

SITE ASSESSMENT REPORT

LILLI UNIT 16-7

COGCC SPILL TRACKING # 481760

COGCC REMEDIATION # 21705

Prepared for:



2115 117th Avenue
Greeley, CO 80631

Prepared by:



6855 W. 119th Ave
Broomfield, CO 80020

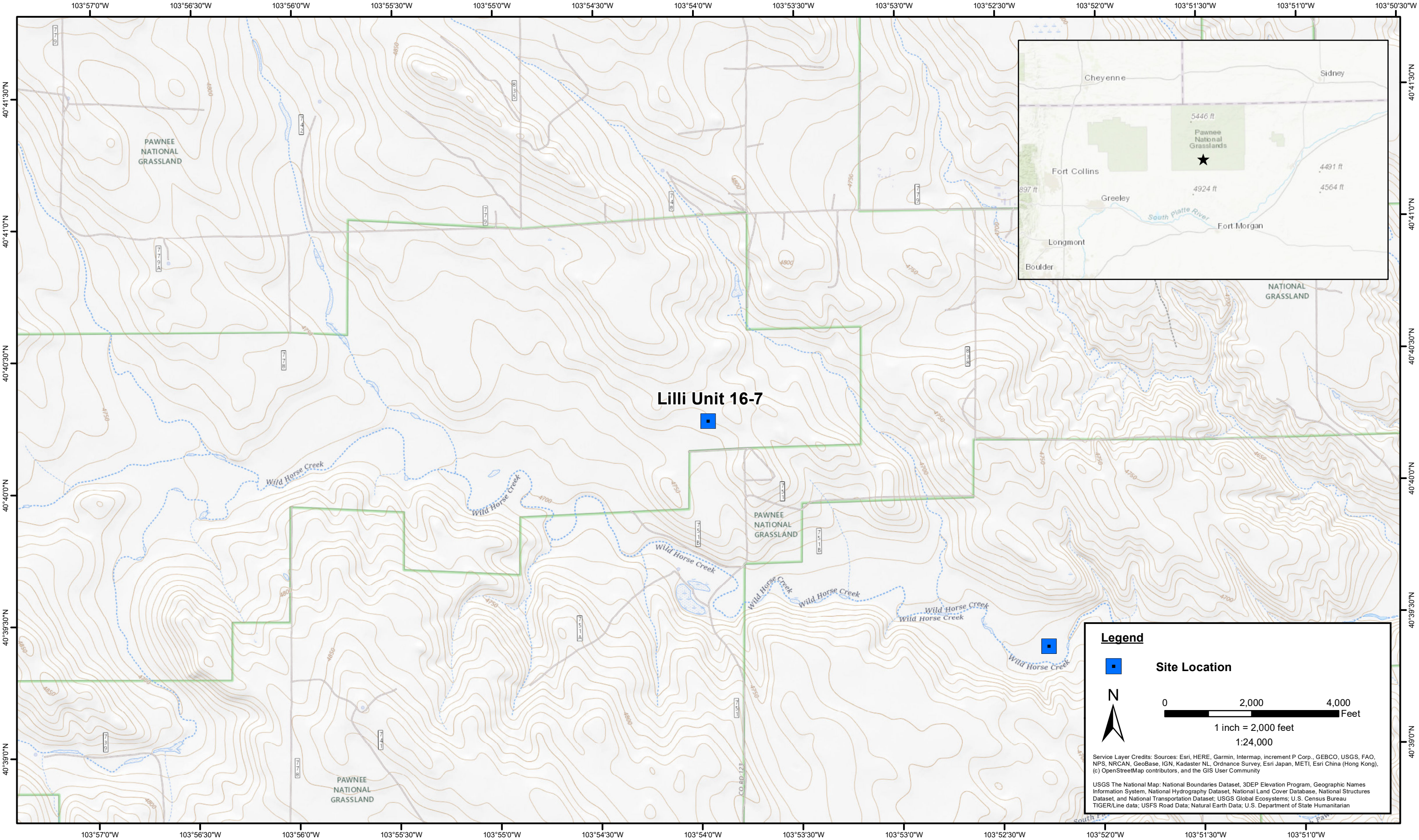
TABLES

TABLE 1
SOIL ANALYTICAL DATA
NOBLE ENERGY, INC. - LILLI UNIT 16-7

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
WH-FS-01@6 ⁽⁴⁾	03/02/22	<0.00200	<0.00200	<0.00200	0.0118	0.0111	0.0069	0.00308	0.294	<25.0	<100	0.000702	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00367	<0.00067	<0.00067	0.00172	<0.00067	0.00152	0.00896	0.00541
WH-SS-01@5'	03/02/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00138	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00076	<0.00067	<0.00067	0.00076	<0.00067	0.00305	0.00287	
WH-SS-02@5'	03/02/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	
WH-SS-03@5'	03/02/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	0.00258	0.000808	<0.200	<25.0	<100	0.000361	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.00121	<0.00067	<0.00067	0.000601	<0.00067	0.00125	0.00361	0.00217
WH-SS-04@5'	03/02/22	<0.00200	<0.00200	<0.00200	0.206	0.0979	0.0895	0.0133	2.28	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.0105	<0.00067	<0.00067	<0.00067	0.0139	<0.00067	<0.00067	0.039
WH-FS-01@7 ⁽⁵⁾	03/30/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067	<0.200	<25.0	<100	<0.00335	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	
WH-SS-04@6'	03/30/22	<0.00200	<0.00200	<0.00200	<0.00200	0.00892	<0.00200	0.00729	0.809	167	129	<0.00335	<0.00335	<0.00335	0.00301	0.00576	<0.00335	0.0391	<0.00335	0.00274	0.055	<0.00335	0.0179	0.106	0.0653
WH-SS-05@5'	03/30/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00335	<0.200	47.4	<100	<0.00335	<0.00335	<0.00335	<0.00335	0.00319	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	<0.00335	
WH-SS-06@5'	03/30/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	
WH-SS-07@5'	03/30/22	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00067	<0.200	<25.0	<100	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	0.002	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	<0.00067	
BH01@5-6'	04/21/23	<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
BH01@11-12'	04/21/23	<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@5-6'	04/21/23	<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
BH02R@8-9'	04/21/23	<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@5-6'	04/21/23	<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@11-12'	04/21/23	<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@5-6'	04/21/23	<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@11-12'	04/21/23	<0.0020	<0.0050	<0.0050	<0.010	0.0055	<0.0050	<0.0038	0.61	<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@15-16'	04/21/23	0.021	<0.0050	0.087	0.087	0.034	0.0080	<0.0038	6.4	<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@22-23.5'	04/21/23	<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@5-6'	04/21/23	<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@15-16'	04/21/23	<0.0020	<0.0050	0.12	0.087	1.1	0.11	0.086	19	80	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0423	0.0603	
BH05@18-19'	04/21/23	<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
BH06@5-6'	04/21/23	<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
BH06@15-16'	04/21/23	<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
BH06@17.5-18.5'	04/21/23	<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
BH08@5-6'	04/21/23	<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
BH08@15-16'	04/21/23	<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
BH08@17-18'	04/21/23	<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
WH-FS-01@6'	03/02/22	8.03	0.614	2.91	0.237
WH-SS-01@5'	03/02/22	8.26	0.566	5.08	0.218
WH-SS-02@5'	03/02/22	8.19	0.638	5.57	0.178
WH-SS-03@5'	03/02/22	8.02	1.37	5.17	0.16
WH-SS-04@5'	03/02/22	7.98	0.672	2.26	0.317
WH-FS-01@7'	03/30/22	7.77	1.66	5.72	0.161
WH-SS-04@6'	03/30/22	8.35	0.555	4.29	0.262
WH-SS-05@5'	03/30/22	7.74	0.702	2.39	0.18
WH-SS-06@5'	03/30/22	7.97	1.40	6.22	0.139
WH-SS-07@5'	03/30/22	7.93	0.63	3.36	0.323
BG01@5'	03/30/22	7.65	NA	NA	NA
BH01@5-6'	04/21/23	7.93	6.05	0.792	0.0619
BH01@11-12'	04/21/23	8.13	5.70	0.407	0.144
BH02@5-6'	04/21/23	8.17	4.85	0.463	0.0795
BH02R@8-9'	04/21/23	7.58	3.17	3.88	0.0732
BH03@5-6'	04/21/23	7.79	6.68	0.804	0.127
BH03@11-12'	04/21/23	7.36	6.48	1.46	0.158
BH04@5-6'	04/21/23	8.21	6.93	0.688	0.0237
BH04@11-12'	04/21/23	8.17	3.37	0.401	<0.0100
BH04@15-16'	04/21/23	8.41	5.18	0.516	0.0206
BH04@22-23.5'	04/21/23	7.77	7.11	0.903	0.114
BH05@5-6'	04/21/23	7.60	6.28	1.44	0.156
BH05@15-16'	04/21/23	8.43	4.52	0.406	0.287
BH05@18-19'	04/21/23	8.38	5.17	0.397	0.260
BH06@5-6'	04/21/23	8.11	6.70	1.08	0.123
BH06@15-16'	04/21/23	7.75	7.04	1.08	0.0298
BH06@17.5-18.5'	04/21/23	7.72	6.55	0.902	<0.0100
BH08@5-6'	04/21/23	6.82	6.94	1.62	0.0963
BH08@15-16'	04/21/23	7.71	6.02	1.72	0.0812
BH08@17-18'	04/21/23	7.92	6.22	1.68	0.074

FIGURES



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




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

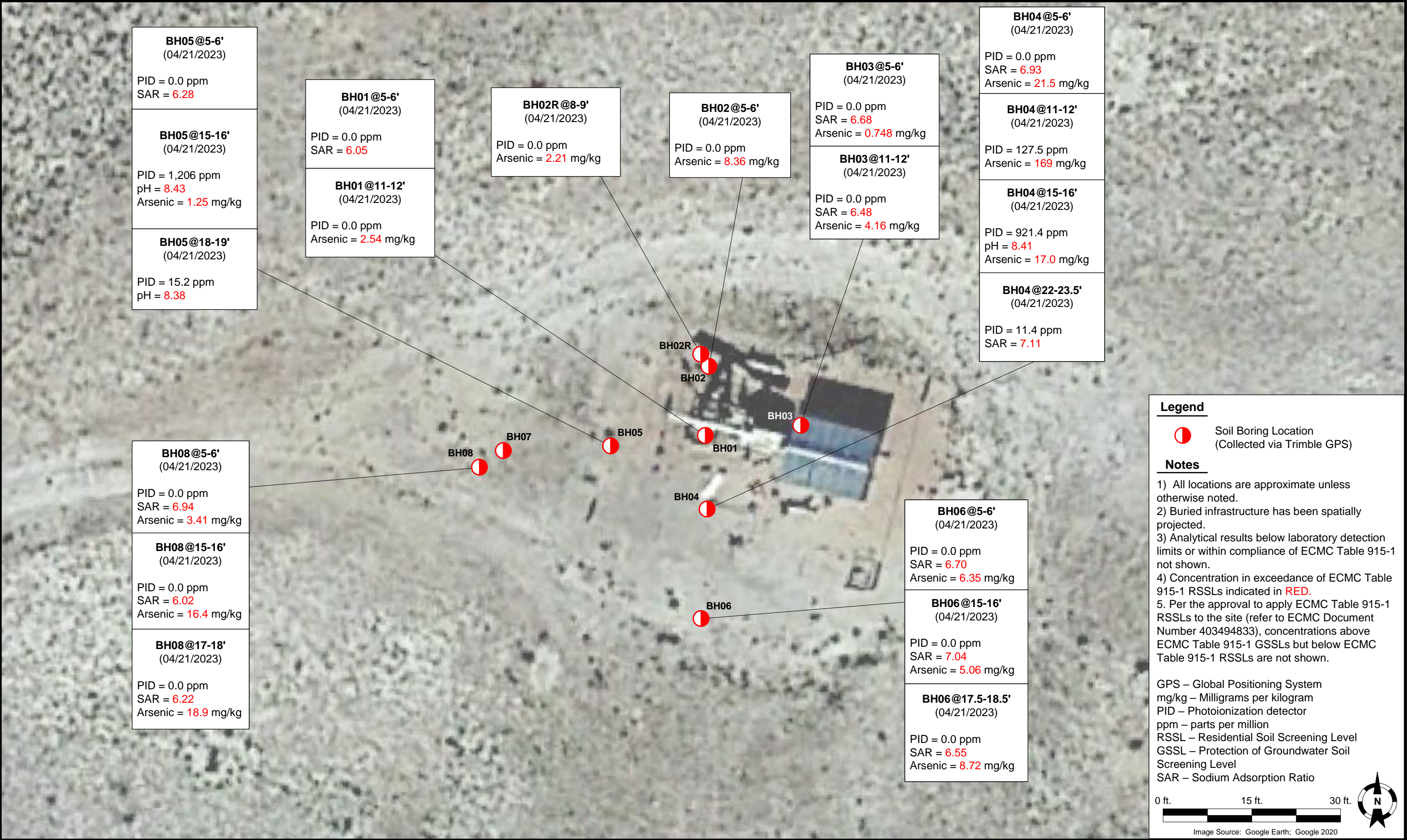
Noble Energy, Inc - DJ Basin
Lilli Unit 16-7
SESE, Section 7, Township 8 North, Range 58 West
Weld County, Colorado

Site Location Map

Figure
1



DATE:	12/18/2023	 <div>Tasman Geosciences, Inc. 6855 W 119th Avenue Broomfield, CO 80020</div>	Noble Energy, Inc. – DJ Basin Lilli Unit 16-7 SESE, Section 7, Township 8 North, Range 58 West Weld County, Colorado	Decommissioning and Site Assessment Soil Analytical Results Map (03/02/2022 & 03/30/2022)	Figure 2
DESIGNED BY:	JW				
DRAWN BY:	AE				



ATTACHMENT A
LABORATORY SOIL ANALYTICAL DATA REPORTS

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80401

303.277.9310

May 24, 2023

Jacob Whritenour

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: Noble - Lilli Unit 16-7

Work Order # 2304494

Enclosed are the results of analyses for samples received by Summit Scientific on 04/21/23 17:43. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Sheely". The signature is fluid and cursive, with the first name "Scott" and last name "Sheely" clearly distinguishable.

Scott Sheely For Paul Shrewsbury

President



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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@5-6'	2304494-01	Soil	04/21/23 09:45	04/21/23 17:43
BH01@11-12'	2304494-02	Soil	04/21/23 09:50	04/21/23 17:43
BH02@5-6'	2304494-03	Soil	04/21/23 10:00	04/21/23 17:43
BH02R@8-9'	2304494-04	Soil	04/21/23 14:30	04/21/23 17:43
BH03@5-6'	2304494-05	Soil	04/21/23 10:10	04/21/23 17:43
BH03@11-12'	2304494-06	Soil	04/21/23 10:15	04/21/23 17:43
BH04@5-6'	2304494-07	Soil	04/21/23 10:25	04/21/23 17:43
BH04@11-12'	2304494-08	Soil	04/21/23 10:30	04/21/23 17:43
BH04@15-16'	2304494-09	Soil	04/21/23 10:40	04/21/23 17:43
BH04@22-23.5'	2304494-10	Soil	04/21/23 11:10	04/21/23 17:43
BH05@5-6'	2304494-11	Soil	04/21/23 11:30	04/21/23 17:43
BH05@15-16'	2304494-12	Soil	04/21/23 11:43	04/21/23 17:43
BH05@18-19'	2304494-13	Soil	04/21/23 11:50	04/21/23 17:43
BH06@5-6'	2304494-14	Soil	04/21/23 12:50	04/21/23 17:43
BH06@15-16'	2304494-15	Soil	04/21/23 13:00	04/21/23 17:43
BH06@17.5-18.5'	2304494-16	Soil	04/21/23 13:10	04/21/23 17:43
BH08@5-6'	2304494-17	Soil	04/21/23 14:00	04/21/23 17:43
BH08@15-16'	2304494-18	Soil	04/21/23 14:05	04/21/23 17:43
BH08@17-18'	2304494-19	Soil	04/21/23 14:10	04/21/23 17:43

Summit Scientific

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



SUMMIT SCIENTIFIC

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

Lab ID	Page 1 of 2
2304494.1	

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:	
Phone: 303-261-6246 303-808-3515		Project Name: Lilli Unit 16-7		AFE#:	
Sampler Name: Stanley Miller Allan Engelhardt		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	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS	Metals - 915	HOLD	
1	BH01@5-6'	4/21/23	0943	2			X			X			X	X	X	X	X	X		pH, EC, SAR by saturated paste
2	BH02@11-12'		0950																	
3	BH02@5-6'		1000																	
4	BH02R@8-9'		1430																	
5	BH03@5-6'		1010																	
6	BH03@11-12'		1015																	
7	BH04@5-6'		1025																	
8	BH04@11-12'		1030																	
9	BH04@15-16'		1040																	
10	BH04@22-23.5'		1110																	
11	BH05@5-6'		1130																	
12	BH05@15-16'		1145																	
13	BH05@18-19'		1150																	
14	BH06@5-6'		1250																	
15	BH06@15-16'	✓	1300	✓			✓			✓			✓	✓	✓	✓	✓	✓		

Relinquished by: 	Date/Time: 4/21/23 1510	Received by: Tasman Lochbox	Date/Time: 4/21/23 1710	TAT Business Days	Field DO	Notes:
Relinquished by: Tasman Lochbox	Date/Time: 4/21/23 1743	Received by: 	Date/Time: 4/21/23 1743	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	Field Turb.	
Temperature Upon Receipt: 24	Corrected Temperature: 0	IR gun #:		HNO3 lot #:		

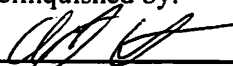
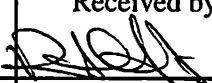

SUMMIT SCIENTIFIC

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

Lab ID	Page 2 of 2
280449 4.2	

Send Data To:		Send Invoice To:
Client: Noble / Tasman	Project Manager: Jake Whritenour	Company: Chevron
Address: 6855 W. 119th Ave	E-Mail: Jwhritenour@tasman-geo.com	Project Name/Location:
City/State/Zip: Broomfield, CO 80020		AFE#:
Phone: 303-261-6246 303-808-3315	Project Name: Lilli Unit 16-7	PO/Billing Codes:
Sampler Name: Stanley Gilbert AS Engelhardt	Project Number:	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	VOC - 915	TPH - 915	PAH - 915	pH, EC, SAR	Boron - HWS	Metals - 915	HOLD	
1	BH06@17.5-18.5'	4/21/23	1310	2			X			X			X	X	X	X	X	X		pH, EC, SAR by saturated paste
2	BH08@5-6'		1400																	
3	BH08@13-16'		1405																	
4	BH08@17-18'	✓	1410	✓						✓			✓	✓	✓	✓	✓	✓		
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: 	Date/Time: 4/21/23 1710	Received by: Tasmin Lochner	Date/Time:	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasmin Lochner	Date/Time: 4/21/23 1743	Received by: 	Date/Time: 4/21/23 1743	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: 94	Corrected Temperature: 	IR gun #: 1	HNO3 lot #:			

S₂212
Sample Receipt Checklist

S2 Work Order# 2304494

Client: Noble Gasman Client Project ID: Lilium 7 16-TShipped 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"/>
--------------------------	-------------------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply) Air ☐ Soil/Solid ☒ Water ☐ Other ☐Temp (°C) 9.4 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"/>	on ice
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pH
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.				

AS
Custodian Printed Name4/21/23
Date/Time



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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@5-6'
2304494-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		120 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		82.1 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@5-6'
2304494-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		74.8 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		77.0 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0619	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@5-6'
2304494-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	ND	0.246		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	2.48	0.493		"	"	"	"	"	"	
Cadmium	ND	0.246		"	"	"	"	"	"	
Copper	ND	0.493		"	"	"	"	"	"	
Lead	ND	0.246		"	"	"	"	"	"	
Nickel	ND	0.493		"	"	"	"	"	"	
Selenium	2.39	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0246		"	"	"	"	"	"	
Zinc	ND	0.493		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	20.7	0.0616		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	6.48	0.0616		"	"	"	"	"	"	
Sodium	123	0.0616		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.05	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@5-6'
2304494-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	81.2			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.792	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.93			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@11-12'
2304494-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		119 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@11-12'
2304494-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		50.6 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.3 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.144	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@11-12'
2304494-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.54	0.289		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	3.18	0.579		"	"	"	"	"	"
Cadmium	ND	0.289		"	"	"	"	"	"
Copper	1.98	0.579		"	"	"	"	"	"
Lead	2.32	0.289		"	"	"	"	"	"
Nickel	ND	0.579		"	"	"	"	"	"
Selenium	0.447	0.260	0.175	"	"	"	"	"	"
Silver	ND	0.0289		"	"	"	"	"	"
Zinc	1.75	0.579		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	10.2	0.0723		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	3.62	0.0723		"	"	"	"	"	"	
Sodium	83.3	0.0723		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	5.70	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH01@11-12'
2304494-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	69.1			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.407	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 09:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.13			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02@5-6'
2304494-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		96.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		136 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02@5-6'
2304494-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.5 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0795	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 10:00**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02@5-6'
2304494-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	8.36	0.229		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	0.506	0.457		"	"	"	"	"	"
Cadmium	ND	0.229		"	"	"	"	"	"
Copper	ND	0.457		"	"	"	"	"	"
Lead	ND	0.229		"	"	"	"	"	"
Nickel	ND	0.457		"	"	"	"	"	"
Selenium	0.216	0.260	0.175	"	"	"	"	"	"
Silver	ND	0.0229		"	"	"	"	"	"
Zinc	ND	0.457		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	9.78	0.0571		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	3.64	0.0571		"	"	"	"	"	"	
Sodium	70.0	0.0571		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	4.85	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02@5-6'
2304494-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	87.5			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.463	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 10:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.17			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02R@8-9'
2304494-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		112 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		97.1 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02R@8-9'
2304494-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		68.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		78.6 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0732	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 14:30**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02R@8-9'
2304494-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	2.21	0.240	mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	0.828	0.481	"	"	"	"	"	"
Cadmium	ND	0.240	"	"	"	"	"	"
Copper	ND	0.481	"	"	"	"	"	"
Lead	ND	0.240	"	"	"	"	"	"
Nickel	ND	0.481	"	"	"	"	"	"
Selenium	1.33	0.260	0.175	"	"	"	"	"
Silver	ND	0.0240	"	"	"	"	"	"
Zinc	ND	0.481	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	547	0.0601		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	112	0.0601		"	"	"	"	"	"	
Sodium	311	0.0601		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	3.17	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH02R@8-9'
2304494-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	83.2			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	3.88	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 14:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.58			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@5-6'
2304494-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		130 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@5-6'
2304494-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		69.4 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.6 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.127	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 10:10**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@5-6'
2304494-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.748	0.295		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	ND	0.590		"	"	"	"	"	"	
Cadmium	ND	0.295		"	"	"	"	"	"	
Copper	ND	0.590		"	"	"	"	"	"	
Lead	ND	0.295		"	"	"	"	"	"	
Nickel	ND	0.590		"	"	"	"	"	"	
Selenium	12.8	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0295		"	"	"	"	"	"	
Zinc	ND	0.590		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.4	0.0737		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	8.45	0.0737		"	"	"	"	"	"	
Sodium	156	0.0737		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.68	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@5-6'
2304494-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	67.9			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.804	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 10:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.79			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@11-12'
2304494-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		96.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.1 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		88.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@11-12'
2304494-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		61.9 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.9 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.158	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@11-12'
2304494-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	4.16	0.292		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	1.22	0.583		"	"	"	"	"	"
Cadmium	ND	0.292		"	"	"	"	"	"
Copper	ND	0.583		"	"	"	"	"	"
Lead	ND	0.292		"	"	"	"	"	"
Nickel	ND	0.583		"	"	"	"	"	"
Selenium	1.61	0.260	0.175	"	"	"	"	"	"
Silver	ND	0.0292		"	"	"	"	"	"
Zinc	ND	0.583		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	73.6	0.0729		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	21.6	0.0729		"	"	"	"	"	"	
Sodium	246	0.0729		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	6.48	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH03@11-12'
2304494-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	68.6			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.46	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 10:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.36			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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Broomfield CO, 80020

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@5-6'
2304494-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		99.8 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		91.5 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@5-6'
2304494-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 10:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.6 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.2 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0237	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 10:25**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@5-6'
2304494-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	21.5	0.298		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	4.70	0.597		"	"	"	"	"	"
Cadmium	ND	0.298		"	"	"	"	"	"
Copper	1.65	0.597		"	"	"	"	"	"
Lead	0.431	0.298		"	"	"	"	"	"
Nickel	ND	0.597		"	"	"	"	"	"
Selenium	1.80	0.260	0.175	"	"	"	"	"	"
Silver	0.0818	0.0298		"	"	"	"	"	"
Zinc	ND	0.597		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	21.4	0.0746		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	6.34	0.0746		"	"	"	"	"	"	
Sodium	142	0.0746		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	6.93	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@5-6'
2304494-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	67.0			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.688	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.21			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@11-12'
2304494-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.0055	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.61	0.50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		135 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@11-12'
2304494-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		65.3 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		81.1 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@11-12'
2304494-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	169	0.293	mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	14.5	0.586	"	"	"	"	"	"
Cadmium	ND	0.293	"	"	"	"	"	"
Copper	5.12	0.586	"	"	"	"	"	"
Lead	7.36	0.293	"	"	"	"	"	"
Nickel	ND	0.586	"	"	"	"	"	"
Selenium	0.284	0.260	0.175	"	"	"	"	"
Silver	0.113	0.0293	"	"	"	"	"	"
Zinc	1.65	0.586	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.7	0.0733		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	9.66	0.0733		"	"	"	"	"	"	
Sodium	79.8	0.0733		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.37	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@11-12'
2304494-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	68.2			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.401	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.17			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@15-16'
2304494-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.021	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.087	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.087	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.034	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.0080	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	6.4	0.50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		122 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/27/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		136 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@15-16'
2304494-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		81.2 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		94.1 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0206	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 10:40**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@15-16'
2304494-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	17.0	0.289		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	21.2	0.579		"	"	"	"	"	"
Cadmium	ND	0.289		"	"	"	"	"	"
Copper	20.0	0.579		"	"	"	"	"	"
Lead	4.19	0.289		"	"	"	"	"	"
Nickel	ND	0.579		"	"	"	"	"	"
Selenium	2.75	0.260	0.175	"	"	"	"	"	"
Silver	ND	0.0289		"	"	"	"	"	"
Zinc	ND	0.579		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	17.0	0.0724		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	8.25	0.0724		"	"	"	"	"	"	
Sodium	104	0.0724		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	5.18	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@15-16'
2304494-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	69.1			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.516	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.41			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@22-23.5'
2304494-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		118 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		89.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@22-23.5'
2304494-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 11:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		100 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		125 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.114	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 11:10**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@22-23.5'
2304494-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.423	0.272		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	ND	0.544		"	"	"	"	"	"	
Cadmium	ND	0.272		"	"	"	"	"	"	
Copper	ND	0.544		"	"	"	"	"	"	
Lead	ND	0.272		"	"	"	"	"	"	
Nickel	ND	0.544		"	"	"	"	"	"	
Selenium	ND	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0272		"	"	"	"	"	"	
Zinc	ND	0.544		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	24.0	0.0680		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	7.59	0.0680		"	"	"	"	"	"	
Sodium	156	0.0680		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.11	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH04@22-23.5'
2304494-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	73.5			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.903	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 11:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.77			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@5-6'
2304494-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/27/23	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: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		93.6 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@5-6'
2304494-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		77.5 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		101 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.156	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@5-6'
2304494-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.359	0.304	mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	1.61	0.608	"	"	"	"	"	"
Cadmium	ND	0.304	"	"	"	"	"	"
Copper	ND	0.608	"	"	"	"	"	"
Lead	ND	0.304	"	"	"	"	"	"
Nickel	ND	0.608	"	"	"	"	"	"
Selenium	5.79	0.260	0.175	"	"	"	"	"
Silver	ND	0.0304	"	"	"	"	"	"
Zinc	ND	0.608	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	83.0	0.0760		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	22.6	0.0760		"	"	"	"	"	"	
Sodium	250	0.0760		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	6.28	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@5-6'
2304494-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	65.8			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.44	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.60			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@15-16'
2304494-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	0.12	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.087	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	1.1	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.11	0.0050		"	"	"	"	"	"	
Naphthalene	0.086	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	19	0.50		"	"	"	"	"	"	

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		95.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		119 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		131 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	80	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		130 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@15-16'
2304494-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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	0.0423	0.00500		"	"	"	"	"	"	
2-Methylnaphthalene	0.0603	0.00500		"	"	"	"	"	"	

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		112 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		134 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.287	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 11:43**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@15-16'
2304494-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	1.25	0.284	mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	15.9	0.567	"	"	"	"	"	"
Cadmium	ND	0.284	"	"	"	"	"	"
Copper	6.15	0.567	"	"	"	"	"	"
Lead	5.07	0.284	"	"	"	"	"	"
Nickel	ND	0.567	"	"	"	"	"	"
Selenium	1.20	0.260	0.175	"	"	"	"	"
Silver	ND	0.0284	"	"	"	"	"	"
Zinc	1.26	0.567	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.9	0.0709		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	14.8	0.0709		"	"	"	"	"	"	
Sodium	121	0.0709		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.52	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@15-16'
2304494-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	70.5			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.406	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 11:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.43			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@18-19'
2304494-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		103 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		131 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@18-19'
2304494-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Acenaphthene	ND	0.00500			mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 11:50**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Surrogate: 2-Methylnaphthalene-d10		115 %			40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		124 %			40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									
Boron	0.260	0.0100			mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit									

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@18-19'
2304494-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	0.644	0.277	mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	2.10	0.553	"	"	"	"	"	"
Cadmium	ND	0.277	"	"	"	"	"	"
Copper	17.1	0.553	"	"	"	"	"	"
Lead	6.40	0.277	"	"	"	"	"	"
Nickel	ND	0.553	"	"	"	"	"	"
Selenium	0.624	0.260	0.175	"	"	"	"	"
Silver	0.0398	0.0277	"	"	"	"	"	"
Zinc	ND	0.553	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0970	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	10.7	0.0691		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	3.96	0.0691		"	"	"	"	"	"	
Sodium	77.9	0.0691		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.17	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH05@18-19'
2304494-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	72.3			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.397	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.38			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@5-6'
2304494-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		98.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		82.7 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@5-6'
2304494-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		93.5 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		129 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.123	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 12:50**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@5-6'
2304494-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.35	0.308		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	1.43	0.616		"	"	"	"	"	"
Cadmium	ND	0.308		"	"	"	"	"	"
Copper	2.73	0.616		"	"	"	"	"	"
Lead	ND	0.308		"	"	"	"	"	"
Nickel	ND	0.616		"	"	"	"	"	"
Selenium	8.55	0.260	0.175	"	"	"	"	"	"
Silver	ND	0.0308		"	"	"	"	"	"
Zinc	ND	0.616		"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0972	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	44.5	0.0770		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	14.4	0.0770		"	"	"	"	"	"	
Sodium	201	0.0770		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	6.70	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@5-6'
2304494-14 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	64.9			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.08	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	8.11			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@15-16'
2304494-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		103 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@15-16'
2304494-15 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 2-Methylnaphthalene-d10		90.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		98.8 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Boron	0.0298	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@15-16'
2304494-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.06	0.289		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	ND	0.579		"	"	"	"	"	"	
Cadmium	ND	0.289		"	"	"	"	"	"	
Copper	1.16	0.579		"	"	"	"	"	"	
Lead	ND	0.289		"	"	"	"	"	"	
Nickel	ND	0.579		"	"	"	"	"	"	
Selenium	1.35	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0289		"	"	"	"	"	"	
Zinc	ND	0.579		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0972	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.2	0.0724		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	12.8	0.0724		"	"	"	"	"	"	
Sodium	190	0.0724		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.04	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@15-16'
2304494-15 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	69.1			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.08	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.75			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@17.5-18.5'
2304494-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		135 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@17.5-18.5'
2304494-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		71.6 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		79.2 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100		mg/L	1	BGD0914	04/27/23	05/02/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 13:10**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@17.5-18.5'
2304494-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	8.72	0.277		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	ND	0.555		"	"	"	"	"	"	
Cadmium	ND	0.277		"	"	"	"	"	"	
Copper	ND	0.555		"	"	"	"	"	"	
Lead	ND	0.277		"	"	"	"	"	"	
Nickel	ND	0.555		"	"	"	"	"	"	
Selenium	0.506	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0277		"	"	"	"	"	"	
Zinc	ND	0.555		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0972	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.2	0.0694		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	9.24	0.0694		"	"	"	"	"	"	
Sodium	153	0.0694		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.55	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH06@17.5-18.5'
2304494-16 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	72.1			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	0.902	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 13:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.72			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@5-6'
2304494-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		96.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@5-6'
2304494-17 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.0 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.5 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0963	0.0100		mg/L	1	BGD0914	04/27/23	05/03/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 14:00**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@5-6'
2304494-17 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.41	0.293		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	ND	0.585		"	"	"	"	"	"	
Cadmium	ND	0.293		"	"	"	"	"	"	
Copper	ND	0.585		"	"	"	"	"	"	
Lead	ND	0.293		"	"	"	"	"	"	
Nickel	ND	0.585		"	"	"	"	"	"	
Selenium	28.6	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0293		"	"	"	"	"	"	
Zinc	ND	0.585		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0972	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.8	0.0731		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	23.8	0.0731		"	"	"	"	"	"	
Sodium	275	0.0731		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.94	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@5-6'
2304494-17 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	68.4			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.62	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	6.82			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@15-16'
2304494-18 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.2 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		92.3 %		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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@15-16'
2304494-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 14:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		64.4 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		74.5 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0812	0.0100		mg/L	1	BGD0914	04/27/23	05/03/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 14:05**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@15-16'
2304494-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	16.4	0.286		mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B	
Barium	ND	0.572		"	"	"	"	"	"	
Cadmium	ND	0.286		"	"	"	"	"	"	
Copper	ND	0.572		"	"	"	"	"	"	
Lead	ND	0.286		"	"	"	"	"	"	
Nickel	ND	0.572		"	"	"	"	"	"	
Selenium	0.387	0.260	0.175	"	"	"	"	"	"	
Silver	ND	0.0286		"	"	"	"	"	"	
Zinc	ND	0.572		"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0972	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	99.3	0.0715		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	30.9	0.0715		"	"	"	"	"	"	
Sodium	268	0.0715		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	6.02	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@15-16'
2304494-18 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	70.0			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.72	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.71			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@17-18'
2304494-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Benzene	ND	0.0020		mg/kg	1	BGD0934	04/27/23	04/28/23	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: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: 1,2-Dichloroethane-d4		100 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		99.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
C10-C28 (DRO)	ND	50		mg/kg	1	BGD0935	04/27/23	04/28/23	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Surrogate: o-Terphenyl		149 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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6855 W. 119th Ave.
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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@17-18'
2304494-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500		mg/kg	1	BGD0813	04/25/23	04/27/23	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: **04/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		66.1 %		40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		80.4 %		40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0740	0.0100		mg/L	1	BGD0914	04/27/23	05/03/23	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/21/23 14:10**

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@17-18'
2304494-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	18.9	0.282	mg/kg dry	1	BGD0901	04/26/23	05/03/23	EPA 6020B
Barium	1.44	0.564	"	"	"	"	"	"
Cadmium	ND	0.282	"	"	"	"	"	"
Copper	ND	0.564	"	"	"	"	"	"
Lead	ND	0.282	"	"	"	"	"	"
Nickel	ND	0.564	"	"	"	"	"	"
Selenium	3.27	0.260	0.175	"	"	"	"	"
Silver	ND	0.0282	"	"	"	"	"	"
Zinc	ND	0.564	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BGD0972	04/28/23	04/28/23	EPA 7196A	

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

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	89.9	0.0705		mg/L dry	1	BGD0943	04/27/23	05/03/23	EPA 6020B	
Magnesium	28.4	0.0705		"	"	"	"	"	"	
Sodium	264	0.0705		"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	6.22	0.00100		units	1	BGE0822	05/23/23	05/23/23	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

BH08@17-18'
2304494-19 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
% Solids	70.9			%	1	BGD0840	04/25/23	04/26/23	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Specific Conductance (EC)	1.68	0.0100		mmhos/cm	1	BGD0984	04/28/23	04/28/23	EPA 120.1	

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

Date Sampled: **04/21/23 14:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
pH	7.92			pH Units	1	BGD0983	04/28/23	04/28/23	EPA 9045D	

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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0934 - EPA 5030 Soil MS

Blank (BGD0934-BLK1)

Prepared & Analyzed: 04/27/23

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	0.0374		"	0.0400		93.6	50-150			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		95.0	50-150			

LCS (BGD0934-BS1)

Prepared & Analyzed: 04/27/23

Benzene	0.0786	0.0020	mg/kg	0.100		78.6	70-130			
Toluene	0.0904	0.0050	"	0.100		90.4	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.211	0.010	"	0.200		105	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
1,2,4-Trimethylbenzene	0.119	0.0050	"	0.100		119	70-130			
1,3,5-Trimethylbenzene	0.115	0.0050	"	0.100		115	70-130			
Naphthalene	0.0822	0.0038	"	0.100		82.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0307		"	0.0400		76.6	50-150			
Surrogate: Toluene-d8	0.0344		"	0.0400		86.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	50-150			

Matrix Spike (BGD0934-MS1)

Source: 2304494-01

Prepared & Analyzed: 04/27/23

Benzene	0.0843	0.0020	mg/kg	0.100	ND	84.3	70-130			
Toluene	0.0938	0.0050	"	0.100	ND	93.8	70-130			
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130			
m,p-Xylene	0.199	0.010	"	0.200	ND	99.4	70-130			
o-Xylene	0.0946	0.0050	"	0.100	ND	94.6	70-130			
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130			
1,3,5-Trimethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130			
Naphthalene	0.0888	0.0038	"	0.100	ND	88.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0360		"	0.0400		90.0	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0377		"	0.0400		94.2	50-150			

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0934 - EPA 5030 Soil MS

Matrix Spike Dup (BGD0934-MSD1)		Source: 2304494-01			Prepared & Analyzed: 04/27/23						
Benzene	0.0836	0.0020	mg/kg	0.100	ND	83.6	70-130	0.822	30		
Toluene	0.0928	0.0050	"	0.100	ND	92.8	70-130	1.06	30		
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	2.06	30		
m,p-Xylene	0.198	0.010	"	0.200	ND	99.0	70-130	0.484	30		
o-Xylene	0.101	0.0050	"	0.100	ND	101	70-130	6.12	30		
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	1.33	30		
1,3,5-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	4.48	30		
Naphthalene	0.0791	0.0038	"	0.100	ND	79.1	70-130	11.6	30		
Surrogate: 1,2-Dichloroethane-d4		0.0354	"	0.0400		88.5	50-150				
Surrogate: Toluene-d8		0.0387	"	0.0400		96.8	50-150				
Surrogate: 4-Bromofluorobenzene		0.0393	"	0.0400		98.3	50-150				

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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0935 - EPA 3550A

Blank (BGD0935-BLK1)

Prepared & Analyzed: 04/27/23

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: o-Terphenyl	12.5		"	12.5		100	30-150			

LCS (BGD0935-BS1)

Prepared & Analyzed: 04/27/23

C10-C28 (DRO)	466	50	mg/kg	500		93.2	70-130			
Surrogate: o-Terphenyl	17.6		"	12.5		141	30-150			

Matrix Spike (BGD0935-MS1)

Source: 2304494-01

Prepared & Analyzed: 04/27/23

C10-C28 (DRO)	399	50	mg/kg	500	14.8	76.8	70-130			
Surrogate: o-Terphenyl	13.6		"	12.5		109	30-150			

Matrix Spike Dup (BGD0935-MSD1)

Source: 2304494-01

Prepared & Analyzed: 04/27/23

C10-C28 (DRO)	385	50	mg/kg	500	14.8	74.1	70-130	3.40	20	
Surrogate: o-Terphenyl	14.6		"	12.5		117	30-150			

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Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0813 - EPA 5030 Soil MS

Blank (BGD0813-BLK1)

Prepared: 04/25/23 Analyzed: 04/27/23

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	0.0318		"	0.0333		95.5		40-150			
Surrogate: Fluoranthene-d10	0.0348		"	0.0333		104		40-150			

LCS (BGD0813-BS1)

Prepared: 04/25/23 Analyzed: 04/27/23

Acenaphthene	0.0270	0.00500	mg/kg	0.0333		80.9		31-137			
Anthracene	0.0342	0.00500	"	0.0333		103		30-120			
Benzo (a) anthracene	0.0379	0.00500	"	0.0333		114		30-120			
Benzo (a) pyrene	0.0348	0.00500	"	0.0333		104		30-120			
Benzo (b) fluoranthene	0.0309	0.00500	"	0.0333		92.6		30-120			
Benzo (k) fluoranthene	0.0263	0.00500	"	0.0333		78.9		30-120			
Chrysene	0.0374	0.00500	"	0.0333		112		30-120			
Dibenz (a,h) anthracene	0.0368	0.00500	"	0.0333		110		30-120			
Fluoranthene	0.0314	0.00500	"	0.0333		94.2		30-120			
Fluorene	0.0248	0.00500	"	0.0333		74.5		30-120			
Indeno (1,2,3-cd) pyrene	0.0344	0.00500	"	0.0333		103		30-120			
Pyrene	0.0438	0.00500	"	0.0333		131		35-142			
1-Methylnaphthalene	0.0286	0.00500	"	0.0333		85.7		35-142			
2-Methylnaphthalene	0.0278	0.00500	"	0.0333		83.3		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0292		"	0.0333		87.6		40-150			
Surrogate: Fluoranthene-d10	0.0339		"	0.0333		102		40-150			

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0813 - EPA 5030 Soil MS

Matrix Spike (BGD0813-MS1)

Source: 2304494-01

Prepared: 04/25/23 Analyzed: 04/27/23

Acenaphthene	0.0237	0.00500	mg/kg	0.0333	ND	71.2	31-137		
Anthracene	0.0221	0.00500	"	0.0333	ND	66.2	30-120		
Benzo (a) anthracene	0.0315	0.00500	"	0.0333	ND	94.6	30-120		
Benzo (a) pyrene	0.0212	0.00500	"	0.0333	ND	63.5	30-120		
Benzo (b) fluoranthene	0.0198	0.00500	"	0.0333	ND	59.4	30-120		
Benzo (k) fluoranthene	0.0190	0.00500	"	0.0333	ND	57.0	30-120		
Chrysene	0.0274	0.00500	"	0.0333	ND	82.3	30-120		
Dibenz (a,h) anthracene	0.0222	0.00500	"	0.0333	ND	66.5	30-120		
Fluoranthene	0.0215	0.00500	"	0.0333	ND	64.5	30-120		
Fluorene	0.0236	0.00500	"	0.0333	ND	70.7	30-120		
Indeno (1,2,3-cd) pyrene	0.0226	0.00500	"	0.0333	ND	67.7	30-120		
Pyrene	0.0297	0.00500	"	0.0333	ND	89.1	35-142		
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130		
2-Methylnaphthalene	0.0185	0.00500	"	0.0333	ND	55.4	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0190		"	0.0333		56.9	40-150		
Surrogate: Fluoranthene-d10	0.0238		"	0.0333		71.3	40-150		

Matrix Spike Dup (BGD0813-MSD1)

Source: 2304494-01

Prepared: 04/25/23 Analyzed: 04/27/23

Acenaphthene	0.0177	0.00500	mg/kg	0.0333	ND	53.2	31-137	28.9	30	
Anthracene	0.0180	0.00500	"	0.0333	ND	53.9	30-120	20.6	30	
Benzo (a) anthracene	0.0255	0.00500	"	0.0333	ND	76.6	30-120	21.0	30	
Benzo (a) pyrene	0.0178	0.00500	"	0.0333	ND	53.5	30-120	17.0	30	
Benzo (b) fluoranthene	0.0174	0.00500	"	0.0333	ND	52.1	30-120	13.1	30	
Benzo (k) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.6	30-120	9.96	30	
Chrysene	0.0240	0.00500	"	0.0333	ND	72.0	30-120	13.3	30	
Dibenz (a,h) anthracene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	34.7	30	QR-02
Fluoranthene	0.0170	0.00500	"	0.0333	ND	51.2	30-120	23.0	30	
Fluorene	0.0174	0.00500	"	0.0333	ND	52.2	30-120	30.1	30	QR-02
Indeno (1,2,3-cd) pyrene	0.0216	0.00500	"	0.0333	ND	64.9	30-120	4.23	30	
Pyrene	0.0249	0.00500	"	0.0333	ND	74.6	35-142	17.7	30	
1-Methylnaphthalene	0.0158	0.00500	"	0.0333	ND	47.3	15-130	9.92	50	
2-Methylnaphthalene	0.0153	0.00500	"	0.0333	ND	45.9	15-130	18.8	50	
Surrogate: 2-Methylnaphthalene-d10	0.0176		"	0.0333		52.7	40-150			
Surrogate: Fluoranthene-d10	0.0189		"	0.0333		56.8	40-150			

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0914 - EPA 3050B

Blank (BGD0914-BLK1)

Prepared: 04/27/23 Analyzed: 05/02/23

Boron ND 0.0100 mg/L

LCS (BGD0914-BS1)

Prepared: 04/27/23 Analyzed: 05/02/23

Boron 5.68 0.0100 mg/L 5.00 114 80-120

Duplicate (BGD0914-DUP1)

Source: 2304494-01

Prepared: 04/27/23 Analyzed: 05/02/23

Boron 0.0590 0.0100 mg/L 0.0619 4.78 20

Matrix Spike (BGD0914-MS1)

Source: 2304494-01

Prepared: 04/27/23 Analyzed: 05/02/23

Boron 5.21 0.0100 mg/L 5.00 0.0619 103 75-125

Matrix Spike Dup (BGD0914-MSD1)

Source: 2304494-01

Prepared: 04/27/23 Analyzed: 05/02/23

Boron 5.28 0.0100 mg/L 5.00 0.0619 104 75-125 1.27 25

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0901 - EPA 3050B

Blank (BGD0901-BLK1)

Prepared: 04/26/23 Analyzed: 05/03/23

Arsenic	ND	0.200	mg/kg wet
Barium	ND	0.400	"
Cadmium	ND	0.200	"
Copper	ND	0.400	"
Lead	ND	0.200	"
Nickel	ND	0.400	"
Selenium	ND	0.260	"
Silver	ND	0.0200	"
Zinc	ND	0.400	"

LCS (BGD0901-BS1)

Prepared: 04/26/23 Analyzed: 05/03/23

Arsenic	39.5	0.200	mg/kg wet	40.0	98.8	80-120
Barium	38.7	0.400	"	40.0	96.6	80-120
Cadmium	1.88	0.200	"	2.00	93.9	80-120
Copper	36.4	0.400	"	40.0	90.9	80-120
Lead	20.4	0.200	"	20.0	102	80-120
Nickel	34.4	0.400	"	40.0	86.0	80-120
Selenium	4.68	0.260	"	4.00	117	80-120
Silver	1.82	0.0200	"	2.00	91.1	80-120
Zinc	36.4	0.400	"	40.0	90.9	80-120

Duplicate (BGD0901-DUP1)

Source: 2304494-01

Prepared: 04/26/23 Analyzed: 05/03/23

Arsenic	1.98	0.246	mg/kg dry	0.224	159	20	QR-03
Barium	62.8	0.493	"	2.48	185	20	QR-03
Cadmium	0.179	0.246	"	ND	200	20	QR-03
Copper	2.12	0.493	"	0.0793	186	20	QR-03
Lead	2.03	0.246	"	ND	200	20	QR-03
Nickel	1.24	0.493	"	ND	200	20	QR-03
Selenium	ND	0.260	"	2.39	200	20	QR-03
Silver	0.00739	0.0246	"	ND	200	20	QR-03
Zinc	11.0	0.493	"	ND	200	20	QR-03

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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0901 - EPA 3050B

Matrix Spike (BGD0901-MS1)		Source: 2304494-01			Prepared: 04/26/23 Analyzed: 05/03/23					
Arsenic	45.3	0.246	mg/kg dry	49.3	0.224	91.5	75-125			
Barium	111	0.493	"	49.3	2.48	220	75-125			QM-07
Cadmium	2.20	0.246	"	2.46	ND	89.3	75-125			
Copper	28.5	0.493	"	49.3	0.0793	57.7	75-125			QM-07
Lead	22.3	0.246	"	24.6	ND	90.5	75-125			
Nickel	28.0	0.493	"	49.3	ND	56.9	75-125			QM-07
Selenium	4.94	0.260	"	4.93	2.39	51.7	75-125			QM-07
Silver	1.94	0.0246	"	2.46	ND	78.9	75-125			
Zinc	38.2	0.493	"	49.3	ND	77.5	75-125			

Matrix Spike Dup (BGD0901-MSD1)		Source: 2304494-01			Prepared: 04/26/23 Analyzed: 05/03/23					
Arsenic	44.1	0.246	mg/kg dry	49.3	0.224	89.1	75-125	2.61	25	
Barium	110	0.493	"	49.3	2.48	218	75-125	0.827	25	QM-07
Cadmium	2.16	0.246	"	2.46	ND	87.8	75-125	1.74	25	
Copper	28.0	0.493	"	49.3	0.0793	56.6	75-125	1.79	25	QM-07
Lead	22.3	0.246	"	24.6	ND	90.5	75-125	0.0796	25	
Nickel	27.4	0.493	"	49.3	ND	55.7	75-125	2.05	25	QM-07
Selenium	4.76	0.260	"	4.93	2.39	48.2	75-125	3.62	25	QM-07
Silver	1.96	0.0246	"	2.46	ND	79.7	75-125	1.08	25	
Zinc	37.4	0.493	"	49.3	ND	76.0	75-125	2.01	25	

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGD0970 - 3060A Mod

Blank (BGD0970-BLK1)					Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BGD0970-BS1)					Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	23.9	0.30	mg/kg wet	25.0		95.6	80-120			
Duplicate (BGD0970-DUP1)					Source: 2304494-01 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BGD0970-MS1)					Source: 2304494-01 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	27.7	0.30	mg/kg dry	30.8	ND	89.8	75-125			
Matrix Spike Dup (BGD0970-MSD1)					Source: 2304494-01 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	27.1	0.30	mg/kg dry	30.8	ND	88.0	75-125	2.02	20	

Batch BGD0972 - 3060A Mod

Blank (BGD0972-BLK1)					Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	ND	0.30	mg/kg wet							
LCS (BGD0972-BS1)					Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	20.4	0.30	mg/kg wet	25.0		81.8	80-120			
Duplicate (BGD0972-DUP1)					Source: 2304494-14 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
Matrix Spike (BGD0972-MS1)					Source: 2304494-14 Prepared & Analyzed: 04/28/23					
Chromium, Hexavalent	34.4	0.30	mg/kg dry	38.5	ND	89.4	75-125			

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BGD0972 - 3060A Mod

Matrix Spike Dup (BGD0972-MSD1)		Source: 2304494-14			Prepared & Analyzed: 04/28/23						
Chromium, Hexavalent		32.7	0.30	mg/kg dry	38.5	ND	85.0	75-125	5.05	20	

Summit Scientific



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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0943 - General Preparation

Blank (BGD0943-BLK1)

Prepared: 04/27/23 Analyzed: 05/03/23

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

LCS (BGD0943-BS1)

Prepared: 04/27/23 Analyzed: 05/03/23

Calcium	6.07	0.0500	mg/L wet	5.00	121	70-130
Magnesium	5.66	0.0500	"	5.00	113	70-130
Sodium	5.70	0.0500	"	5.00	114	70-130

Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]

Project Manager: Jacob Whritenour

Reported:

05/24/23 10:42

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 BGD0840 - General Preparation

Duplicate (BGD0840-DUP1)

Source: 2304215-06

Prepared: 04/25/23 Analyzed: 04/26/23

% Solids	87.7	%	87.4	0.310	20
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Summit Scientific

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

Project: Noble - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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

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

Batch BGD0984 - General Preparation

Blank (BGD0984-BLK1)

Prepared & Analyzed: 04/28/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BGD0984-BS1)

Prepared & Analyzed: 04/28/23

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BGD0984-DUP1)

Source: 2304494-01

Prepared & Analyzed: 04/28/23

Specific Conductance (EC) 0.764 0.0100 mmhos/cm 0.792 3.52 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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

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 BGD0983 - General Preparation

LCS (BGD0983-BS1)

Prepared & Analyzed: 04/28/23

pH	9.10	pH Units	9.18	99.1	95-105
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Duplicate (BGD0983-DUP1)

Source: 2304494-01

Prepared & Analyzed: 04/28/23

pH	7.96	pH Units	7.93	0.378	20
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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 - Lilli Unit 16-7

Project Number: [none]
Project Manager: Jacob Whritenour

Reported:
05/24/23 10:42

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
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

ATTACHMENT B
BORING LOGS



6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Allan Engelhardt

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 4/21/23 - 4/21/23

TOTAL WELL DEPTH (FT. BGS): 12

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Lilli Unit 16-7

BORING ID: BH01

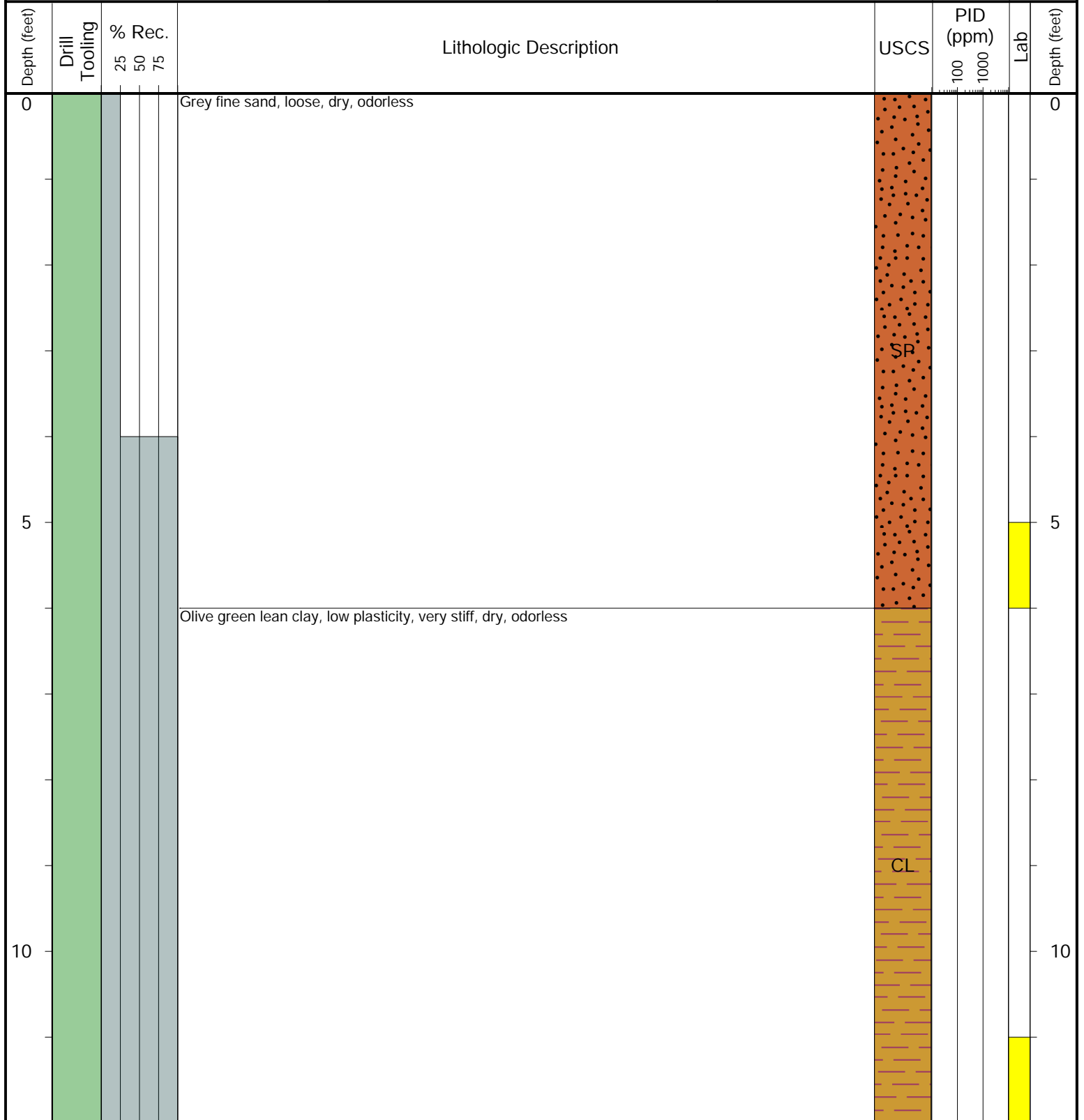
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.670862017326

LONGITUDE (NAD 83): -103.89911909912

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite

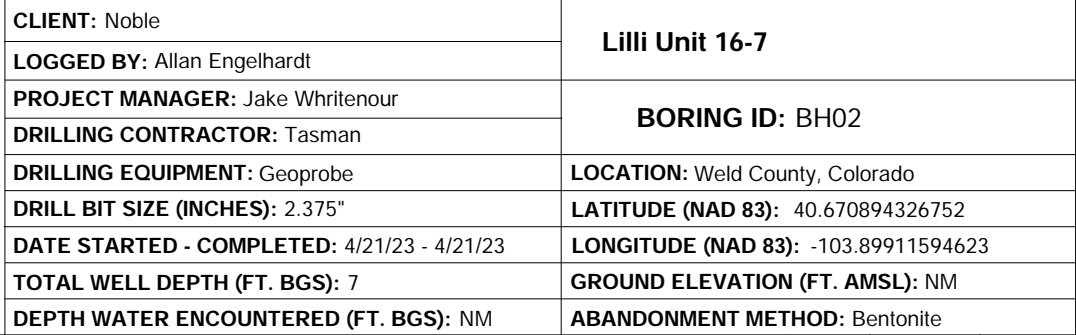


Drilling / Sample Method:

Macro-Core
 Expendable Well Tip
 Hand Auger
 Hydrovacuumed

Laboratory Sample Types:

Geotechnical Lab
 Analytical Chemistry Lab
 Geotechnical & Analytical Chemistry Lab



Drilling / Sample Method:		Laboratory Sample Types:	
 Macro-Core	 Hand Auger	 Geotechnical Lab	 Geotechnical & Analytical Chemistry Lab
 Expendable Well Tip	 Hydrovacuumed	 Analytical Chemistry Lab	



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Allan Engelhardt

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 4/21/23 - 4/21/23

TOTAL WELL DEPTH (FT. BGS): 9

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Lilli Unit 16-7

BORING ID: BH02R

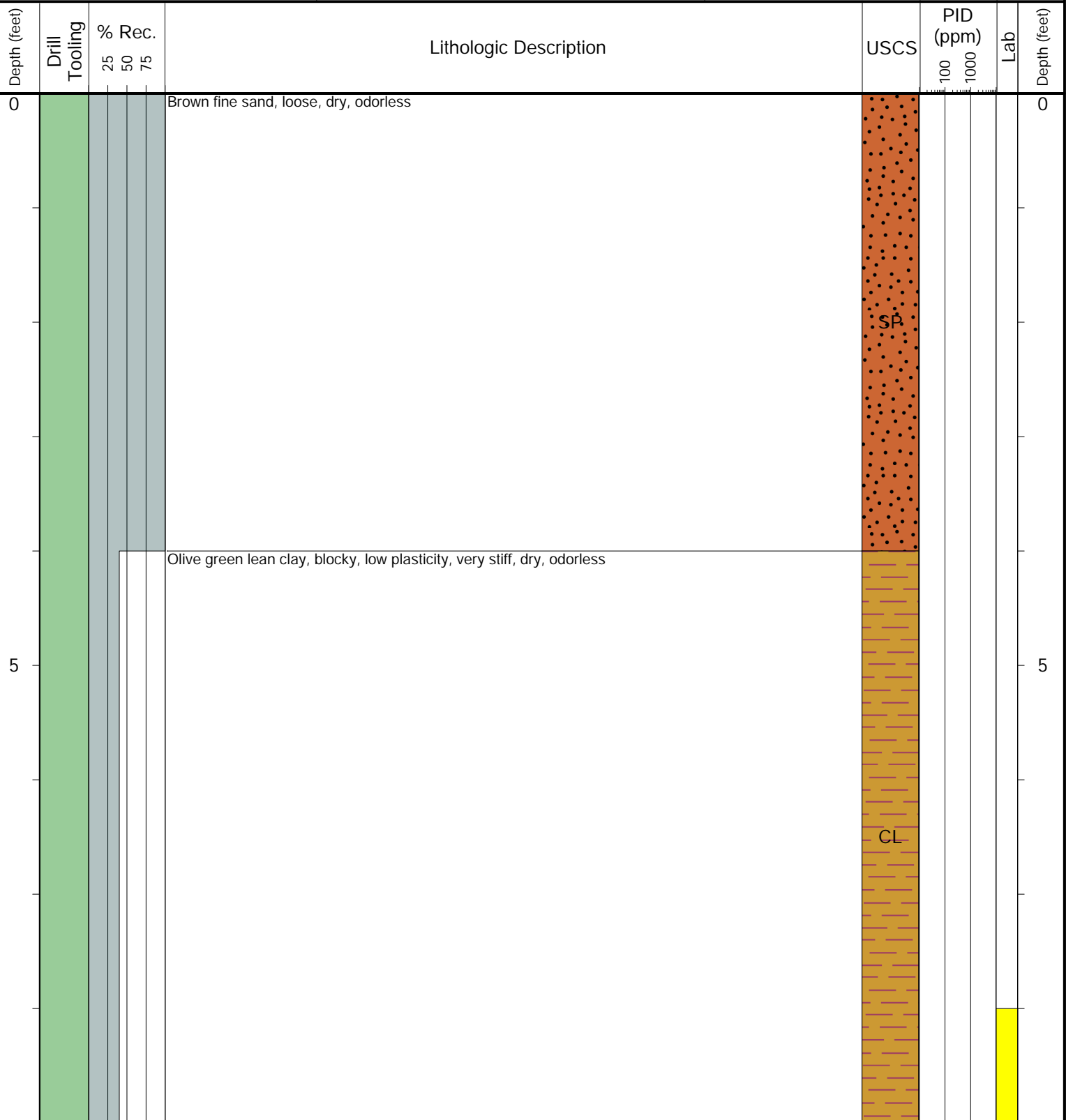
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.670899779929

LONGITUDE (NAD 83): -103.89912072093

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

☒ Macro-Core ☐ Hand Auger
☐ Expendable Well Tip ☐ Hydrovacuumed

Laboratory Sample Types:

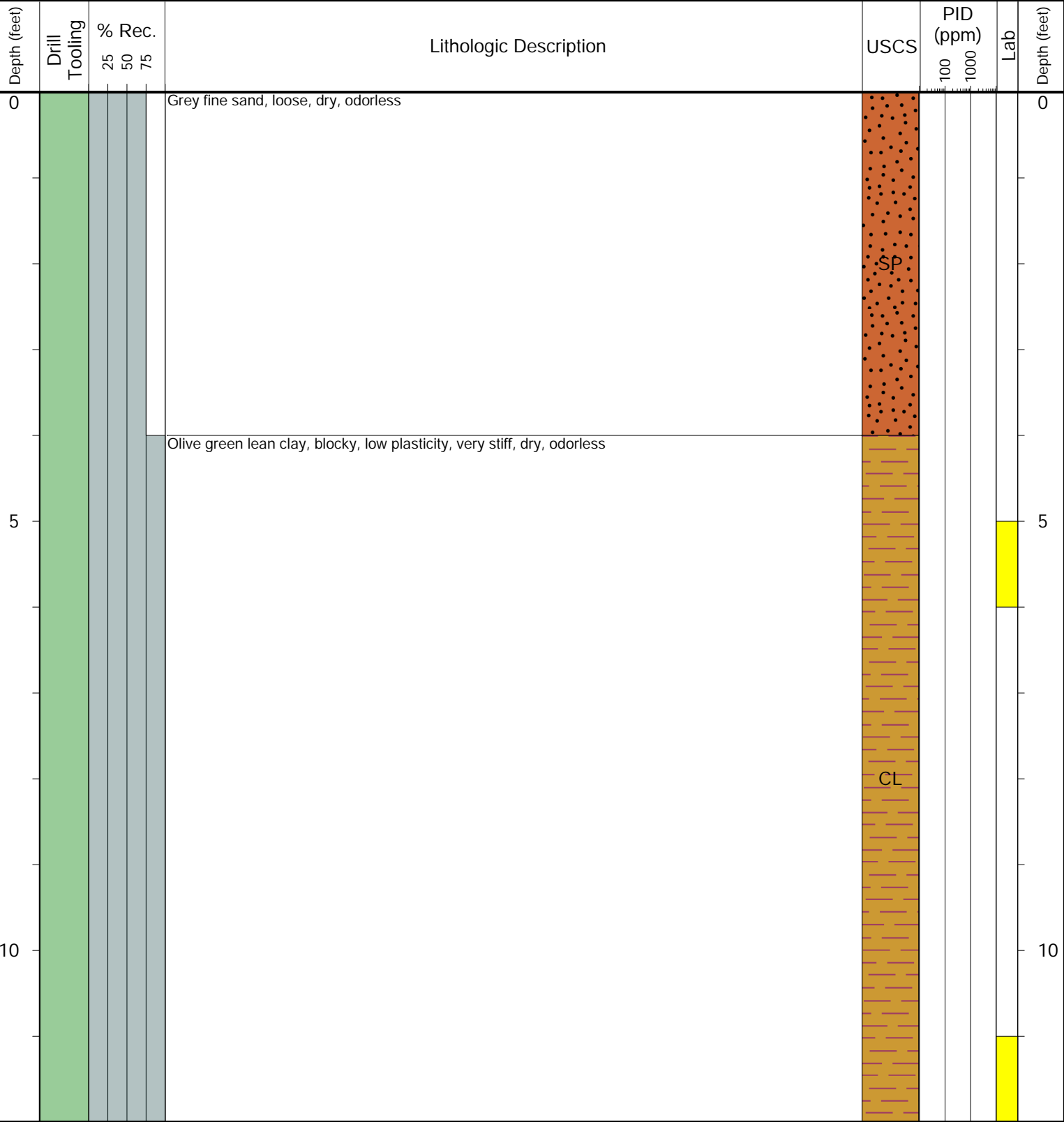
☒ Geotechnical Lab ☐ Geotechnical & Analytical Chemistry Lab
☐ Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble	Lilli Unit 16-7
LOGGED BY: Allan Engelhardt	
PROJECT MANAGER: Jake Whritenour	BORING ID: BH03
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Geoprobe	LOCATION: Weld County, Colorado
DRILL BIT SIZE (INCHES): 2.375"	LATITUDE (NAD 83): 40.670866007553
DATE STARTED - COMPLETED: 4/21/23 - 4/21/23	LONGITUDE (NAD 83): -103.89906076597
TOTAL WELL DEPTH (FT. BGS): 12	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): NM	ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Hand Auger

Hydrovacuumed

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Allan Engelhardt

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 4/21/23 - 4/21/23

TOTAL WELL DEPTH (FT. BGS): 23.5

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Lilli Unit 16-7

BORING ID: BH04

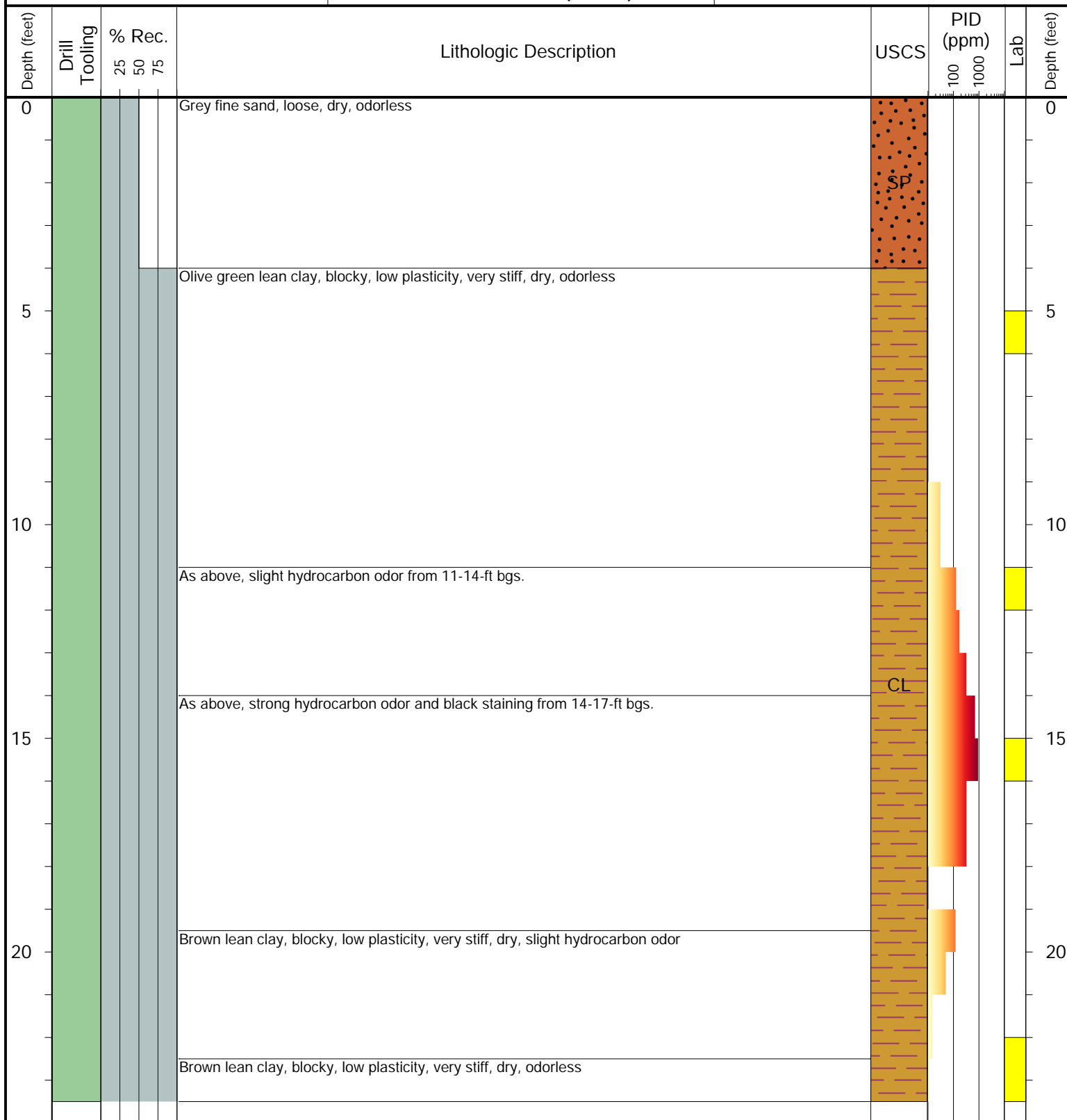
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.670828184553

LONGITUDE (NAD 83): -103.89911832597

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Hand Auger

Hydrovacuumed

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Allan Engelhardt

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 4/21/23 - 4/21/23

TOTAL WELL DEPTH (FT. BGS): 19

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Lilli Unit 16-7

BORING ID: BH05

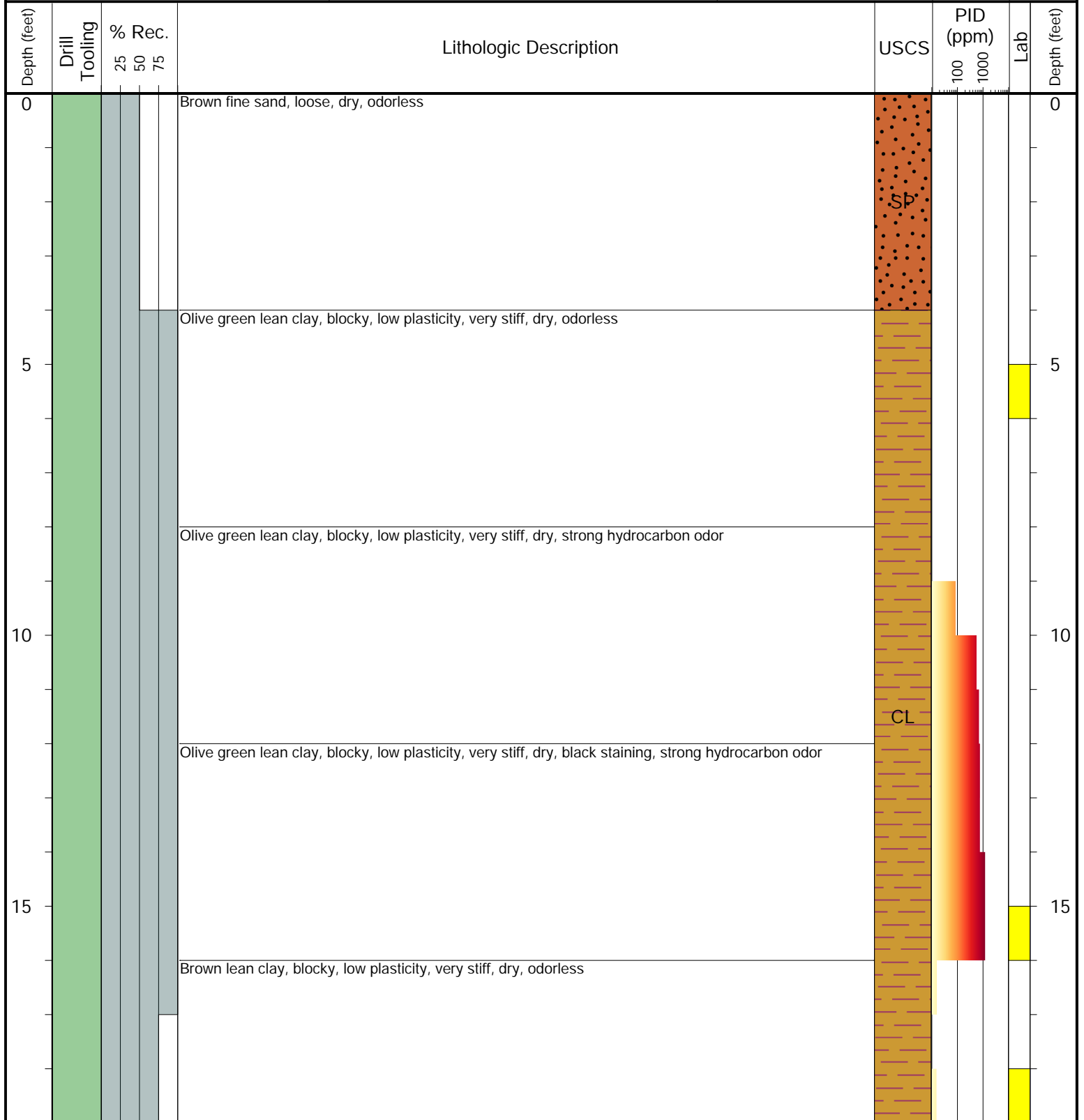
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.670858032069

LONGITUDE (NAD 83): -103.89917701894

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Hand Auger

Hydrovacuumed

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab



Geotechnical & Analytical Chemistry Lab



6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Allan Engelhardt

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 4/21/23 - 4/21/23

TOTAL WELL DEPTH (FT. BGS): 18.5

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Lilli Unit 16-7

BORING ID: BH06

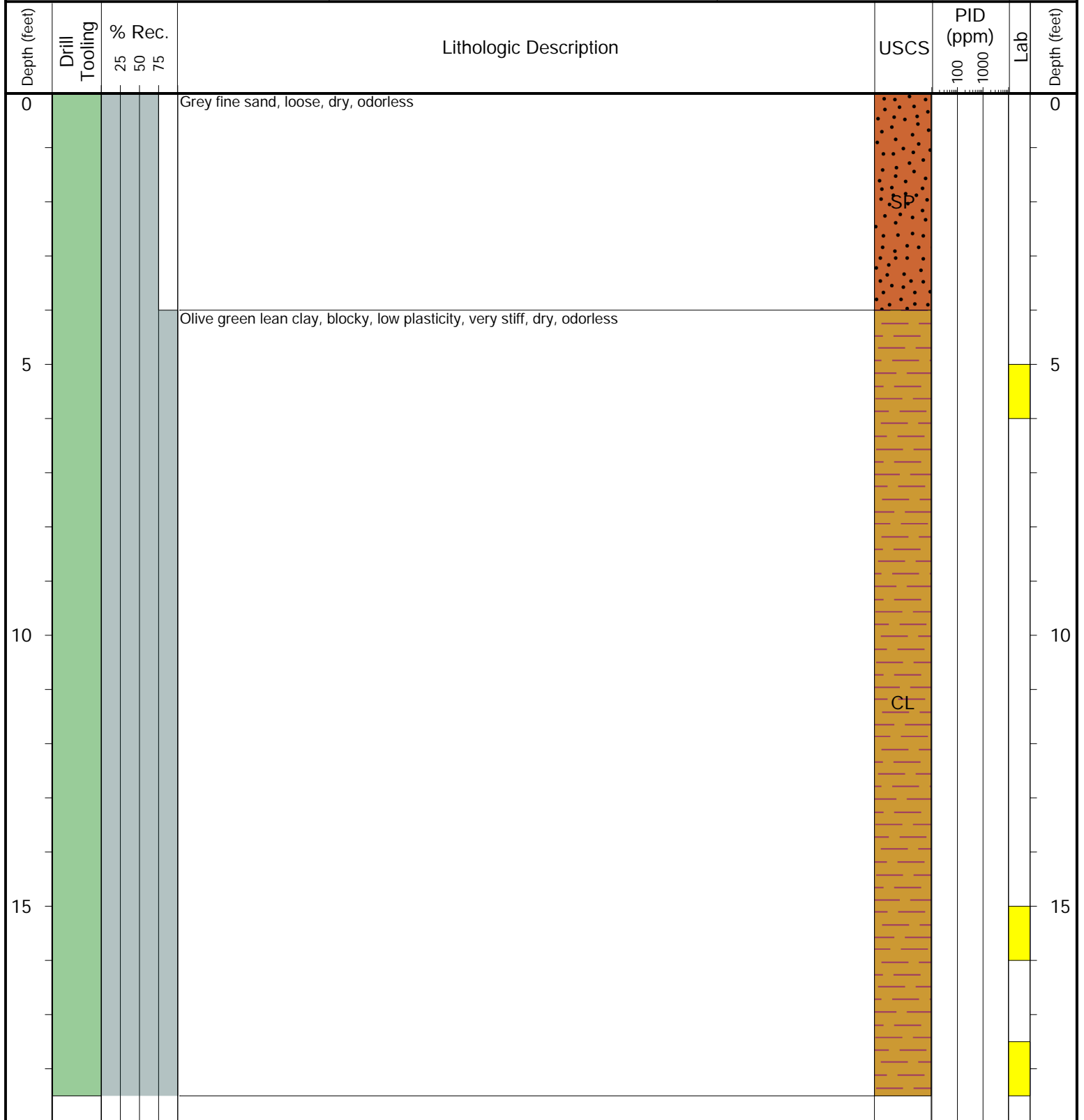
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.670777321467

LONGITUDE (NAD 83): -103.89912317465

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core
 Expendable Well Tip
 Hand Auger
 Hydrovacuumed

Laboratory Sample Types:

Geotechnical Lab
 Analytical Chemistry Lab
 Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble

LOGGED BY: Allan Engelhardt

PROJECT MANAGER: Jake Whritenour

DRILLING CONTRACTOR: Tasman

DRILLING EQUIPMENT: Geoprobe

DRILL BIT SIZE (INCHES): 2.375"

DATE STARTED - COMPLETED: 4/21/23 - 4/21/23

TOTAL WELL DEPTH (FT. BGS): 13

DEPTH WATER ENCOUNTERED (FT. BGS): NM

Lilli Unit 16-7

BORING ID: BH07

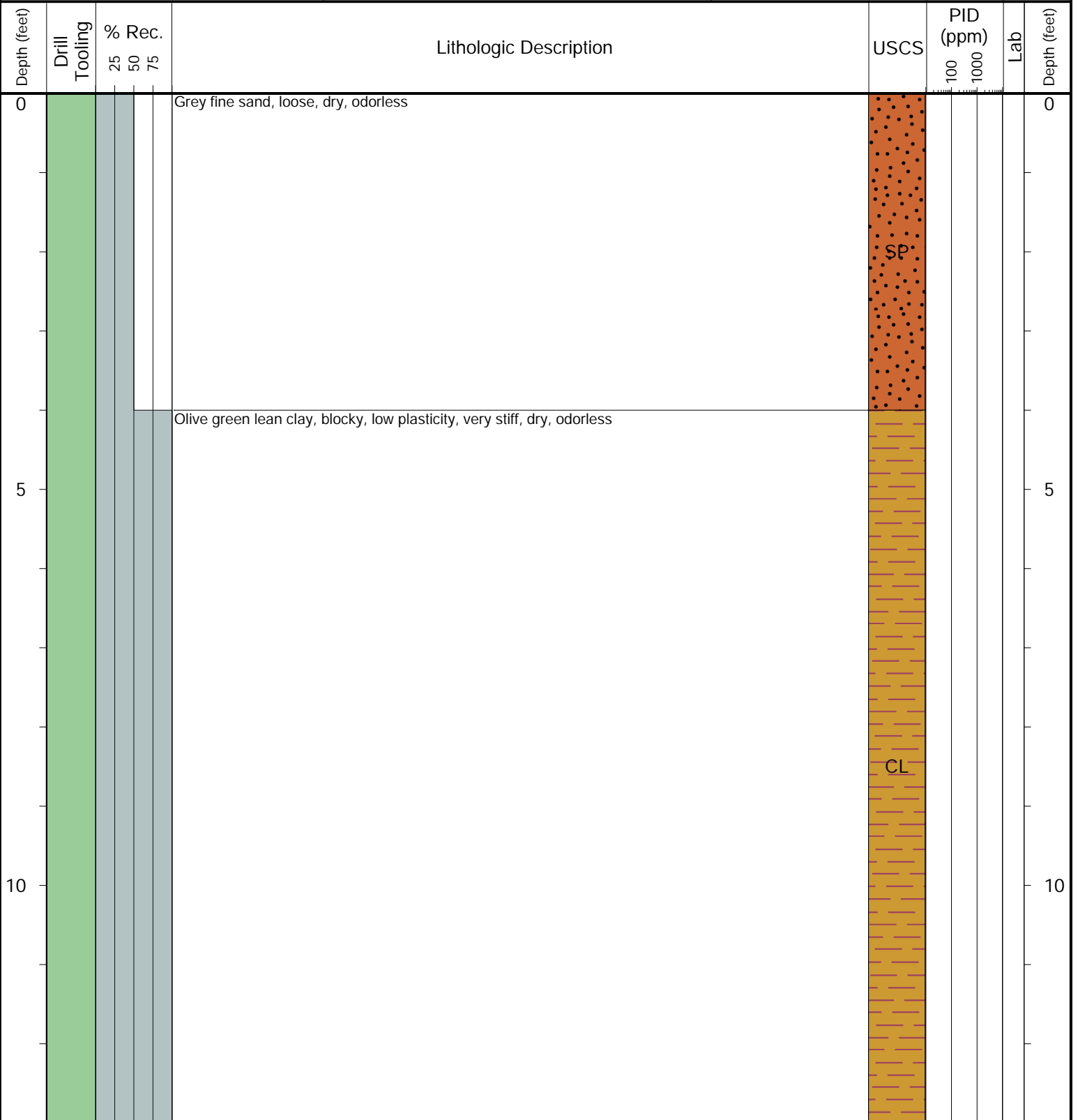
LOCATION: Weld County, Colorado

LATITUDE (NAD 83): 40.670856321313

LONGITUDE (NAD 83): -103.89924239391

GROUND ELEVATION (FT. AMSL): NM

ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core
 Expendable Well Tip
 Hand Auger
 Hydrovacuumed

Laboratory Sample Types:

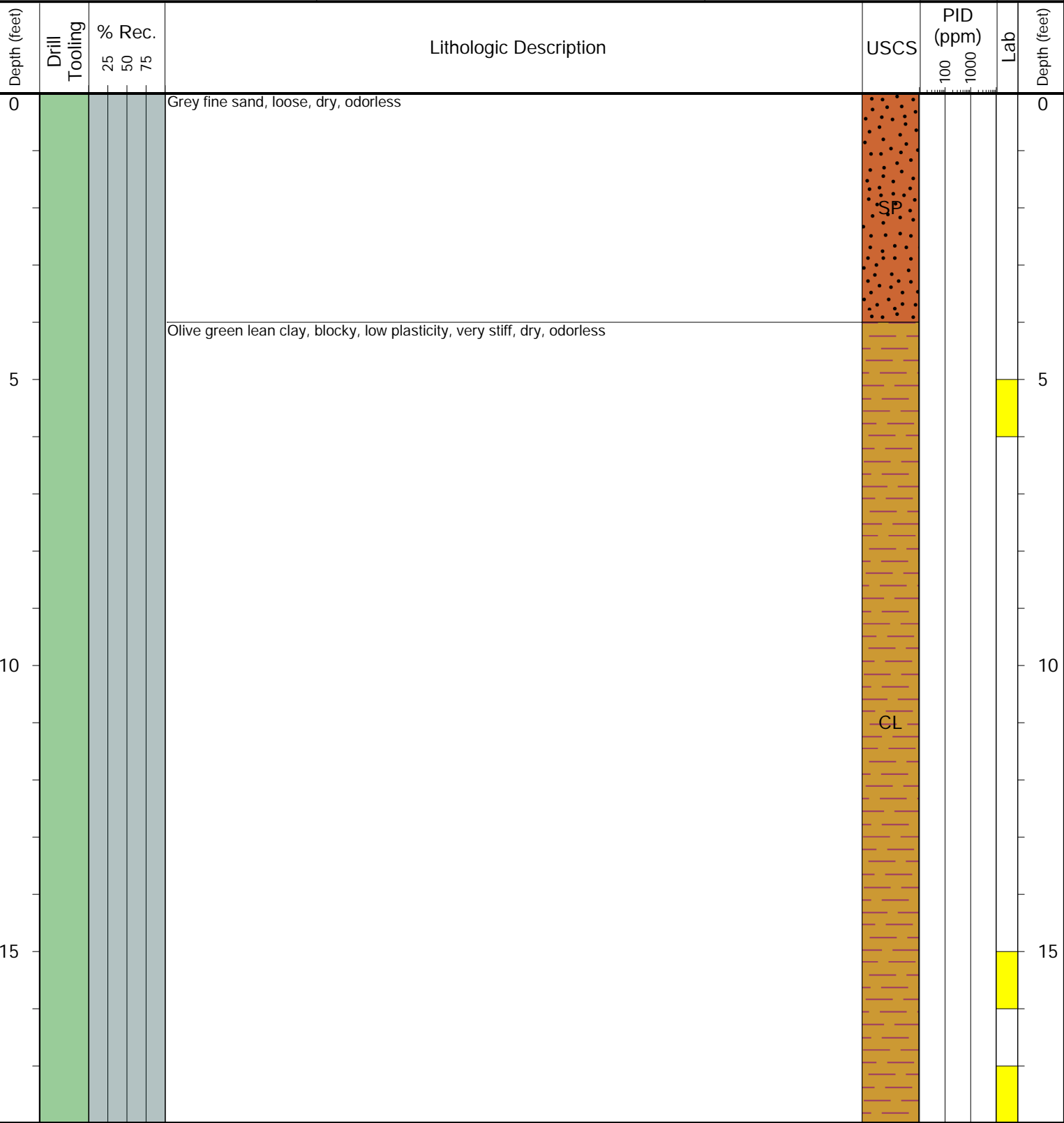
Geotechnical Lab
 Analytical Chemistry Lab
 Geotechnical & Analytical Chemistry Lab



TASMAN

6855 W. 119th Ave.
Broomfield, CO 80020

CLIENT: Noble	Lilli Unit 16-7
LOGGED BY: Allan Engelhardt	
PROJECT MANAGER: Jake Whritenour	BORING ID: BH08
DRILLING CONTRACTOR: Tasman	
DRILLING EQUIPMENT: Geoprobe	LOCATION: Weld County, Colorado
DRILL BIT SIZE (INCHES): 2.375"	LATITUDE (NAD 83): 40.670848338726
DATE STARTED - COMPLETED: 4/21/23 - 4/21/23	LONGITUDE (NAD 83): -103.89925641633
TOTAL WELL DEPTH (FT. BGS): 18	GROUND ELEVATION (FT. AMSL): NM
DEPTH WATER ENCOUNTERED (FT. BGS): NM	ABANDONMENT METHOD: Bentonite



Drilling / Sample Method:

Macro-Core

Expendable Well Tip

Hand Auger

Hydrovacuumed

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab