

**TABLE 1**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**ORGANIC COMPOUNDS**

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH <sup>(4)</sup> (mg/kg)
<b>Residential SSL<sup>(1,2)</sup></b>			<b>1.2</b>	<b>490</b>	<b>5.8</b>	<b>58</b>	<b>30</b>	<b>27</b>	<b>2</b>	<b>500</b>
<b>Protection of Groundwater SSL<sup>(1,2,3)</sup></b>			<b>0.0026</b>	<b>0.69</b>	<b>0.78</b>	<b>9.9</b>	<b>0.0081</b>	<b>0.0087</b>	<b>0.0038</b>	<b>500</b>
PWV01-B @ 2'	3/28/2024	2 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	7.1
PWV01-W @ 1'	3/28/2024	1 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP01-FL @ 4'	3/28/2024	4 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP01-DL @ 4'	3/28/2024	4 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
WH01 @ 6'	3/28/2024	6 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	0.78
FLR01 @ 4'	3/28/2024	4 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	1.3
WHS01-E @ 0-6"	3/28/2024	0-6 in. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-01 @ 6'	3/28/2024	6 ft. bgs	<0.0020	<0.00050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

**Notes:**

1. Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Value calculated by adding TPH-GRO, TPH-DRO, and TPH-ORO concentrations.

ECMC = Colorado Energy & Carbon Management Commission

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

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

TPH-DRO = Total petroleum hydrocarbons - diesel range organics

TPH-ORO = Total petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

ft. = feet

in. = Inches

bgs = Below ground surface

**TABLE 2**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC COMPOUNDS**

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
<b>Soil Suitability for Reclamation Standard <sup>(1)</sup></b>			<b>6-8.3</b>	<b>&lt;4</b>	<b>&lt;6</b>	<b>2</b>
PWV01-B @ 2'	3/28/2024	2 ft. bgs	7.80	0.299	0.408	<2.00
PWV01-W @ 1'	3/28/2024	1 ft. bgs	<b>8.33</b>	0.256	0.541	<2.00
SEP01-FL @ 4'	3/28/2024	4 ft. bgs	<b>8.43</b>	1.14	1.09	<2.00
SEP01-DL @ 4'	3/28/2024	4 ft. bgs	7.77	2.46	2.44	<2.00
WH01 @ 6'	3/28/2024	6 ft. bgs	7.83	0.548	0.709	<2.00
FLR01 @ 4'	3/28/2024	4 ft. bgs	<b>11.4</b>	1.09	1.26	<2.00
WHS01-E @ 0-6"	3/28/2024	0-6 in. bgs	7.43	0.870	1.03	<2.00
FL01-01 @ 6'	3/28/2024	6 ft. bgs	8.10	0.628	0.712	<2.00

**Notes:**

1. Compounds referenced from the ECOM 2 CCR 404-1, Table 915-1, effective January 15, 2021.

ECMC = Colorado Energy & Carbon Management Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

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

ft. = Feet

in. = Inches

bgs = Below ground surface

NA = Constituent not analyzed

**BOLD** = Analytical result is in exceedance of applicable standard.

**TABLE 3**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**ORGANIC COMPOUNDS - PAHs**

Sample ID	Date Sampled	Depth	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
<b>Residential SSL <sup>(1,2)</sup></b>			<b>360</b>	<b>1,800</b>	<b>1.1</b>	<b>0.11</b>	<b>1.1</b>	<b>11</b>	<b>110</b>	<b>0.11</b>	<b>240</b>	<b>240</b>	<b>1.1</b>	<b>180</b>	<b>18</b>	<b>24</b>
<b>Protection of Groundwater SSL <sup>(1,2,3)</sup></b>			<b>0.55</b>	<b>5.8</b>	<b>0.011</b>	<b>0.24</b>	<b>0.3</b>	<b>2.9</b>	<b>9</b>	<b>0.096</b>	<b>8.9</b>	<b>0.54</b>	<b>0.98</b>	<b>1.3</b>	<b>0.006</b>	<b>0.019</b>
PWV01-B @ 2'	3/28/2024	2 ft. bgs	<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
PWV01-W @ 1'	3/28/2024	1 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-FL @ 4'	3/28/2024	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
SEP01-DL @ 4'	3/28/2024	4 ft. bgs	<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
WH01 @ 6'	3/28/2024	6 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00662	<0.00500	<0.00500	<b>0.0141</b>	<0.00500
FLR01 @ 4'	3/28/2024	4 ft. bgs	<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
WHS01-E @ 0-6"	3/28/2024	0-6 in. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FL01-01 @ 6'	3/28/2024	6 ft. bgs	<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

**Notes:**

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

ECMC = Colorado Energy & Carbon Management Commission

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

PAHs = Polycyclic aromatic hydrocarbons

Benzo(a) = Benzoanthracene

Benzo(a) = Benzopyrene

Benzo(b) = Benzo(a)fluoranthene

Benzo(k) = Benzo(a)fluoranthene

A,H = Dibenzoanthracene

1,2,3-CD = Indenopyrene

M = Methylnaphthalene

mg/kg = Milligrams per kilogram

ft. = Feet

in. = Inches

bgs = Below ground surface

**BOLD** = Analytical result is in exceedance of applicable standard.

**TABLE 4**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**METALS**

Sample ID	Date Sampled	Depth	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)
<b>Residential SSL <sup>(1,2)</sup></b>			<b>0.68</b>	<b>15,000</b>	<b>71</b>	<b>0.3</b>	<b>3,100</b>	<b>400</b>	<b>1,500</b>	<b>390</b>	<b>390</b>	<b>23,000</b>
<b>Protection of Groundwater SSL <sup>(1,2,3)</sup></b>			<b>0.29</b>	<b>82</b>	<b>0.38</b>	<b>0.00067</b>	<b>46</b>	<b>14</b>	<b>26</b>	<b>0.26</b>	<b>0.8</b>	<b>370</b>
PWV01-B @ 2'	3/28/2024	2 ft. bgs	<b>2.38</b>	53.0	<0.200	<0.30 <sup>(4)</sup>	7.73	5.92	5.90	<0.260	0.0303	25.6
PWV01-W @ 1'	3/28/2024	1 ft. bgs	<b>3.78</b>	49.6	0.219	<0.30 <sup>(4)</sup>	7.94	6.74	8.17	<0.260	0.0353	30.8
SEP01-FL @ 4'	3/28/2024	4 ft. bgs	<b>4.96</b>	63.6	0.239	<0.30 <sup>(4)</sup>	8.97	7.46	8.30	<0.260	0.0455	32.5
SEP01-DL @ 4'	3/28/2024	4 ft. bgs	<b>6.01</b>	<b>124</b>	<b>0.450</b>	<0.30 <sup>(4)</sup>	14.1	11.3	13.6	0.207 <sup>(5)</sup>	0.0595	44.5
WH01 @ 6'	3/28/2024	6 ft. bgs	<b>3.96</b>	60.4	0.308	<0.30 <sup>(4)</sup>	12.4	<b>17.8</b>	10.3	<0.260	0.0518	41.2
FLR01 @ 4'	3/28/2024	4 ft. bgs	<b>3.77</b>	79.6	0.238	<0.30 <sup>(4)</sup>	13.3	<b>15.2</b>	9.74	<0.260	0.0499	39.2
WHS01-E @ 0-6"	3/28/2024	0-6 in. bgs	<b>4.16</b>	73.7	0.371	<0.30 <sup>(4)</sup>	15.9	<b>19.0</b>	10.2	<b>0.265</b>	0.0553	44.5
FL01-01 @ 6'	3/28/2024	6 ft. bgs	<b>4.34</b>	75.4	<b>0.403</b>	<0.30 <sup>(4)</sup>	13.4	10.4	10.6	<b>0.269</b>	0.0713	50.9
BKG01 @ 4'	3/28/2024	4 ft. bgs	<b>4.13</b>	<b>1,080</b>	<b>0.401</b>	<0.30 <sup>(4)</sup>	9.34	8.56	11.7	0.245	0.0451	39.2
BKG01 @ 6'	3/28/2024	6 ft. bgs	<b>3.82</b>	<b>47.4</b>	0.251	<0.30 <sup>(4)</sup>	7.08	9.55	8.86	<0.234	0.0363	41.0
BKG02 @ 4'	3/28/2024	4 ft. bgs	<b>5.98</b>	<b>103</b>	0.317	<0.30 <sup>(4)</sup>	10.4	6.82	10.1	<0.260	0.0580	29.3
BKG02 @ 6'	3/28/2024	6 ft. bgs	<b>5.02</b>	<b>87.0</b>	0.285	<0.30 <sup>(4)</sup>	9.71	5.84	8.85	<0.260	0.0501	25.1
<b>Mean Background Concentration <sup>(6)</sup></b>			<b>4.74</b>	<b>329</b>	<b>0.314</b>	<b>0.30</b>	<b>9.13</b>	<b>7.69</b>	<b>9.88</b>	<b>0.250</b>	<b>0.0474</b>	<b>33.7</b>
<b>1.25x Mean Background Concentration</b>			<b>5.92</b>	<b>412</b>	<b>0.392</b>	<b>0.38</b>	<b>11.4</b>	<b>9.62</b>	<b>12.3</b>	<b>0.313</b>	<b>0.0592</b>	<b>42.1</b>

**Notes:**

1. Compounds referenced from the ECMC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Compound falls within ECMC Table 915-1 Footnote 9.
5. The reported concentration is below than the reporting limit but above the method detection limit and is considered an estimated value.
6. Non-detect background results accounted for in the mean background concentration by using the reporting limit or method detection limit, where applicable.

ECMC = Energy & Carbon Management Commission

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

mg/kg = Milligrams per kilogram

ft. = Feet

in. = Inches

bgs = Below ground surface

**BOLD** = Analytical result is in exceedance of applicable standard.

**BOLD** = Analytical result is in exceedance of applicable standard, but within 1.25x background concentration.

**TABLE 5**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**  
**ORGANIC COMPOUNDS**

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	Depth to Water <sup>(2)</sup> (ft.)	Groundwater Elevation (ft. AMSL)
<b>COGCC Table 915-1 Groundwater Standard (µg/L) <sup>(1)</sup></b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	<b>140</b>	<b>67</b>	<b>67</b>	<b>-</b>	<b>-</b>
GW01	3/28/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	2	NA
GW02	3/28/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6	NA
GW03	3/28/2024	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6	NA

**Notes:**

1. Groundwater standards referenced from ECMC 2 CCR 404-1, Table 915-1, January 15, 2021.
2. Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.

TMB = Trimethylbenzene

ECMC = Energy & Carbon Management Commission

µg/L = Micrograms per liter

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

ft. = Feet

AMSL = Above Mean Sea Level

NA = Not applicable

**TABLE 6**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC PARAMETERS**

Sample ID	Date Sampled	TDS (unit)	Chloride Ion (mg/L)	Sulfate Ion (mg/L)
<b>COGCC Table 915-1 Groundwater Standard (mg/L) <sup>(1)</sup></b>		<b>&lt;1.25 x BCKG</b>	<b>250 or &lt;1.25 x BCKG</b>	<b>250 or &lt;1.25 x BCKG</b>
GW01	3/28/2024	685	25.0	<b>295</b>
GW02	3/28/2024	1,060	31.8	<b>676</b>
GW03	3/28/2024	614	24.6	<b>252</b>

**Notes:**

1. Groundwater standards referenced from ECMC 2 CCR 404-1, Table 915-1, January 15, 2021.

TDS = Total dissolved solids

ECMC = Energy & Carbon Management Commission

BCKG = Background

mg/L = Milligrams per liter

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

**BOLD** = Analytical result is in exceedance of applicable standard.

**TABLE 7**  
**PDC ENERGY, INC - 69175**  
**FORMER HALL 42-33 WELLHEAD & TANK BATTERY**  
**FIELD DATA SUMMARY TABLE**

Sample ID	Date Sampled	Depth	GPS Data <sup>(1)</sup>		PDOP Value	VOC Concentration <sup>(2)</sup> (ppm)
			Latitude	Longitude		
PWV01-B @ 2'	3/28/2024	2 ft. bgs	40.533053	-104.776211	NC	6.8
PWV01-N @ 1'	3/28/2024	1 ft. bgs	40.533059	-104.776236	0.9	0.3
PWV01-E @ 1'	3/28/2024	1 ft. bgs	40.533062	-104.776191	0.9	0.2
PWV01-S @ 1'	3/28/2024	1 ft. bgs	40.533041	-104.776200	0.8	0.6
PWV01-W @ 1'	3/28/2024	1 ft. bgs	40.533044	-104.776228	0.9	1.0
WDL01 @ 0-6"	3/28/2024	0-6 in. bgs	40.533058	-104.776245	0.9	0.1
AST01 @ 0-6"	3/28/2024	0-6 in. bgs	40.533006	-104.776196	1.0	0.4
SEP01-FL @ 4'	3/28/2024	4 ft. bgs	40.533315	-104.776341	NC	8.9
SEP01-DL @ 4'	3/28/2024	4 ft. bgs	40.533352	-104.776274	NC	10.0
ECD01 @ 0-6"	3/28/2024	0-6 in. bgs	40.533373	-104.776220	0.8	0.1
ECD02 @ 0-6"	3/28/2024	0-6 in. bgs	40.533400	-104.776231	0.7	0.0
MH01 @ 0-6"	3/28/2024	0-6 in. bgs	40.533398	-104.776296	0.9	0.0
COMP @ 0-6"	3/28/2024	0-6 in. bgs	40.533378	-104.776344	0.9	0.0
GW01	3/28/2024	2 ft. bgs	40.533053	-104.776211	NC	NA
WH01 @ 6'	3/28/2024	6 ft. bgs	40.533077	-104.776590	NC	1.1
FLR01 @ 4'	3/28/2024	4 ft. bgs	40.533090	-104.776589	NC	6.0
WHS01-N @ 0-6"	3/28/2024	0-6 in. bgs	40.533113	-104.776601	NC	0.8
WHS01-E @ 0-6"	3/28/2024	0-6 in. bgs	40.533113	-104.776544	0.9	1.6
WHS01-S @ 0-6"	3/28/2024	0-6 in. bgs	40.533052	-104.776557	NC	1.4
WHS01-W @ 0-6"	3/28/2024	0-6 in. bgs	40.533062	-104.776623	NC	1.3
GW02	3/28/2024	6 ft. bgs	40.533077	-104.776590	NC	NA
FL01-01 @ 6'	3/28/2024	6 ft. bgs	40.533198	-104.776458	NC	1.0
GW03	3/28/2024	6 ft. bgs	40.533198	-104.776458	NC	NA
BKG01 @ 4'	3/28/2024	4 ft. bgs	40.533215	-104.776719	NC	0.2
BKG01 @ 6'	3/28/2024	6 ft. bgs	40.533215	-104.776719	NC	0.3
BKG02 @ 4'	3/28/2024	4 ft. bgs	40.532738	-104.776592	0.8	0.2
BKG02 @ 6'	3/28/2024	6 ft. bgs	40.532738	-104.776592	0.8	0.2

**Notes:**

1. Global Positioning System (GPS) data is provided in decimal degrees using North American Datum 1983 (NAD83) UTM Zone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

ppm = Parts per million

ft. = Feet

in = Inches

bgs = Below ground surface

NC = Data not collected

NA = Not applicable

## Attachment A

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 25, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

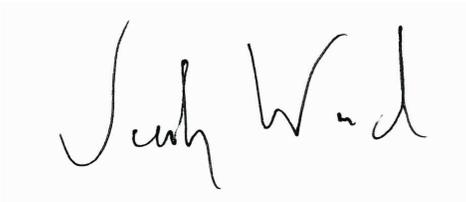
Broomfield, CO 80020

RE: PDC - Hall 42-33

Work Order #2403459

Enclosed are the results of analyses for samples received by Summit Scientific on 03/28/24 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jacob Wood For Paul Shrewsbury

President



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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PWV01-B@2'	2403459-01	Soil	03/28/24 12:04	03/28/24 17:55
PWV01-W@1'	2403459-02	Soil	03/28/24 12:14	03/28/24 17:55
FLR01@4'	2403459-03	Soil	03/28/24 12:19	03/28/24 17:55
WH01@6'	2403459-04	Soil	03/28/24 12:23	03/28/24 17:55
SEP01-FL@4'	2403459-05	Soil	03/28/24 13:44	03/28/24 17:55
WHS01-E@0-6"	2403459-06	Soil	03/28/24 12:35	03/28/24 17:55
FL01-01@6'	2403459-07	Soil	03/28/24 13:50	03/28/24 17:55
SEP01-DL@4'	2403459-08	Soil	03/28/24 14:27	03/28/24 17:55
BKG01@4'	2403459-09	Soil	03/28/24 14:37	03/28/24 17:55
BKG01@6'	2403459-10	Soil	03/28/24 14:39	03/28/24 17:55
BKG02@4'	2403459-11	Soil	03/28/24 14:59	03/28/24 17:55
BKG02@6'	2403459-12	Soil	03/28/24 15:04	03/28/24 17:55

**Case Narrative**

Hunter Merlo requested COC analyses be modified to include GBTEXN-915 on 6/25/2024.

This is a revision of the report originally sent on 05/24/2024 at 10:45 AM MT.

Summit Scientific



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# SUMMIT SCIENTIFIC

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

Lab ID 2403459 Page 1 of 1

Client: PDC / Tasman		Send Data To: Project Manager: Karen Olson		Send Invoice To: Company: PDC Energy	
Address: 6855 W 119th Ave		E-Mail: karen.olson@chevron.com		Project Name/Location:	
City/State/Zip: Broomfield / CO / 80020		Project Name: <u>Hall 42-33</u>		AFE#:	
Phone: 303-487-1228		Project Number:		PO/Billing Codes:	
Sampler Name: <u>Shannon Walrus</u>		Project Number:		Contact: Karen Olson	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	1,2,4 & 1,3,5-TMB	TDS, Cl, SO4		MCDAIS-CIS	PAH-CIS	SALECPH
1	PW01-BWZ	3/28/24	1204	2			X			X					X	X	X	X	
2	PW01-WW1		1214	1															
3	F/R01@4'		1219	1															
4	WH01@6'		1223	1															
5	SEP01-FI@4'		1344	1															
6	WHS01-E@6'		1235	1															
7	FLO1@6'		1350	1															
8	SEP01-DL@4'		1427	1															
9	BHG01@4'		1437	1															
10	BHG01@6'		1439	1															
11	BHG02@4'		1459	1															
12	BHG02@6'		1504	1															
13																			
14																			
15																			

Relinquished by: <u>Shannon Walrus</u>	Date/Time: <u>3/28/24 1730</u>	Received by: <u>Tasman Lockbox</u>	Date/Time: <u>3/28/24 1730</u>	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: <u>Tasman Lockbox</u>	Date/Time: <u>3/28/24 1730</u>	Received by: <u>RELL</u>	Date/Time: <u>3/28/24 1730</u>	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	<input checked="" type="checkbox"/> Field Turb.	
Temperature Upon Receipt: <u>8.56</u>	Corrected Temperature: <u>8</u>	IR gun #:		HNO3 lot #:		

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2403459

Client: Dr. Tasman Client Project ID: Plat 42-33

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

Matrix (Check all that apply) Air  Soil  Solid  Water  Other

Temp (°C) 8.8 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>only one</u>
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <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"/>	
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"/>	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>names didn't match</u>
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> , etc.	<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.

AS  
Custodian Printed Name  
3/28/24  
Date/Time

14.5



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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-B@2'**  
**2403459-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHC1092	03/29/24	03/30/24	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>7.1</b>	<b>0.50</b>		"	"	"	"	"	"	

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0360	89.9 %		50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>	0.0411	103 %		50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0535	134 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHC1094	03/29/24	03/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<i>Surrogate: o-Terphenyl</i>	8.05	64.4 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-B@2'**  
**2403459-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC1100	03/31/24	04/02/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0161	48.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0157	47.2 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0132	04/04/24	04/06/24	EPA 6020B	

**Total Metals by EPA 6020B**

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-B@2'**  
**2403459-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.38	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	53.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	7.73	0.400	"	"	"	"	"	"	
Lead	5.92	0.200	"	"	"	"	"	"	
Nickel	5.90	0.400	"	"	"	"	"	"	
Silver	0.0303	0.0200	"	"	"	"	"	"	
Zinc	25.6	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0117	04/03/24	04/08/24	EPA 7196A	

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

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	21.4	0.0500	mg/L dry	1	BHC1088	03/29/24	04/01/24	EPA 6020B	
Magnesium	9.47	0.0500	"	"	"	"	"	"	
Sodium	9.01	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.408	0.00100	units	1	BHD0083	04/03/24	04/03/24	Calculation	

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-B@2'**  
**2403459-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.9		%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.299	0.0100	mmhos/cm	1	BHC1089	03/29/24	04/01/24	EPA 120.1	

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

Date Sampled: **03/28/24 12:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.80		pH Units	1	BHC1090	03/29/24	04/01/24	EPA 9045D	

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-W@1'**  
**2403459-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHD0014	04/01/24	04/03/24	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: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0448	112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0012	04/01/24	04/02/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.83	78.6 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-W@1'**  
**2403459-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0053	04/02/24	04/04/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0264	79.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0182	54.6 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0343	04/11/24	05/23/24	EPA 6020B	

**Total Metals by EPA 6020B**

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-W@1'**  
**2403459-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.78	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	49.6	0.400	"	"	"	"	"	"	
Cadmium	0.219	0.200	"	"	"	"	"	"	
Copper	7.94	0.400	"	"	"	"	"	"	
Lead	6.74	0.200	"	"	"	"	"	"	
Nickel	8.17	0.400	"	"	"	"	"	"	
Silver	0.0353	0.0200	"	"	"	"	"	"	
Zinc	30.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	28.2	0.0500	mg/L dry	1	BHD0418	04/12/24	05/07/24	EPA 6020B	
Magnesium	13.3	0.0500	"	"	"	"	"	"	
Sodium	13.9	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.541	0.00100	units	1	BHE0268	05/08/24	05/08/24	Calculation	

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

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**PWV01-W@1'**  
**2403459-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	<b>80.5</b>			%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>0.256</b>	0.0100		mmhos/cm	1	BHD0420	04/12/24	04/16/24	EPA 120.1	

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	<b>8.33</b>			pH Units	1	BHD0419	04/12/24	04/16/24	EPA 9045D	

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FLR01@4'**  
**2403459-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHD0014	04/01/24	04/03/24	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>1.3</b>	<b>0.50</b>	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0434	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0484	121 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0012	04/01/24	04/02/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.76	62.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FLR01@4'**  
**2403459-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0053	04/02/24	04/04/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0251	75.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0172	51.5 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0343	04/11/24	05/23/24	EPA 6020B	

**Total Metals by EPA 6020B**

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FLR01@4'**  
**2403459-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.77	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	79.6	0.400	"	"	"	"	"	"	
Cadmium	0.238	0.200	"	"	"	"	"	"	
Copper	13.3	0.400	"	"	"	"	"	"	
Lead	15.2	0.200	"	"	"	"	"	"	
Nickel	9.74	0.400	"	"	"	"	"	"	
Silver	0.0499	0.0200	"	"	"	"	"	"	
Zinc	39.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	111	0.0500	mg/L dry	1	BHD0418	04/12/24	05/07/24	EPA 6020B	
Magnesium	0.490	0.0500	"	"	"	"	"	"	
Sodium	48.3	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	1.26	0.00100	units	1	BHE0268	05/08/24	05/08/24	Calculation	

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

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FLR01@4'**  
**2403459-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	80.0			%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.09	0.0100		mmhos/cm	1	BHD0420	04/12/24	04/16/24	EPA 120.1	

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

Date Sampled: **03/28/24 12:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	11.4			pH Units	1	BHD0419	04/12/24	04/16/24	EPA 9045D	

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WH01@6'**  
**2403459-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHC1092	03/29/24	03/30/24	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>0.78</b>	0.50		"	"	"	"	"	"	

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0393	98.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0423	106 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0383	95.8 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHC1094	03/29/24	03/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.92	55.4 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WH01@6'**  
**2403459-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC1100	03/31/24	04/02/24	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>0.00662</b>	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>0.0141</b>	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0148	44.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0166	49.8 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0132	04/04/24	04/06/24	EPA 6020B	

**Total Metals by EPA 6020B**

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WH01@6'**  
**2403459-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.96	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	60.4	0.400	"	"	"	"	"	"	
Cadmium	0.308	0.200	"	"	"	"	"	"	
Copper	12.4	0.400	"	"	"	"	"	"	
Lead	17.8	0.200	"	"	"	"	"	"	
Nickel	10.3	0.400	"	"	"	"	"	"	
Silver	0.0518	0.0200	"	"	"	"	"	"	
Zinc	41.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0117	04/03/24	04/08/24	EPA 7196A	

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

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	41.5	0.0500	mg/L dry	1	BHC1088	03/29/24	04/01/24	EPA 6020B	
Magnesium	22.8	0.0500	"	"	"	"	"	"	
Sodium	22.9	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.709	0.00100	units	1	BHD0083	04/03/24	04/03/24	Calculation	

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

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6855 W. 119th Ave.  
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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WH01@6'**  
**2403459-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.8			%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.548	0.0100		mmhos/cm	1	BHC1089	03/29/24	04/01/24	EPA 120.1	

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

Date Sampled: **03/28/24 12:23**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.83			pH Units	1	BHC1090	03/29/24	04/01/24	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-FL@4'**  
**2403459-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHD0014	04/01/24	04/03/24	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: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0420	105 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0476	119 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHD0012	04/01/24	04/02/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.6	84.9 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-FL@4'**  
**2403459-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0053	04/02/24	04/04/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0256	76.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0212	63.6 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0343	04/11/24	05/23/24	EPA 6020B	

**Total Metals by EPA 6020B**

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-FL@4'**  
**2403459-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.96	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	63.6	0.400	"	"	"	"	"	"	
Cadmium	0.239	0.200	"	"	"	"	"	"	
Copper	8.97	0.400	"	"	"	"	"	"	
Lead	7.46	0.200	"	"	"	"	"	"	
Nickel	8.30	0.400	"	"	"	"	"	"	
Silver	0.0455	0.0200	"	"	"	"	"	"	
Zinc	32.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	86.1	0.0500	mg/L dry	1	BHD0418	04/12/24	05/07/24	EPA 6020B	
Magnesium	41.5	0.0500	"	"	"	"	"	"	
Sodium	49.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	1.09	0.00100	units	1	BHE0268	05/08/24	05/08/24	Calculation	

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

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-FL@4'**  
**2403459-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	77.9			%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.14	0.0100		mmhos/cm	1	BHD0420	04/12/24	04/16/24	EPA 120.1	

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

Date Sampled: **03/28/24 13:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.43			pH Units	1	BHD0419	04/12/24	04/16/24	EPA 9045D	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WHS01-E@0-6"**  
**2403459-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHD0014	04/01/24	04/03/24	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: **03/28/24 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0448	112 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0399	99.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHD0012	04/01/24	04/02/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.7	93.4 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WHS01-E@0-6"**  
**2403459-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0053	04/02/24	04/04/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0236	70.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0168	50.3 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0343	04/11/24	05/23/24	EPA 6020B	

**Total Metals by EPA 6020B**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WHS01-E@0-6"**  
**2403459-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.16	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	73.7	0.400	"	"	"	"	"	"	
Cadmium	0.371	0.200	"	"	"	"	"	"	
Copper	15.9	0.400	"	"	"	"	"	"	
Lead	19.0	0.200	"	"	"	"	"	"	
Nickel	10.2	0.400	"	"	"	"	"	"	
Silver	0.0553	0.0200	"	"	"	"	"	"	
Zinc	44.5	0.400	"	"	"	"	"	"	
Selenium	0.265	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	70.4	0.0500	mg/L dry	1	BHD0418	04/12/24	05/07/24	EPA 6020B	
Magnesium	23.2	0.0500	"	"	"	"	"	"	
Sodium	39.0	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	1.03	0.00100	units	1	BHE0268	05/08/24	05/08/24	Calculation	

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

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6855 W. 119th Ave.  
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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**WHS01-E@0-6"**  
**2403459-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	91.1		%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.870	0.0100	mmhos/cm	1	BHD0420	04/12/24	04/16/24	EPA 120.1	

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

Date Sampled: **03/28/24 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.43		pH Units	1	BHD0419	04/12/24	04/16/24	EPA 9045D	

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Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FL01-01@6'**  
**2403459-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHC1092	03/29/24	03/30/24	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: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0332	83.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0448	112 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.3 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHC1094	03/29/24	03/30/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.85	62.8 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FL01-01@6'**  
**2403459-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHC1100	03/31/24	04/02/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0216	64.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0234	70.3 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0132	04/04/24	04/06/24	EPA 6020B	

**Total Metals by EPA 6020B**

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FL01-01@6'**  
**2403459-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.34	0.180	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	75.4	0.360	"	"	"	"	"	"	
Cadmium	0.403	0.180	"	"	"	"	"	"	
Copper	13.4	0.360	"	"	"	"	"	"	
Lead	10.4	0.180	"	"	"	"	"	"	
Nickel	10.6	0.360	"	"	"	"	"	"	
Silver	0.0713	0.0180	"	"	"	"	"	"	
Zinc	50.9	0.360	"	"	"	"	"	"	
Selenium	0.269	0.234	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0117	04/03/24	04/08/24	EPA 7196A	

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

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	42.7	0.0500	mg/L dry	1	BHC1088	03/29/24	04/01/24	EPA 6020B	
Magnesium	20.9	0.0500	"	"	"	"	"	"	
Sodium	22.7	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.712	0.00100	units	1	BHD0083	04/03/24	04/03/24	Calculation	

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

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6855 W. 119th Ave.  
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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**FL01-01@6'**  
**2403459-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.8			%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.628	0.0100		mmhos/cm	1	BHC1089	03/29/24	04/01/24	EPA 120.1	

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

Date Sampled: **03/28/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.10			pH Units	1	BHC1090	03/29/24	04/01/24	EPA 9045D	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-DL@4'**  
**2403459-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHD0014	04/01/24	04/03/24	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: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0424	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.5 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHD0012	04/01/24	04/02/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.62	61.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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6855 W. 119th Ave.  
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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-DL@4'**  
**2403459-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHD0053	04/02/24	04/04/24	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	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	56.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0150	45.1 %	40-150		"	"	"	"	

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

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHD0343	04/11/24	05/23/24	EPA 6020B	

**Total Metals by EPA 6020B**

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-DL@4'**  
**2403459-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Arsenic	6.01	0.181		mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	124	0.362		"	"	"	"	"	"	
Cadmium	0.450	0.181		"	"	"	"	"	"	
Copper	14.1	0.362		"	"	"	"	"	"	
Lead	11.3	0.181		"	"	"	"	"	"	
Nickel	13.6	0.362		"	"	"	"	"	"	
Silver	0.0595	0.0181		"	"	"	"	"	"	
Zinc	44.5	0.362		"	"	"	"	"	"	
Selenium	0.207	0.236	0.159	"	"	"	"	"	"	J

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Chromium, Hexavalent	ND	0.30		mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Calcium	184	0.0500		mg/L dry	1	BHD0418	04/12/24	05/07/24	EPA 6020B	
Magnesium	128	0.0500		"	"	"	"	"	"	
Sodium	176	0.0500		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	MDL							
Sodium Adsorption Ratio	2.44	0.00100		units	1	BHE0268	05/08/24	05/08/24	Calculation	

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

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**SEP01-DL@4'**  
**2403459-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.7			%	1	BHD0051	04/02/24	04/03/24	Calculation	

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

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	2.46	0.0100		mmhos/cm	1	BHD0420	04/12/24	04/16/24	EPA 120.1	

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

Date Sampled: **03/28/24 14:27**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.77			pH Units	1	BHD0419	04/12/24	04/16/24	EPA 9045D	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**BKG01@4'**  
**2403459-09 (Soil)**

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**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 14:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.13	0.181	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	1080	0.362	"	"	"	"	"	"	"
Cadmium	0.401	0.181	"	"	"	"	"	"	"
Copper	9.34	0.362	"	"	"	"	"	"	"
Lead	8.56	0.181	"	"	"	"	"	"	"
Nickel	11.7	0.362	"	"	"	"	"	"	"
Silver	0.0451	0.0181	"	"	"	"	"	"	"
Zinc	39.2	0.362	"	"	"	"	"	"	"
Selenium	0.245	0.236	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 14:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 14:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	81.9		%	1	BHD0051	04/02/24	04/03/24	Calculation	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**BKG01@6'**  
**2403459-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 14:39**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.82	0.180	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	47.4	0.360	"	"	"	"	"	"	"
Cadmium	0.251	0.180	"	"	"	"	"	"	"
Copper	7.08	0.360	"	"	"	"	"	"	"
Lead	9.55	0.180	"	"	"	"	"	"	"
Nickel	8.86	0.360	"	"	"	"	"	"	"
Silver	0.0363	0.0180	"	"	"	"	"	"	"
Zinc	41.0	0.360	"	"	"	"	"	"	"
Selenium	ND	0.234	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 14:39**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 14:39**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	79.2		%	1	BHD0051	04/02/24	04/03/24	Calculation	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**BKG02@4'**  
**2403459-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.98	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	103	0.400	"	"	"	"	"	"	"
Cadmium	0.317	0.200	"	"	"	"	"	"	"
Copper	10.4	0.400	"	"	"	"	"	"	"
Lead	6.82	0.200	"	"	"	"	"	"	"
Nickel	10.1	0.400	"	"	"	"	"	"	"
Silver	0.0580	0.0200	"	"	"	"	"	"	"
Zinc	29.3	0.400	"	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	85.6		%	1	BHD0051	04/02/24	04/03/24	Calculation	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**BKG02@6'**  
**2403459-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/28/24 15:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.02	0.200	mg/kg dry	1	BHD0554	04/17/24	04/23/24	EPA 6020B	
Barium	87.0	0.400	"	"	"	"	"	"	"
Cadmium	0.285	0.200	"	"	"	"	"	"	"
Copper	9.71	0.400	"	"	"	"	"	"	"
Lead	5.84	0.200	"	"	"	"	"	"	"
Nickel	8.85	0.400	"	"	"	"	"	"	"
Silver	0.0501	0.0200	"	"	"	"	"	"	"
Zinc	25.1	0.400	"	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/28/24 15:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHD0344	04/11/24	04/12/24	EPA 7196A	

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

Date Sampled: **03/28/24 15:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	85.0		%	1	BHD0051	04/02/24	04/03/24	Calculation	

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

#### Summit Scientific

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

#### Batch BHC1092 - EPA 5030 Soil MS

##### Blank (BHC1092-BLK1)

Prepared: 03/29/24 Analyzed: 03/30/24

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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0307		"	0.0400		76.6	50-150			
<i>Surrogate: Toluene-d8</i>	0.0442		"	0.0400		110	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0379		"	0.0400		94.8	50-150			

##### LCS (BHC1092-BS1)

Prepared: 03/29/24 Analyzed: 03/30/24

Benzene	0.0918	0.0020	mg/kg	0.100		91.8	70-130			
Toluene	0.0914	0.0050	"	0.100		91.4	70-130			
Ethylbenzene	0.106	0.0050	"	0.100		106	70-130			
m,p-Xylene	0.212	0.010	"	0.200		106	70-130			
o-Xylene	0.100	0.0050	"	0.100		100	70-130			
1,2,4-Trimethylbenzene	0.0994	0.0050	"	0.100		99.4	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
Naphthalene	0.0818	0.0038	"	0.100		81.8	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0291		"	0.0400		72.8	50-150			
<i>Surrogate: Toluene-d8</i>	0.0408		"	0.0400		102	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0379		"	0.0400		94.7	50-150			

##### Matrix Spike (BHC1092-MS1)

Source: 2403459-01

Prepared: 03/29/24 Analyzed: 03/30/24

Benzene	0.0872	0.0020	mg/kg	0.100	ND	87.2	70-130			
Toluene	0.0873	0.0050	"	0.100	ND	87.3	70-130			
Ethylbenzene	0.0985	0.0050	"	0.100	ND	98.5	70-130			
m,p-Xylene	0.195	0.010	"	0.200	ND	97.4	70-130			
o-Xylene	0.0947	0.0050	"	0.100	ND	94.7	70-130			
1,2,4-Trimethylbenzene	0.0865	0.0050	"	0.100	ND	86.5	70-130			
1,3,5-Trimethylbenzene	0.0926	0.0050	"	0.100	ND	92.6	70-130			
Naphthalene	0.0531	0.0038	"	0.100	ND	53.1	70-130			QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0313		"	0.0400		78.2	50-150			
<i>Surrogate: Toluene-d8</i>	0.0406		"	0.0400		101	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0374		"	0.0400		93.4	50-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch BHC1092 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BHC1092-MSD1)</b>	<b>Source: 2403459-01</b>			<b>Prepared: 03/29/24 Analyzed: 03/30/24</b>						
Benzene	0.0910	0.0020	mg/kg	0.100	ND	91.0	70-130	4.34	30	
Toluene	0.0888	0.0050	"	0.100	ND	88.8	70-130	1.67	30	
Ethylbenzene	0.0985	0.0050	"	0.100	ND	98.5	70-130	0.00	30	
m,p-Xylene	0.196	0.010	"	0.200	ND	98.2	70-130	0.874	30	
o-Xylene	0.0933	0.0050	"	0.100	ND	93.3	70-130	1.44	30	
1,2,4-Trimethylbenzene	0.0875	0.0050	"	0.100	ND	87.5	70-130	1.24	30	
1,3,5-Trimethylbenzene	0.0944	0.0050	"	0.100	ND	94.4	70-130	1.89	30	
Naphthalene	0.0551	0.0038	"	0.100	ND	55.1	70-130	3.77	30	QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0323</i>		<i>"</i>	<i>0.0400</i>		<i>80.8</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0401</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0365</i>		<i>"</i>	<i>0.0400</i>		<i>91.2</i>	<i>50-150</i>			

**Batch BHD0014 - EPA 5030 Soil MS**

<b>Blank (BHD0014-BLK1)</b>	<b>Prepared: 04/01/24 Analyzed: 04/03/24</b>									
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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0394</i>		<i>"</i>	<i>0.0400</i>		<i>98.4</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.4</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0399</i>		<i>"</i>	<i>0.0400</i>		<i>99.8</i>	<i>50-150</i>			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch BHD0014 - EPA 5030 Soil MS**

**LCS (BHD0014-BS1)**

Prepared: 04/01/24 Analyzed: 04/03/24

Benzene	0.108	0.0020	mg/kg	0.100		108	70-130			
Toluene	0.102	0.0050	"	0.100		102	70-130			
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130			
m,p-Xylene	0.216	0.010	"	0.200		108	70-130			
o-Xylene	0.103	0.0050	"	0.100		103	70-130			
1,2,4-Trimethylbenzene	0.0988	0.0050	"	0.100		98.8	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130			
Naphthalene	0.0854	0.0038	"	0.100		85.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0406		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0380		"	0.0400		94.9	50-150			

**Matrix Spike (BHD0014-MS1)**

Source: 2403450-01

Prepared: 04/01/24 Analyzed: 04/03/24

Benzene	0.0985	0.0020	mg/kg	0.100	ND	98.5	70-130			
Toluene	0.0861	0.0050	"	0.100	ND	86.1	70-130			
Ethylbenzene	0.0931	0.0050	"	0.100	ND	93.1	70-130			
m,p-Xylene	0.176	0.010	"	0.200	ND	88.2	70-130			
o-Xylene	0.0922	0.0050	"	0.100	ND	92.2	70-130			
1,2,4-Trimethylbenzene	0.0788	0.0050	"	0.100	ND	78.8	70-130			
1,3,5-Trimethylbenzene	0.0819	0.0050	"	0.100	ND	81.9	70-130			
Naphthalene	0.0652	0.0038	"	0.100	ND	65.2	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	50-150			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150			

**Matrix Spike Dup (BHD0014-MSD1)**

Source: 2403450-01

Prepared: 04/01/24 Analyzed: 04/03/24

Benzene	0.101	0.0020	mg/kg	0.100	ND	101	70-130	2.82	30	
Toluene	0.0883	0.0050	"	0.100	ND	88.3	70-130	2.58	30	
Ethylbenzene	0.0974	0.0050	"	0.100	ND	97.4	70-130	4.60	30	
m,p-Xylene	0.188	0.010	"	0.200	ND	93.8	70-130	6.11	30	
o-Xylene	0.0952	0.0050	"	0.100	ND	95.2	70-130	3.27	30	
1,2,4-Trimethylbenzene	0.0867	0.0050	"	0.100	ND	86.7	70-130	9.54	30	
1,3,5-Trimethylbenzene	0.0892	0.0050	"	0.100	ND	89.2	70-130	8.52	30	
Naphthalene	0.0668	0.0038	"	0.100	ND	66.8	70-130	2.41	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.8	50-150			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	50-150			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

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

**Batch BHC1094 - EPA 3550A**

**Blank (BHC1094-BLK1)**

Prepared: 03/29/24 Analyzed: 03/30/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	11.8		"	12.5		94.1	30-150				

**LCS (BHC1094-BS1)**

Prepared: 03/29/24 Analyzed: 03/30/24

C10-C28 (DRO)	419	50	mg/kg	500		83.7	70-130				
Surrogate: <i>o</i> -Terphenyl	11.0		"	12.5		87.9	30-150				

**Matrix Spike (BHC1094-MS1)**

Source: 2403459-01

Prepared: 03/29/24 Analyzed: 03/30/24

C10-C28 (DRO)	481	50	mg/kg	500	13.9	93.4	70-130				
Surrogate: <i>o</i> -Terphenyl	6.18		"	12.5		49.5	30-150				

**Matrix Spike Dup (BHC1094-MSD1)**

Source: 2403459-01

Prepared: 03/29/24 Analyzed: 03/30/24

C10-C28 (DRO)	418	50	mg/kg	500	13.9	80.8	70-130	14.0	20		
Surrogate: <i>o</i> -Terphenyl	7.58		"	12.5		60.7	30-150				

**Batch BHD0012 - EPA 3550A**

**Blank (BHD0012-BLK1)**

Prepared: 04/01/24 Analyzed: 04/02/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	14.9		"	12.5		120	30-150				

**LCS (BHD0012-BS1)**

Prepared: 04/01/24 Analyzed: 04/02/24

C10-C28 (DRO)	641	50	mg/kg	500		128	70-130				
Surrogate: <i>o</i> -Terphenyl	13.4		"	12.5		107	30-150				

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Project Number: [none]  
Project Manager: Karen Olson

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06/25/24 10:56

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
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Analyte	Result	Reporting		Spike	Source		%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

**Batch BHD0012 - EPA 3550A**

**Matrix Spike (BHD0012-MS1)**

Source: 2403450-01

Prepared: 04/01/24 Analyzed: 04/02/24

C10-C28 (DRO)	628	50	mg/kg	500	30.5	119	70-130			
Surrogate: o-Terphenyl	8.60		"	12.5		68.8	30-150			

**Matrix Spike Dup (BHD0012-MSD1)**

Source: 2403450-01

Prepared: 04/01/24 Analyzed: 04/02/24

C10-C28 (DRO)	569	50	mg/kg	500	30.5	108	70-130	9.74	20	
Surrogate: o-Terphenyl	9.18		"	12.5		73.4	30-150			

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

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

**Batch BHC1100 - EPA 5030 Soil MS**

**Blank (BHC1100-BLK1)**

Prepared: 03/31/24 Analyzed: 04/01/24

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	"							
Naphthalene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0293		"	0.0333		88.0	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0307		"	0.0333		92.2	40-150			

**LCS (BHC1100-BS1)**

Prepared: 03/31/24 Analyzed: 04/01/24

Acenaphthene	0.0302	0.00500	mg/kg	0.0333		90.5	31-137			
Anthracene	0.0312	0.00500	"	0.0333		93.7	30-120			
Benzo (a) anthracene	0.0303	0.00500	"	0.0333		90.8	30-120			
Benzo (a) pyrene	0.0259	0.00500	"	0.0333		77.7	30-120			
Benzo (b) fluoranthene	0.0274	0.00500	"	0.0333		82.3	30-120			
Benzo (k) fluoranthene	0.0284	0.00500	"	0.0333		85.1	30-120			
Chrysene	0.0307	0.00500	"	0.0333		92.1	30-120			
Dibenz (a,h) anthracene	0.0270	0.00500	"	0.0333		81.0	30-120			
Fluoranthene	0.0301	0.00500	"	0.0333		90.3	30-120			
Fluorene	0.0231	0.00500	"	0.0333		69.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0217	0.00500	"	0.0333		65.2	30-120			
Naphthalene	0.0331	0.00500	"	0.0333		99.2	30-120			
Pyrene	0.0327	0.00500	"	0.0333		98.2	35-142			
1-Methylnaphthalene	0.0280	0.00500	"	0.0333		83.9	35-142			
2-Methylnaphthalene	0.0368	0.00500	"	0.0333		110	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0325		"	0.0333		97.6	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0300		"	0.0333		89.9	40-150			

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6855 W. 119th Ave.  
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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

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06/25/24 10:56

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

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

**Batch BHC1100 - EPA 5030 Soil MS**

<b>Matrix Spike (BHC1100-MS1)</b>	<b>Source: 2403401-01</b>			<b>Prepared: 03/31/24 Analyzed: 04/01/24</b>						
Acenaphthene	0.0167	0.00500	mg/kg	0.0333	ND	50.1	31-137			
Anthracene	0.0180	0.00500	"	0.0333	ND	54.0	30-120			
Benzo (a) anthracene	0.0175	0.00500	"	0.0333	ND	52.6	30-120			
Benzo (a) pyrene	0.0139	0.00500	"	0.0333	ND	41.8	30-120			
Benzo (b) fluoranthene	0.0132	0.00500	"	0.0333	ND	39.5	30-120			
Benzo (k) fluoranthene	0.0136	0.00500	"	0.0333	ND	40.7	30-120			
Chrysene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Dibenz (a,h) anthracene	0.0213	0.00500	"	0.0333	ND	63.9	30-120			
Fluoranthene	0.0179	0.00500	"	0.0333	ND	53.6	30-120			
Fluorene	0.0174	0.00500	"	0.0333	ND	52.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0169	0.00500	"	0.0333	ND	50.7	30-120			
Naphthalene	0.0183	0.00500	"	0.0333	ND	55.0	30-120			
Pyrene	0.0180	0.00500	"	0.0333	ND	54.0	35-142			
1-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.1	15-130			
2-Methylnaphthalene	0.0212	0.00500	"	0.0333	ND	63.6	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0159</i>		<i>"</i>	<i>0.0333</i>		<i>47.7</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0191</i>		<i>"</i>	<i>0.0333</i>		<i>57.2</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BHC1100-MSD1)</b>	<b>Source: 2403401-01</b>			<b>Prepared: 03/31/24 Analyzed: 04/01/24</b>						
Acenaphthene	0.0174	0.00500	mg/kg	0.0333	ND	52.2	31-137	4.21	30	
Anthracene	0.0176	0.00500	"	0.0333	ND	52.7	30-120	2.48	30	
Benzo (a) anthracene	0.0153	0.00500	"	0.0333	ND	45.9	30-120	13.7	30	
Benzo (a) pyrene	0.0108	0.00500	"	0.0333	ND	32.5	30-120	24.9	30	
Benzo (b) fluoranthene	0.0104	0.00500	"	0.0333	ND	31.1	30-120	23.9	30	
Benzo (k) fluoranthene	0.0105	0.00500	"	0.0333	ND	31.4	30-120	25.9	30	
Chrysene	0.0150	0.00500	"	0.0333	ND	44.9	30-120	10.8	30	
Dibenz (a,h) anthracene	0.0194	0.00500	"	0.0333	ND	58.2	30-120	9.32	30	
Fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	30-120	3.43	30	
Fluorene	0.0153	0.00500	"	0.0333	ND	45.9	30-120	12.7	30	
Indeno (1,2,3-cd) pyrene	0.0153	0.00500	"	0.0333	ND	45.9	30-120	9.83	30	
Naphthalene	0.0159	0.00500	"	0.0333	ND	47.7	30-120	14.1	30	
Pyrene	0.0160	0.00500	"	0.0333	ND	47.9	35-142	12.1	30	
1-Methylnaphthalene	0.0179	0.00500	"	0.0333	ND	53.8	15-130	4.02	50	
2-Methylnaphthalene	0.0204	0.00500	"	0.0333	ND	61.1	15-130	3.96	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0150</i>		<i>"</i>	<i>0.0333</i>		<i>44.9</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0182</i>		<i>"</i>	<i>0.0333</i>		<i>54.6</i>	<i>40-150</i>			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

**Summit Scientific**

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

**Batch BHD0053 - EPA 5030 Soil MS**

**Blank (BHD0053-BLK1)**

Prepared: 04/02/24 Analyzed: 04/03/24

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	"							
Naphthalene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0342		"	0.0333	103	40-150				
<i>Surrogate: Fluoranthene-d10</i>	0.0228		"	0.0333	68.4	40-150				

**LCS (BHD0053-BS1)**

Prepared: 04/02/24 Analyzed: 04/03/24

Acenaphthene	0.0275	0.00500	mg/kg	0.0333	82.5	31-137				
Anthracene	0.0278	0.00500	"	0.0333	83.4	30-120				
Benzo (a) anthracene	0.0202	0.00500	"	0.0333	60.5	30-120				
Benzo (a) pyrene	0.0225	0.00500	"	0.0333	67.5	30-120				
Benzo (b) fluoranthene	0.0191	0.00500	"	0.0333	57.4	30-120				
Benzo (k) fluoranthene	0.0233	0.00500	"	0.0333	70.0	30-120				
Chrysene	0.0272	0.00500	"	0.0333	81.7	30-120				
Dibenz (a,h) anthracene	0.0278	0.00500	"	0.0333	83.4	30-120				
Fluoranthene	0.0243	0.00500	"	0.0333	73.0	30-120				
Fluorene	0.0267	0.00500	"	0.0333	80.1	30-120				
Indeno (1,2,3-cd) pyrene	0.0271	0.00500	"	0.0333	81.2	30-120				
Naphthalene	0.0281	0.00500	"	0.0333	84.2	30-120				
Pyrene	0.0346	0.00500	"	0.0333	104	35-142				
1-Methylnaphthalene	0.0298	0.00500	"	0.0333	89.3	35-142				
2-Methylnaphthalene	0.0314	0.00500	"	0.0333	94.1	35-142				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0365		"	0.0333	109	40-150				
<i>Surrogate: Fluoranthene-d10</i>	0.0252		"	0.0333	75.7	40-150				

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

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06/25/24 10:56

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

**Summit Scientific**

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

**Batch BHD0053 - EPA 5030 Soil MS**

<b>Matrix Spike (BHD0053-MS1)</b>	<b>Source: 2403438-01</b>			<b>Prepared: 04/02/24 Analyzed: 04/03/24</b>						
Acenaphthene	0.0150	0.00500	mg/kg	0.0333	ND	45.1	31-137			
Anthracene	0.0149	0.00500	"	0.0333	ND	44.7	30-120			
Benzo (a) anthracene	0.0171	0.00500	"	0.0333	ND	51.3	30-120			
Benzo (a) pyrene	0.0181	0.00500	"	0.0333	ND	54.4	30-120			
Benzo (b) fluoranthene	0.0173	0.00500	"	0.0333	ND	51.9	30-120			
Benzo (k) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.4	30-120			
Chrysene	0.0200	0.00500	"	0.0333	ND	60.1	30-120			
Dibenz (a,h) anthracene	0.0171	0.00500	"	0.0333	ND	51.3	30-120			
Fluoranthene	0.0143	0.00500	"	0.0333	ND	42.9	30-120			
Fluorene	0.0152	0.00500	"	0.0333	ND	45.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0176	0.00500	"	0.0333	ND	52.8	30-120			
Naphthalene	0.0156	0.00500	"	0.0333	ND	46.7	30-120			
Pyrene	0.0240	0.00500	"	0.0333	ND	72.0	35-142			
1-Methylnaphthalene	0.0205	0.00500	"	0.0333	ND	61.5	15-130			
2-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.3	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0241</i>		<i>"</i>	<i>0.0333</i>		<i>72.3</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0147</i>		<i>"</i>	<i>0.0333</i>		<i>44.1</i>	<i>40-150</i>			

<b>Matrix Spike Dup (BHD0053-MSD1)</b>	<b>Source: 2403438-01</b>			<b>Prepared: 04/02/24 Analyzed: 04/03/24</b>						
Acenaphthene	0.0168	0.00500	mg/kg	0.0333	ND	50.3	31-137	10.9	30	
Anthracene	0.0173	0.00500	"	0.0333	ND	51.9	30-120	14.7	30	
Benzo (a) anthracene	0.0152	0.00500	"	0.0333	ND	45.6	30-120	11.7	30	
Benzo (a) pyrene	0.0184	0.00500	"	0.0333	ND	55.2	30-120	1.57	30	
Benzo (b) fluoranthene	0.0139	0.00500	"	0.0333	ND	41.7	30-120	21.8	30	
Benzo (k) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.2	30-120	1.54	30	
Chrysene	0.0168	0.00500	"	0.0333	ND	50.4	30-120	17.5	30	
Dibenz (a,h) anthracene	0.0143	0.00500	"	0.0333	ND	42.9	30-120	17.9	30	
Fluoranthene	0.0162	0.00500	"	0.0333	ND	48.5	30-120	12.2	30	
Fluorene	0.0169	0.00500	"	0.0333	ND	50.6	30-120	10.5	30	
Indeno (1,2,3-cd) pyrene	0.0169	0.00500	"	0.0333	ND	50.8	30-120	3.77	30	
Naphthalene	0.0173	0.00500	"	0.0333	ND	51.9	30-120	10.4	30	
Pyrene	0.0181	0.00500	"	0.0333	ND	54.4	35-142	27.8	30	
1-Methylnaphthalene	0.0153	0.00500	"	0.0333	ND	45.9	15-130	29.0	50	
2-Methylnaphthalene	0.0162	0.00500	"	0.0333	ND	48.5	15-130	25.0	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0229</i>		<i>"</i>	<i>0.0333</i>		<i>68.7</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0170</i>		<i>"</i>	<i>0.0333</i>		<i>51.0</i>	<i>40-150</i>			

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Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**

**Summit Scientific**

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

**Batch BHD0132 - EPA 3050B**

**Blank (BHD0132-BLK1)**

Prepared: 04/04/24 Analyzed: 04/05/24

Boron ND 2.00 mg/L

**LCS (BHD0132-BS1)**

Prepared: 04/04/24 Analyzed: 04/05/24

Boron 4.41 2.00 mg/L 5.00 88.3 80-120

**Duplicate (BHD0132-DUP1)**

Source: 2403437-01

Prepared: 04/04/24 Analyzed: 04/05/24

Boron 0.104 2.00 mg/L 0.116 11.3 20

**Matrix Spike (BHD0132-MS1)**

Source: 2403437-01

Prepared: 04/04/24 Analyzed: 04/05/24

Boron 4.54 2.00 mg/L 5.00 0.116 88.5 75-125

**Matrix Spike Dup (BHD0132-MSD1)**

Source: 2403437-01

Prepared: 04/04/24 Analyzed: 04/05/24

Boron 4.69 2.00 mg/L 5.00 0.116 91.4 75-125 3.16 25

**Batch BHD0343 - EPA 3050B**

**Blank (BHD0343-BLK1)**

Prepared: 04/11/24 Analyzed: 05/23/24

Boron ND 2.00 mg/L

**LCS (BHD0343-BS1)**

Prepared: 04/11/24 Analyzed: 05/23/24

Boron 6.41 2.00 mg/L 5.00 128 80-120 QM-05

**Duplicate (BHD0343-DUP1)**

Source: 2403441-01

Prepared: 04/11/24 Analyzed: 05/23/24

Boron 0.454 2.00 mg/L 0.446 1.74 20

**Matrix Spike (BHD0343-MS1)**

Source: 2403441-01

Prepared: 04/11/24 Analyzed: 05/23/24

Boron 6.61 2.00 mg/L 5.00 0.446 123 75-125

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: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**

**Summit Scientific**

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

**Batch BHD0343 - EPA 3050B**

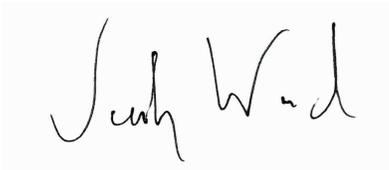
**Matrix Spike Dup (BHD0343-MSD1)**

**Source: 2403441-01**

Prepared: 04/11/24 Analyzed: 05/23/24

Boron	6.48	2.00	mg/L	5.00	0.446	121	75-125	2.02	25	
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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: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

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

**Batch BHD0554 - EPA 3050B**

**Blank (BHD0554-BLK1)**

Prepared: 04/17/24 Analyzed: 04/23/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

**LCS (BHD0554-BS1)**

Prepared: 04/17/24 Analyzed: 04/23/24

Arsenic	40.0	0.200	mg/kg wet	40.0		100	80-120			
Barium	39.7	0.400	"	40.0		99.1	80-120			
Cadmium	2.00	0.200	"	2.00		99.9	80-120			
Copper	40.2	0.400	"	40.0		100	80-120			
Lead	19.4	0.200	"	20.0		96.8	80-120			
Nickel	39.7	0.400	"	40.0		99.3	80-120			
Silver	1.98	0.0200	"	2.00		99.1	80-120			
Zinc	39.5	0.400	"	40.0		98.8	80-120			
Selenium	4.60	0.260	"	4.00		115	80-120			

**Duplicate (BHD0554-DUP1)**

Source: 2403449-01

Prepared: 04/17/24 Analyzed: 04/23/24

Arsenic	4.62	0.200	mg/kg dry	4.57		1.12	20			
Barium	93.4	0.400	"	91.6		2.03	20			
Cadmium	0.233	0.200	"	0.230		1.14	20			
Copper	6.52	0.400	"	6.36		2.54	20			
Lead	7.46	0.200	"	7.26		2.72	20			
Nickel	9.11	0.400	"	8.93		2.03	20			
Silver	0.0343	0.0200	"	0.0336		2.11	20			
Zinc	31.4	0.400	"	30.6		2.78	20			
Selenium	ND	0.260	"	ND			20			

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

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

**Batch BHD0554 - EPA 3050B**

**Matrix Spike (BHD0554-MS1)**

Source: 2403449-01

Prepared: 04/17/24 Analyzed: 04/23/24

Arsenic	52.7	0.200	mg/kg dry	47.0	4.57	102	75-125			
Barium	135	0.400	"	47.0	91.6	93.1	75-125			
Cadmium	2.70	0.200	"	2.35	0.230	105	75-125			
Copper	54.9	0.400	"	47.0	6.36	103	75-125			
Lead	30.4	0.200	"	23.5	7.26	98.5	75-125			
Nickel	57.8	0.400	"	47.0	8.93	104	75-125			
Silver	2.43	0.0200	"	2.35	0.0336	102	75-125			
Zinc	80.5	0.400	"	47.0	30.6	106	75-125			
Selenium	5.57	0.260	"	4.70	ND	118	75-125			

**Matrix Spike Dup (BHD0554-MSD1)**

Source: 2403449-01

Prepared: 04/17/24 Analyzed: 04/23/24

Arsenic	51.0	0.200	mg/kg dry	47.0	4.57	98.9	75-125	3.17	25
Barium	132	0.400	"	47.0	91.6	86.8	75-125	2.22	25
Cadmium	2.61	0.200	"	2.35	0.230	101	75-125	3.19	25
Copper	53.0	0.400	"	47.0	6.36	99.2	75-125	3.47	25
Lead	29.6	0.200	"	23.5	7.26	95.2	75-125	2.59	25
Nickel	56.0	0.400	"	47.0	8.93	100	75-125	3.22	25
Silver	2.37	0.0200	"	2.35	0.0336	99.4	75-125	2.58	25
Zinc	77.6	0.400	"	47.0	30.6	100	75-125	3.66	25
Selenium	5.64	0.260	"	4.70	ND	120	75-125	1.28	25

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BHD0117 - 3060A Mod**

<b>Blank (BHD0117-BLK1)</b>		Prepared: 04/03/24 Analyzed: 04/08/24								
Chromium, Hexavalent	ND	0.30	mg/kg wet							
<b>LCS (BHD0117-BS1)</b>		Prepared: 04/03/24 Analyzed: 04/08/24								
Chromium, Hexavalent	23.2	0.30	mg/kg wet	25.0		92.6	80-120			
<b>Duplicate (BHD0117-DUP1)</b>		<b>Source: 2403410-01</b>		Prepared: 04/03/24 Analyzed: 04/08/24						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
<b>Matrix Spike (BHD0117-MS1)</b>		<b>Source: 2403410-01</b>		Prepared: 04/03/24 Analyzed: 04/08/24						
Chromium, Hexavalent	29.1	0.30	mg/kg dry	29.6	ND	98.2	75-125			
<b>Matrix Spike Dup (BHD0117-MSD1)</b>		<b>Source: 2403410-01</b>		Prepared: 04/03/24 Analyzed: 04/08/24						
Chromium, Hexavalent	29.1	0.30	mg/kg dry	29.6	ND	98.4	75-125	0.203	20	

**Batch BHD0344 - 3060A Mod**

<b>Blank (BHD0344-BLK1)</b>		Prepared: 04/11/24 Analyzed: 04/12/24								
Chromium, Hexavalent	ND	0.30	mg/kg wet							
<b>LCS (BHD0344-BS1)</b>		Prepared: 04/11/24 Analyzed: 04/12/24								
Chromium, Hexavalent	24.4	0.30	mg/kg wet	25.0		97.6	80-120			
<b>Duplicate (BHD0344-DUP1)</b>		<b>Source: 2403459-02</b>		Prepared: 04/11/24 Analyzed: 04/12/24						
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND				20	
<b>Matrix Spike (BHD0344-MS1)</b>		<b>Source: 2403459-02</b>		Prepared: 04/11/24 Analyzed: 04/12/24						
Chromium, Hexavalent	28.6	0.30	mg/kg dry	31.0	ND	92.2	75-125			

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

**Hexavalent Chromium by EPA Method 7196 - Quality Control**

**Summit Scientific**

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

**Batch BHD0344 - 3060A Mod**

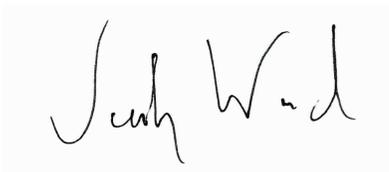
**Matrix Spike Dup (BHD0344-MSD1)**

Source: 2403459-02

Prepared: 04/11/24 Analyzed: 04/12/24

Chromium, Hexavalent	29.5	0.30	mg/kg dry	31.0	ND	95.0	75-125	2.99	20	
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Summit Scientific



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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

**Summit Scientific**

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

**Batch BHC1088 - General Preparation**

**Blank (BHC1088-BLK1)**

Prepared: 03/29/24 Analyzed: 04/01/24

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

**LCS (BHC1088-BS1)**

Prepared: 03/29/24 Analyzed: 04/01/24

Calcium	4.93	0.0500	mg/L wet	5.00	98.6	70-130
Magnesium	4.84	0.0500	"	5.00	96.8	70-130
Sodium	4.95	0.0500	"	5.00	99.1	70-130

**Batch BHD0418 - General Preparation**

**Blank (BHD0418-BLK1)**

Prepared: 04/12/24 Analyzed: 05/07/24

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

**LCS (BHD0418-BS1)**

Prepared: 04/12/24 Analyzed: 05/07/24

Calcium	5.97	0.0500	mg/L wet	5.00	119	70-130
Magnesium	4.92	0.0500	"	5.00	98.4	70-130
Sodium	5.00	0.0500	"	5.00	100	70-130

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

**Summit Scientific**

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

**Batch BHD0051 - General Preparation**

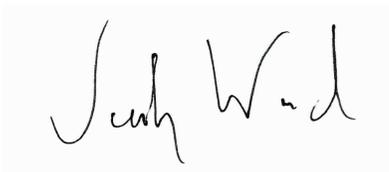
**Duplicate (BHD0051-DUP1)**

**Source: 2403436-01**

Prepared: 04/02/24 Analyzed: 04/03/24

% Solids	95.2		%		95.5			0.271	20	
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Summit Scientific



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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

**Summit Scientific**

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

**Batch BHC1089 - General Preparation**

**Blank (BHC1089-BLK1)**

Prepared: 03/29/24 Analyzed: 04/01/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHC1089-BS1)**

Prepared: 03/29/24 Analyzed: 04/01/24

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

**Duplicate (BHC1089-DUP1)**

Source: 2403253-01

Prepared: 03/29/24 Analyzed: 04/01/24

Specific Conductance (EC) 0.104 0.0100 mmhos/cm 0.107 2.08 20

**Batch BHD0420 - General Preparation**

**Blank (BHD0420-BLK1)**

Prepared: 04/12/24 Analyzed: 04/16/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BHD0420-BS1)**

Prepared: 04/12/24 Analyzed: 04/16/24

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

**Duplicate (BHD0420-DUP1)**

Source: 2403440-01

Prepared: 04/12/24 Analyzed: 04/16/24

Specific Conductance (EC) 0.229 0.0100 mmhos/cm 0.236 3.23 20

Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

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

**Summit Scientific**

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

**Batch BHC1090 - General Preparation**

**LCS (BHC1090-BS1)**

Prepared: 03/29/24 Analyzed: 04/01/24

pH	8.99		pH Units	9.18		97.9	95-105			
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**Duplicate (BHC1090-DUP1)**

Source: 2403253-01

Prepared: 03/29/24 Analyzed: 04/01/24

pH	8.65		pH Units					3.41	20	
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**Batch BHD0419 - General Preparation**

**LCS (BHD0419-BS1)**

Prepared: 04/12/24 Analyzed: 04/16/24

pH	9.23		pH Units	9.18		101	95-105			
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**Duplicate (BHD0419-DUP1)**

Source: 2403440-01

Prepared: 04/12/24 Analyzed: 04/16/24

pH	8.32		pH Units			8.40		0.957	20	
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Summit Scientific

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
06/25/24 10:56

### Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- 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

April 11, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

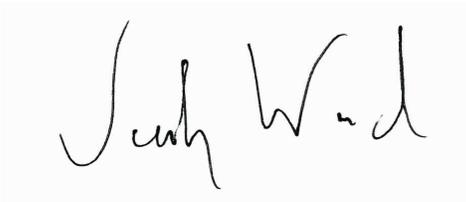
Broomfield, CO 80020

RE: PDC - Hall 42-33

Work Order #2403460

Enclosed are the results of analyses for samples received by Summit Scientific on 03/28/24 17:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

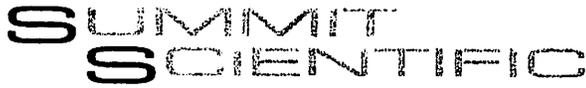
**Reported:**  
04/11/24 16:19

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2403460-01	Water	03/28/24 11:14	03/28/24 17:55
GW02	2403460-02	Water	03/28/24 12:14	03/28/24 17:55
GW03	2403460-03	Water	03/28/24 14:14	03/28/24 17:55

Summit Scientific

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

Lab ID	Page 1 of 1
2403460	

Client: PDC / Tasman		Project Manager: Karen Olson		Send Invoice To:	
Address: 6855 W 119th Ave		E-Mail: karen.olson@chevron.com		Company: PDC Energy	
City/State/Zip: Broomfield / CO / 80020		Project Name: <b>Mail 42-53</b>		Project Name/Location:	
Phone: 303-487-1228		Project Number:		AFE#:	
Sampler Name: <b>Shannon Walus</b>		Project Number:		PO/Billing Codes:	
				Contact: Karen Olson	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested					Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	1,2,4 & 1,3,5-TMB	TDS, Cl, SO4		
1	GW01	3/28/21	1114	4			X		X				X	X	X		
2	GW02	-	1214	1													
3	GW03	-	1414	1													
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: <b>Shannon Walus</b>	Date/Time: <b>3/28/21 1730</b>	Received by: <b>Tasman Lochbox</b>	Date/Time: <b>3/28/21 1730</b>	TAT Business Days	Field DO	Notes:
Relinquished by: <b>Tasman Lochbox</b>	Date/Time: <b>3/28/21 1730</b>	Received by: <b>[Signature]</b>	Date/Time: <b>3/28/21 1730</b>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <b>8.8</b>	Corrected Temperature: <b>8</b>	IR gun #:	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2403460

Client: Bocterman

Client Project ID: Hall 42-33

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

Airbill #: \_\_\_\_\_

-

Matrix (Check all that apply)

Air

Soil/Solid

Water

Other

Temp (°C)

Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ON ICE
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely? <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"/>	
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"/>	
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"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <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> , etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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.

AB

Custodian Printed Name

3/28/24  
Date/Time



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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

**GW01**  
**2403460-01 (Water)**

**Summit Scientific**

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

Date Sampled: **03/28/24 11:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHC1085	03/29/24	03/30/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **03/28/24 11:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	12.2	91.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	14.2	107 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	10.4	77.8 %		21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/28/24 11:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Chloride</b>	<b>25.0</b>	12.0		mg/L	200	BHD0281	04/09/24	04/10/24	EPA 300.0	
<b>Sulfate</b>	<b>295</b>	60.0		"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/28/24 11:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Total Dissolved Solids</b>	<b>685</b>	10.0		mg/L	1	BHD0045	04/02/24	04/02/24	SM2540C	

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Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

**GW02**  
**2403460-02 (Water)**

**Summit Scientific**

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

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHC1085	03/29/24	03/30/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	11.7	87.7 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	14.1	106 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	10.9	81.9 %		21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	<b>31.8</b>	12.0		mg/L	200	BHD0281	04/09/24	04/10/24	EPA 300.0	
Sulfate	<b>676</b>	60.0		"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/28/24 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	<b>1060</b>	10.0		mg/L	1	BHD0045	04/02/24	04/02/24	SM2540C	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

**GW03**  
**2403460-03 (Water)**

**Summit Scientific**

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

Date Sampled: **03/28/24 14:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHC1085	03/29/24	03/30/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **03/28/24 14:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	12.3	92.0 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	14.4	108 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	10.6	79.2 %		21-167		"	"	"	"	

**Anions by EPA Method 300.0**

Date Sampled: **03/28/24 14:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	<b>24.6</b>	12.0		mg/L	200	BHD0281	04/09/24	04/10/24	EPA 300.0	
Sulfate	<b>252</b>	60.0		"	"	"	"	"	"	

**Total Dissolved Solids by SM2540C**

Date Sampled: **03/28/24 14:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Total Dissolved Solids</b>	<b>614</b>	10.0		mg/L	1	BHD0045	04/02/24	04/02/24	SM2540C	

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Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

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

#### Summit Scientific

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

#### Batch BHC1085 - EPA 5030 Water MS

##### Blank (BHC1085-BLK1)

Prepared: 03/29/24 Analyzed: 03/30/24

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	11.9		"	13.3		89.6	23-173			
<i>Surrogate: Toluene-d8</i>	14.5		"	13.3		109	20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	10.6		"	13.3		79.4	21-167			

##### LCS (BHC1085-BS1)

Prepared: 03/29/24 Analyzed: 03/30/24

Benzene	31.9	1.0	ug/l	33.3		95.7	51-132			
Toluene	29.2	1.0	"	33.3		87.5	51-138			
Ethylbenzene	32.4	1.0	"	33.3		97.2	58-146			
m,p-Xylene	65.8	2.0	"	66.7		98.7	57-144			
o-Xylene	30.4	1.0	"	33.3		91.2	53-146			
Naphthalene	29.4	1.0	"	33.3		88.1	70-130			
1,2,4-Trimethylbenzene	29.7	1.0	"	33.3		89.1	70-130			
1,3,5-Trimethylbenzene	23.7	1.0	"	33.3		71.1	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	12.6		"	13.3		94.1	23-173			
<i>Surrogate: Toluene-d8</i>	14.2		"	13.3		107	20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	11.1		"	13.3		83.0	21-167			

##### Matrix Spike (BHC1085-MS1)

Source: 2403385-01

Prepared: 03/29/24 Analyzed: 03/30/24

Benzene	28.9	1.0	ug/l	33.3	ND	86.6	34-141			
Toluene	26.2	1.0	"	33.3	ND	78.6	27-151			
Ethylbenzene	28.3	1.0	"	33.3	ND	84.9	29-160			
m,p-Xylene	56.8	2.0	"	66.7	ND	85.1	20-166			
o-Xylene	26.1	1.0	"	33.3	ND	78.2	33-159			
Naphthalene	16.7	1.0	"	33.3	ND	50.1	70-130			QM-07
1,2,4-Trimethylbenzene	18.2	1.0	"	33.3	ND	54.7	70-130			QM-07
1,3,5-Trimethylbenzene	20.2	1.0	"	33.3	ND	60.7	70-130			QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	12.2		"	13.3		91.3	23-173			
<i>Surrogate: Toluene-d8</i>	14.2		"	13.3		107	20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	10.9		"	13.3		81.5	21-167			

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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

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

**Summit Scientific**

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

**Batch BHC1085 - EPA 5030 Water MS**

Matrix Spike Dup (BHC1085-MSD1)	Source: 2403385-01			Prepared: 03/29/24 Analyzed: 03/30/24						
Benzene	27.6	1.0	ug/l	33.3	ND	82.8	34-141	4.53	30	
Toluene	25.5	1.0	"	33.3	ND	76.6	27-151	2.51	30	
Ethylbenzene	27.6	1.0	"	33.3	ND	83.0	29-160	2.32	30	
m,p-Xylene	54.4	2.0	"	66.7	ND	81.6	20-166	4.21	30	
o-Xylene	25.5	1.0	"	33.3	ND	76.6	33-159	2.09	30	
Naphthalene	15.7	1.0	"	33.3	ND	47.0	70-130	6.30	30	QM-07
1,2,4-Trimethylbenzene	17.6	1.0	"	33.3	ND	52.7	70-130	3.75	30	QM-07
1,3,5-Trimethylbenzene	19.8	1.0	"	33.3	ND	59.4	70-130	2.25	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.3		93.8	23-173			
Surrogate: Toluene-d8	14.1		"	13.3		105	20-170			
Surrogate: 4-Bromofluorobenzene	10.9		"	13.3		81.9	21-167			

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

**Anions by EPA Method 300.0 - Quality Control**  
**Summit Scientific**

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

**Batch BHD0281 - General Preparation**

**Blank (BHD0281-BLK1)**

Prepared & Analyzed: 04/09/24

Chloride	ND	0.0600	mg/L						
Sulfate	ND	0.300	"						

**LCS (BHD0281-BS1)**

Prepared & Analyzed: 04/09/24

Chloride	2.99	0.0600	mg/L	3.00	99.7	90-110		
Sulfate	15.0	0.300	"	15.0	100	90-110		

**Duplicate (BHD0281-DUP1)**

Source: 2403384-01

Prepared & Analyzed: 04/09/24

Chloride	37.0	12.0	mg/L		36.4		1.63	20
Sulfate	155	60.0	"		152		1.95	20

**Matrix Spike (BHD0281-MS1)**

Source: 2403384-01

Prepared & Analyzed: 04/09/24

Chloride	703	12.0	mg/L	600	36.4	111	80-120	
Sulfate	3190	60.0	"	3000	152	101	80-120	

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

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

**Total Dissolved Solids by SM2540C - Quality Control**

**Summit Scientific**

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

**Batch BHD0045 - General Preparation**

**Blank (BHD0045-BLK1)**

Prepared & Analyzed: 04/02/24

Total Dissolved Solids      ND      10.0      mg/L

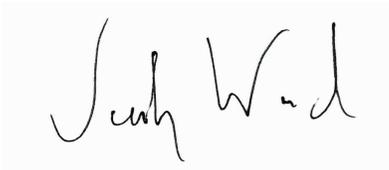
**Duplicate (BHD0045-DUP1)**

Source: 2403439-01

Prepared & Analyzed: 04/02/24

Total Dissolved Solids      844      10.0      mg/L      932      9.95      20

Summit Scientific



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6855 W. 119th Ave.  
Broomfield CO, 80020

Project: PDC - Hall 42-33

Project Number: [none]  
Project Manager: Karen Olson

**Reported:**  
04/11/24 16:19

### Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference