

**DCP PARMLEE #1  
JUNE 2021  
FORM 27 INITIAL INVESTIGATION REPORT**

**ATTACHMENTS**

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**TABLE 1**  
**DCP Midstream - Parmlee #1**  
**Volatile Organic Compound (VOC) Soil Sample Analytical Results Summary Table**

Sample ID	Date Sampled	Lab Report	PID Reading (PPM)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	Naphthalene (mg/kg)	TPH (mg/kg) <sup>2</sup>	Comments
<b>COGCC Protection of Groundwater Soil Screening Level Standards Risk &amp; MCL Based<sup>(1) &amp; 2)</sup> (mg/kg)</b>				<b>0.0026 (M)</b>	<b>0.69 (M)</b>	<b>0.78 (M)</b>	<b>9.9 (M)</b>	<b>0.0081 (R)</b>	<b>0.0087 (R)</b>	<b>0.0038 (R)</b>	<b>500</b>	
Parm1-BH01@15'	6/9/2021	2106201	1716.0	<0.0020	0.009	0.25	<0.010	<b>0.78</b>	<b>0.26</b>	<b>0.26</b>	<b>2422</b>	Monitoring Well (MW01)
Parm1-BH01@29'	6/9/2021	2106201	1179.0	<0.0020	0.18	0.15	<0.010	<b>0.45</b>	<b>0.22</b>	<b>0.073</b>	13	Monitoring Well (MW01)
Parm1-BH01@33'	6/9/2021	2106201	1.1	<0.0020	<0.0050	0.017	<0.010	<b>0.11</b>	<b>0.051</b>	<b>0.028</b>	102.4	Monitoring Well (MW01)
Parm1-BH02@28'	6/9/2021	2106201	2.9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW02); Representative Background Sample
Parm1-BH03@20'	6/9/2021	2106201	0.9	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW03)
Parm1-BH03@25'	6/9/2021	2106201	0.0	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW03)
Parm1-BH04@19'	6/10/2021	2106251	85.7	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW04)
Parm1-BH04@28'	6/10/2021	2106251	16.8	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW04)
Parm1-BH04@32'	6/10/2021	2106251	1.5	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW04)
Parm1-BH05@29'	6/10/2021	2106251	953.7	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	60	Monitoring Well (MW05)
Parm1-BH05@30'	6/10/2021	2106251	243.4	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	0.58	Monitoring Well (MW05)
Parm1-BH05@32'	6/10/2021	2106251	55.0	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	Monitoring Well (MW05)

**Notes:**

1). The environmental cleanup standards for soil that are applicable to this site are the Colorado Oil and Gas Conservation Commission (COGCC) standards for contaminants in soil according to Table 910-1 (Prior to January 15th, 2021) and Table 915-1 (Post January 15, 2021) of the COGCC 900 Series Rule for E&P Waste Management.

2). Standards for Soil are referenced from the 2 CCR 404-1, Table 915-1, effective January 15, 2021. If there is no pathway for communication with Groundwater, then residential soil screening levels apply for organic compounds and metals. If the Director determines that a pathway to Groundwater exists, then the protection of Groundwater soil screening levels will apply, secondary to actual measured concentrations of the contaminants of concern in Groundwater.

3). The letter "(R)" following a protection of Groundwater soil screening level indicates the concentration is derived from a risk-based approach. The letter "(M)" following a protection of Groundwater soil screening level indicates the concentration is derived from the drinking water MCL.

4). TPH - Total volatile (C<sub>4</sub> - C<sub>10</sub>) and extractable (C<sub>10</sub> - C<sub>30</sub>) petroleum hydrocarbons.

Concentrations (mg/kg) Risk Based and MCL Based.

mg/kg= Milligrams per kilogram.

ppm - Parts per million

Bold values indicate an exceedance of the Site Specific and/or the COGCC soil standards for the Site.

Table 915 note - If the method detection limit ("MDL") or practical quantitation limit ("PQL") for a pollutant is higher (less stringent) than a threshold concentration listed in Table 915-1, the Director may allow an Operator to substitute the MDL or PQL for the concentration listed in Table 915-1.

Table 2  
DCP Midstream - Parmlee #1  
Polyaromatic Hydrocarbon (PAHs) Soil Sample Results  
Weld County, Colorado

Sample ID	Date Sampled	Lab Report	PID Reading (PPM)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Benzo(a)pyrene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(1,2,3-cd)pyrene (mg/kg)	1-methylaphthalene (mg/kg)	2-methylaphthalene (mg/kg)	Pyrene (mg/kg)	Comments
COGCC Protection of Groundwater Soil Screening Level Standards Risk & MCL Based <sup>1, 4-7</sup> (mg/kg)	-	-	-	0.55 (R)	5.8 (R)	0.011 (R)	0.3 (R)	2.9 (R)	0.24 (M)	9 (R)	0.096 (R)	8.9 (R)	6.54 (R)	0.98 (R)	0.006 (R)	0.019 (R)	1.3 (R)	
Parm1-BH01@15'	6/9/2021	2106201	1716.0	0.0833	<0.00500	<0.00500	0.0114	<0.00500	<0.00500	0.0296	<0.00500	0.0217	0.255	<0.00500	1.45	2.30	0.0467	Monitoring Well (MW01)
Parm1-BH01@29'	6/9/2021	2106201	1179.0	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.0229	0.041	<0.00500	Monitoring Well (MW01)
Parm1-BH01@33'	6/9/2021	2106201	1.1	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00572	<0.00500	0.0124	0.0211	<0.00500	Monitoring Well (MW01)
Parm1-BH02@28'	6/9/2021	2106201	2.9	<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	Monitoring Well (MW02); Representative Background Sample
Parm1-BH03@20'	6/9/2021	2106201	0.9	<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	Monitoring Well (MW03)
Parm1-BH03@25'	6/9/2021	2106201	0.0	<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	Monitoring Well (MW03)
Parm1-BH04@19'	6/10/2021	2106251	85.7	<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	Monitoring Well (MW04)
Parm1-BH04@28'	6/10/2021	2106251	16.8	<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	Monitoring Well (MW04)
Parm1-BH04@32'	6/10/2021	2106251	1.5	<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	Monitoring Well (MW04)
Parm1-BH05@29'	6/10/2021	2106251	953.7	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00727	0.0106	<0.00500	0.0618	0.0837	<0.00500	Monitoring Well (MW05)
Parm1-BH05@30'	6/10/2021	2106251	243.4	<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	Monitoring Well (MW05)
Parm1-BH05@32'	6/10/2021	2106251	55.0	<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	Monitoring Well (MW05)

1). Standards for Soil are referenced from the 2008 404-1, Table 915-1, effective January 15, 2021.

2). The letter "(R)" following a protection of Groundwater soil screening level indicates the concentration is derived from a risk-based approach. The letter "(M)" following a protection of Groundwater soil screening level indicates the concentration is derived from the drinking water MCL.

mg/kg- Milligrams per kilogram.

PPM - Parts per million

PID - Photoionization Detector

Bold values indicate an exceedance of the COGCC soil standards for the Site.

Table 915 note - If the method detection limit ("MDL") or practical quantitation limit ("PQL") for a pollutant is higher (less stringent) than a threshold concentration listed in Table 915-1, the Director may allow an Operator to substitute the MDL or PQL for the concentration listed in Table 915-1.

Table 3  
DCP Midstream - Parmlee #1  
General Chemistry and Inorganic Soil Sample Results  
Weld County, Colorado

Sample ID	Date Sampled	Lab Report	PID Reading (PPM)	pH (pH units)	Specific Conductance (EC) (mmhos/cm)	Sodium Adsorption Ratio (SAR)	Boron (mg/l)	Arsenic <sup>3</sup> (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)	Comments
COGCC Protection of Groundwater Soil Screening Level Standards Risk & MCL Based <sup>(1 &amp; 2)</sup> (mg/kg)	-	-	-	6-8.3	<4 mmhos/cm	<6	2 (mg/L)	0.29 (M)	82 (M)	0.38 (M)	0.00067 (R)	46 (M)	14 (M)	26 (R)	0.26 (M)	0.8 (R)	370 (R)	
Parm1-BH01@15'	6/9/2021	2106201	1716.0	8.47	0.168	1.52	0.213	1.77	79.5	<0.228	<0.30	5.63	5.69	5.73	0.581	<0.0228	21.7	Monitoring Well (MW01)
Parm1-BH01@29'	6/9/2021	2106201	1179.0	8.11	0.158	1.50	0.149	1.38	31.5	<0.269	<0.30	2.47	7.10	7.63	0.876	<0.0269	33.8	Monitoring Well (MW01)
Parm1-BH01@33'	6/9/2021	2106201	1.1	7.72	0.115	0.682	0.0819	0.344	15.2	<0.233	<0.30	7.63	2.80	3.96	0.473	<0.0233	7.35	Monitoring Well (MW01)
Parm1-BH02@28'	6/9/2021	2106201	2.9	7.82	0.237	2.55	0.0157	2.02	20	<0.224	<0.30	1.75	3.48	3.05	0.396	<0.0224	20.7	Monitoring Well (MW02); Representative Background Sample
Parm1-BH03@20'	6/9/2021	2106201	0.9	7.99	0.0925	0.261	0.0344	5.5	69.8	<0.227	<0.30	9.33	9.29	9.58	1.09	<0.0227	40.3	Monitoring Well (MW03)
Parm1-BH03@25'	6/9/2021	2106201	0.0	7.86	0.225	0.423	0.0978	2.28	61.2	<0.217	<0.30	2.16	5.95	3.31	0.331	<0.0217	25.3	Monitoring Well (MW03)
Parm1-BH04@19'	6/10/2021	2106251	85.7	8.28	0.0603	0.597	0.312	4.13	32.6	<0.221	<0.30	8.64	8.75	9.76	1.22	<0.0221	41	Monitoring Well (MW04)
Parm1-BH04@28'	6/10/2021	2106251	16.8	8.19	0.135	2.17	0.0763	1.77	37.9	<0.238	<0.30	2.8	7.19	3.86	0.952	<0.0238	31.2	Monitoring Well (MW04)
Parm1-BH04@32'	6/10/2021	2106251	1.5	7.94	0.0768	1.02	0.143	8.46	427	0.328	<0.30	17.4	20.6	26.9	1.43	0.049	88.3	Monitoring Well (MW04)
Parm1-BH05@29'	6/10/2021	2106251	953.7	8.29	0.199	2.17	0.205	7.45	175	0.413	<0.30	14.5	12.2	15.7	1.92	0.0388	56.4	Monitoring Well (MW05)
Parm1-BH05@30'	6/10/2021	2106251	243.4	8.19	0.243	3.42	0.141	2.27	22.9	<0.244	<0.30	2.03	2.13	4.53	0.723	<0.0244	26.3	Monitoring Well (MW05)
Parm1-BH05@32'	6/10/2021	2106251	55.0	8.03	0.049	0.813	0.061	<0.242	28.5	<0.242	<0.30	7.28	7.18	4.72	1.13	<0.0242	19.4	Monitoring Well (MW05)

mg/kg= Milligrams per kilogram.

PPM - Parts per million

PID - Photoionization Detector

Bold values indicate an exceedance of the COGCC soil standards for the Site.

Table 915 note - If the method detection limit (“MDL”) or practical quantitation limit (“PQL”) for a pollutant is higher (less stringent) than a threshold concentration listed in Table 915-1, the Director may allow an Operator to substitute the MDL or PQL for the concentration listed in Table 915-1.



**TABLE 4**  
**GROUNDWATER ANALYTICAL RESULTS**  
**DCP MIDSTREAM - PARMLEE #1**  
**WELD COUNTY, COLORADO**

Location Identification	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	1,2,4-Trimethylbenzene (µg/l)	1,3,5-Trimethylbenzene (µg/l)	Naphthalene (µg/l)	Total Dissolved Solids (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Comments
COGCC Standards (µg/L)		5	560	700	1,400	67	67	140	(<1.25 x local background)	(250 mg/l or <1.25 x local background)	(250 mg/l or <1.25 x local background)	
Parm1-BH01 (MW01)	6/22/2021	<b>3600</b>	<b>4960</b>	<b>978</b>	<b>8300</b>	<b>591</b>	<b>267</b>	107	770	31.2	36.0	MW01
Parm1-BH02 (MW02)	6/22/2021	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<16.0	684	<31.2	40.7	MW02
Parm1-BH03 (MW03)	6/22/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<4.00	NS	NS	NS	MW03
Parm1-BH04 (MW04)	6/22/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<4.00	NS	NS	NS	MW04
Parm1-BH05 (MW05)	6/22/2021	<b>80.9</b>	<1.00	5.43	320	<b>166</b>	<b>163</b>	24.6	850	38.7	<31.2	MW05

Notes:

1). The environmental cleanup standards for groundwater that are applicable to this site are the Colorado Oil and Gas Conservation Commission (COGCC) standards for contaminants in groundwater according to Table 910-1 (Prior to January 15th, 2021) and Table 915-1 (Post January 15, 2021) of the COGCC 900 Series Rule for E&P Waste Management.

**Bold red** values indicate an exceedance of the COGCC groundwater standards for the Site.

µg/L = micrograms per liter.

NS = Not Sampled

**TABLE 5**  
**INVESTIGATION LOCATION COORDINATES**  
**DCP MIDSTREAM - PARMLEE #1**  
**WELD COUNTY, COLORADO**

<b>Location</b>	<b>Type</b>	<b>Date Collected</b>	<b>Easting (X)</b>	<b>Northing (Y)</b>	<b>Comments</b>
Parm1-BH01	Borehole/ Monitoring Well	6/22/2021	-104.26605165300	40.25521625900	WGS 84 - Trimble GPS
Parm1-BH02	Borehole/ Monitoring Well	6/22/2021	-104.26582728300	40.25518457700	WGS 84 - Trimble GPS
Parm1-BH03	Borehole/ Monitoring Well	6/22/2021	-104.26607506000	40.25508151700	WGS 84 - Trimble GPS
Parm1-BH04	Borehole/ Monitoring Well	6/22/2021	-104.26622087400	40.25524775700	WGS 84 - Trimble GPS
Parm1-BH05	Borehole/ Monitoring Well	6/22/2021	-104.26603948100	40.25532223400	WGS 84 - Trimble GPS

**TABLE 6**  
**JUNE 2021**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**DCP MIDSTREAM - PARMLEE #1**  
**WELD COUNTY, COLORADO**

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
Parm1-BH01 (MW01)	6/22/2021	29.78	-	-	34.06	4605.91	4,576.13	NC
Parm1-BH02 (MW02)	6/22/2021	30.98	-	-	33.31	4607.07	4,576.09	NC
Parm1-BH03 (MW03)	6/22/2021	29.52	-	-	32.86	4605.68	4,576.16	NC
Parm1-BH04 (MW04)	6/22/2021	29.01	-	-	32.30	4604.83	4,575.82	NC
Parm1-BH05 (MW05)	6/22/2021	29.75	-	-	32.19	4605.65	4,575.90	NC

Notes:

1- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement collected during the most recent monitoring event.

amsl = feet above mean sea level

TOC = top of casing

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

LNAPL relative density was assumed to be approximately 0.75

NC = Not calculated



**Parmlee #1**



**Release Location**

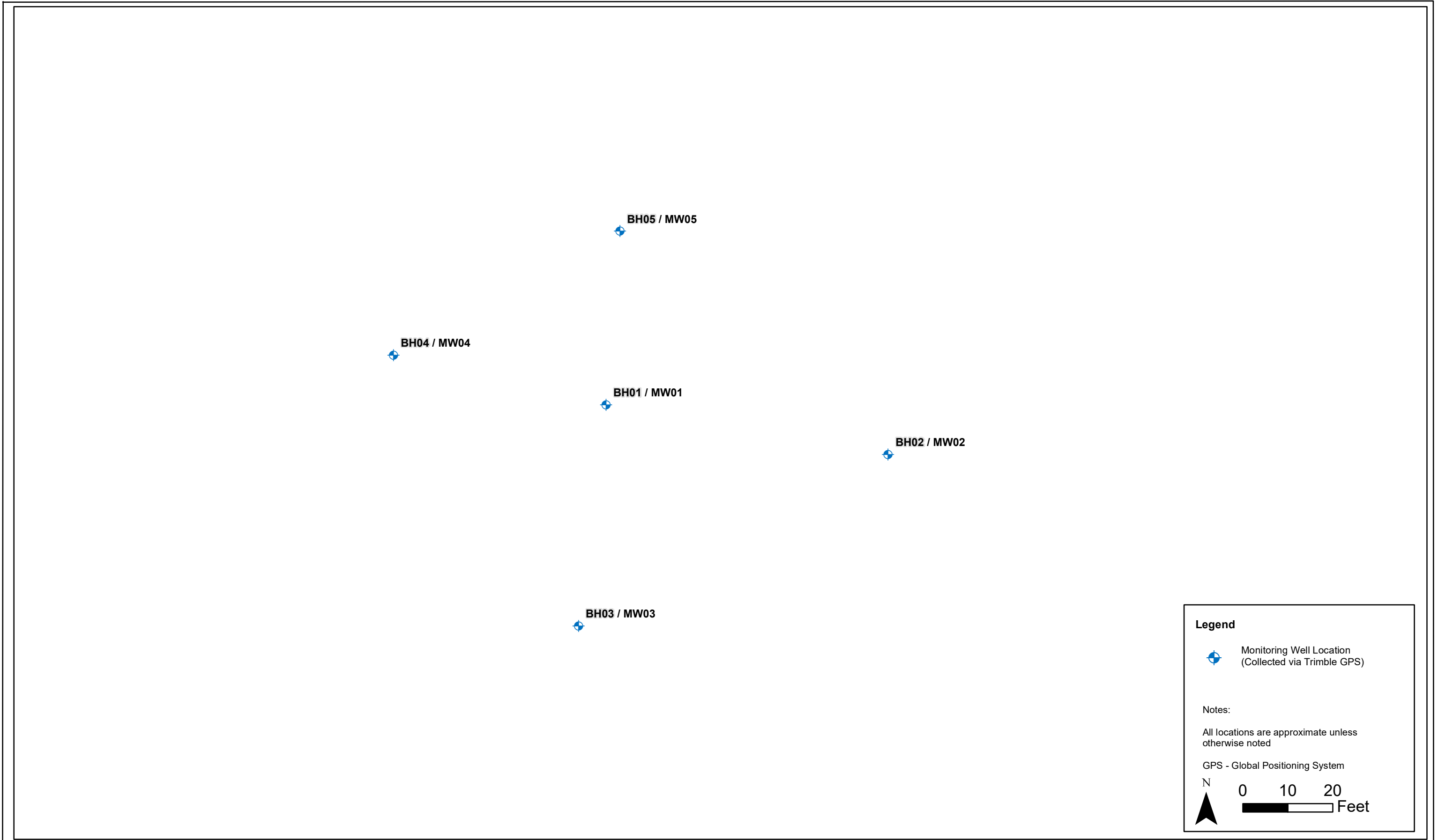


Site Location

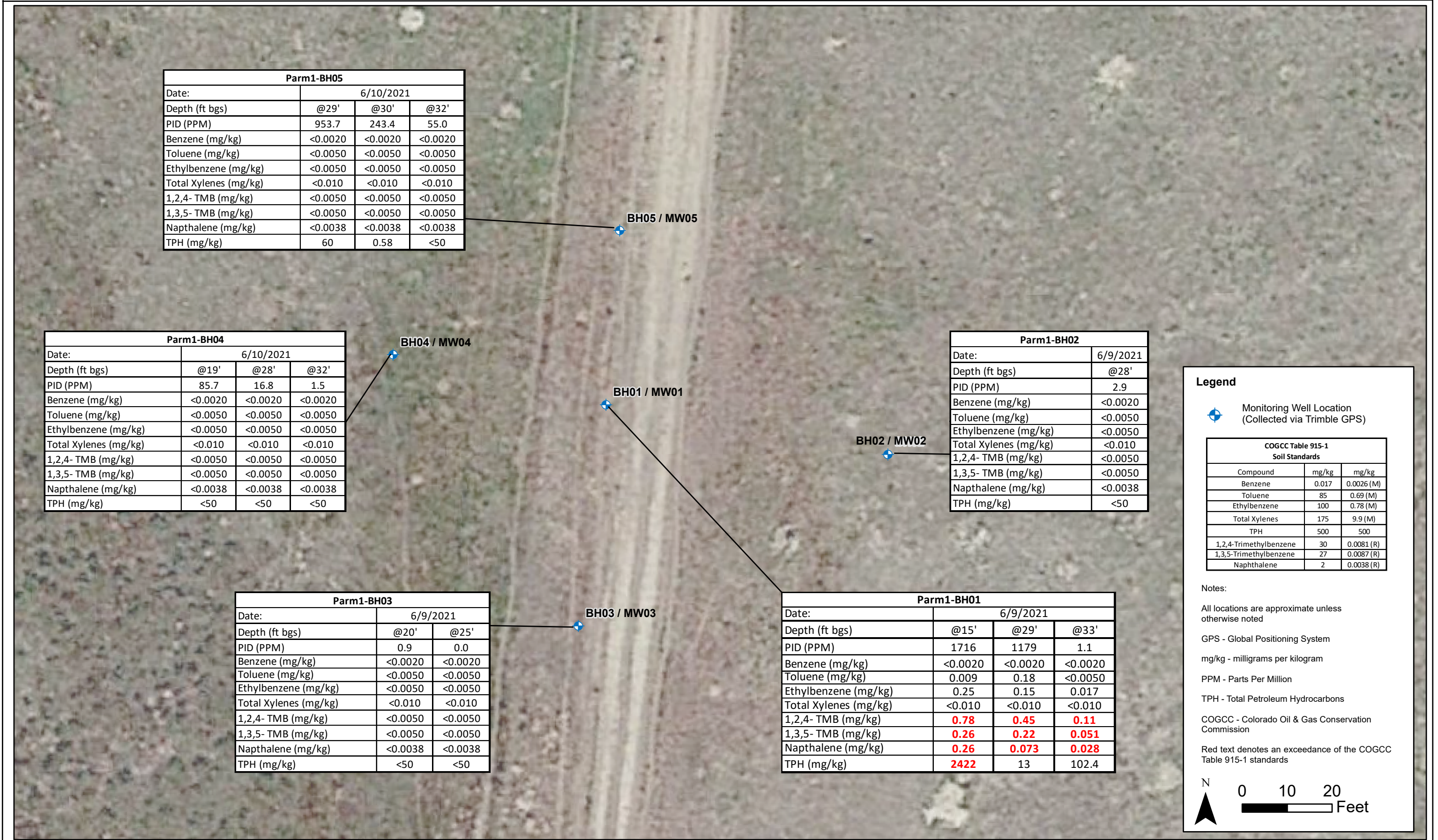
0 750 1,500 Feet

## **Figure 1**

Site Location Map  
Parmlee #1  
SENE S1 T3N R62W  
Weld County, Colorado



DATE: July 2021	<div></div> <div>Tasman Geosciences, Inc. 6855 W. 119th Ave Broomfield, CO 80020</div>	<div>DCP Midstream Parmlee #1 S1 T3N R62W Weld, Colorado</div>	<div>Site Overview Map</div>	<div>Figure 2</div>
DESIGNED BY: B. Humphrey				
DRAWN BY: C. Ambler				



DATE:	July 2021
DESIGNED BY:	B. Humphrey
DRAWN BY:	C. Ambler



**TASMAN**  
GEOSCIENCES

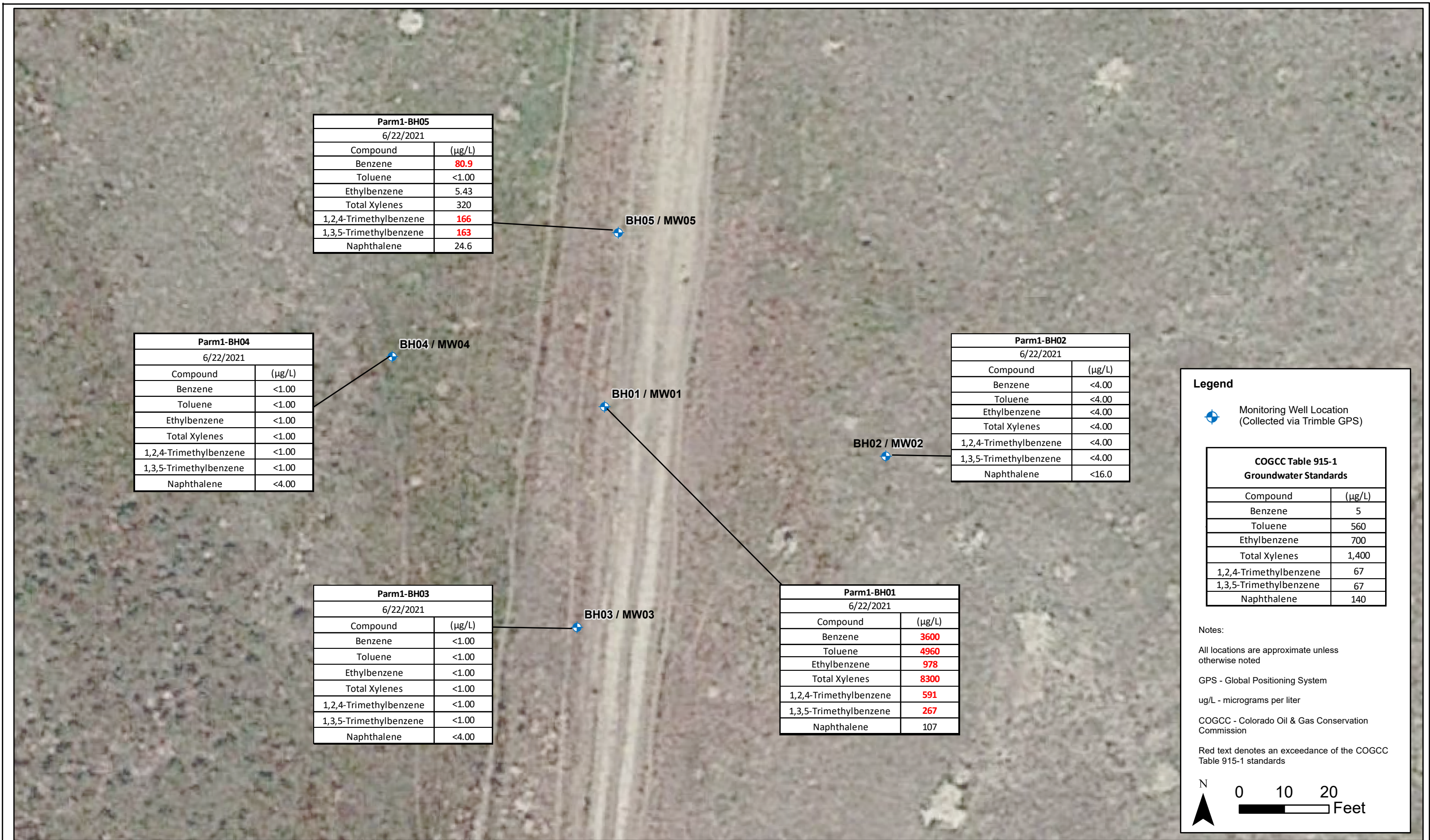
Tasman Geosciences, Inc.  
6855 W. 119th Ave  
Broomfield, CO 80020

DCP Midstream  
Parmlee #1  
S1 T3N R62W  
Weld, Colorado

Soil Analytical Results Map  
(June 9 - 10, 2021)

Figure  
3





DATE: July 2021

DESIGNED BY:  
B. Humphrey

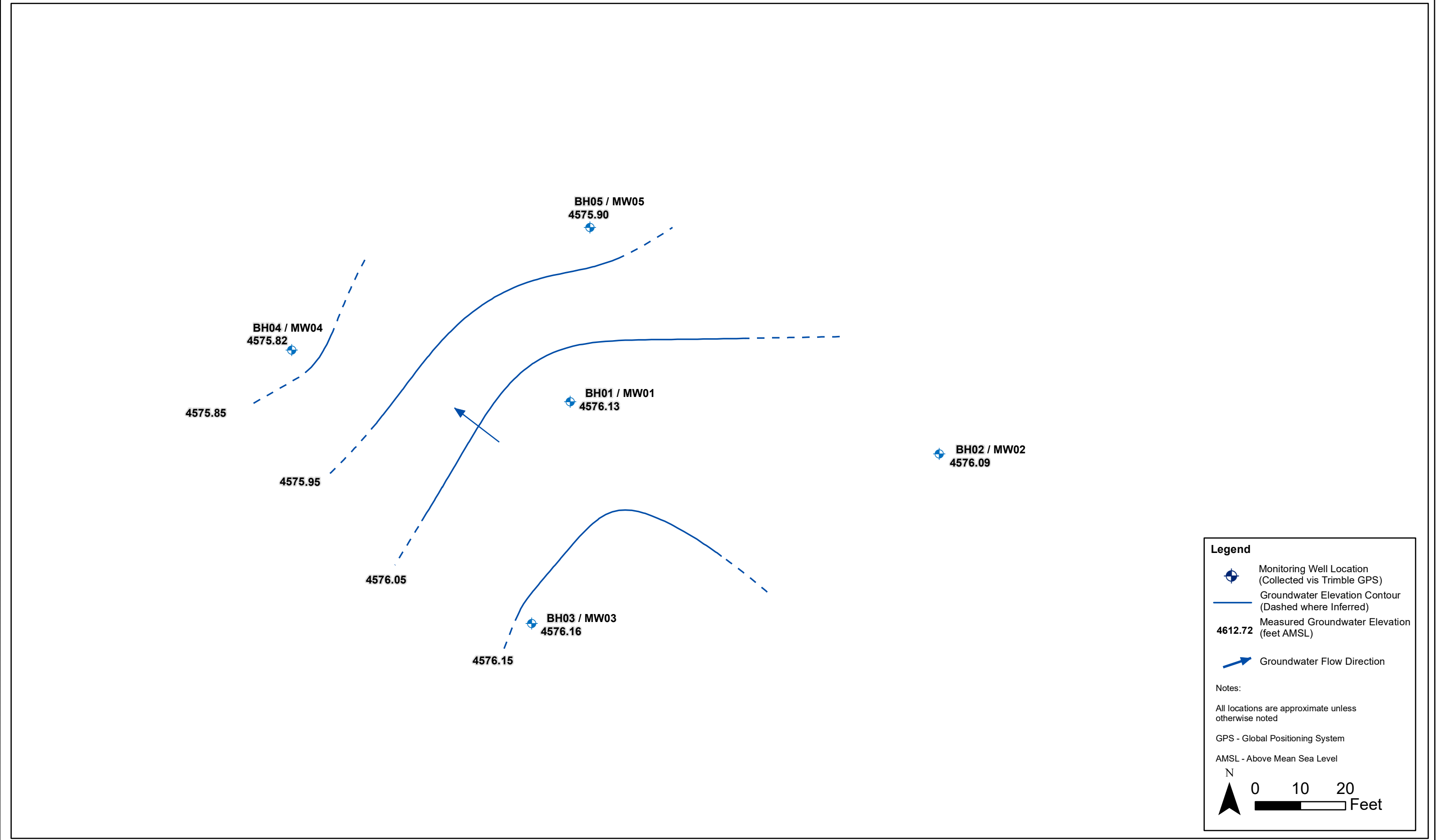
DRAWN BY:  
C. Ambler



DCP Midstream  
Parmlee #1  
S1 T3N R62W  
Weld, Colorado

Groundwater Analytical  
Results Map  
(June 22, 2021)

Figure  
4





# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 02, 2021

Brian Humphrey  
Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield, CO 80020  
RE: DCP - Parmlee #1  
Work Order #2106201

Enclosed are the results of analyses for samples received by Summit Scientific on 06/09/21 18:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury  
President



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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:54

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Parm1-BH01@15'	2106201-01	Soil	06/09/21 11:30	06/09/21 18:15
Parm1-BH01@29'	2106201-02	Soil	06/09/21 12:05	06/09/21 18:15
Parm1-BH01@33'	2106201-03	Soil	06/09/21 12:20	06/09/21 18:15
Parm1-BH02@28'	2106201-04	Soil	06/09/21 13:40	06/09/21 18:15
Parm1-BH03@20'	2106201-05	Soil	06/09/21 16:09	06/09/21 18:15
Parm1-BH03@25'	2106201-06	Soil	06/09/21 16:20	06/09/21 18:15

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

S<sub>2</sub>

2106201

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

Page 1 of 1

Client: DCP/Tasman

Project Manager: Brian Humphrey / Chandler Cole

Address: 6855 W. 119th Ave

E-Mail: bhumphrey@tasman-geo.com; swwweather3@drpmidstream.com

City/State/Zip: Broomfield CO 80020

jwatts@tasman-geo.com; cc@drpmidstream.com

Phone: 303-487-1228

Project Name: Parmlee #1

Sampler Name: Vade Scruggs

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other	Table 915-1								
1	Parm1-BH01@15'	6/9/21	1130	4			X			X			X								
2	Parm1-BH01@24'		1205	4			X			X			X								
3	Parm1-BH01@35'		1220	4			X			X			X								
4	Parm1-BH02@28'		1340	4			X			X			X								
5	Parm1-BH03@20'		1609	4			X			X			X								
6	Parm1-BH03@25'		1620	4			X			X			X								
7																					
8																					
9																					
10																					

Relinquished by: Vade	Date/Time: 6.9.21 1815	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
				Same Day _____ 72 hours _____	
				24 hours _____ Standard <input checked="" type="checkbox"/>	
				48 hours _____	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: 6.9	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

2106201

## Sample Receipt Checklist

S2 Work Order \_\_\_\_\_

Client: PLP/Tasman Client Project ID: Parmlee #1Shipped Via: ☒ H.D./P.U./FedEx/UPS/USPS/Other \_\_\_\_\_ Airbill #: \_\_\_\_\_Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
(Describe)

Temp (°C)

6.9

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<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) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

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

Custodian Printed Name or Initials

Signature of Custodian

Date/Time

6.9.21



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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:54

**Parm1-BH01@15'**

**2106201-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0280	06/12/21	06/13/21	EPA 8260B	
<b>Toluene</b>	<b>0.0090</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.25</b>	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.78</b>	0.0050	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.26</b>	0.0050	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.26</b>	0.0038	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>22</b>	0.50	"	"	"	"	"	"	

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		69.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		173 %	21-167		"	"	"	"	S-02

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>2100</b>	50	mg/kg	1	BEF0282	06/12/21	06/13/21	EPA 8015M	
<b>C28-C36 (ORO)</b>	<b>300</b>	50	"	"	"	"	"	"	

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		121 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@15'**  
**2106201-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Acenaphthene</b>	<b>0.0833</b>	0.00500	mg/kg	1	BEF0601	06/30/21	07/01/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	<b>0.0114</b>	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.0296</b>	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
<b>Fluoranthene</b>	<b>0.0217</b>	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.255</b>	0.0500	"	10	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	1	"	"	"	"	
<b>Pyrene</b>	<b>0.0467</b>	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>1.45</b>	0.0500	"	10	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>2.30</b>	0.0500	"	"	"	"	"	"	

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		46.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		45.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.213</b>	0.0100	mg/L	1	BEF0328	06/15/21	06/17/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/09/21 11:30**

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

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@15'**  
**2106201-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.77	0.228	mg/kg dry	1	BEF0275	06/11/21	06/15/21	EPA 6020B
Barium	79.5	0.456	"	"	"	"	"	"
Cadmium	ND	0.228	"	"	"	"	"	"
Copper	5.63	0.456	"	"	"	"	"	"
Lead	5.69	0.228	"	"	"	"	"	"
Nickel	5.73	0.456	"	"	"	"	"	"
Selenium	0.581	0.296	"	"	"	"	"	"
Silver	ND	0.0228	"	"	"	"	"	"
Zinc	21.7	0.456	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0314	06/15/21	06/16/21	EPA 7196A	

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

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.20	0.0570	mg/L dry	1	BEF0298	06/14/21	06/16/21	EPA 6020B	
Magnesium	4.06	0.0570	"	"	"	"	"	"	
Sodium	22.0	0.0570	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.52	0.00100	units	1	BEF0369	06/17/21	06/17/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@15'**  
**2106201-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	BEF0240	06/10/21	06/11/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.168	0.0100	mmhos/cm	1	BEF0322	06/15/21	06/15/21	EPA 120.1	

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

Date Sampled: **06/09/21 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.47		pH Units	1	BEF0321	06/15/21	06/15/21	EPA 9045D	

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@29'**  
**2106201-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0280	06/12/21	06/13/21	EPA 8260B	
<b>Toluene</b>	<b>0.18</b>	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.15</b>	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.45</b>	0.0050	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.22</b>	0.0050	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.073</b>	0.0038	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>13</b>	0.50	"	"	"	"	"	"	

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		60.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		128 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0282	06/12/21	06/13/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@29'**  
**2106201-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0229</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0410</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		89.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.149</b>	0.0100	mg/L	1	BEF0328	06/15/21	06/17/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/09/21 12:05**

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

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@29'**  
**2106201-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.38	0.269	mg/kg dry	1	BEF0275	06/11/21	06/15/21	EPA 6020B
Barium	31.5	0.538	"	"	"	"	"	"
Cadmium	ND	0.269	"	"	"	"	"	"
Copper	2.47	0.538	"	"	"	"	"	"
Lead	7.10	0.269	"	"	"	"	"	"
Nickel	7.63	0.538	"	"	"	"	"	"
Selenium	0.876	0.349	"	"	"	"	"	"
Silver	ND	0.0269	"	"	"	"	"	"
Zinc	33.8	0.538	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0314	06/15/21	06/16/21	EPA 7196A	

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

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	10.8	0.0672	mg/L dry	1	BEF0298	06/14/21	06/16/21	EPA 6020B	
Magnesium	3.83	0.0672	"	"	"	"	"	"	
Sodium	22.6	0.0672	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.50	0.00100	units	1	BEF0369	06/17/21	06/17/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@29'**  
**2106201-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	74.4		%	1	BEF0240	06/10/21	06/11/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.158	0.0100	mmhos/cm	1	BEF0322	06/15/21	06/15/21	EPA 120.1	

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

Date Sampled: **06/09/21 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.11		pH Units	1	BEF0321	06/15/21	06/15/21	EPA 9045D	

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@33'**  
**2106201-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0280	06/12/21	06/13/21	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.017</b>	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.11</b>	0.0050	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.051</b>	0.0050	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.028</b>	0.0038	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>2.4</b>	0.50	"	"	"	"	"	"	

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		86.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>100</b>	50	mg/kg	1	BEF0282	06/12/21	06/13/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		99.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@33'**  
**2106201-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.00572</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0124</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0211</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		76.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0819</b>	0.0100	mg/L	1	BEF0328	06/15/21	06/17/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/09/21 12:20**

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

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@33'**  
**2106201-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	0.344	0.233	mg/kg dry	1	BEF0275	06/11/21	06/15/21	EPA 6020B
Barium	15.2	0.467	"	"	"	"	"	"
Cadmium	ND	0.233	"	"	"	"	"	"
Copper	7.63	0.467	"	"	"	"	"	"
Lead	2.80	0.233	"	"	"	"	"	"
Nickel	3.96	0.467	"	"	"	"	"	"
Selenium	0.473	0.303	"	"	"	"	"	"
Silver	ND	0.0233	"	"	"	"	"	"
Zinc	7.35	0.467	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0314	06/15/21	06/16/21	EPA 7196A	

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

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3.31	0.0583	mg/L dry	1	BEF0298	06/14/21	06/16/21	EPA 6020B	
Magnesium	1.10	0.0583	"	"	"	"	"	"	
Sodium	5.61	0.0583	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.682	0.00100	units	1	BEF0369	06/17/21	06/17/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH01@33'**  
**2106201-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.7		%	1	BEF0240	06/10/21	06/11/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.115	0.0100	mmhos/cm	1	BEF0322	06/15/21	06/15/21	EPA 120.1	

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

Date Sampled: **06/09/21 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.72		pH Units	1	BEF0321	06/15/21	06/15/21	EPA 9045D	

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH02@28'**  
**2106201-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0280	06/12/21	06/13/21	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: **06/09/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0282	06/12/21	06/13/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		100 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH02@28'**  
**2106201-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		51.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.4 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0157	0.0100	mg/L	1	BEF0328	06/15/21	06/17/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/09/21 13:40**

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH02@28'**  
**2106201-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.02	0.224	mg/kg dry	1	BEF0275	06/11/21	06/15/21	EPA 6020B
Barium	20.0	0.447	"	"	"	"	"	"
Cadmium	ND	0.224	"	"	"	"	"	"
Copper	1.75	0.447	"	"	"	"	"	"
Lead	3.48	0.224	"	"	"	"	"	"
Nickel	3.05	0.447	"	"	"	"	"	"
Selenium	0.396	0.291	"	"	"	"	"	"
Silver	ND	0.0224	"	"	"	"	"	"
Zinc	20.7	0.447	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0314	06/15/21	06/16/21	EPA 7196A	

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

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	10.1	0.0559	mg/L dry	1	BEF0298	06/14/21	06/16/21	EPA 6020B	
Magnesium	3.75	0.0559	"	"	"	"	"	"	
Sodium	37.4	0.0559	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.55	0.00100	units	1	BEF0369	06/17/21	06/17/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH02@28'**  
**2106201-04 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.5		%	1	BEF0240	06/10/21	06/11/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.237	0.0100	mmhos/cm	1	BEF0322	06/15/21	06/15/21	EPA 120.1	

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

Date Sampled: **06/09/21 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.82		pH Units	1	BEF0321	06/15/21	06/15/21	EPA 9045D	

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@20'**  
**2106201-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0280	06/12/21	06/13/21	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: **06/09/21 16:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.9 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0282	06/12/21	06/14/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/09/21 16:09**

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

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:54

**Parm1-BH03@20'**

**2106201-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		92.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0344</b>	0.0100	mg/L	1	BEF0328	06/15/21	06/17/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/09/21 16:09**

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

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



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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@20'**  
**2106201-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	5.50	0.227	mg/kg dry	1	BEF0275	06/11/21	06/15/21	EPA 6020B
Barium	69.8	0.453	"	"	"	"	"	"
Cadmium	ND	0.227	"	"	"	"	"	"
Copper	9.33	0.453	"	"	"	"	"	"
Lead	9.29	0.227	"	"	"	"	"	"
Nickel	9.58	0.453	"	"	"	"	"	"
Selenium	1.09	0.295	"	"	"	"	"	"
Silver	ND	0.0227	"	"	"	"	"	"
Zinc	40.3	0.453	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0314	06/15/21	06/16/21	EPA 7196A	

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

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	10.7	0.0567	mg/L dry	1	BEF0298	06/14/21	06/16/21	EPA 6020B	
Magnesium	3.89	0.0567	"	"	"	"	"	"	
Sodium	3.92	0.0567	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.261	0.00100	units	1	BEF0369	06/17/21	06/17/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@20'**  
**2106201-05 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.2		%	1	BEF0240	06/10/21	06/11/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0925	0.0100	mmhos/cm	1	BEF0322	06/15/21	06/15/21	EPA 120.1	

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

Date Sampled: **06/09/21 16:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.99		pH Units	1	BEF0321	06/15/21	06/15/21	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@25'**  
**2106201-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0280	06/12/21	06/13/21	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: **06/09/21 16:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0282	06/12/21	06/14/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		97.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@25'**  
**2106201-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		74.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0978	0.0100	mg/L	1	BEF0328	06/15/21	06/17/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/09/21 16:20**

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@25'**  
**2106201-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.28	0.217	mg/kg dry	1	BEF0275	06/11/21	06/15/21	EPA 6020B
Barium	61.2	0.433	"	"	"	"	"	"
Cadmium	ND	0.217	"	"	"	"	"	"
Copper	2.16	0.433	"	"	"	"	"	"
Lead	5.95	0.217	"	"	"	"	"	"
Nickel	3.31	0.433	"	"	"	"	"	"
Selenium	0.331	0.282	"	"	"	"	"	"
Silver	ND	0.0217	"	"	"	"	"	"
Zinc	25.3	0.433	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0314	06/15/21	06/16/21	EPA 7196A	

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

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	24.0	0.0542	mg/L dry	1	BEF0298	06/14/21	06/16/21	EPA 6020B	
Magnesium	9.87	0.0542	"	"	"	"	"	"	
Sodium	9.74	0.0542	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.423	0.00100	units	1	BEF0369	06/17/21	06/17/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Parm1-BH03@25'**  
**2106201-06 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.3		%	1	BEF0240	06/10/21	06/11/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.225	0.0100	mmhos/cm	1	BEF0322	06/15/21	06/15/21	EPA 120.1	

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

Date Sampled: **06/09/21 16:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.86		pH Units	1	BEF0321	06/15/21	06/15/21	EPA 9045D	

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Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:54

## 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 BEF0280 - EPA 5030 Soil MS

##### Blank (BEF0280-BLK1)

Prepared: 06/12/21 Analyzed: 06/13/21

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	0.0334		"	0.0400		83.5	23-173			
Surrogate: Toluene-d8	0.0454		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0371		"	0.0400		92.8	21-167			

##### LCS (BEF0280-BS1)

Prepared: 06/12/21 Analyzed: 06/13/21

Benzene	0.0826	0.0020	mg/kg	0.100		82.6	70-130			
Toluene	0.0754	0.0050	"	0.100		75.4	70-130			
Ethylbenzene	0.0866	0.0050	"	0.100		86.6	70-130			
m,p-Xylene	0.174	0.010	"	0.200		87.1	70-130			
o-Xylene	0.0818	0.0050	"	0.100		81.8	70-130			
1,2,4-Trimethylbenzene	0.0872	0.0050	"	0.100		87.2	70-130			
1,3,5-Trimethylbenzene	0.0874	0.0050	"	0.100		87.4	70-130			
Naphthalene	0.0871	0.0038	"	0.100		87.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0224		"	0.0400		56.0	23-173			
Surrogate: Toluene-d8	0.0387		"	0.0400		96.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0367		"	0.0400		91.8	21-167			

##### Matrix Spike (BEF0280-MS1)

Source: 2106168-01

Prepared: 06/12/21 Analyzed: 06/13/21

Benzene	0.0823	0.0020	mg/kg	0.100	ND	82.3	70-130			
Toluene	0.0976	0.0050	"	0.100	ND	97.6	70-130			
Ethylbenzene	0.0852	0.0050	"	0.100	ND	85.2	70-130			
m,p-Xylene	0.168	0.010	"	0.200	ND	84.0	70-130			
o-Xylene	0.0784	0.0050	"	0.100	ND	78.4	70-130			
1,2,4-Trimethylbenzene	0.0825	0.0050	"	0.100	ND	82.5	70-130			
1,3,5-Trimethylbenzene	0.0823	0.0050	"	0.100	ND	82.3	70-130			
Naphthalene	0.0967	0.0038	"	0.100	ND	96.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0269		"	0.0400		67.4	23-173			
Surrogate: Toluene-d8	0.0351		"	0.0400		87.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0343		"	0.0400		85.8	21-167			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**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 BEF0280 - EPA 5030 Soil MS**

Matrix Spike Dup (BEF0280-MSD1)		Source: 2106168-01			Prepared: 06/12/21 Analyzed: 06/13/21					
Benzene	0.0820	0.0020	mg/kg	0.100	ND	82.0	70-130	0.329	30	
Toluene	0.0735	0.0050	"	0.100	ND	73.5	70-130	28.2	30	
Ethylbenzene	0.0878	0.0050	"	0.100	ND	87.8	70-130	2.98	30	
m,p-Xylene	0.175	0.010	"	0.200	ND	87.5	70-130	4.04	30	
o-Xylene	0.0819	0.0050	"	0.100	ND	81.9	70-130	4.34	30	
1,2,4-Trimethylbenzene	0.0878	0.0050	"	0.100	ND	87.8	70-130	6.23	30	
1,3,5-Trimethylbenzene	0.0878	0.0050	"	0.100	ND	87.8	70-130	6.49	30	
Naphthalene	0.0981	0.0038	"	0.100	ND	98.1	70-130	1.45	30	
Surrogate: 1,2-Dichloroethane-d4		0.0237	"	0.0400		59.2	23-173			
Surrogate: Toluene-d8		0.0375	"	0.0400		93.8	20-170			
Surrogate: 4-Bromofluorobenzene		0.0362	"	0.0400		90.6	21-167			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BEF0282 - EPA 3550A**

**Blank (BEF0282-BLK1)**

Prepared: 06/12/21 Analyzed: 06/13/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

**LCS (BEF0282-BS1)**

Prepared: 06/12/21 Analyzed: 06/13/21

C10-C28 (DRO)	487	50	mg/kg	500	97.4	70-130
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**Matrix Spike (BEF0282-MS1)**

Source: 2106197-01

Prepared: 06/12/21 Analyzed: 06/13/21

C10-C28 (DRO)	488	50	mg/kg	500	77.2	82.2	70-130
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**Matrix Spike Dup (BEF0282-MSD1)**

Source: 2106197-01

Prepared: 06/12/21 Analyzed: 06/13/21

C10-C28 (DRO)	448	50	mg/kg	500	77.2	74.2	70-130	8.51	20
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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BEF0601 - EPA 5030 Soil MS

##### Blank (BEF0601-BLK1)

Prepared: 06/30/21 Analyzed: 07/01/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0327		"	0.0333		98.1	40-150			
Surrogate: Fluoranthene-d10	0.0235		"	0.0333		70.5	40-150			

##### LCS (BEF0601-BS1)

Prepared: 06/30/21 Analyzed: 07/01/21

Acenaphthene	0.0267	0.00500	mg/kg	0.0333	80.0	31-137
Anthracene	0.0271	0.00500	"	0.0333	81.2	30-120
Benzo (a) anthracene	0.0257	0.00500	"	0.0333	77.2	30-120
Benzo (a) pyrene	0.0259	0.00500	"	0.0333	77.7	30-120
Benzo (b) fluoranthene	0.0272	0.00500	"	0.0333	81.7	30-120
Benzo (k) fluoranthene	0.0285	0.00500	"	0.0333	85.5	30-120
Chrysene	0.0268	0.00500	"	0.0333	80.4	30-120
Dibenz (a,h) anthracene	0.0223	0.00500	"	0.0333	66.9	30-120
Fluoranthene	0.0280	0.00500	"	0.0333	83.9	30-120
Fluorene	0.0270	0.00500	"	0.0333	81.0	30-120
Indeno (1,2,3-cd) pyrene	0.0228	0.00500	"	0.0333	68.4	30-120
Pyrene	0.0267	0.00500	"	0.0333	80.1	35-142
1-Methylnaphthalene	0.0257	0.00500	"	0.0333	77.0	35-142
2-Methylnaphthalene	0.0270	0.00500	"	0.0333	81.0	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0274		"	0.0333	82.2	40-150
Surrogate: Fluoranthene-d10	0.0284		"	0.0333	85.2	40-150

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:54

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BEF0601 - EPA 5030 Soil MS

##### Matrix Spike (BEF0601-MS1)

Source: 2106252-02

Prepared: 06/30/21 Analyzed: 07/01/21

Acenaphthene	0.0283	0.00500	mg/kg	0.0333	ND	85.0	31-137			
Anthracene	0.0289	0.00500	"	0.0333	ND	86.8	30-120			
Benzo (a) anthracene	0.0277	0.00500	"	0.0333	ND	83.1	30-120			
Benzo (a) pyrene	0.0286	0.00500	"	0.0333	ND	85.8	30-120			
Benzo (b) fluoranthene	0.0298	0.00500	"	0.0333	ND	89.4	30-120			
Benzo (k) fluoranthene	0.0304	0.00500	"	0.0333	ND	91.2	30-120			
Chrysene	0.0286	0.00500	"	0.0333	ND	85.9	30-120			
Dibenz (a,h) anthracene	0.0249	0.00500	"	0.0333	ND	74.8	30-120			
Fluoranthene	0.0298	0.00500	"	0.0333	ND	89.5	30-120			
Fluorene	0.0282	0.00500	"	0.0333	ND	84.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0257	0.00500	"	0.0333	ND	77.2	30-120			
Pyrene	0.0283	0.00500	"	0.0333	ND	84.8	35-142			
1-Methylnaphthalene	0.0290	0.00500	"	0.0333	ND	87.1	15-130			
2-Methylnaphthalene	0.0277	0.00500	"	0.0333	ND	83.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0286		"	0.0333		85.9	40-150			
Surrogate: Fluoranthene-d10	0.0297		"	0.0333		89.1	40-150			

##### Matrix Spike Dup (BEF0601-MSD1)

Source: 2106252-02

Prepared: 06/30/21 Analyzed: 07/02/21

Acenaphthene	0.0276	0.00500	mg/kg	0.0333	ND	82.8	31-137	2.65	30	
Anthracene	0.0275	0.00500	"	0.0333	ND	82.6	30-120	5.07	30	
Benzo (a) anthracene	0.0267	0.00500	"	0.0333	ND	80.1	30-120	3.68	30	
Benzo (a) pyrene	0.0268	0.00500	"	0.0333	ND	80.4	30-120	6.46	30	
Benzo (b) fluoranthene	0.0283	0.00500	"	0.0333	ND	84.9	30-120	5.11	30	
Benzo (k) fluoranthene	0.0294	0.00500	"	0.0333	ND	88.3	30-120	3.20	30	
Chrysene	0.0274	0.00500	"	0.0333	ND	82.3	30-120	4.27	30	
Dibenz (a,h) anthracene	0.0239	0.00500	"	0.0333	ND	71.7	30-120	4.27	30	
Fluoranthene	0.0283	0.00500	"	0.0333	ND	84.9	30-120	5.30	30	
Fluorene	0.0279	0.00500	"	0.0333	ND	83.7	30-120	1.19	30	
Indeno (1,2,3-cd) pyrene	0.0245	0.00500	"	0.0333	ND	73.4	30-120	4.96	30	
Pyrene	0.0272	0.00500	"	0.0333	ND	81.5	35-142	3.95	30	
1-Methylnaphthalene	0.0269	0.00500	"	0.0333	ND	80.6	15-130	7.80	50	
2-Methylnaphthalene	0.0267	0.00500	"	0.0333	ND	80.0	15-130	4.02	50	
Surrogate: 2-Methylnaphthalene-d10	0.0281		"	0.0333		84.3	40-150			
Surrogate: Fluoranthene-d10	0.0279		"	0.0333		83.6	40-150			

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: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**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 BEF0328 - EPA 3050B**

**Blank (BEF0328-BLK1)**

Prepared: 06/15/21 Analyzed: 06/17/21

Boron ND 0.0100 mg/L

**LCS (BEF0328-BS1)**

Prepared: 06/15/21 Analyzed: 06/17/21

Boron 5.21 0.0100 mg/L 5.00 104 80-120

**Duplicate (BEF0328-DUP1)**

Source: 2106201-01

Prepared: 06/15/21 Analyzed: 06/17/21

Boron 0.189 0.0100 mg/L 0.213 12.3 20

**Matrix Spike (BEF0328-MS1)**

Source: 2106201-01

Prepared: 06/15/21 Analyzed: 06/17/21

Boron 5.42 0.0100 mg/L 5.00 0.213 104 75-125

**Matrix Spike Dup (BEF0328-MSD1)**

Source: 2106201-01

Prepared: 06/15/21 Analyzed: 06/17/21

Boron 5.34 0.0100 mg/L 5.00 0.213 103 75-125 1.56 25

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BEF0275 - EPA 3050B**

**Blank (BEF0275-BLK1)**

Prepared: 06/11/21 Analyzed: 06/14/21

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 (BEF0275-BS1)**

Prepared: 06/11/21 Analyzed: 06/14/21

Arsenic	44.5	0.200	mg/kg wet	40.0	111	80-120
Barium	44.3	0.400	"	40.0	111	80-120
Cadmium	2.22	0.200	"	2.00	111	80-120
Copper	45.1	0.400	"	40.0	113	80-120
Lead	21.1	0.200	"	20.0	105	80-120
Nickel	43.1	0.400	"	40.0	108	80-120
Selenium	3.61	0.260	"	4.00	90.2	80-120
Silver	2.15	0.0200	"	2.00	107	80-120
Zinc	45.3	0.400	"	40.0	113	80-120

**Duplicate (BEF0275-DUP1)**

Source: 2106154-01

Prepared: 06/11/21 Analyzed: 06/14/21

Arsenic	1.89	0.216	mg/kg dry	1.97	4.05	20
Barium	244	0.431	"	278	13.0	20
Cadmium	0.120	0.216	"	0.109	9.87	20
Copper	4.44	0.431	"	4.49	1.08	20
Lead	5.72	0.216	"	6.17	7.53	20
Nickel	4.96	0.431	"	5.21	4.99	20
Selenium	0.553	0.280	"	0.581	5.09	20
Silver	0.0187	0.0216	"	0.0192	2.70	20
Zinc	16.0	0.431	"	16.3	1.67	20

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**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 BEF0275 - EPA 3050B**

**Matrix Spike (BEF0275-MS1)**

**Source: 2106154-01**

Prepared: 06/11/21 Analyzed: 06/14/21

Arsenic	49.6	0.216	mg/kg dry	43.1	1.97	110	75-125
Barium	324	0.431	"	43.1	278	105	75-125
Cadmium	2.44	0.216	"	2.16	0.109	108	75-125
Copper	53.4	0.431	"	43.1	4.49	113	75-125
Lead	27.3	0.216	"	21.6	6.17	98.0	75-125
Nickel	53.2	0.431	"	43.1	5.21	111	75-125
Selenium	4.40	0.280	"	4.31	0.581	88.6	75-125
Silver	2.21	0.0216	"	2.16	0.0192	101	75-125
Zinc	67.1	0.431	"	43.1	16.3	118	75-125

**Matrix Spike Dup (BEF0275-MSD1)**

**Source: 2106154-01**

Prepared: 06/11/21 Analyzed: 06/14/21

Arsenic	48.6	0.216	mg/kg dry	43.1	1.97	108	75-125	1.93	25
Barium	326	0.431	"	43.1	278	110	75-125	0.634	25
Cadmium	2.43	0.216	"	2.16	0.109	107	75-125	0.577	25
Copper	52.3	0.431	"	43.1	4.49	111	75-125	2.10	25
Lead	26.4	0.216	"	21.6	6.17	94.0	75-125	3.25	25
Nickel	51.7	0.431	"	43.1	5.21	108	75-125	2.70	25
Selenium	4.19	0.280	"	4.31	0.581	83.7	75-125	4.89	25
Silver	2.21	0.0216	"	2.16	0.0192	102	75-125	0.340	25
Zinc	63.7	0.431	"	43.1	16.3	110	75-125	5.18	25

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**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 BEF0314 - 3060A Mod**

**Blank (BEF0314-BLK1)**

Prepared: 06/15/21 Analyzed: 06/16/21

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BEF0314-BS1)**

Prepared: 06/15/21 Analyzed: 06/16/21

Chromium, Hexavalent 26.2 0.30 mg/kg wet 25.0 105 80-120

**Duplicate (BEF0314-DUP1)**

**Source: 2105263-03**

Prepared: 06/15/21 Analyzed: 06/16/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BEF0314-MS1)**

**Source: 2105263-03**

Prepared: 06/15/21 Analyzed: 06/16/21

Chromium, Hexavalent 25.9 0.30 mg/kg dry 27.3 ND 95.0 75-125

**Matrix Spike Dup (BEF0314-MSD1)**

**Source: 2105263-03**

Prepared: 06/15/21 Analyzed: 06/16/21

Chromium, Hexavalent 25.8 0.30 mg/kg dry 27.3 ND 94.6 75-125 0.422 20

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

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

**Summit Scientific**

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

**Batch BEF0298 - General Preparation**

**Blank (BEF0298-BLK1)**

Prepared: 06/14/21 Analyzed: 06/16/21

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

**LCS (BEF0298-BS1)**

Prepared: 06/14/21 Analyzed: 06/16/21

Calcium	5.22	0.0500	mg/L wet	5.00	104	70-130
Magnesium	5.67	0.0500	"	5.00	113	70-130
Sodium	5.01	0.0500	"	5.00	100	70-130

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:54

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

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

**Batch BEF0240 - General Preparation**

**Duplicate (BEF0240-DUP1)**

**Source: 2106201-01**

Prepared: 06/10/21 Analyzed: 06/11/21

% Solids	88.0	%	87.8	0.216	20
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Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

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

**Summit Scientific**

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

**Batch BEF0322 - General Preparation**

**Blank (BEF0322-BLK1)**

Prepared & Analyzed: 06/15/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEF0322-BS1)**

Prepared & Analyzed: 06/15/21

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 90-110

**Duplicate (BEF0322-DUP1)**

**Source: 2106200-01**

Prepared & Analyzed: 06/15/21

Specific Conductance (EC) 0.318 0.0100 mmhos/cm 0.321 0.720 20

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

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

**Batch BEF0321 - General Preparation**

**LCS (BEF0321-BS1)**

Prepared & Analyzed: 06/15/21

pH	9.23	pH Units	9.21	100	95-105
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**Duplicate (BEF0321-DUP1)**

**Source: 2106200-01**

Prepared & Analyzed: 06/15/21

pH	8.41	pH Units	8.41	0.00	20
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Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:54

### Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 02, 2021

Brian Humphrey  
Tasman Geosciences  
6855 W. 119th Ave.  
Broomfield, CO 80020  
RE: DCP - Parmlee #1  
Work Order #2106251

Enclosed are the results of analyses for samples received by Summit Scientific on 06/11/21 16:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury  
President



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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Parm1-BH05@29'	2106251-01	Soil	06/10/21 11:15	06/11/21 16:20
Parm1-BH05@30'	2106251-02	Soil	06/10/21 11:20	06/11/21 16:20
Parm1-BH05@32'	2106251-03	Soil	06/10/21 11:25	06/11/21 16:20
Parm1-BH04@19'	2106251-04	Soil	06/10/21 14:20	06/11/21 16:20
Parm1-BH04@28'	2106251-05	Soil	06/10/21 14:35	06/11/21 16:20
Parm1-BH04@32'	2106251-06	Soil	06/10/21 14:45	06/11/21 16:20

Summit Scientific

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# Summit Scientific

S<sub>2</sub>

2106251

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page | of |

Client: DCP/Tasman

Project Manager: Brian Humphrey / Chandler Cole

Address: 6855 W. 119th Ave.

E-Mail: bhumphrey@tasman-gro.com; cecole@drpuidst.com

City/State/Zip: Broomfield CO 80020

jeff@tasman-gro.com; seewat@drpuidst.com

Phone: 303-487-1228

Project Name: Parmlee #1

Sampler Name: Vade Sc4995

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Table 915-1								
1	Parm 1-BH05@29'	6/10/21	1115	4			X			X			X								
2	Parm 1-BH05@30'	6/10/21	1120	4			X			X			X								
3	Parm 1-BH05@32'	6/10/21	1125	4			X			X			X								
4	Parm 1-BH04@19'	6/10/21	1420	4			X			X			X								
5	Parm 1-BH04@28'	6/10/21	1435	4			X			X			X								
6	Parm 1-BH04@32'	6/10/21	1445	4			X			X			X								
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
Vade	6/10/21 1620	[Signature]	6-11-21 110:20	Same Day	72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
				48 hours	X	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:		
				Temperature Upon Receipt:	17.1	
				Samples Intact:	Yes	No

# Sample Receipt Checklist

S2 Work Order 2106251

Client: DCP/TASMAN

Client Project ID: PARMLEE #1

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

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

Temp (°C) 17.1

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ON ICE
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<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) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? 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):

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

Muri P.  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

6-11-21  
Date/Time



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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@29'**  
**2106251-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEF0391	06/17/21	06/20/21	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: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		136 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	60	50	mg/kg	1	BEF0392	06/17/21	06/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@29'**  
**2106251-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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	"	"	"	"	"	"	
<b>Fluoranthene</b>	<b>0.00727</b>	0.00500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.0106</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0618</b>	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.0837</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		73.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		52.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.205</b>	0.0100	mg/L	1	BEF0396	06/18/21	06/19/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 11:15**

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

**Parm1-BH05@29'**

**2106251-01 (Soil)**

### Summit Scientific

#### Total Metals by EPA 6020B

Arsenic	7.45	0.249	mg/kg dry	1	BEF0368	06/17/21	06/18/21	EPA 6020B
Barium	175	0.499	"	"	"	"	"	"
Cadmium	0.413	0.249	"	"	"	"	"	"
Copper	14.5	0.499	"	"	"	"	"	"
Lead	12.2	0.249	"	"	"	"	"	"
Nickel	15.7	0.499	"	"	"	"	"	"
Selenium	1.92	0.324	"	"	"	"	"	"
Silver	0.0388	0.0249	"	"	"	"	"	"
Zinc	56.4	0.499	"	"	"	"	"	"

#### Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0382	06/17/21	06/22/21	EPA 7196A	

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

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	8.23	0.0623	mg/L dry	1	BEF0380	06/17/21	06/18/21	EPA 6020B	
Magnesium	4.06	0.0623	"	"	"	"	"	"	
Sodium	30.5	0.0623	"	"	"	"	"	"	

#### Calculated Analysis

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.17	0.00100	units	1	BEF0425	06/21/21	06/21/21	Calculation	

#### Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/10/21 11:15**

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@29'**  
**2106251-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	80.2	%	1	BEF0370	06/17/21	06/17/21	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.199	0.0100	mmhos/cm	1	BEF0407	06/18/21	06/18/21	EPA 120.1	

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

Date Sampled: **06/10/21 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.29		pH Units	1	BEF0406	06/18/21	06/18/21	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@30'**  
**2106251-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0391	06/17/21	06/20/21	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	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>0.58</b>	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0392	06/17/21	06/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		93.4 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@30'**  
**2106251-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		92.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.141</b>	0.0100	mg/L	1	BEF0396	06/18/21	06/19/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 11:20**

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@30'**  
**2106251-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.27	0.244	mg/kg dry	1	BEF0368	06/17/21	06/18/21	EPA 6020B
Barium	22.9	0.489	"	"	"	"	"	"
Cadmium	ND	0.244	"	"	"	"	"	"
Copper	2.03	0.489	"	"	"	"	"	"
Lead	2.13	0.244	"	"	"	"	"	"
Nickel	4.53	0.489	"	"	"	"	"	"
Selenium	0.723	0.318	"	"	"	"	"	"
Silver	ND	0.0244	"	"	"	"	"	"
Zinc	26.3	0.489	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0382	06/17/21	06/22/21	EPA 7196A	

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

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.94	0.0611	mg/L dry	1	BEF0380	06/17/21	06/18/21	EPA 6020B	
Magnesium	3.71	0.0611	"	"	"	"	"	"	
Sodium	49.7	0.0611	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.42	0.00100	units	1	BEF0425	06/21/21	06/21/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@30'**  
**2106251-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.8		%	1	BEF0370	06/17/21	06/17/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.243	0.0100	mmhos/cm	1	BEF0407	06/18/21	06/18/21	EPA 120.1	

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

Date Sampled: **06/10/21 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19		pH Units	1	BEF0406	06/18/21	06/18/21	EPA 9045D	

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@32'**  
**2106251-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0391	06/17/21	06/20/21	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: **06/10/21 11:25**

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

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0392	06/17/21	06/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.1 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@32'**  
**2106251-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/10/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		88.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		72.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0611</b>	0.0100	mg/L	1	BEF0396	06/18/21	06/19/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 11:25**

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@32'**  
**2106251-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	ND	0.242	mg/kg dry	1	BEF0368	06/17/21	06/18/21	EPA 6020B
<b>Barium</b>	<b>28.5</b>	0.484	"	"	"	"	"	"
Cadmium	ND	0.242	"	"	"	"	"	"
<b>Copper</b>	<b>7.28</b>	0.484	"	"	"	"	"	"
<b>Lead</b>	<b>7.18</b>	0.242	"	"	"	"	"	"
<b>Nickel</b>	<b>4.72</b>	0.484	"	"	"	"	"	"
<b>Selenium</b>	<b>1.13</b>	0.315	"	"	"	"	"	"
Silver	ND	0.0242	"	"	"	"	"	"
<b>Zinc</b>	<b>19.4</b>	0.484	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0382	06/17/21	06/22/21	EPA 7196A	

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

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>3.38</b>	0.0605	mg/L dry	1	BEF0380	06/17/21	06/18/21	EPA 6020B	
<b>Magnesium</b>	<b>1.84</b>	0.0605	"	"	"	"	"	"	
<b>Sodium</b>	<b>7.48</b>	0.0605	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>0.813</b>	0.00100	units	1	BEF0425	06/21/21	06/21/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH05@32'**  
**2106251-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	82.7			%	1	BEF0370	06/17/21	06/17/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0490	0.0100		mmhos/cm	1	BEF0407	06/18/21	06/18/21	EPA 120.1	

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

Date Sampled: **06/10/21 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.03			pH Units	1	BEF0406	06/18/21	06/18/21	EPA 9045D	

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@19'**  
**2106251-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0391	06/17/21	06/20/21	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: **06/10/21 14:20**

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

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0392	06/17/21	06/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@19'**  
**2106251-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		99.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		78.0 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.312</b>	0.0100	mg/L	1	BEF0396	06/18/21	06/19/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 14:20**

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@19'**  
**2106251-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	4.13	0.221	mg/kg dry	1	BEF0368	06/17/21	06/18/21	EPA 6020B
Barium	32.6	0.443	"	"	"	"	"	"
Cadmium	ND	0.221	"	"	"	"	"	"
Copper	8.64	0.443	"	"	"	"	"	"
Lead	8.75	0.221	"	"	"	"	"	"
Nickel	9.76	0.443	"	"	"	"	"	"
Selenium	1.22	0.288	"	"	"	"	"	"
Silver	ND	0.0221	"	"	"	"	"	"
Zinc	41.0	0.443	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0382	06/17/21	06/22/21	EPA 7196A	

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

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	5.36	0.0554	mg/L dry	1	BEF0380	06/17/21	06/18/21	EPA 6020B	
Magnesium	2.21	0.0554	"	"	"	"	"	"	
Sodium	6.51	0.0554	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.597	0.00100	units	1	BEF0425	06/21/21	06/21/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@19'**  
**2106251-04 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.3		%	1	BEF0370	06/17/21	06/17/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0603	0.0100	mmhos/cm	1	BEF0407	06/18/21	06/18/21	EPA 120.1	

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

Date Sampled: **06/10/21 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.28		pH Units	1	BEF0406	06/18/21	06/18/21	EPA 9045D	

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@28'**  
**2106251-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0391	06/17/21	06/20/21	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: **06/10/21 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0392	06/17/21	06/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

**Parm1-BH04@28'**

**2106251-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		75.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.6 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0763</b>	0.0100	mg/L	1	BEF0396	06/18/21	06/19/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 14:35**

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@28'**  
**2106251-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.77	0.238	mg/kg dry	1	BEF0368	06/17/21	06/18/21	EPA 6020B
Barium	37.9	0.476	"	"	"	"	"	"
Cadmium	ND	0.238	"	"	"	"	"	"
Copper	2.80	0.476	"	"	"	"	"	"
Lead	7.19	0.238	"	"	"	"	"	"
Nickel	3.86	0.476	"	"	"	"	"	"
Selenium	0.952	0.309	"	"	"	"	"	"
Silver	ND	0.0238	"	"	"	"	"	"
Zinc	31.2	0.476	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0382	06/17/21	06/22/21	EPA 7196A	

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

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	6.15	0.0595	mg/L dry	1	BEF0380	06/17/21	06/18/21	EPA 6020B	
Magnesium	2.33	0.0595	"	"	"	"	"	"	
Sodium	24.9	0.0595	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.17	0.00100	units	1	BEF0425	06/21/21	06/21/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@28'**  
**2106251-05 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.0		%	1	BEF0370	06/17/21	06/17/21	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.135	0.0100	mmhos/cm	1	BEF0407	06/18/21	06/18/21	EPA 120.1	

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

Date Sampled: **06/10/21 14:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.19		pH Units	1	BEF0406	06/18/21	06/18/21	EPA 9045D	

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@32'**  
**2106251-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEF0391	06/17/21	06/20/21	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: **06/10/21 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0392	06/17/21	06/29/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.2 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@32'**  
**2106251-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEF0601	06/30/21	07/02/21	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: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		92.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		75.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.143</b>	0.0100	mg/L	1	BEF0396	06/18/21	06/19/21	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **06/10/21 14:45**

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

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

**Parm1-BH04@32'**

**2106251-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	8.46	0.232	mg/kg dry	1	BEF0368	06/17/21	06/18/21	EPA 6020B
Barium	427	0.465	"	"	"	"	"	"
Cadmium	0.328	0.232	"	"	"	"	"	"
Copper	17.4	0.465	"	"	"	"	"	"
Lead	20.6	0.232	"	"	"	"	"	"
Nickel	26.9	0.465	"	"	"	"	"	"
Selenium	1.43	0.302	"	"	"	"	"	"
Silver	0.0490	0.0232	"	"	"	"	"	"
Zinc	88.3	0.465	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BEF0382	06/17/21	06/22/21	EPA 7196A	

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

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4.53	0.0581	mg/L dry	1	BEF0380	06/17/21	06/18/21	EPA 6020B	
Magnesium	1.66	0.0581	"	"	"	"	"	"	
Sodium	10.0	0.0581	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.02	0.00100	units	1	BEF0425	06/21/21	06/21/21	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **06/10/21 14:45**

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

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Parm1-BH04@32'**  
**2106251-06 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	86.0	%	1	BEF0370	06/17/21	06/17/21	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0768	0.0100	mmhos/cm	1	BEF0407	06/18/21	06/18/21	EPA 120.1	

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

Date Sampled: **06/10/21 14:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.94		pH Units	1	BEF0406	06/18/21	06/18/21	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

## 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 BEF0391 - EPA 5030 Soil MS

##### Blank (BEF0391-BLK1)

Prepared: 06/17/21 Analyzed: 06/20/21

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	0.0411		"	0.0400		103	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	21-167			

##### LCS (BEF0391-BS1)

Prepared: 06/17/21 Analyzed: 06/20/21

Benzene	0.0871	0.0020	mg/kg	0.100		87.1	70-130			
Toluene	0.0914	0.0050	"	0.100		91.4	70-130			
Ethylbenzene	0.110	0.0050	"	0.100		110	70-130			
m,p-Xylene	0.219	0.010	"	0.200		109	70-130			
o-Xylene	0.106	0.0050	"	0.100		106	70-130			
1,2,4-Trimethylbenzene	0.124	0.0050	"	0.100		124	70-130			
1,3,5-Trimethylbenzene	0.123	0.0050	"	0.100		123	70-130			
Naphthalene	0.117	0.0038	"	0.100		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167			

##### Matrix Spike (BEF0391-MS1)

Source: 2106251-02

Prepared: 06/17/21 Analyzed: 06/20/21

Benzene	0.0854	0.0020	mg/kg	0.100	ND	85.4	70-130			
Toluene	0.0868	0.0050	"	0.100	ND	86.8	70-130			
Ethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130			
m,p-Xylene	0.212	0.010	"	0.200	0.00603	103	70-130			
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130			
1,2,4-Trimethylbenzene	0.118	0.0050	"	0.100	ND	118	70-130			
1,3,5-Trimethylbenzene	0.117	0.0050	"	0.100	ND	117	70-130			
Naphthalene	0.112	0.0038	"	0.100	ND	112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.4	21-167			

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Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BEF0391 - EPA 5030 Soil MS

##### Matrix Spike Dup (BEF0391-MSD1)

Source: 2106251-02

Prepared: 06/17/21 Analyzed: 06/20/21

Benzene	0.0843	0.0020	mg/kg	0.100	ND	84.3	70-130	1.27	30	
Toluene	0.0850	0.0050	"	0.100	ND	85.0	70-130	2.09	30	
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	3.49	30	
m,p-Xylene	0.204	0.010	"	0.200	0.00603	98.8	70-130	4.21	30	
o-Xylene	0.100	0.0050	"	0.100	ND	100	70-130	2.57	30	
1,2,4-Trimethylbenzene	0.114	0.0050	"	0.100	ND	114	70-130	3.07	30	
1,3,5-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	4.69	30	
Naphthalene	0.0949	0.0038	"	0.100	ND	94.9	70-130	16.7	30	
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		99.9	21-167			

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Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BEF0392 - EPA 3550A**

**Blank (BEF0392-BLK1)**

Prepared: 06/17/21 Analyzed: 06/20/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

**LCS (BEF0392-BS1)**

Prepared: 06/17/21 Analyzed: 06/20/21

C10-C28 (DRO)	561	50	mg/kg	500	112	70-130
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**Matrix Spike (BEF0392-MS1)**

Source: 2106251-01

Prepared: 06/17/21 Analyzed: 06/20/21

C10-C28 (DRO)	462	50	mg/kg	500	59.9	80.4	70-130
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**Matrix Spike Dup (BEF0392-MSD1)**

Source: 2106251-01

Prepared: 06/17/21 Analyzed: 06/20/21

C10-C28 (DRO)	447	50	mg/kg	500	59.9	77.4	70-130	3.25	20
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Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BEF0601 - EPA 5030 Soil MS

##### Blank (BEF0601-BLK1)

Prepared: 06/30/21 Analyzed: 07/01/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0327		"	0.0333		98.1	40-150			
Surrogate: Fluoranthene-d10	0.0235		"	0.0333		70.5	40-150			

##### LCS (BEF0601-BS1)

Prepared: 06/30/21 Analyzed: 07/01/21

Acenaphthene	0.0267	0.00500	mg/kg	0.0333	80.0	31-137
Anthracene	0.0271	0.00500	"	0.0333	81.2	30-120
Benzo (a) anthracene	0.0257	0.00500	"	0.0333	77.2	30-120
Benzo (a) pyrene	0.0259	0.00500	"	0.0333	77.7	30-120
Benzo (b) fluoranthene	0.0272	0.00500	"	0.0333	81.7	30-120
Benzo (k) fluoranthene	0.0285	0.00500	"	0.0333	85.5	30-120
Chrysene	0.0268	0.00500	"	0.0333	80.4	30-120
Dibenz (a,h) anthracene	0.0223	0.00500	"	0.0333	66.9	30-120
Fluoranthene	0.0280	0.00500	"	0.0333	83.9	30-120
Fluorene	0.0270	0.00500	"	0.0333	81.0	30-120
Indeno (1,2,3-cd) pyrene	0.0228	0.00500	"	0.0333	68.4	30-120
Pyrene	0.0267	0.00500	"	0.0333	80.1	35-142
1-Methylnaphthalene	0.0257	0.00500	"	0.0333	77.0	35-142
2-Methylnaphthalene	0.0270	0.00500	"	0.0333	81.0	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0274		"	0.0333	82.2	40-150
Surrogate: Fluoranthene-d10	0.0284		"	0.0333	85.2	40-150

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

## PAH by EPA Method 8270D SIM - Quality Control

### Summit Scientific

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

#### Batch BEF0601 - EPA 5030 Soil MS

##### Matrix Spike (BEF0601-MS1)

Source: 2106252-02

Prepared: 06/30/21 Analyzed: 07/01/21

Acenaphthene	0.0283	0.00500	mg/kg	0.0333	ND	85.0	31-137			
Anthracene	0.0289	0.00500	"	0.0333	ND	86.8	30-120			
Benzo (a) anthracene	0.0277	0.00500	"	0.0333	ND	83.1	30-120			
Benzo (a) pyrene	0.0286	0.00500	"	0.0333	ND	85.8	30-120			
Benzo (b) fluoranthene	0.0298	0.00500	"	0.0333	ND	89.4	30-120			
Benzo (k) fluoranthene	0.0304	0.00500	"	0.0333	ND	91.2	30-120			
Chrysene	0.0286	0.00500	"	0.0333	ND	85.9	30-120			
Dibenz (a,h) anthracene	0.0249	0.00500	"	0.0333	ND	74.8	30-120			
Fluoranthene	0.0298	0.00500	"	0.0333	ND	89.5	30-120			
Fluorene	0.0282	0.00500	"	0.0333	ND	84.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0257	0.00500	"	0.0333	ND	77.2	30-120			
Pyrene	0.0283	0.00500	"	0.0333	ND	84.8	35-142			
1-Methylnaphthalene	0.0290	0.00500	"	0.0333	ND	87.1	15-130			
2-Methylnaphthalene	0.0277	0.00500	"	0.0333	ND	83.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0286		"	0.0333		85.9	40-150			
Surrogate: Fluoranthene-d10	0.0297		"	0.0333		89.1	40-150			

##### Matrix Spike Dup (BEF0601-MSD1)

Source: 2106252-02

Prepared: 06/30/21 Analyzed: 07/02/21

Acenaphthene	0.0276	0.00500	mg/kg	0.0333	ND	82.8	31-137	2.65	30	
Anthracene	0.0275	0.00500	"	0.0333	ND	82.6	30-120	5.07	30	
Benzo (a) anthracene	0.0267	0.00500	"	0.0333	ND	80.1	30-120	3.68	30	
Benzo (a) pyrene	0.0268	0.00500	"	0.0333	ND	80.4	30-120	6.46	30	
Benzo (b) fluoranthene	0.0283	0.00500	"	0.0333	ND	84.9	30-120	5.11	30	
Benzo (k) fluoranthene	0.0294	0.00500	"	0.0333	ND	88.3	30-120	3.20	30	
Chrysene	0.0274	0.00500	"	0.0333	ND	82.3	30-120	4.27	30	
Dibenz (a,h) anthracene	0.0239	0.00500	"	0.0333	ND	71.7	30-120	4.27	30	
Fluoranthene	0.0283	0.00500	"	0.0333	ND	84.9	30-120	5.30	30	
Fluorene	0.0279	0.00500	"	0.0333	ND	83.7	30-120	1.19	30	
Indeno (1,2,3-cd) pyrene	0.0245	0.00500	"	0.0333	ND	73.4	30-120	4.96	30	
Pyrene	0.0272	0.00500	"	0.0333	ND	81.5	35-142	3.95	30	
1-Methylnaphthalene	0.0269	0.00500	"	0.0333	ND	80.6	15-130	7.80	50	
2-Methylnaphthalene	0.0267	0.00500	"	0.0333	ND	80.0	15-130	4.02	50	
Surrogate: 2-Methylnaphthalene-d10	0.0281		"	0.0333		84.3	40-150			
Surrogate: Fluoranthene-d10	0.0279		"	0.0333		83.6	40-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**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 BEF0396 - EPA 3050B**

**Blank (BEF0396-BLK1)**

Prepared: 06/18/21 Analyzed: 06/19/21

Boron ND 0.0100 mg/L

**LCS (BEF0396-BS1)**

Prepared: 06/18/21 Analyzed: 06/19/21

Boron 5.22 0.0100 mg/L 5.00 104 80-120

**Duplicate (BEF0396-DUP1)**

**Source: 2106244-02**

Prepared: 06/18/21 Analyzed: 06/19/21

Boron 0.557 0.0100 mg/L 0.637 13.3 20

**Matrix Spike (BEF0396-MS1)**

**Source: 2106244-02**

Prepared: 06/18/21 Analyzed: 06/19/21

Boron 5.51 0.0100 mg/L 5.00 0.637 97.4 75-125

**Matrix Spike Dup (BEF0396-MSD1)**

**Source: 2106244-02**

Prepared: 06/18/21 Analyzed: 06/19/21

Boron 5.66 0.0100 mg/L 5.00 0.637 101 75-125 2.81 25

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BEF0368 - EPA 3050B**

**Blank (BEF0368-BLK1)**

Prepared: 06/17/21 Analyzed: 06/18/21

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 (BEF0368-BS1)**

Prepared: 06/17/21 Analyzed: 06/18/21

Arsenic	44.6	0.200	mg/kg wet	40.0	112	80-120
Barium	42.8	0.400	"	40.0	107	80-120
Cadmium	2.27	0.200	"	2.00	114	80-120
Copper	42.8	0.400	"	40.0	107	80-120
Lead	21.7	0.200	"	20.0	109	80-120
Nickel	42.5	0.400	"	40.0	106	80-120
Selenium	4.06	0.260	"	4.00	102	80-120
Silver	2.22	0.0200	"	2.00	111	80-120
Zinc	44.3	0.400	"	40.0	111	80-120

**Duplicate (BEF0368-DUP1)**

Source: 2106244-01

Prepared: 06/17/21 Analyzed: 06/18/21

Arsenic	5.21	0.230	mg/kg dry	5.50	5.33	20
Barium	153	0.460	"	150	1.62	20
Cadmium	0.189	0.230	"	0.203	7.26	20
Copper	13.7	0.460	"	14.2	3.78	20
Lead	11.7	0.230	"	13.3	12.9	20
Nickel	19.5	0.460	"	16.8	14.9	20
Selenium	0.994	0.299	"	0.866	13.7	20
Silver	0.0451	0.0230	"	0.0476	5.31	20
Zinc	59.6	0.460	"	53.3	11.3	20

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1  
Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**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 BEF0368 - EPA 3050B**

Matrix Spike (BEF0368-MS1)		Source: 2106244-01			Prepared: 06/17/21 Analyzed: 06/18/21					
Arsenic	51.3	0.230	mg/kg dry	46.0	5.50	99.6	75-125			
Barium	202	0.460	"	46.0	150	113	75-125			
Cadmium	2.59	0.230	"	2.30	0.203	104	75-125			
Copper	60.1	0.460	"	46.0	14.2	99.9	75-125			
Lead	34.6	0.230	"	23.0	13.3	92.5	75-125			
Nickel	62.6	0.460	"	46.0	16.8	99.6	75-125			
Selenium	4.57	0.299	"	4.60	0.866	80.6	75-125			
Silver	2.36	0.0230	"	2.30	0.0476	101	75-125			
Zinc	99.0	0.460	"	46.0	53.3	99.5	75-125			

Matrix Spike Dup (BEF0368-MSD1)		Source: 2106244-01			Prepared: 06/17/21 Analyzed: 06/18/21					
Arsenic	56.8	0.230	mg/kg dry	46.0	5.50	112	75-125	10.2	25	
Barium	198	0.460	"	46.0	150	103	75-125	2.27	25	
Cadmium	2.78	0.230	"	2.30	0.203	112	75-125	6.85	25	
Copper	66.2	0.460	"	46.0	14.2	113	75-125	9.57	25	
Lead	36.9	0.230	"	23.0	13.3	103	75-125	6.47	25	
Nickel	70.2	0.460	"	46.0	16.8	116	75-125	11.6	25	
Selenium	5.23	0.299	"	4.60	0.866	94.8	75-125	13.4	25	
Silver	2.56	0.0230	"	2.30	0.0476	109	75-125	8.01	25	
Zinc	100	0.460	"	46.0	53.3	102	75-125	1.02	25	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**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 BEF0382 - 3060A Mod**

**Blank (BEF0382-BLK1)**

Prepared: 06/17/21 Analyzed: 06/22/21

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BEF0382-BS1)**

Prepared: 06/17/21 Analyzed: 06/22/21

Chromium, Hexavalent 25.8 0.30 mg/kg wet 25.0 103 80-120

**Duplicate (BEF0382-DUP1)**

**Source: 2106243-02**

Prepared: 06/17/21 Analyzed: 06/22/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BEF0382-MS1)**

**Source: 2106243-02**

Prepared: 06/17/21 Analyzed: 06/22/21

Chromium, Hexavalent 30.1 0.30 mg/kg dry 28.6 ND 105 75-125

**Matrix Spike Dup (BEF0382-MSD1)**

**Source: 2106243-02**

Prepared: 06/17/21 Analyzed: 06/22/21

Chromium, Hexavalent 30.3 0.30 mg/kg dry 28.6 ND 106 75-125 0.569 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: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

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

**Summit Scientific**

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

**Batch BEF0380 - General Preparation**

**Blank (BEF0380-BLK1)**

Prepared: 06/17/21 Analyzed: 06/18/21

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

**LCS (BEF0380-BS1)**

Prepared: 06/17/21 Analyzed: 06/18/21

Calcium	5.13	0.0500	mg/L wet	5.00	103	70-130
Magnesium	5.78	0.0500	"	5.00	116	70-130
Sodium	5.27	0.0500	"	5.00	105	70-130

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**

07/02/21 14:55

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

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

**Batch BEF0370 - General Preparation**

**Duplicate (BEF0370-DUP1)**

**Source: 2105214-01**

**Prepared & Analyzed: 06/17/21**

% Solids	79.8	%	79.2	0.742	20
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Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

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

**Summit Scientific**

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

**Batch BEF0407 - General Preparation**

**Blank (BEF0407-BLK1)**

Prepared & Analyzed: 06/18/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEF0407-BS1)**

Prepared & Analyzed: 06/18/21

Specific Conductance (EC) 0.142 0.0100 mmhos/cm 0.150 95.0 90-110

**Duplicate (BEF0407-DUP1)**

**Source: 2106243-01**

Prepared & Analyzed: 06/18/21

Specific Conductance (EC) 0.508 0.0100 mmhos/cm 0.507 0.276 20

Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]

Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

**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 BEF0406 - General Preparation**

**LCS (BEF0406-BS1)**

Prepared & Analyzed: 06/18/21

pH	9.22	pH Units	9.21	100	95-105
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**Duplicate (BEF0406-DUP1)**

Source: 2106243-01

Prepared & Analyzed: 06/18/21

pH	8.37	pH Units	8.38	0.119	20
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Summit Scientific

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

Project: DCP - Parmlee #1

Project Number: [none]  
Project Manager: Brian Humphrey

**Reported:**  
07/02/21 14:55

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



July 01, 2021

Tasman Geosciences

Brian Humphrey

6855 West 119th Avenue

Broomfield CO 80020

Project Name - DCP - Parmlee #1

Project Number - [none]

Attached are your analytical results for DCP - Parmlee #1 received by Origins Laboratory, Inc. June 22, 2021. This project is associated with Origins project number Y106526-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.  
303.433.1322  
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Parm 1-BH01	Y106526-01	Water	June 22, 2021 13:50	06/22/2021 17:56
Parm 1-BH02	Y106526-02	Water	June 22, 2021 14:10	06/22/2021 17:56
Parm 1-BH03	Y106526-03	Water	June 22, 2021 14:25	06/22/2021 17:56
Parm 1-BH04	Y106526-04	Water	June 22, 2021 14:40	06/22/2021 17:56
Parm 1-BH05	Y106526-05	Water	June 22, 2021 13:30	06/22/2021 17:56

Origins Laboratory, Inc.



*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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

www.originslaboratory.com

400520

page of

**ORIGINS**  
LABORATORY, INC

Client: DP/Tasman  
Address: 6855 W 119th Ave.  
Broomfield CO 80020  
Telephone Number: 303-487-1218  
Project Manager: Brian Cole / Brian Humphrey  
Project Name: Parmlee #1  
Project Number: -  
Samples Collected By: Vicki Strupp

Email Address: bhumph@tasmangeo.com  
justin@tasmangeo.com; cc@dpnibp.com; swan@tasmangeo.com; dpnibp@tasmangeo.com

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Sampling Canister #		
Parm 1-BE01	6/22/11	1350	3	x				x			q15 Origins Inorganic	1
Parm 1-BH02		1410	4	x				x				2
Parm 1-BH03		1425	3	x				x				3
Parm 1-BH04		1440	3	x				x				4
Parm 1-BH05		1330	4	x				x				5
												6
												7
												8
												9
												10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
<u>Vicki Strupp</u>	6/22/11	1755	<u>JMM</u>	6-22-21	17:56	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard

Date Results Needed

Temp Received- 6.6

Origins Laboratory, Inc.

*Jordan A. Merrill*

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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

Origins Laboratory

F-012207-01-R1  
Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: 41065216

Client: Tasman

Client Project ID: Parmlee #1

Checklist Completed by: JP

Shipped Via: 4D  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 6/23/21

Airbill #: NA

Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other:         

Cooler Number/Temperature: 1 / 6.6 °C /          °C /          °C (Describe)          °C

Thermometer ID: TD23

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		<u>sampled same day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) / (pH < 2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by JP (Project Manager)

6-24-21  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jordan A. Merrill*

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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Parm 1-BH01**  
**6/22/2021 1:50:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y106526-01 (Water)**

**Anions by IC 300.0**

Chloride	ND	31.2	mg/L	125	B1F2701	JMA	06/27/2021	06/28/2021
Sulfate	36.0	31.2	"	"	"	JMA	"	"

**BTEX+N+TMBs by 8260D**

1,2,4-Trimethylbenzene	591	4.00	ug/L	4	B1F2403	KDK	06/24/2021	06/25/2021
1,3,5-Trimethylbenzene	267	4.00	"	"	"	KDK	"	"
Benzene	3600	100	"	100	"	KDK	"	06/28/2021
Ethylbenzene	978	100	"	"	"	KDK	"	"
Naphthalene	107	16.0	"	4	"	KDK	"	06/25/2021
Toluene	4960	100	"	100	"	KDK	"	06/28/2021
Xylenes, total	8300	100	"	"	"	KDK	"	"

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"
Surrogate: Toluene-d8	99.0 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	99.6 %	70-130			"	"	"

**Total Dissolved Solids by 2540C**

Total Dissolved Solids	770	5.00	mg/L	1	B1F2418	SCL	06/24/2021	06/25/2021
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Origins Laboratory, Inc.



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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Parm 1-BH02**  
**6/22/2021 2:10:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y106526-02 (Water)**

**Anions by IC 300.0**

Chloride	ND	31.2	mg/L	125	B1F2701	JMA	06/27/2021	06/28/2021	
Sulfate	40.7	31.2	"	"	"	JMA	"	"	

**BTEX+N+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	4.00	ug/L	4	B1F2403	KDK	06/24/2021	06/28/2021	U
1,3,5-Trimethylbenzene	ND	4.00	"	"	"	KDK	"	"	U
Benzene	ND	4.00	"	"	"	KDK	"	06/25/2021	U
Ethylbenzene	ND	4.00	"	"	"	KDK	"	"	U
Naphthalene	ND	16.0	"	"	"	KDK	"	"	U
Toluene	ND	4.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	4.00	"	"	"	KDK	"	06/28/2021	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130			"	"	06/25/2021	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"	

**Total Dissolved Solids by 2540C**

Total Dissolved Solids	684	5.00	mg/L	1	B1F2418	SCL	06/24/2021	06/25/2021	
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Origins Laboratory, Inc.



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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

Parm 1-BH03  
6/22/2021 2:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y106526-03 (Water)**

**BTEX+N+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1F2403	KDK	06/24/2021	06/25/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Benzene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Naphthalene	ND	4.00	"	"	"	KDK	"	"	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	109 %	70-130	"	"	"
Surrogate: Toluene-d8	96.9 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

Parm 1-BH04  
6/22/2021 2:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y106526-04 (Water)**

**BTEX+N+TMBs by 8260D**

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1F2403	KDK	06/24/2021	06/25/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Benzene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Naphthalene	ND	4.00	"	"	"	KDK	"	"	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	111 %	70-130	"	"	"
Surrogate: Toluene-d8	96.5 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	101 %	70-130	"	"	"

Origins Laboratory, Inc.



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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Parm 1-BH05**  
**6/22/2021 1:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y106526-05 (Water)**

**Anions by IC 300.0**

Chloride	38.7	31.2	mg/L	125	B1F2701	JMA	06/27/2021	06/28/2021	
Sulfate	ND	31.2	"	"	"	JMA	"	"	

**BTEX+N+TMBs by 8260D**

1,2,4-Trimethylbenzene	166	1.00	ug/L	1	B1F2403	KDK	06/24/2021	06/25/2021	
1,3,5-Trimethylbenzene	163	1.00	"	"	"	KDK	"	"	
Benzene	80.9	1.00	"	"	"	KDK	"	"	
Ethylbenzene	5.43	1.00	"	"	"	KDK	"	"	
Naphthalene	24.6	4.00	"	"	"	KDK	"	"	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	320	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"	"	

**Total Dissolved Solids by 2540C**

Total Dissolved Solids	850	5.00	mg/L	1	B1F2418	SCL	06/24/2021	06/25/2021	
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Origins Laboratory, Inc.



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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1F2403 - EPA 5030B (Water)</b>										
<b>Blank (B1F2403-BLK1)</b>					Prepared: 06/24/2021 Analyzed: 06/25/2021					
1,2,4-Trimethylbenzene	ND	1.00	ug/L							U
1,3,5-Trimethylbenzene	ND	1.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	4.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	67		"	62.5		107	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.9	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

Origins Laboratory, Inc.



*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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1F2403 - EPA 5030B (Water)**

**LCS (B1F2403-BS1)**

Prepared: 06/24/2021 Analyzed: 06/25/2021

1,2,4-Trimethylbenzene	51.9	1.00	ug/L	50.0		104	70-130			
1,3,5-Trimethylbenzene	50.3	1.00	"	50.0		101	70-130			
Benzene	50.6	1.00	"	50.0		101	70-130			
Ethylbenzene	47.6	1.00	"	50.0		95.1	70-130			
m,p-Xylene	103	2.00	"	100		103	70-130			
Naphthalene	45.6	4.00	"	50.0		91.2	70-130			
o-Xylene	50.5	1.00	"	50.0		101	70-130			
Toluene	50.6	1.00	"	50.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	70		"	62.5		112	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.0	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

Origins Laboratory, Inc.



*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 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1F2403 - EPA 5030B (Water)**

Matrix Spike (B1F2403-MS1)		Source: Y106567-01			Prepared: 06/24/2021 Analyzed: 06/26/2021					
1,2,4-Trimethylbenzene	46.0	1.00	ug/L	50.0	0.920	90.1	70-130			
1,3,5-Trimethylbenzene	41.5	1.00	"	50.0	0.570	81.9	70-130			
Benzene	45.6	1.00	"	50.0	ND	91.1	70-130			
Ethylbenzene	39.2	1.00	"	50.0	ND	78.4	70-130			
m,p-Xylene	90.0	2.00	"	100	0.830	89.2	70-130			
Naphthalene	53.0	4.00	"	50.0	3.65	98.8	70-130			
o-Xylene	45.0	1.00	"	50.0	ND	90.1	70-130			
Toluene	43.3	1.00	"	50.0	ND	86.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	74		"	62.5		119	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

**Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1F2403 - EPA 5030B (Water)</b>										
<b>Matrix Spike Dup (B1F2403-MSD1)</b>	<b>Source: Y106567-01</b>				Prepared: 06/24/2021 Analyzed: 06/26/2021					
1,2,4-Trimethylbenzene	48.8	1.00	ug/L	50.0	0.920	95.9	70-130	6.05	20	
1,3,5-Trimethylbenzene	45.1	1.00	"	50.0	0.570	89.1	70-130	8.38	20	
Benzene	48.9	1.00	"	50.0	ND	97.8	70-130	7.09	20	
Ethylbenzene	43.8	1.00	"	50.0	ND	87.7	70-130	11.2	20	
m,p-Xylene	97.1	2.00	"	100	0.830	96.2	70-130	7.56	20	
Naphthalene	58.2	4.00	"	50.0	3.65	109	70-130	9.38	20	
o-Xylene	50.2	1.00	"	50.0	ND	100	70-130	10.8	20	
Toluene	48.5	1.00	"	50.0	ND	97.1	70-130	11.3	20	
Surrogate: 1,2-Dichloroethane-d4	73		"	62.5		117	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

## Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Classical Chemistry Parameters - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B1F2418 - NO PREP

##### Blank (B1F2418-BLK1)

Prepared: 06/24/2021 Analyzed: 06/25/2021

Total Dissolved Solids ND 5.00 mg/L

##### LCS (B1F2418-BS1)

Prepared: 06/24/2021 Analyzed: 06/25/2021

Total Dissolved Solids 756 5.00 mg/L 716 106 85-115

##### Duplicate (B1F2418-DUP1)

Source: Y106562-02

Prepared: 06/24/2021 Analyzed: 06/25/2021

Total Dissolved Solids 1380 5.00 mg/L 1340 2.88 20

#### Batch B1F2701 - Filter .45um non acidified

##### Blank (B1F2701-BLK1)

Prepared: 06/27/2021 Analyzed: 06/28/2021

Chloride ND 0.250 mg/L

Fluoride ND 0.100 "

Bromide ND 0.100 "

Sulfate ND 0.250 "

Nitrate ND 0.250 "

Nitrite ND 0.100 "

Phosphate ND 0.100 "

##### LCS (B1F2701-BS1)

Prepared: 06/27/2021 Analyzed: 06/28/2021

Chloride 3.93 0.250 mg/L 4.00 98.3 90-110

Fluoride ND 0.100 " 4.00 90-110

Bromide ND 0.100 " 4.00 90-110

Origins Laboratory, Inc.

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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1F2701 - Filter .45um non acidified</b>										
<b>LCS (B1F2701-BS1)</b>					Prepared: 06/27/2021 Analyzed: 06/28/2021					
Sulfate	3.77	0.250	mg/L	4.00		94.3	90-110			
Nitrate	4.01	0.250	"	4.00		100	90-110			
Nitrite	ND	0.100	"	4.00			90-110			
Phosphate	ND	0.100	"	4.00			90-110			
<b>Matrix Spike (B1F2701-MS1)</b>					<b>Source: Y106518-22</b>		Prepared: 06/27/2021 Analyzed: 06/28/2021			
Chloride	639		mg/L	500	152	97.3	80-120			
Fluoride	0.00		"	500	0.00		80-120			
Bromide	0.00		"	500	0.00		80-120			
Sulfate	463		"	500	8.42	90.9	80-120			
Nitrate	493		"	500	0.00	98.7	80-120			
Nitrite	0.00		"	500	0.00		80-120			
Phosphate	0.00		"	500	0.00		80-120			
<b>Matrix Spike Dup (B1F2701-MSD1)</b>					<b>Source: Y106518-22</b>		Prepared: 06/27/2021 Analyzed: 06/28/2021			
Chloride	642		mg/L	500	152	98.0	80-120	0.574	20	
Fluoride	0.00		"	500	0.00		80-120		20	
Bromide	0.00		"	500	0.00		80-120		20	
Sulfate	468		"	500	8.42	92.0	80-120	1.18	20	
Nitrate	497		"	500	0.00	99.3	80-120	0.659	20	
Nitrite	0.00		"	500	0.00		80-120		20	
Phosphate	0.00		"	500	0.00		80-120		20	

Origins Laboratory, Inc.

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Tasman Geosciences  
6855 West 119th Avenue  
Broomfield CO 80020

Brian Humphrey  
Project Number: [none]  
Project: DCP - Parmlee #1

### Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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6899 Pecos Street, Unit C  
Denver, Colorado 80221

CLIENT: DCP

LOGGED BY: V. Scruggs

PROJECT MANAGER: Brian Humphrey

DRILLING CONTRACTOR: Site Services

DRILLING EQUIPMENT: Geoprobe DP

DRILL BIT SIZE (INCHES): 2.25

DATE STARTED - COMPLETED: 6/9/2021

TOTAL BORING DEPTH (FT. BGS): 34.5

DEPTH TO WATER (FT. BGS): 30

Parmlee #1

BORING / WELL ID: BH01 / MW01

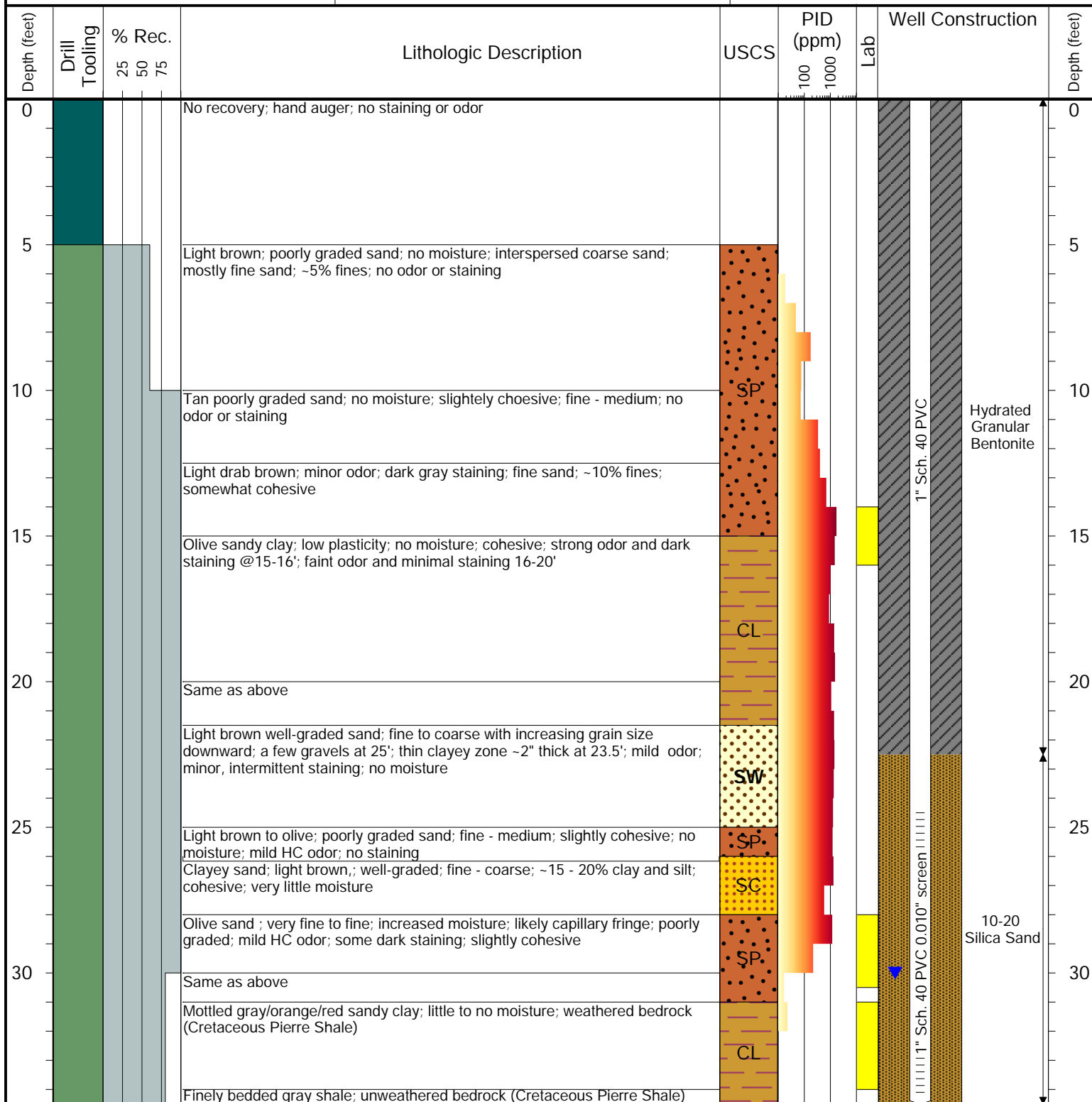
LOCATION: Weld County, CO

LATITUDE (DEGREES): 40.25521626

LONGITUDE (DEGREES): -104.2660517

CASING ELEVATION (FT. AMSL): 4605.913245

GROUND ELEVATION (FT. AMSL): 4606.183245



#### Drilling / Sample Method:

Geoprobe Direct-Push  
Hand Auger

Solid Stem Auger  
Hollow Stem Auger

#### Laboratory Sample Types:

Geotechnical Lab  
Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6899 Pecos Street, Unit C  
Denver, Colorado 80221

CLIENT: DCP

LOGGED BY: V. Scruggs

PROJECT MANAGER: Brian Humphrey

DRILLING CONTRACTOR: Site Services

DRILLING EQUIPMENT: Geoprobe DP

DRILL BIT SIZE (INCHES): 2.25

DATE STARTED - COMPLETED: 6/9/2021

TOTAL BORING DEPTH (FT. BGS): 34

DEPTH TO WATER (FT. BGS): 32.5

Parmlee #1

BORING / WELL ID: BH02 / MW02

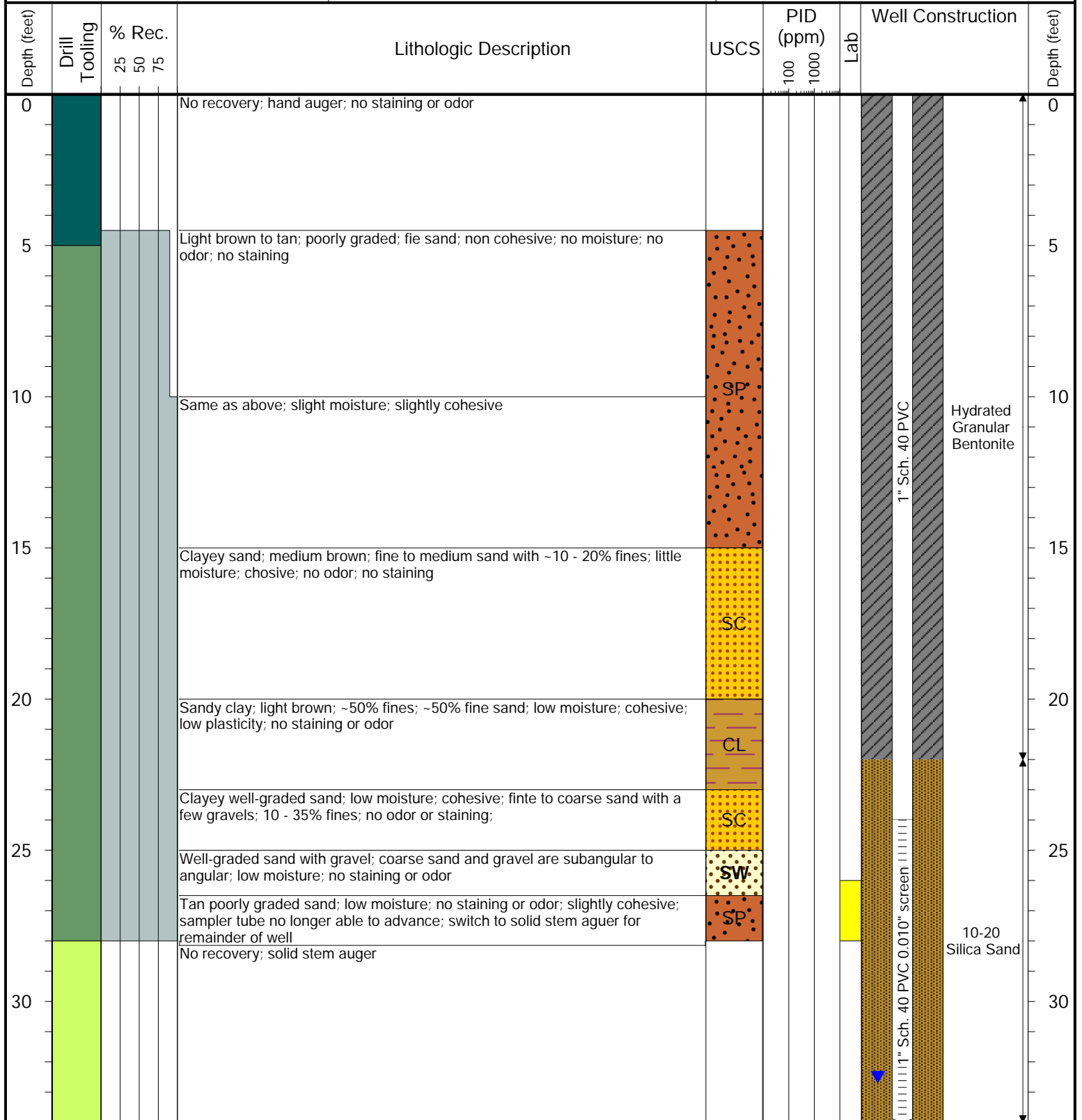
LOCATION: Weld County, CO

LATITUDE (DEGREES): 40.25518458

LONGITUDE (DEGREES): -104.2658273

CASING ELEVATION (FT. AMSL): 4607.073245

GROUND ELEVATION (FT. AMSL): 4607.393245



Drilling / Sample Method:

Geoprobe Direct-Push  
Hand Auger

Solid Stem Auger

Hollow Stem Auger

Laboratory Sample Types:

Geotechnical Lab

Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6899 Pecos Street, Unit C  
Denver, Colorado 80221

CLIENT: DCP

LOGGED BY: V. Scruggs

PROJECT MANAGER: Brian Humphrey

DRILLING CONTRACTOR: Site Services

DRILLING EQUIPMENT: Geoprobe DP

DRILL BIT SIZE (INCHES): 2.25

DATE STARTED - COMPLETED: 6/9/2021

TOTAL BORING DEPTH (FT. BGS): 33

DEPTH TO WATER (FT. BGS): -

Parmlee #1

BORING / WELL ID: BH03 / MW03

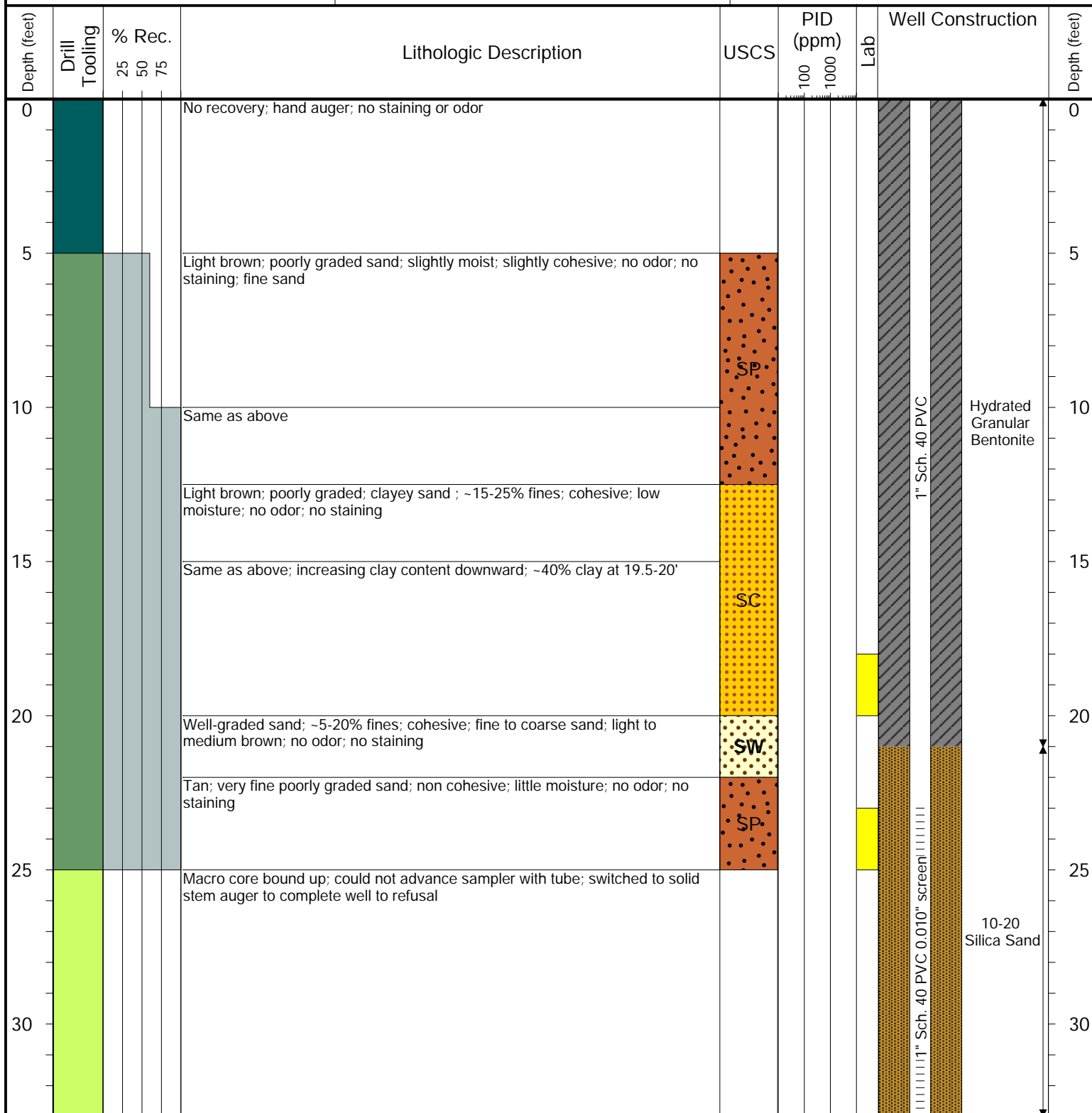
LOCATION: Weld County, CO

LATITUDE (DEGREES): 40.25508152

LONGITUDE (DEGREES): -104.2660751

CASING ELEVATION (FT. AMSL): 4605.683245

GROUND ELEVATION (FT. AMSL): 4605.943245



Drilling / Sample Method:

Geoprobe Direct-Push  
Hand Auger

Solid Stem Auger  
Hollow Stem Auger

Laboratory Sample Types:

Geotechnical Lab  
Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab



6899 Pecos Street, Unit C  
Denver, Colorado 80221

CLIENT: DCP

LOGGED BY: V. Scruggs

PROJECT MANAGER: Brian Humphrey

DRILLING CONTRACTOR: Site Services

DRILLING EQUIPMENT: Geoprobe DP

DRILL BIT SIZE (INCHES): 2.25

DATE STARTED - COMPLETED: 6/10/2021

TOTAL BORING DEPTH (FT. BGS): 32.5

DEPTH TO WATER (FT. BGS): 28

Parmlee #1

BORING / WELL ID: BH04 / MW04

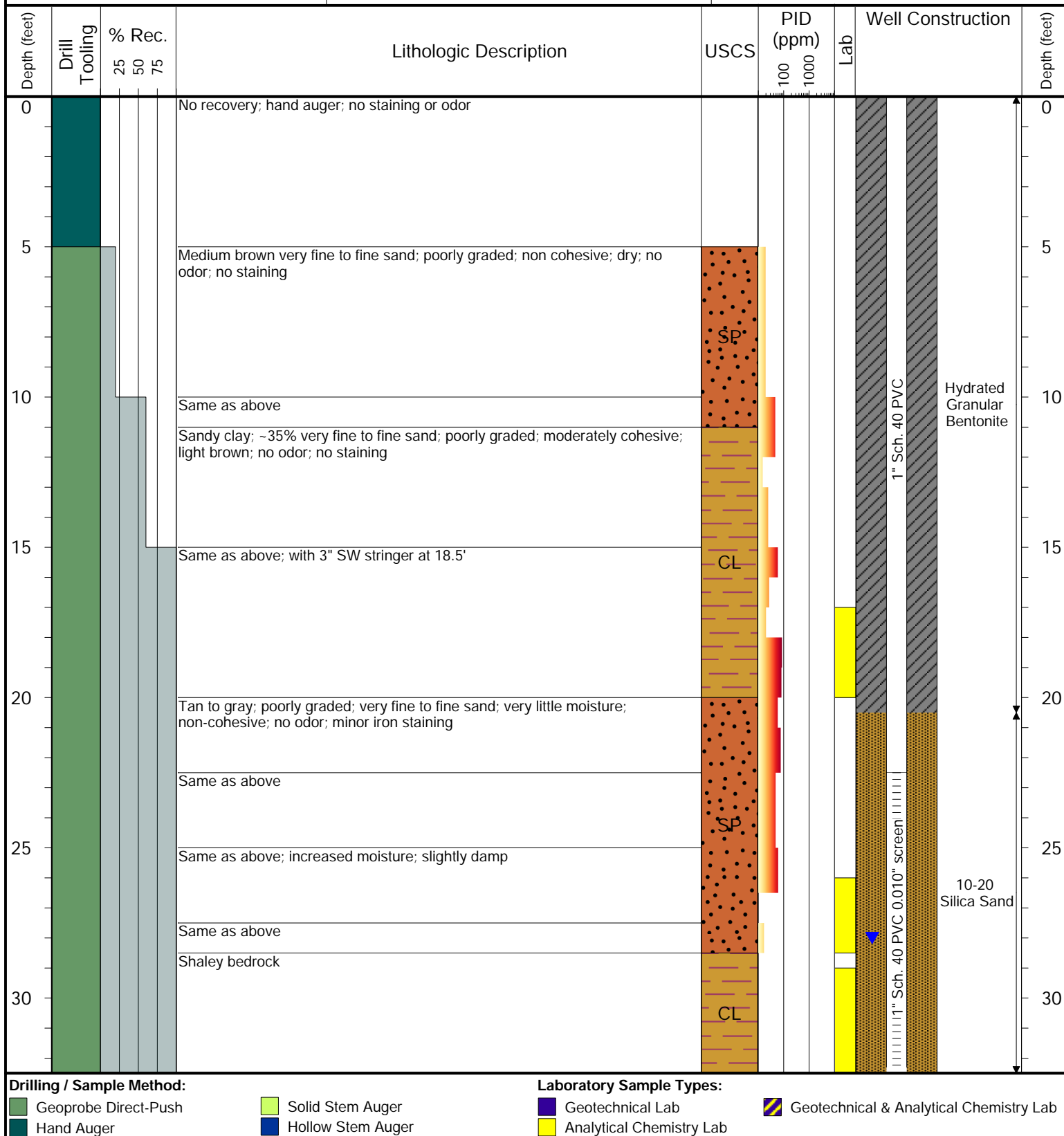
LOCATION: Weld County, CO

LATITUDE (DEGREES): 40.25524776

LONGITUDE (DEGREES): -104.2662209

CASING ELEVATION (FT. AMSL): 4604.833245

GROUND ELEVATION (FT. AMSL): 4605.153245







6899 Pecos Street, Unit C  
Denver, Colorado 80221

CLIENT: DCP

LOGGED BY: V. Scruggs

PROJECT MANAGER: Brian Humphrey

DRILLING CONTRACTOR: Site Services

DRILLING EQUIPMENT: Geoprobe DP

DRILL BIT SIZE (INCHES): 2.25

DATE STARTED - COMPLETED: 6/10/2021

TOTAL BORING DEPTH (FT. BGS): 33

DEPTH TO WATER (FT. BGS): 30

Parmlee #1

BORING / WELL ID: BH05 / MW05

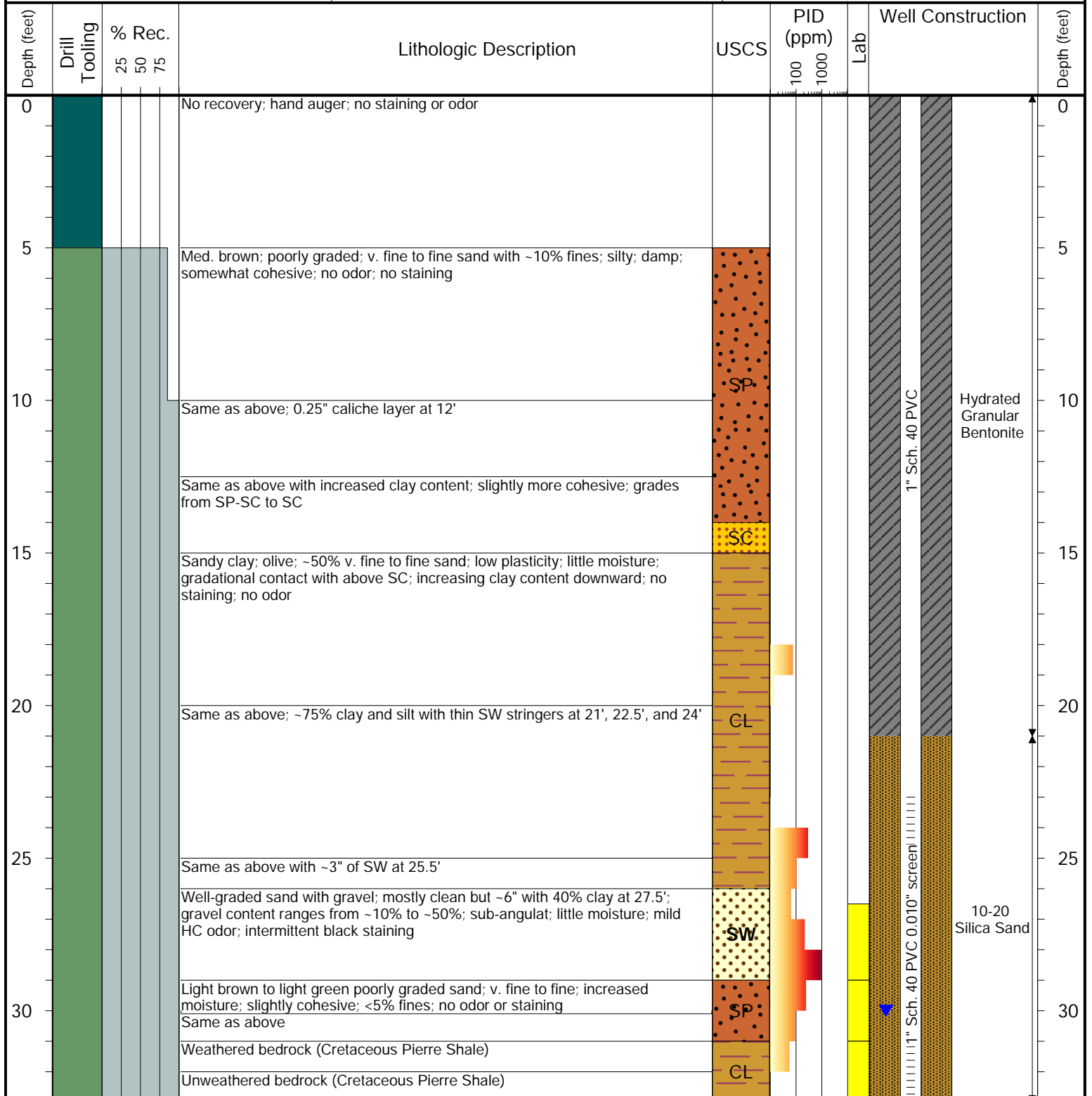
LOCATION: Weld County, CO

LATITUDE (DEGREES): 40.25532223

LONGITUDE (DEGREES): -104.2660395

CASING ELEVATION (FT. AMSL): 4605.653245

GROUND ELEVATION (FT. AMSL): 4606.053245



Drilling / Sample Method:

Geoprobe Direct-Push  
Hand Auger

Solid Stem Auger  
Hollow Stem Auger

Laboratory Sample Types:

Geotechnical Lab  
Analytical Chemistry Lab

Geotechnical & Analytical Chemistry Lab