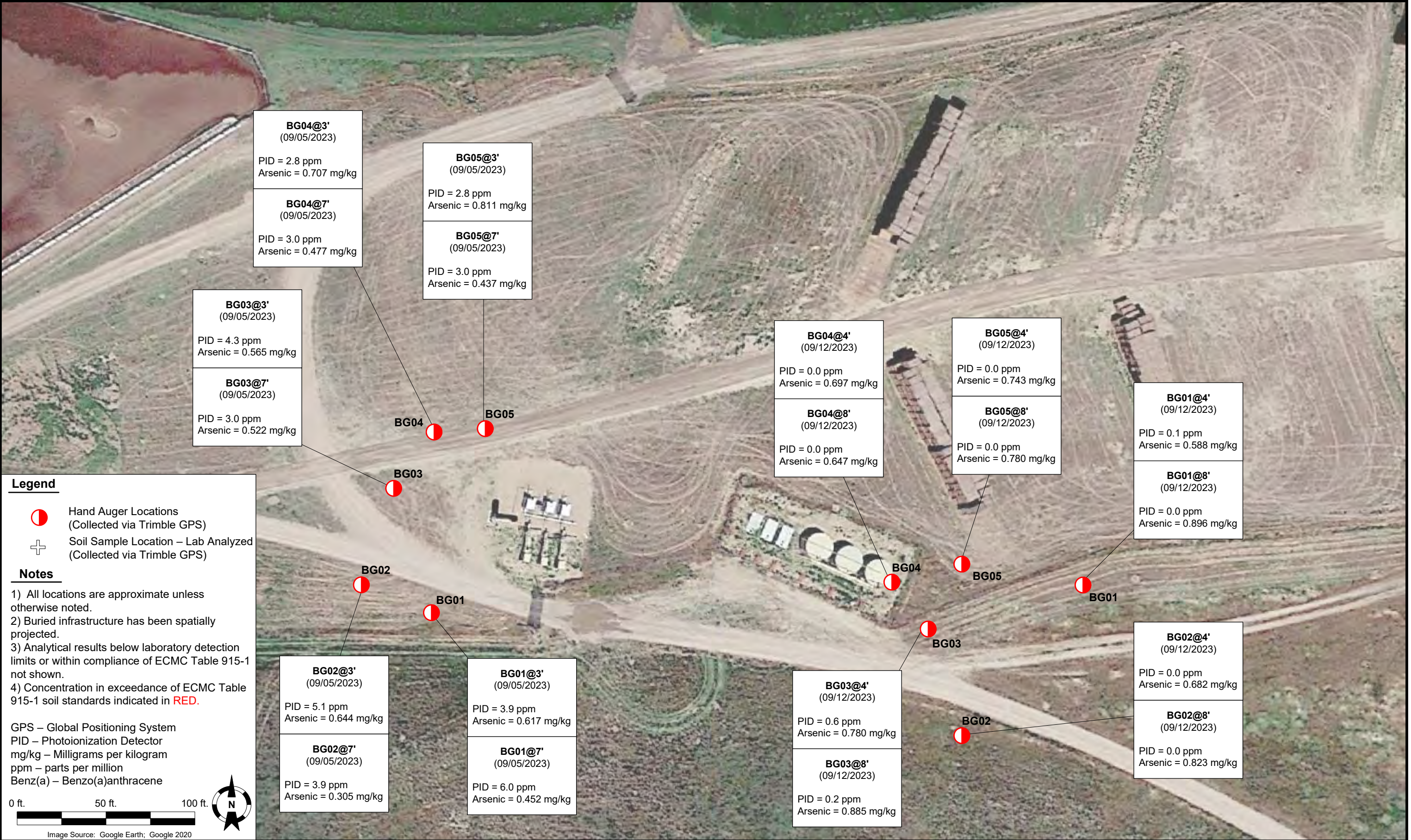
Site Location Map

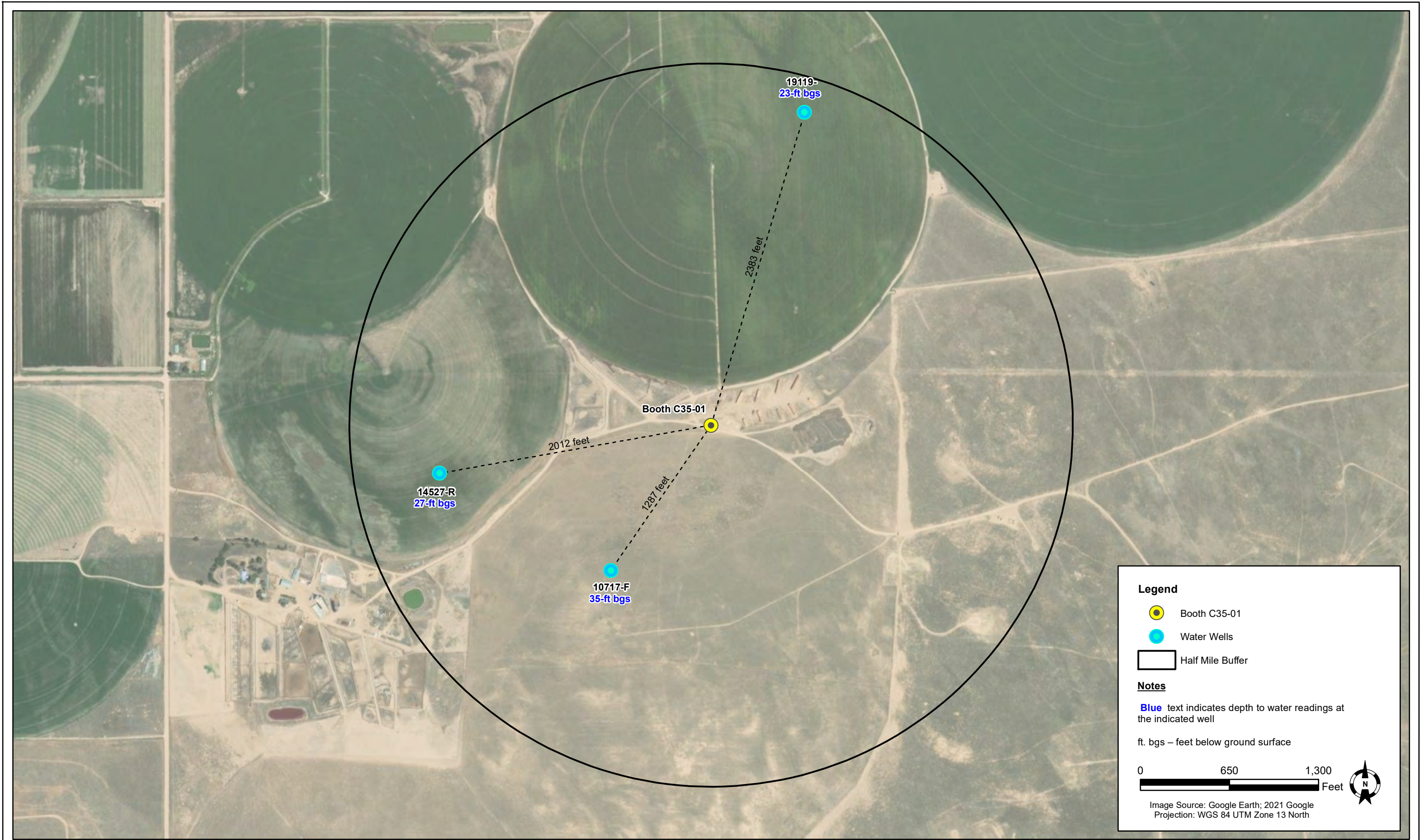
Figure
1





DATE:	10/20/2023	 TASMAN GEOSCIENCES	Tasman Geosciences, Inc. 6855 W 119 th Avenue Broomfield, CO 80020	Noble Energy, Inc. – DJ Basin Booth C35-27 Tank Battery NENE, Section 35, Township 4 North, Range 64 West Weld County, Colorado	Hand Auger Analytical Results Map (07/10/2023 & 09/05/2023)	Figure 3
DESIGNED BY:	JW					
DRAWN BY:	AE					





DATE:	August 2023
DESIGNED BY:	JW
DRAWN BY:	JC



Tasman, Inc.
6855 W. 119th Avenue
Broomfield, Colorado 80020

Noble Energy, Inc. – DJ Basin
Booth C35-01 FL
NENE, Section 35, Township 4 North, Range 64 West
Weld County, Colorado

**WATER WELL INVESTIGATION
LOCATION MAP**

**Figure
5**

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 14, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

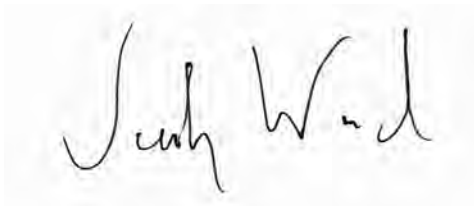
Broomfield, CO 80020

RE: Noble - Booth C35-27, Booth C35-01

Work Order #2309049

Enclosed are the results of analyses for samples received by Summit Scientific on 09/05/23 17:18. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood". The signature is written in a cursive, flowing style.

Jacob Wood For Paul Shrewsbury

President



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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@3'	2309049-01	Soil	09/05/23 10:31	09/05/23 17:18
BH01@7'	2309049-02	Soil	09/05/23 12:08	09/05/23 17:18
BH02@3'	2309049-03	Soil	09/05/23 10:34	09/05/23 17:18
BH02@7'	2309049-04	Soil	09/05/23 12:08	09/05/23 17:18
BH03@3'	2309049-05	Soil	09/05/23 10:50	09/05/23 17:18
BH03@7'	2309049-06	Soil	09/05/23 12:20	09/05/23 17:18
BH04@3'	2309049-07	Soil	09/05/23 10:47	09/05/23 17:18
BH04@7'	2309049-08	Soil	09/05/23 12:19	09/05/23 17:18
BH05@3'	2309049-09	Soil	09/05/23 11:04	09/05/23 17:18
BH05@7'	2309049-10	Soil	09/05/23 12:30	09/05/23 17:18
BG01@3'	2309049-11	Soil	09/05/23 11:04	09/05/23 17:18
BG01@7'	2309049-12	Soil	09/05/23 12:29	09/05/23 17:18
BG02@3'	2309049-13	Soil	09/05/23 11:19	09/05/23 17:18
BG02@7'	2309049-14	Soil	09/05/23 12:48	09/05/23 17:18
BG03@3'	2309049-15	Soil	09/05/23 11:26	09/05/23 17:18
BG03@7'	2309049-16	Soil	09/05/23 12:46	09/05/23 17:18
BG04@3'	2309049-17	Soil	09/05/23 11:41	09/05/23 17:18
BG04@7'	2309049-18	Soil	09/05/23 12:57	09/05/23 17:18
BG05@3'	2309049-19	Soil	09/05/23 11:37	09/05/23 17:18
BG05@7'	2309049-20	Soil	09/05/23 12:57	09/05/23 17:18

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.

Client: Noble/Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W. 119th Ave.		Project Manager: Jake Whritenour		Company:	
City/State/Zip: Broomfield/CO/ 80020		E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location: Booth C35-27/Booth C35-01	
Phone: 937-554-5108		Project Name: Booth C35-27, Booth C35-01		AFE#	
Sampler Name: Molly Parks		Project Number:		PO/Billing Codes:	
				Contact:	

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	Arsenic	
1	BH0K@3'	9-5-23	1031	2			X			X				X	X	X	X	X		X	
2	BH01@7'		1208																		
3	BH02@3'		1034																		
4	BH02@7'		1208																		
5	BH03@3'		1050																		
6	BH03@7'		1220																		
7	BH04@3'		1047																		
8	BH04@7'		1219																		
9	BH05@3'		1104																		
10	BH05@7'		1230																		
11																					
12																					
13																					
14																					
15																					

Relinquished by: mp 9-5-23 1500	Date/Time: 9-5-23 1500	Received by: Tasman Lock Box	Date/Time: 9-5-23/1500	TAT Business Days	Field DO	Notes:
Relinquished by: Tasman Lock Box	Date/Time: 9-5-23 1718	Received by: [Signature]	Date/Time: 9-5-23 1718	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 94	Corrected Temperature: 9	IR gun #: 1	HNO3 lot #:	Standard	X	Field Turb.

Client: Noble/Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W. 119th Ave.		Project Manager: Jake Whritenour		Company:	
City/State/Zip: Broomfield/CO/ 80020		E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location: Booth C35-27 / Booth C35-01	
Phone: 937-554-5108		Project Name: Booth C35-27, Booth C35-01		AFE#	
Sampler Name: Molly Parks		Project Number:		PO/Billing Codes:	
				Contact:	

					Preservative				Matrix			Analysis Requested								Special Instructions		
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	Arsenic		
1	B601@3'	9-5-23	1104	1			X			X											X	SAR, EC, pH by saturated paste
2	B602@7'		1229																			
3	B602@3'		1119																			
4	B602@7'		1248																			
5	B603@3'		1126																			
6	B603@7'		1246																			
7	B604@3'		1141																			
8	B604@7'		1257																			
9	B605@3'		1137																			
10	B605@7'		1257																			
11																						
12																						
13																						
14																						
15																						

Relinquished by: mP	Date/Time: 9-5-23 / 1500	Received by: Tasman Lock Box	Date/Time: 9-5-23 / 1500	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lock Box	Date/Time: 9-5-23 / 1718	Received by: [Signature]	Date/Time: 9-5-23 / 1718	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 9.9	Corrected Temperature: 9	IR gun #: 1	HNO3 lot #:			

S₂

2/2

Sample Receipt Checklist

S2 Work Order# 2309049Client: Noble FrasmierClient Project ID: Booth C35, 27, Booth C3501Shipped 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)

24

Thermometer #

1

	Yes	No	N/A	Comments (If any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>not</u>
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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

4466



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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@3'
2309049-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0327	81.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0358	89.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	13.9	111 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@3'
2309049-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.00523	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	0.00534	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.00775	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00714	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0209	62.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0135	40.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.359	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@3'
2309049-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.735	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	91.3	0.0553	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	7.36	0.0553	"	"	"	"	"	"	
Sodium	6.06	0.0553	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.164	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.5		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.248	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 10:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@3'
2309049-01 (Soil)

Summit Scientific

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

pH	8.21	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@7'
2309049-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0263	65.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.6	101 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@7'
2309049-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0183	54.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0159	47.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0682	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@7'
2309049-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.510	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	17.2	0.0529	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	9.74	0.0529	"	"	"	"	"	"	
Sodium	3.63	0.0529	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.173	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.5		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.204	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH01@7'
2309049-02 (Soil)

Summit Scientific

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

pH	8.30	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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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 - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BH02@3'
2309049-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0390	97.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	96.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.9	111 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH02@3'
2309049-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0216	64.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0186	55.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.291	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH02@3'
2309049-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.834	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.9	0.0546	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	7.69	0.0546	"	"	"	"	"	"	
Sodium	2.00	0.0546	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0760	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.6		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.303	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 10:34**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH02@3'
2309049-03 (Soil)

Summit Scientific

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

pH	7.92	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BH02@7'
2309049-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0335	83.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0374	93.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.9	111 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH02@7'
2309049-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0731	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH02@7'
2309049-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.415	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.6	0.0535	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	7.16	0.0535	"	"	"	"	"	"	
Sodium	1.50	0.0535	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0749	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.5		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.211	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 12:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH02@7'
2309049-04 (Soil)

Summit Scientific

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

pH	8.18	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@3'
2309049-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0310	77.6 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	96.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.6	108 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@3'
2309049-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0163	48.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0173	51.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0560	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@3'
2309049-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.882	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	61.9	0.0536	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	4.89	0.0536	"	"	"	"	"	"	
Sodium	1.87	0.0536	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0616	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.3		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.172	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@3'
2309049-05 (Soil)

Summit Scientific

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

pH	8.39	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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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 - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@7'
2309049-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0266	66.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0418	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0381	95.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	14.2	114 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@7'
2309049-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0263	79.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0251	75.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0456	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@7'
2309049-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.697	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	19.8	0.0550	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	6.74	0.0550	"	"	"	"	"	"	
Sodium	7.50	0.0550	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.371	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.8		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.202	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH03@7'
2309049-06 (Soil)

Summit Scientific

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

pH	8.15	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@3'
2309049-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0349	87.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0368	92.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.8	110 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@3'
2309049-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/12/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0173	51.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0137	41.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.221	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@3'
2309049-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.924	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	89.1	0.0548	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	25.6	0.0548	"	"	"	"	"	"	
Sodium	4.71	0.0548	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.113	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.3		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.872	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 10:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@3'
2309049-07 (Soil)

Summit Scientific

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

pH	7.77	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@7'
2309049-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0290	72.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0385	96.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/06/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.8	110 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@7'
2309049-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/13/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0136	40.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0904	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BH04@7'
2309049-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.963	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.0	0.0525	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	17.3	0.0525	"	"	"	"	"	"	
Sodium	4.50	0.0525	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.166	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.3		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.405	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH04@7'
2309049-08 (Soil)

Summit Scientific

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

pH	8.08	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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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 - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@3'
2309049-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0306	76.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0368	92.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.6	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@3'
2309049-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/13/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0213	63.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0623	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@3'
2309049-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.837	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	22.7	0.0555	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	6.20	0.0555	"	"	"	"	"	"	
Sodium	1.91	0.0555	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0917	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.1		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.190	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@3'
2309049-09 (Soil)

Summit Scientific

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

pH	8.12	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@7'
2309049-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0118	09/06/23	09/07/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0369	92.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0411	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0124	09/06/23	09/07/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.9	112 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@7'
2309049-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0280	09/12/23	09/13/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0178	53.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0135	40.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0623	0.0100	mg/L	1	BGI0100	09/06/23	09/07/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BH05@7'
2309049-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.444	0.200	mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.8	0.0533	mg/L dry	1	BGI0134	09/06/23	09/08/23	EPA 6020B	
Magnesium	8.16	0.0533	"	"	"	"	"	"	
Sodium	3.14	0.0533	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.163	0.00100	units	1	BGI0212	09/08/23	09/08/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	93.8		%	1	BGI0122	09/06/23	09/06/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.172	0.0100	mmhos/cm	1	BGI0150	09/07/23	09/07/23	EPA 120.1	

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

Date Sampled: **09/05/23 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BH05@7'
2309049-10 (Soil)

Summit Scientific

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

pH	8.44	pH Units	1	BGI0151	09/07/23	09/07/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG01@3'
2309049-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.617	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 11:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.8			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG01@7'
2309049-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.452	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.8			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BG02@3'
2309049-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 11:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.644	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 11:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.8			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG02@7'
2309049-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.305	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	98.1			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BG03@3'
2309049-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 11:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.565	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 11:26**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	94.0			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG03@7'
2309049-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.522	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:46**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.2			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

BG04@3'
2309049-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 11:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.707	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 11:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.0			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG04@7'
2309049-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.477	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	85.0			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG05@3'
2309049-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 11:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.811	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 11:37**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.1			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

BG05@7'
2309049-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/05/23 12:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.437	0.200		mg/kg dry	1	BGI0119	09/06/23	09/07/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/05/23 12:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	84.0			%	1	BGI0122	09/06/23	09/06/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

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 BGI0118 - EPA 5030 Soil MS

Blank (BGI0118-BLK1)

Prepared & Analyzed: 09/06/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0252		"	0.0400		62.9	50-150			
Surrogate: Toluene-d8	0.0423		"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.5	50-150			

LCS (BGI0118-BS1)

Prepared & Analyzed: 09/06/23

Benzene	0.116	0.0020	mg/kg	0.100		116	70-130			
Toluene	0.116	0.0050	"	0.100		116	70-130			
Ethylbenzene	0.130	0.0050	"	0.100		130	70-130			
m,p-Xylene	0.249	0.010	"	0.200		124	70-130			
o-Xylene	0.113	0.0050	"	0.100		113	70-130			
1,2,4-Trimethylbenzene	0.121	0.0050	"	0.100		121	70-130			
1,3,5-Trimethylbenzene	0.124	0.0050	"	0.100		124	70-130			
Naphthalene	0.0731	0.0038	"	0.100		73.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0275		"	0.0400		68.8	50-150			
Surrogate: Toluene-d8	0.0388		"	0.0400		97.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.0	50-150			

Matrix Spike (BGI0118-MS1)

Source: 2309027-01

Prepared & Analyzed: 09/06/23

Benzene	0.104	0.0020	mg/kg	0.100	ND	104	70-130			
Toluene	0.0996	0.0050	"	0.100	ND	99.6	70-130			
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130			
m,p-Xylene	0.192	0.010	"	0.200	ND	95.9	70-130			
o-Xylene	0.0895	0.0050	"	0.100	ND	89.5	70-130			
1,2,4-Trimethylbenzene	0.0880	0.0050	"	0.100	ND	88.0	70-130			
1,3,5-Trimethylbenzene	0.0954	0.0050	"	0.100	ND	95.4	70-130			
Naphthalene	0.108	0.0038	"	0.100	ND	108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0351		"	0.0400		87.7	50-150			
Surrogate: Toluene-d8	0.0418		"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene	0.0359		"	0.0400		89.7	50-150			

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

09/14/23 15:10

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 BGI0118 - EPA 5030 Soil MS

Matrix Spike Dup (BGI0118-MSD1)

Source: 2309027-01

Prepared & Analyzed: 09/06/23

Benzene	0.102	0.0020	mg/kg	0.100	ND	102	70-130	1.52	30	
Toluene	0.0941	0.0050	"	0.100	ND	94.1	70-130	5.67	30	
Ethylbenzene	0.0934	0.0050	"	0.100	ND	93.4	70-130	7.84	30	
m,p-Xylene	0.231	0.010	"	0.200	ND	115	70-130	18.4	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	18.6	30	
1,2,4-Trimethylbenzene	0.0970	0.0050	"	0.100	ND	97.0	70-130	9.76	30	
1,3,5-Trimethylbenzene	0.120	0.0050	"	0.100	ND	120	70-130	22.5	30	
Naphthalene	0.100	0.0038	"	0.100	ND	100	70-130	7.33	30	
Surrogate: 1,2-Dichloroethane-d4	0.0318		"	0.0400		79.6	50-150			
Surrogate: Toluene-d8	0.0392		"	0.0400		98.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0237		"	0.0400		59.3	50-150			

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGI0124 - EPA 3550A

Blank (BGI0124-BLK1)

Prepared & Analyzed: 09/06/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	13.7		"	12.5	109	30-150				

LCS (BGI0124-BS1)

Prepared & Analyzed: 09/06/23

C10-C28 (DRO)	525	50	mg/kg	500	105	70-130				
Surrogate: o-Terphenyl	12.8		"	12.5	102	30-150				

Matrix Spike (BGI0124-MS1)

Source: 2309027-01

Prepared & Analyzed: 09/06/23

C10-C28 (DRO)	411	50	mg/kg	500	11.3	79.9	70-130			
Surrogate: o-Terphenyl	11.5		"	12.5	91.9	30-150				

Matrix Spike Dup (BGI0124-MSD1)

Source: 2309027-01

Prepared & Analyzed: 09/06/23

C10-C28 (DRO)	426	50	mg/kg	500	11.3	82.9	70-130	3.69	20	
Surrogate: o-Terphenyl	12.7		"	12.5	101	30-150				

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0280 - EPA 5030 Soil MS

Blank (BGI0280-BLK1)

Prepared & Analyzed: 09/12/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0257		"	0.0333		77.2	40-150			
Surrogate: Fluoranthene-d10	0.0315		"	0.0333		94.6	40-150			

LCS (BGI0280-BS1)

Prepared & Analyzed: 09/12/23

Acenaphthene	0.0290	0.00500	mg/kg	0.0333		87.1	31-137			
Anthracene	0.0302	0.00500	"	0.0333		90.7	30-120			
Benzo (a) anthracene	0.0279	0.00500	"	0.0333		83.8	30-120			
Benzo (a) pyrene	0.0292	0.00500	"	0.0333		87.6	30-120			
Benzo (b) fluoranthene	0.0290	0.00500	"	0.0333		87.1	30-120			
Benzo (k) fluoranthene	0.0310	0.00500	"	0.0333		92.9	30-120			
Chrysene	0.0303	0.00500	"	0.0333		90.8	30-120			
Dibenz (a,h) anthracene	0.0123	0.00500	"	0.0333		36.9	30-120			
Fluoranthene	0.0295	0.00500	"	0.0333		88.6	30-120			
Fluorene	0.0293	0.00500	"	0.0333		87.8	30-120			
Indeno (1,2,3-cd) pyrene	0.0216	0.00500	"	0.0333		64.8	30-120			
Pyrene	0.0280	0.00500	"	0.0333		84.0	35-142			
1-Methylnaphthalene	0.0268	0.00500	"	0.0333		80.4	35-142			
2-Methylnaphthalene	0.0310	0.00500	"	0.0333		92.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0279		"	0.0333		83.7	40-150			
Surrogate: Fluoranthene-d10	0.0301		"	0.0333		90.4	40-150			

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0280 - EPA 5030 Soil MS

Matrix Spike (BGI0280-MS1)

Source: 2309005-01

Prepared & Analyzed: 09/12/23

Acenaphthene	0.0181	0.00500	mg/kg	0.0333	ND	54.2	31-137		
Anthracene	0.0197	0.00500	"	0.0333	ND	59.0	30-120		
Benzo (a) anthracene	0.0188	0.00500	"	0.0333	ND	56.5	30-120		
Benzo (a) pyrene	0.0172	0.00500	"	0.0333	ND	51.7	30-120		
Benzo (b) fluoranthene	0.0178	0.00500	"	0.0333	ND	53.5	30-120		
Benzo (k) fluoranthene	0.0192	0.00500	"	0.0333	ND	57.5	30-120		
Chrysene	0.0184	0.00500	"	0.0333	ND	55.2	30-120		
Dibenz (a,h) anthracene	0.0190	0.00500	"	0.0333	ND	57.0	30-120		
Fluoranthene	0.0187	0.00500	"	0.0333	ND	56.1	30-120		
Fluorene	0.0208	0.00500	"	0.0333	ND	62.4	30-120		
Indeno (1,2,3-cd) pyrene	0.0150	0.00500	"	0.0333	ND	45.1	30-120		
Pyrene	0.0158	0.00500	"	0.0333	ND	47.4	35-142		
1-Methylnaphthalene	0.0196	0.00500	"	0.0333	ND	58.9	15-130		
2-Methylnaphthalene	0.0210	0.00500	"	0.0333	ND	63.1	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0214		"	0.0333		64.3	40-150		
Surrogate: Fluoranthene-d10	0.0193		"	0.0333		58.0	40-150		

Matrix Spike Dup (BGI0280-MSD1)

Source: 2309005-01

Prepared & Analyzed: 09/12/23

Acenaphthene	0.0175	0.00500	mg/kg	0.0333	ND	52.5	31-137	3.04	30
Anthracene	0.0159	0.00500	"	0.0333	ND	47.8	30-120	21.1	30
Benzo (a) anthracene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	6.43	30
Benzo (a) pyrene	0.0176	0.00500	"	0.0333	ND	52.8	30-120	2.09	30
Benzo (b) fluoranthene	0.0182	0.00500	"	0.0333	ND	54.6	30-120	2.01	30
Benzo (k) fluoranthene	0.0190	0.00500	"	0.0333	ND	57.0	30-120	0.852	30
Chrysene	0.0181	0.00500	"	0.0333	ND	54.2	30-120	1.89	30
Dibenz (a,h) anthracene	0.0169	0.00500	"	0.0333	ND	50.6	30-120	11.8	30
Fluoranthene	0.0176	0.00500	"	0.0333	ND	52.9	30-120	5.82	30
Fluorene	0.0184	0.00500	"	0.0333	ND	55.1	30-120	12.5	30
Indeno (1,2,3-cd) pyrene	0.0202	0.00500	"	0.0333	ND	60.7	30-120	29.6	30
Pyrene	0.0165	0.00500	"	0.0333	ND	49.4	35-142	4.02	30
1-Methylnaphthalene	0.0190	0.00500	"	0.0333	ND	57.0	15-130	3.25	50
2-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130	23.4	50
Surrogate: 2-Methylnaphthalene-d10	0.0178		"	0.0333		53.3	40-150		
Surrogate: Fluoranthene-d10	0.0180		"	0.0333		54.0	40-150		

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

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 BGI0100 - EPA 3050B

Blank (BGI0100-BLK1)

Prepared: 09/06/23 Analyzed: 09/07/23

Boron ND 0.0100 mg/L

LCS (BGI0100-BS1)

Prepared: 09/06/23 Analyzed: 09/07/23

Boron 4.71 0.0100 mg/L 5.00 94.2 80-120

Duplicate (BGI0100-DUP1)

Source: 2309033-01

Prepared: 09/06/23 Analyzed: 09/07/23

Boron 0.298 0.0100 mg/L 0.210 34.4 20 QR-04

Matrix Spike (BGI0100-MS1)

Source: 2309033-01

Prepared: 09/06/23 Analyzed: 09/07/23

Boron 4.83 0.0100 mg/L 5.00 0.210 92.4 75-125

Matrix Spike Dup (BGI0100-MSD1)

Source: 2309033-01

Prepared: 09/06/23 Analyzed: 09/07/23

Boron 4.96 0.0100 mg/L 5.00 0.210 95.0 75-125 2.59 25

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 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 BGI0119 - EPA 3050B

Blank (BGI0119-BLK1)

Prepared: 09/06/23 Analyzed: 09/07/23

Arsenic ND 0.200 mg/kg wet

LCS (BGI0119-BS1)

Prepared: 09/06/23 Analyzed: 09/07/23

Arsenic 4.44 0.200 mg/kg wet 4.00 111 80-120

Duplicate (BGI0119-DUP1)

Source: 2309049-01

Prepared: 09/06/23 Analyzed: 09/07/23

Arsenic 0.729 0.200 mg/kg dry 0.735 0.785 20

Matrix Spike (BGI0119-MS1)

Source: 2309049-01

Prepared: 09/06/23 Analyzed: 09/07/23

Arsenic 2.50 0.200 mg/kg dry 4.42 0.735 39.9 75-125 QM-01

Matrix Spike Dup (BGI0119-MSD1)

Source: 2309049-01

Prepared: 09/06/23 Analyzed: 09/07/23

Arsenic 2.43 0.200 mg/kg dry 4.42 0.735 38.4 75-125 2.62 25 QM-01

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

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 BGI0134 - General Preparation

Blank (BGI0134-BLK1)

Prepared: 09/06/23 Analyzed: 09/08/23

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

LCS (BGI0134-BS1)

Prepared: 09/06/23 Analyzed: 09/08/23

Calcium	4.58	0.0500	mg/L wet	5.00	91.7	70-130
Magnesium	4.76	0.0500	"	5.00	95.2	70-130
Sodium	4.49	0.0500	"	5.00	89.9	70-130

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 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 BGI0122 - General Preparation

Duplicate (BGI0122-DUP1)		Source: 2309049-01			Prepared & Analyzed: 09/06/23					
% Solids	90.5		%		90.5		0.0516		20	

Summit Scientific

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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

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

Batch BGI0150 - General Preparation

Blank (BGI0150-BLK1)

Prepared & Analyzed: 09/07/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGI0150-BS1)

Prepared & Analyzed: 09/07/23

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BGI0150-DUP1)

Source: 2309044-01

Prepared & Analyzed: 09/07/23

Specific Conductance (EC) 4.27 0.0100 mmhos/cm 4.27 0.0703 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.



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

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

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 BGI0151 - General Preparation

LCS (BGI0151-BS1)

Prepared & Analyzed: 09/07/23

pH	9.06	pH Units	9.18	98.7	95-105
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Duplicate (BGI0151-DUP1)

Source: 2309044-01

Prepared & Analyzed: 09/07/23

pH	7.89	pH Units	7.89	0.00	20
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Booth C35-27, Booth C35-01

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
09/14/23 15:10

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-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 20, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

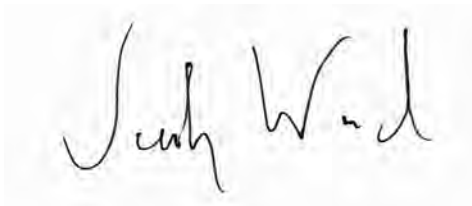
Broomfield, CO 80020

RE: Noble - Booth C35-01

Work Order #2309192

Enclosed are the results of analyses for samples received by Summit Scientific on 09/12/23 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jacob Wood", is shown on a light gray background.

Jacob Wood For Paul Shrewsbury

President



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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH06@4'	2309192-01	Soil	09/12/23 09:30	09/12/23 16:30
BH06@8'	2309192-02	Soil	09/12/23 10:20	09/12/23 16:30
BH07@4'	2309192-03	Soil	09/12/23 09:40	09/12/23 16:30
BH07@8'	2309192-04	Soil	09/12/23 10:30	09/12/23 16:30
BH08@4'	2309192-05	Soil	09/12/23 09:50	09/12/23 16:30
BH08@8'	2309192-06	Soil	09/12/23 10:40	09/12/23 16:30
BH09@4'	2309192-07	Soil	09/12/23 10:00	09/12/23 16:30
BH09@8'	2309192-08	Soil	09/12/23 10:50	09/12/23 16:30
BH10@4'	2309192-09	Soil	09/12/23 10:10	09/12/23 16:30
BH10@8'	2309192-10	Soil	09/12/23 11:00	09/12/23 16:30
BG01@4'	2309192-11	Soil	09/12/23 11:30	09/12/23 16:30
BG01@8'	2309192-12	Soil	09/12/23 12:20	09/12/23 16:30
BG02@4'	2309192-13	Soil	09/12/23 11:40	09/12/23 16:30
BG02@8'	2309192-14	Soil	09/12/23 12:30	09/12/23 16:30
BG03@4'	2309192-15	Soil	09/12/23 11:50	09/12/23 16:30
BG03@8'	2309192-16	Soil	09/12/23 12:40	09/12/23 16:30
BG04@4'	2309192-17	Soil	09/12/23 12:00	09/12/23 16:30
BG04@8'	2309192-18	Soil	09/12/23 12:50	09/12/23 16:30
BG05@4'	2309192-19	Soil	09/12/23 12:10	09/12/23 16:30
BG05@8'	2309192-20	Soil	09/12/23 13:00	09/12/23 16:30

Summit Scientific

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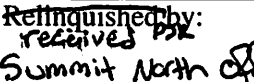

SUMMIT SCIENTIFIC

4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 2
2309192-1	


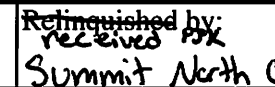

Client: Noble/Tasman		Send Data To:		Send Invoice To:	
Address: 6855 W. 119th Ave.		Project Manager: Jake Whritenour		Company: Chevron	
City/State/Zip: Broomfield/CO/ 80020		E-Mail: Jwhritenour@tasman-geo.com		Project Name/Location: Booth C35-01	
Phone: 970-402-0946		Project Name: Booth C35-01		AFE#:	
Sampler Name: Patrick Kline		Project Number:		PO/Billing Codes:	
				Contact: Miguel Barron	

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	Arsenic	
1	BH06C4'	9/12/23	0930	2			2			X				X	X	X	X	X		X	SAR, EC, pH by saturated paste
2	BH06C8'		1020											X							
3	BH07C4'		0940																		
4	BH07C8'		1030																		
5	BH08C4'		0950																		
6	BH08C8'		1040																		
7	BH09C4'		1000																		
8	BH09C8'		1050																		
9	BH10C4'		1010																		
10	BH0C8'		1100																		
11	B601C4'		1130																		
12	B601C8'		1220																		
13	B602C4'		1140																		
14	B602C8'		1230																		
15	B603C4'		1150																		

Relinquished by: 	Date/Time: 9/12/23 1545	Relinquished by: 	Date/Time: 9/12/23 1545	TAT Business Days	Field DO	Notes:
Relinquished by: S2	Date/Time: 9/12/23 1630	Received by: 	Date/Time: 9/12/23 1630	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	X Field Turb.	
Temperature Upon Receipt: 17.3		Corrected Temperature 6		IR gun #: 1		HNO3 lot #:

Send Data To:		Send Invoice To:
Client: Noble/Tasman	Project Manager: Jake Whritenour	Company: <u>Chevron</u>
Address: 6855 W. 119th Ave.	E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location: <u>Booth C35-01</u>
City/State/Zip: Broomfield/CO/ 80020		AFE#:
Phone: 970-402-0946	Project Name: <u>Booth C35-01</u>	PO/Billing Codes:
Sampler Name: Patrick Kline	Project Number:	Contact: <u>Miguel Barron</u>

					Preservative				Matrix			Analysis Requested										Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other _____	Water	Soil	Air-Canister #	Other _____	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	Arsenic		
1	B603e8'	9/12/23	1240	1			1			X											X	SAR, EC, pH by saturated paste
2	B604e4'	I	1200	I			I			I											I	
3	B604e8'	I	1250	I			I			I											I	
4	B605e4'	I	1210	I			I			I											I	
5	B605e8'	I	1300	I			I			I											I	
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by: 	Date/Time: 9/12/23 1545	Relinquished by: 	Date/Time: 9/12/23 1545	TAT Business Days	Field DO	Notes:
Relinquished by: SZ	Date/Time: 9/12/23 1630	Received by: 	Date/Time: 9/12/23 1630	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Standard	X Field Turb.	
Temperature Upon Receipt: 17.3	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:			

S₂

2/2

Sample Receipt Checklist

S2 Work Order# 2309192Client: Noble/Tarman Client Project ID: Booth C35-01Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other ☐ Airbill #:

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply) Air ☐ Soil ☒ Solid ☐ Water ☐ Other ☐Temp (°C) 17.3Thermometer # 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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.Josh

Custodian Printed Name

09-12-23

Date/Time

23



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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@4'
2309192-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/13/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0435	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0421	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	12.9	103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@4'
2309192-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0440	09/15/23	09/16/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.00898	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	0.00703	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0157	47.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0152	45.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.240	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@4'
2309192-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.768	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	86.1	0.0532	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	18.6	0.0532	"	"	"	"	"	"	
Sodium	18.7	0.0532	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.477	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.0		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.748	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:

09/20/23 10:34

BH06@4'
2309192-01 (Soil)

Summit Scientific

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

pH	7.90	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@8'
2309192-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/13/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0395	98.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0426	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0403	101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.9	103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@8'
2309192-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0440	09/15/23	09/16/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0177	53.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0183	54.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.228	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@8'
2309192-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.12	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	25.8	0.0526	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	15.3	0.0526	"	"	"	"	"	"	
Sodium	27.8	0.0526	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.07	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.1		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.468	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH06@8'
2309192-02 (Soil)

Summit Scientific

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

pH	8.22	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@4'
2309192-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/13/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0421	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.2	106 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@4'
2309192-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0440	09/15/23	09/16/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0200	59.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0188	56.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.317	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@4'
2309192-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.632	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	21.1	0.0595	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	4.23	0.0595	"	"	"	"	"	"	
Sodium	2.94	0.0595	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.153	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.163	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@4'
2309192-03 (Soil)

Summit Scientific

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

pH	7.96	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@8'
2309192-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/13/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0457	114 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0414	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0422	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.7	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@8'
2309192-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0440	09/15/23	09/16/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0254	76.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0281	84.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.248	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@8'
2309192-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.733	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	25.2	0.0513	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	13.7	0.0513	"	"	"	"	"	"	
Sodium	4.97	0.0513	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.198	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.6		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.338	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH07@8'
2309192-04 (Soil)

Summit Scientific

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

pH	7.49	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@4'
2309192-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/13/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0468	117 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0429	107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	99.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.6	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@4'
2309192-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0440	09/15/23	09/16/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0174	52.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.217	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@4'
2309192-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.828	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	216	0.0524	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	26.3	0.0524	"	"	"	"	"	"	
Sodium	8.91	0.0524	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.152	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.4		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.39	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@4'
2309192-05 (Soil)

Summit Scientific

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

pH	7.68	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@8'
2309192-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0430	108 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0421	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0392	98.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.6	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@8'
2309192-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0481	09/18/23	09/18/23	EPA 8270D SIM	
Anthracene	0.0196	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.0247	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0148	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0274	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00997	0.00500	"	"	"	"	"	"	
Chrysene	0.0273	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0822	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0120	0.00500	"	"	"	"	"	"	
Pyrene	0.0506	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0302	90.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0201	60.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0449	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@8'
2309192-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.08	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	51.4	0.0524	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	30.6	0.0524	"	"	"	"	"	"	
Sodium	44.0	0.0524	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.20	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.4		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.782	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH08@8'
2309192-06 (Soil)

Summit Scientific

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

pH	8.25	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@4'
2309192-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0381	95.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0420	105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0397	99.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.6	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@4'
2309192-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0481	09/18/23	09/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0389	117 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0150	44.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.115	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@4'
2309192-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.675	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	43.4	0.0593	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	15.0	0.0593	"	"	"	"	"	"	
Sodium	4.93	0.0593	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.164	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.3		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	61.7	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:

09/20/23 10:34

BH09@4'
2309192-07 (Soil)

Summit Scientific

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

pH	7.82	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@8'
2309192-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0425	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0429	107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.7	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@8'
2309192-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0481	09/18/23	09/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0275	82.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.201	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@8'
2309192-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.04	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	12.9	0.0526	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	7.29	0.0526	"	"	"	"	"	"	
Sodium	10.0	0.0526	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.552	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.0		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.207	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH09@8'
2309192-08 (Soil)

Summit Scientific

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

pH	8.48	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@4'
2309192-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0404	101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0425	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.7 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	13.7	109 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@4'
2309192-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0481	09/18/23	09/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0283	85.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.181	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@4'
2309192-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.718	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	52.8	0.0523	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	15.1	0.0523	"	"	"	"	"	"	
Sodium	3.61	0.0523	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.113	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.6		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.136	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@4'
2309192-09 (Soil)

Summit Scientific

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

pH	8.63	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@8'
2309192-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BGI0356	09/13/23	09/14/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4	0.0402	100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0425	106 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	100 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BGI0358	09/13/23	09/14/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl	12.9	103 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@8'
2309192-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BGI0481	09/18/23	09/18/23	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0171	51.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0170	50.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0728	0.0100	mg/L	1	BGI0412	09/14/23	09/16/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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 - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BH10@8'
2309192-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.882	0.200	mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B
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Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13.9	0.0524	mg/L dry	1	BGI0371	09/13/23	09/15/23	EPA 6020B	
Magnesium	5.15	0.0524	"	"	"	"	"	"	
Sodium	5.83	0.0524	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.339	0.00100	units	1	BGI0472	09/15/23	09/15/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.4		%	1	BGI0361	09/13/23	09/13/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.124	0.0100	mmhos/cm	1	BGI0375	09/13/23	09/14/23	EPA 120.1	

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

Date Sampled: **09/12/23 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:

09/20/23 10:34

BH10@8'
2309192-10 (Soil)

Summit Scientific

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

pH	8.57	pH Units	1	BGI0376	09/13/23	09/14/23	EPA 9045D
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG01@4'
2309192-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.588	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	96.1			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG01@8'
2309192-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.896	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	96.3			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG02@4'
2309192-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.682	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 11:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.7			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG02@8'
2309192-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.823	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.9			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG03@4'
2309192-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.780	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.5			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG03@8'
2309192-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 12:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.885	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 12:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.7			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG04@4'
2309192-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.697	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 12:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.3			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG04@8'
2309192-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.647	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.6			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG05@4'
2309192-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 12:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.743	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 12:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	97.8			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

BG05@8'
2309192-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Date Sampled: **09/12/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Arsenic	0.780	0.200		mg/kg dry	1	BGI0352	09/13/23	09/16/23	EPA 6020B	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	96.2			%	1	BGI0361	09/13/23	09/13/23	Calculation	

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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 BG10356 - EPA 5030 Soil MS

Blank (BG10356-BLK1)

Prepared & Analyzed: 09/13/23

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0379		"	0.0400		94.8	50-150			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.1	50-150			

LCS (BG10356-BS1)

Prepared & Analyzed: 09/13/23

Benzene	0.106	0.0020	mg/kg	0.100		106	70-130			
Toluene	0.0884	0.0050	"	0.100		88.4	70-130			
Ethylbenzene	0.0868	0.0050	"	0.100		86.8	70-130			
m,p-Xylene	0.165	0.010	"	0.200		82.5	70-130			
o-Xylene	0.0794	0.0050	"	0.100		79.4	70-130			
1,2,4-Trimethylbenzene	0.0735	0.0050	"	0.100		73.5	70-130			
1,3,5-Trimethylbenzene	0.0740	0.0050	"	0.100		74.0	70-130			
Naphthalene	0.0765	0.0038	"	0.100		76.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0451		"	0.0400		113	50-150			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0419		"	0.0400		105	50-150			

Matrix Spike (BG10356-MS1)

Source: 2309189-01

Prepared & Analyzed: 09/13/23

Benzene	0.121	0.0020	mg/kg	0.100	ND	121	70-130			
Toluene	0.105	0.0050	"	0.100	ND	105	70-130			
Ethylbenzene	0.0991	0.0050	"	0.100	ND	99.1	70-130			
m,p-Xylene	0.188	0.010	"	0.200	ND	94.2	70-130			
o-Xylene	0.0916	0.0050	"	0.100	ND	91.6	70-130			
1,2,4-Trimethylbenzene	0.0849	0.0050	"	0.100	ND	84.9	70-130			
1,3,5-Trimethylbenzene	0.0861	0.0050	"	0.100	ND	86.1	70-130			
Naphthalene	0.0764	0.0038	"	0.100	ND	76.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0433		"	0.0400		108	50-150			
Surrogate: Toluene-d8	0.0428		"	0.0400		107	50-150			
Surrogate: 4-Bromofluorobenzene	0.0419		"	0.0400		105	50-150			

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Broomfield CO, 80020

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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 BGI0356 - EPA 5030 Soil MS

Matrix Spike Dup (BGI0356-MSD1)	Source: 2309189-01			Prepared & Analyzed: 09/13/23						
Benzene	0.118	0.0020	mg/kg	0.100	ND	118	70-130	3.06	30	
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	0.632	30	
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130	5.65	30	
m,p-Xylene	0.201	0.010	"	0.200	ND	100	70-130	6.41	30	
o-Xylene	0.0950	0.0050	"	0.100	ND	95.0	70-130	3.54	30	
1,2,4-Trimethylbenzene	0.0944	0.0050	"	0.100	ND	94.4	70-130	10.6	30	
1,3,5-Trimethylbenzene	0.0958	0.0050	"	0.100	ND	95.8	70-130	10.7	30	
Naphthalene	0.0856	0.0038	"	0.100	ND	85.6	70-130	11.3	30	
Surrogate: 1,2-Dichloroethane-d4	0.0376		"	0.0400		93.9	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0424		"	0.0400		106	50-150			

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Broomfield CO, 80020

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BGI0358 - EPA 3550A

Blank (BGI0358-BLK1)

Prepared & Analyzed: 09/13/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	13.3		"	12.5		107	30-150			

LCS (BGI0358-BS1)

Prepared & Analyzed: 09/13/23

C10-C28 (DRO)	455	50	mg/kg	500		91.1	70-130			
Surrogate: o-Terphenyl	13.0		"	12.5		104	30-150			

Matrix Spike (BGI0358-MS1)

Source: 2309189-01

Prepared & Analyzed: 09/13/23

C10-C28 (DRO)	425	50	mg/kg	500	7.45	83.4	70-130			
Surrogate: o-Terphenyl	13.1		"	12.5		105	30-150			

Matrix Spike Dup (BGI0358-MSD1)

Source: 2309189-01

Prepared & Analyzed: 09/13/23

C10-C28 (DRO)	459	50	mg/kg	500	7.45	90.2	70-130	7.72	20	
Surrogate: o-Terphenyl	12.9		"	12.5		103	30-150			

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0440 - EPA 5030 Soil MS

Blank (BGI0440-BLK1)

Prepared: 09/15/23 Analyzed: 09/16/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0327		"	0.0333		98.1	40-150			
Surrogate: Fluoranthene-d10	0.0367		"	0.0333		110	40-150			

LCS (BGI0440-BS1)

Prepared: 09/15/23 Analyzed: 09/16/23

Acenaphthene	0.0303	0.00500	mg/kg	0.0333	90.8	31-137
Anthracene	0.0315	0.00500	"	0.0333	94.4	30-120
Benzo (a) anthracene	0.0254	0.00500	"	0.0333	76.1	30-120
Benzo (a) pyrene	0.0311	0.00500	"	0.0333	93.4	30-120
Benzo (b) fluoranthene	0.0311	0.00500	"	0.0333	93.3	30-120
Benzo (k) fluoranthene	0.0324	0.00500	"	0.0333	97.2	30-120
Chrysene	0.0305	0.00500	"	0.0333	91.6	30-120
Dibenz (a,h) anthracene	0.0272	0.00500	"	0.0333	81.7	30-120
Fluoranthene	0.0291	0.00500	"	0.0333	87.4	30-120
Fluorene	0.0300	0.00500	"	0.0333	90.0	30-120
Indeno (1,2,3-cd) pyrene	0.0390	0.00500	"	0.0333	117	30-120
Pyrene	0.0328	0.00500	"	0.0333	98.3	35-142
1-Methylnaphthalene	0.0265	0.00500	"	0.0333	79.4	35-142
2-Methylnaphthalene	0.0273	0.00500	"	0.0333	81.8	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0294		"	0.0333	88.2	40-150
Surrogate: Fluoranthene-d10	0.0297		"	0.0333	89.2	40-150

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0440 - EPA 5030 Soil MS

Matrix Spike (BGI0440-MS1)

Source: 2309187-01

Prepared: 09/15/23 Analyzed: 09/16/23

Acenaphthene	0.0165	0.00500	mg/kg	0.0333	ND	49.4	31-137				
Anthracene	0.0174	0.00500	"	0.0333	ND	52.1	30-120				
Benzo (a) anthracene	0.0155	0.00500	"	0.0333	ND	46.6	30-120				
Benzo (a) pyrene	0.0190	0.00500	"	0.0333	ND	57.0	30-120				
Benzo (b) fluoranthene	0.0169	0.00500	"	0.0333	ND	50.8	30-120				
Benzo (k) fluoranthene	0.0160	0.00500	"	0.0333	ND	48.0	30-120				
Chrysene	0.0166	0.00500	"	0.0333	ND	49.9	30-120				
Dibenz (a,h) anthracene	0.0159	0.00500	"	0.0333	ND	47.7	30-120				
Fluoranthene	0.0170	0.00500	"	0.0333	ND	51.0	30-120				
Fluorene	0.0175	0.00500	"	0.0333	ND	52.4	30-120				
Indeno (1,2,3-cd) pyrene	0.0155	0.00500	"	0.0333	ND	46.4	30-120				
Pyrene	0.0179	0.00500	"	0.0333	ND	53.8	35-142				
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.8	15-130				
2-Methylnaphthalene	0.0163	0.00500	"	0.0333	ND	48.8	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0176		"	0.0333		52.8	40-150				
Surrogate: Fluoranthene-d10	0.0167		"	0.0333		50.2	40-150				

Matrix Spike Dup (BGI0440-MSD1)

Source: 2309187-01

Prepared: 09/15/23 Analyzed: 09/16/23

Acenaphthene	0.0209	0.00500	mg/kg	0.0333	ND	62.6	31-137	23.4	30
Anthracene	0.0220	0.00500	"	0.0333	ND	65.9	30-120	23.3	30
Benzo (a) anthracene	0.0203	0.00500	"	0.0333	ND	60.9	30-120	26.8	30
Benzo (a) pyrene	0.0239	0.00500	"	0.0333	ND	71.7	30-120	22.9	30
Benzo (b) fluoranthene	0.0218	0.00500	"	0.0333	ND	65.3	30-120	25.0	30
Benzo (k) fluoranthene	0.0195	0.00500	"	0.0333	ND	58.6	30-120	19.8	30
Chrysene	0.0203	0.00500	"	0.0333	ND	61.0	30-120	19.9	30
Dibenz (a,h) anthracene	0.0214	0.00500	"	0.0333	ND	64.2	30-120	29.6	30
Fluoranthene	0.0218	0.00500	"	0.0333	ND	65.5	30-120	24.9	30
Fluorene	0.0223	0.00500	"	0.0333	ND	66.9	30-120	24.3	30
Indeno (1,2,3-cd) pyrene	0.0200	0.00500	"	0.0333	ND	60.0	30-120	25.5	30
Pyrene	0.0216	0.00500	"	0.0333	ND	64.8	35-142	18.6	30
1-Methylnaphthalene	0.0179	0.00500	"	0.0333	ND	53.8	15-130	7.78	50
2-Methylnaphthalene	0.0222	0.00500	"	0.0333	ND	66.5	15-130	30.7	50
Surrogate: 2-Methylnaphthalene-d10	0.0209		"	0.0333		62.7	40-150		
Surrogate: Fluoranthene-d10	0.0213		"	0.0333		63.8	40-150		

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0481 - EPA 5030 Soil MS

Blank (BGI0481-BLK1)

Prepared & Analyzed: 09/18/23

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0320		"	0.0333		95.9	40-150			
Surrogate: Fluoranthene-d10	0.0284		"	0.0333		85.1	40-150			

LCS (BGI0481-BS1)

Prepared & Analyzed: 09/18/23

Acenaphthene	0.0301	0.00500	mg/kg	0.0333		90.2	31-137			
Anthracene	0.0304	0.00500	"	0.0333		91.2	30-120			
Benzo (a) anthracene	0.0293	0.00500	"	0.0333		87.8	30-120			
Benzo (a) pyrene	0.0288	0.00500	"	0.0333		86.5	30-120			
Benzo (b) fluoranthene	0.0316	0.00500	"	0.0333		94.7	30-120			
Benzo (k) fluoranthene	0.0323	0.00500	"	0.0333		96.8	30-120			
Chrysene	0.0303	0.00500	"	0.0333		91.0	30-120			
Dibenz (a,h) anthracene	0.0297	0.00500	"	0.0333		89.0	30-120			
Fluoranthene	0.0294	0.00500	"	0.0333		88.1	30-120			
Fluorene	0.0309	0.00500	"	0.0333		92.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0202	0.00500	"	0.0333		60.7	30-120			
Pyrene	0.0246	0.00500	"	0.0333		73.9	35-142			
1-Methylnaphthalene	0.0243	0.00500	"	0.0333		72.8	35-142			
2-Methylnaphthalene	0.0282	0.00500	"	0.0333		84.7	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0371		"	0.0333		111	40-150			
Surrogate: Fluoranthene-d10	0.0329		"	0.0333		98.7	40-150			

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Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BGI0481 - EPA 5030 Soil MS

Matrix Spike (BGI0481-MS1)			Source: 2309192-07		Prepared & Analyzed: 09/18/23					
Acenaphthene	0.0211	0.00500	mg/kg	0.0333	ND	63.4	31-137			
Anthracene	0.0222	0.00500	"	0.0333	ND	66.6	30-120			
Benzo (a) anthracene	0.0235	0.00500	"	0.0333	ND	70.5	30-120			
Benzo (a) pyrene	0.0183	0.00500	"	0.0333	ND	54.8	30-120			
Benzo (b) fluoranthene	0.0259	0.00500	"	0.0333	ND	77.8	30-120			
Benzo (k) fluoranthene	0.0247	0.00500	"	0.0333	ND	74.2	30-120			
Chrysene	0.0248	0.00500	"	0.0333	ND	74.3	30-120			
Dibenz (a,h) anthracene	0.0216	0.00500	"	0.0333	ND	64.8	30-120			
Fluoranthene	0.0277	0.00500	"	0.0333	ND	83.0	30-120			
Fluorene	0.0222	0.00500	"	0.0333	ND	66.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0149	0.00500	"	0.0333	ND	44.6	30-120			
Pyrene	0.0218	0.00500	"	0.0333	ND	65.3	35-142			
1-Methylnaphthalene	0.0205	0.00500	"	0.0333	ND	61.6	15-130			
2-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	59.9	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0268		"	0.0333		80.3	40-150			
Surrogate: Fluoranthene-d10	0.0219		"	0.0333		65.6	40-150			

Matrix Spike Dup (BGI0481-MSD1)			Source: 2309192-07		Prepared & Analyzed: 09/18/23					
Acenaphthene	0.0190	0.00500	mg/kg	0.0333	ND	57.1	31-137	10.4	30	
Anthracene	0.0191	0.00500	"	0.0333	ND	57.3	30-120	14.9	30	
Benzo (a) anthracene	0.0202	0.00500	"	0.0333	ND	60.6	30-120	15.1	30	
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	3.49	30	
Benzo (b) fluoranthene	0.0224	0.00500	"	0.0333	ND	67.2	30-120	14.6	30	
Benzo (k) fluoranthene	0.0226	0.00500	"	0.0333	ND	67.8	30-120	9.09	30	
Chrysene	0.0213	0.00500	"	0.0333	ND	63.9	30-120	15.0	30	
Dibenz (a,h) anthracene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	10.5	30	
Fluoranthene	0.0253	0.00500	"	0.0333	ND	76.0	30-120	8.80	30	
Fluorene	0.0195	0.00500	"	0.0333	ND	58.6	30-120	12.9	30	
Indeno (1,2,3-cd) pyrene	0.0141	0.00500	"	0.0333	ND	42.3	30-120	5.52	30	
Pyrene	0.0227	0.00500	"	0.0333	ND	68.1	35-142	4.15	30	
1-Methylnaphthalene	0.0191	0.00500	"	0.0333	ND	57.3	15-130	7.10	50	
2-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.1	15-130	6.61	50	
Surrogate: 2-Methylnaphthalene-d10	0.0247		"	0.0333		74.1	40-150			
Surrogate: Fluoranthene-d10	0.0198		"	0.0333		59.5	40-150			

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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 BGI0412 - EPA 3050B

Blank (BGI0412-BLK1)

Prepared: 09/14/23 Analyzed: 09/16/23

Boron ND 0.0100 mg/L

LCS (BGI0412-BS1)

Prepared: 09/14/23 Analyzed: 09/16/23

Boron 4.98 0.0100 mg/L 5.00 99.5 80-120

Duplicate (BGI0412-DUP1)

Source: 2309165-01

Prepared: 09/14/23 Analyzed: 09/16/23

Boron 0.181 0.0100 mg/L 0.248 31.4 20 QR-04

Matrix Spike (BGI0412-MS1)

Source: 2309165-01

Prepared: 09/14/23 Analyzed: 09/16/23

Boron 4.75 0.0100 mg/L 5.00 0.248 90.0 75-125

Matrix Spike Dup (BGI0412-MSD1)

Source: 2309165-01

Prepared: 09/14/23 Analyzed: 09/16/23

Boron 5.19 0.0100 mg/L 5.00 0.248 98.8 75-125 8.89 25

Summit Scientific

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Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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 BGI0352 - EPA 3050B

Blank (BGI0352-BLK1)

Prepared: 09/13/23 Analyzed: 09/16/23

Arsenic ND 0.200 mg/kg wet

LCS (BGI0352-BS1)

Prepared: 09/13/23 Analyzed: 09/16/23

Arsenic 42.0 0.200 mg/kg wet 40.0 105 80-120

Duplicate (BGI0352-DUP1)

Source: 2309192-01

Prepared: 09/13/23 Analyzed: 09/16/23

Arsenic 0.763 0.200 mg/kg dry 0.768 0.612 20

Matrix Spike (BGI0352-MS1)

Source: 2309192-01

Prepared: 09/13/23 Analyzed: 09/16/23

Arsenic 20.2 0.200 mg/kg dry 42.6 0.768 45.5 75-125 QM-01

Matrix Spike Dup (BGI0352-MSD1)

Source: 2309192-01

Prepared: 09/13/23 Analyzed: 09/16/23

Arsenic 20.2 0.200 mg/kg dry 42.6 0.768 45.7 75-125 0.240 25 QM-01

Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control
Summit Scientific

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

Batch BGI0371 - General Preparation

Blank (BGI0371-BLK1)

Prepared: 09/13/23 Analyzed: 09/15/23

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

LCS (BGI0371-BS1)

Prepared: 09/13/23 Analyzed: 09/15/23

Calcium	4.61	0.0500	mg/L wet	5.00	92.3	70-130
Magnesium	5.14	0.0500	"	5.00	103	70-130
Sodium	5.04	0.0500	"	5.00	101	70-130

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6855 W. 119th Ave.
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Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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 BGI0361 - General Preparation

Duplicate (BGI0361-DUP1)

Source: 2309192-01

Prepared & Analyzed: 09/13/23

% Solids	94.1	%		94.0		0.0964	20
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Summit Scientific

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

Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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 BGI0375 - General Preparation

Blank (BGI0375-BLK1)

Prepared: 09/13/23 Analyzed: 09/14/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGI0375-BS1)

Prepared: 09/13/23 Analyzed: 09/14/23

Specific Conductance (EC) 0.149 0.0100 mmhos/cm 0.150 99.6 95-105

Duplicate (BGI0375-DUP1)

Source: 2309163-02

Prepared: 09/13/23 Analyzed: 09/14/23

Specific Conductance (EC) 0.241 0.0100 mmhos/cm 0.241 0.00 20

Summit Scientific

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

Project: Noble - Booth C35-01

Project Number: UWRWE-A3162-ABN

Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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

Summit Scientific

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

Batch BGI0376 - General Preparation

LCS (BGI0376-BS1)

Prepared: 09/13/23 Analyzed: 09/14/23

pH	9.15	pH Units	9.18	99.7	95-105
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Duplicate (BGI0376-DUP1)

Source: 2309163-02

Prepared: 09/13/23 Analyzed: 09/14/23

pH	8.45	pH Units	8.45	0.00	20
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Summit Scientific

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6855 W. 119th Ave.
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Project: Noble - Booth C35-01
Project Number: UWRWE-A3162-ABN
Project Manager: Jacob Whritenour

Reported:
09/20/23 10:34

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-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

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