

**TABLE 1**  
**FORMER PEAK 1 TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**CONTAMINANTS OF CONCERN**

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)	Anthracene (mg/kg)	Chrysene (mg/kg)	Fluorene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	EC (mmhos/cm)	SAR (units)
<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>1,800</b>	<b>110</b>	<b>240</b>	<b>18</b>	<b>24</b>	<b>&lt;4</b>	<b>&lt;6</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>	<b>5.8</b>	<b>9</b>	<b>0.54</b>	<b>0.006</b>	<b>0.019</b>		
AST01 @ 0-6"	3/9/2022	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	NA	NA	NA	NA	NA	NA
SEP01-FL @ 4'	3/9/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	NA	NA	NA	NA	NA	NA
MH01-B @ 1'	3/9/2022	1 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	0.00534	0.0198	0.00560	<0.00500	<0.00500	0.138	0.468
MH01-E @ 0.5'	3/9/2022	0.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.148	0.384
SS01 @ 10'	3/9/2022	10 ft. bgs	<b>0.025</b>	<0.0050	0.14	<b>15</b>	<b>12</b>	<b>7.4</b>	<b>0.28</b>	<b>6,110</b>	0.621	0.104	0.225	<b>4.29</b>	<b>4.02</b>	<b>6.10</b>	<b>17.7</b>
SS02 @ 15'	3/10/2022	15 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	3.50	0.683
SS03 @ 10'	3/10/2022	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<b>2,020</b>	<0.00500	0.0431	<0.00500	<0.00500	<0.00500	1.34	0.271
SS04 @ 5'	3/10/2022	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.962	0.360
SS06 @ 10'	3/10/2022	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.828	0.286
SS07 @ 5'	3/10/2022	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	NA	NA	NA	NA	NA	NA	NA
SS09 @ 10'	3/10/2022	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.465	0.161
SS10 @ 5'	3/10/2022	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.197	0.0237
SS12 @ 10'	3/11/2022	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	1.04	0.105
SS13 @ 5'	3/11/2022	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.274	0.0513
SS15 @ 10'	3/11/2022	10 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	1.35	0.0964
SS16 @ 5'	3/11/2022	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.358	0.0502
SEP01-DL-B @ 5'	3/10/2022	5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	68	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.398	1.24
SEP01-DL-E @ 2.5'	3/10/2022	2.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.616	1.13

**Notes:**

- Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
  - Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
  - SSLs are applicable if a pathway for communication with groundwater is present.
  - Value calculated by adding TVPH-GRO, TEPH-DRO, and TEPH-ORO concentrations.
- COGCC = Colorado Oil and Gas Conservation Commission  
 (<) = Analytical result is less than the indicated laboratory reporting limit.  
 TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics  
 TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics  
 TEPH-ORO = Total extractable petroleum hydrocarbons - oil range organics  
 EC = Electrical conductivity  
 SAR = Sodium adsorption ratio  
 M = Methylnaphthalene  
 mg/kg = Milligrams per kilogram  
 TMB = Trimethylbenzene  
  = Source material characterization sample  
 ft. = Feet  
 in. = Inches  
 bgs = Below ground surface  
**BOLD** = Analytical result is in exceedance of applicable standard and above 1.25x background concentration.  
 NA = Constituent not analyzed

TABLE 1  
FORMER PEAK 1 TANK BATTERY  
SOIL ANALYTICAL RESULTS SUMMARY TABLE  
CONTAMINANTS OF CONCERN

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)	Anthracene (mg/kg)	Chrysene (mg/kg)	Fluorene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)	EC (mmhos/cm)	SAR (units)
Residential SSL <sup>(1,2)</sup>			1.2	490	5.8	58	30	27	2	500	1,800	110	240	18	24	<4	<6
Protection of Groundwater SSL <sup>(1,2,3)</sup>			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500	5.8	9	0.54	0.006	0.019		

**TABLE 2**  
**FORMER PEAK 1 TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC COMPOUNDS**

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitability for Reclamation Standard <sup>(1)</sup>			6-8.3	<4	<6	2
MH01-B @ 1'	3/9/2022	1 ft. bgs	8.21	0.138	0.468	0.864
MH01-E @ 0.5'	3/9/2022	0.5 ft. bgs	8.20	0.148	0.384	0.0987
SS01 @ 10'	3/9/2022	10 ft. bgs	7.99	<b>6.10</b>	<b>17.7</b>	0.0253
SS11 @ 2.5'	3/10/2022	2.5 ft. bgs	7.91	0.308	1.23	0.163
SEP01-DL-B @ 5'	3/10/2022	5 ft. bgs	7.84	0.398	1.24	0.124
SEP01-DL-E @ 2.5'	3/10/2022	2.5 ft. bgs	7.91	0.616	1.13	0.0998

**Notes:**

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

COGCC = Colorado Oil and Gas Conservation Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

ft. = Feet

bgs = Below ground surface

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

  = Source material characterization sample

**TABLE 3**  
**FORMER PEAK 1 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)
Residential SSL <sup>(1,2)</sup>			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL <sup>(1,2,3)</sup>			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
MH01-B @ 1'	3/9/2022	1 ft. bgs	0.00534	<0.00500	<0.00500	0.0113	0.0187	0.00801	0.0198	<0.00500	0.0683	0.00560	0.00522	0.0530	<0.00500	<0.00500
MH01-E @ 0.5'	3/9/2022	0.5 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
SS01 @ 10'	3/9/2022	10 ft. bgs	<0.0500	0.621	<0.0500	<0.0500	<0.0500	<0.0500	0.104	<0.0500	<0.0500	0.225	<0.0500	<0.0500	4.29	4.02
SS05 @ 2.5'	3/10/2022	2.5 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-B @ 5'	3/10/2022	5 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-E @ 2.5'	3/10/2022	2.5 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 COGCC 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

COGCC = Colorado Oil and Gas Conservation Commission

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

PAHs = Polycyclic aromatic hydrocarbons

Benz(a) = Benzantracene

Benzo(a) = Benzopyrene

Benzo(b) = Benzofluoranthene

Benzo(k) = Benzofluoranthene

A,H = Dibenzanthracene

1,2,3-CD = Indenopyrene

M = Methylanththalene

mg/kg = Milligrams per kilogram

Source material characterization sample

ft. = Feet

bgs = Below ground surface

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

**TABLE 4**  
**FORMER PEAK 1 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)
Residential SSL <sup>(1,2)</sup>			0.68	15,000	71	0.3	3,100	400	1,500	390	390	23,000
Protection of Groundwater SSL <sup>(1,2,3)</sup>			0.29	82	0.38	0.00067	46	14	26	0.26	0.8	370
MH01-B @ 1'	3/9/2022	1 ft. bgs	2.29	144	0.608	<0.30 <sup>(4)</sup>	9.30	9.93	6.63	0.929	0.0451	37.9
MH01-E @ 0.5'	3/9/2022	0.5 ft. bgs	1.37	75.0	0.268	<0.30 <sup>(4)</sup>	8.56	7.13	5.01	0.925	0.0440	38.2
SS01 @ 10'	3/9/2022	10 ft. bgs	2.61	153	<0.241	<0.30 <sup>(4)</sup>	5.33	6.64	5.62	0.884	0.0279	22.2
SEP01-DL-B @ 5'	3/10/2022	5 ft. bgs	2.79	179	<0.257	<0.30 <sup>(4)</sup>	6.71	7.69	6.67	0.761	0.0278	25.6
SEP01-DL-E @ 2.5'	3/10/2022	2.5 ft. bgs	2.35	173	<0.254	<0.30 <sup>(4)</sup>	6.29	7.40	6.07	0.719	0.0367	25.7
BKG01 @ 1'	3/10/2022	1 ft. bgs	2.30	98.7	<0.223	<0.30 <sup>(4)</sup>	9.20	8.71	6.35	0.802	0.0489	39.2
BKG01 @ 2.5'	3/10/2022	2.5 ft. bgs	1.98	138	0.234	<0.30 <sup>(4)</sup>	6.26	7.76	6.17	0.696	0.0363	24.4
BKG01 @ 4'	3/10/2022	4 ft. bgs	2.18	192	<0.224	<0.30 <sup>(4)</sup>	4.72	7.20	5.29	0.653	0.0274	21.0
BKG01 @ 5'	3/10/2022	5 ft. bgs	4.13	285	<0.225	<0.30 <sup>(4)</sup>	4.25	6.13	4.61	0.632	0.0273	18.7
BKG01 @ 10'	3/10/2022	10 ft. bgs	2.71	186	<0.225	<0.30 <sup>(4)</sup>	4.72	6.69	5.04	0.644	0.0284	19.7

**Notes:**

- Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.
- Compound falls within COGCC Table 915-1 Footnote 9.  
COGCC = Colorado Oil and Gas Conservation Commission  
(<) = Analytical result is less than the indicated laboratory reporting limit.  
mg/kg = Milligrams per kilogram  
= Source material characterization sample

ft. = Feet

bgs = Below ground surface

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

**BOLD** = Analytical result is in exceedance of applicable standard, but representative of native material condition. See below evaluation.

Meter house samples' metal evaluation:

Arsenic:

The mean arsenic concentration observed in background soil samples is 2.66 mg/kg. Four of the 5 source samples are below the mean native material arsenic concentration. The one arsenic concentration above the mean native material concentration (SEP01-DL-B @ 5' : 2.79 mg/kg) is however below 1.25x the mean arsenic concentration of 2.66 mg/kg (1.25x 2.66 mg/kg is 3.33 mg/kg). Furthermore, The 5 foot bgs native material arsenic concentration is 4.13 mg/kg, much higher than the 2.79 mg/kg arsenic concentration observed in SEP01-DL-B @ 5'.

Barium:

The mean barium concentration observed in background soil samples is 179.94 mg/kg. The highest barium concentration observed across all source samples is 179 mg/kg. All source barium concentrations are below the mean barium concentration in native material.

Cadmium:

The cadmium exceedance observed in MH01-B @ 1' bgs (0.608 mg/kg) will require further evaluation through supplemental site investigation activities.

Selenium:

Meter house: The highest source sample selenium concentration from the meter house is 0.929 mg/kg. This 1' sample is below 1.25x the 1' BKG01 sample (BKG01 @ 1' : 0.802 mg/kg; 1.25x 0.802 mg/kg is 1.00 mg/kg).

Separator dump-line: The highest source sample selenium concentration from the separator dump-line is 0.761 mg/kg. The mean background concentration is 0.685 mg/kg. 1.25x 0.685 mg/kg = 0.86 mg/kg, higher than the source sample selenium concentrations.

Reportable release SS01: Although 0.884 mg/kg is near 1.25x the mean background selenium concentration of 0.86 mg/kg, further evaluation is warranted through a supplemental site investigation of selenium in native material.

**TABLE 5**  
**FORMER PEAK 1 TANK BATTERY**  
**FIELD DATA SUMMARY TABLE**

Sample ID	Date Sampled	Depth	GPS Data <sup>(1)</sup> Latitude / Longitude		PDOP Value	VOC Concentration <sup>(2)</sup> (ppm)
SS01 @ 10'	3/9/2022	10 ft. bgs	NC	NC	NA	385.7
AST01 @ 0-6"	3/9/2022	0-6 in. bgs	40.443923	-104.593356	1.2	0.3
SEP01-FL @ 4'	3/9/2022	4 ft. bgs	40.443959	-104.593811	1.2	0.0
MH01-B @ 1'	3/9/2022	1 ft. bgs	40.443919	-104.593573	1.2	0.2
MH01-N @ 0.5'	3/9/2022	0.5 ft. bgs	40.443927	-104.593585	1.3	0.2
MH01-W @ 0.5'	3/9/2022	0.5 ft. bgs	40.443920	-104.593585	1.2	0.4
MH01-S @ 0.5'	3/9/2022	0.5 ft. bgs	40.443903	-104.593577	1.2	0.2
MH01-E @ 0.5'	3/9/2022	0.5 ft. bgs	40.443913	-104.593576	1.2	4.7
SEP01-DL-B @ 5'	3/10/2022	5 ft. bgs	40.443969	-104.593775	1.7	0.0
SEP01-DL-N @ 2.5'	3/10/2022	2.5 ft. bgs	40.443975	-104.593770	1.8	1.2
SEP01-DL-W @ 2.5'	3/10/2022	2.5 ft. bgs	40.443971	-104.593784	1.8	0.2
SEP01-DL-S @ 2.5'	3/10/2022	2.5 ft. bgs	40.443962	-104.593776	1.9	0.1
SEP01-DL-E @ 2.5'	3/10/2022	2.5 ft. bgs	40.443971	-104.593762	1.6	1.9
SS02 @ 15'	3/10/2022	15 ft. bgs	40.443919	-104.593388	NA	0.0
SS03 @ 10'	3/10/2022	10 ft. bgs	40.443892	-104.593402	1.2	2.9
SS04 @ 5'	3/10/2022	5 ft. bgs	40.443892	-104.593402	1.2	1.3
SS05 @ 2.5'	3/10/2022	2.5 ft. bgs	40.443892	-104.593402	1.2	0.1
SS06 @ 10'	3/10/2022	10 ft. bgs	40.443921	-104.593421	1.2	0.0
SS07 @ 5'	3/10/2022	5 ft. bgs	40.443921	-104.593421	1.2	0.0
SS08 @ 2.5'	3/10/2022	2.5 ft. bgs	40.443921	-104.593421	1.2	0.0
SS09 @ 10'	3/10/2022	10 ft. bgs	40.443933	-104.593383	1.2	0.0
SS10 @ 5'	3/10/2022	5 ft. bgs	40.443933	-104.593383	1.2	0.1
SS11 @ 2.5'	3/10/2022	2.5 ft. bgs	40.443933	-104.593383	1.2	0.0
BKG01 @ 1'	3/10/2022	1 ft. bgs	40.443773	-104.593593	1.2	0.0
BKG01 @ 2.5'	3/10/2022	2.5 ft. bgs	40.443773	-104.593593	1.2	0.0
BKG01 @ 4'	3/10/2022	4 ft. bgs	40.443773	-104.593593	1.2	0.0
BKG01 @ 5'	3/10/2022	5 ft. bgs	40.443773	-104.593593	1.2	0.0
BKG01 @ 10'	3/10/2022	10 ft. bgs	40.443773	-104.593593	1.2	0.0
SS12 @ 10'	3/11/2022	10 ft. bgs	40.443905	-104.593356	1.4	0.0
SS13 @ 5'	3/11/2022	5 ft. bgs	40.443905	-104.593356	1.4	0.0
SS14 @ 2.5'	3/11/2022	2.5 ft. bgs	40.443905	-104.593356	1.4	0.0
SS15 @ 10'	3/11/2022	10 ft. bgs	40.443883	-104.593403	1.4	0.0
SS16 @ 5'	3/11/2022	5 ft. bgs	40.443883	-104.593403	1.4	0.0
SS17 @ 2.5'	3/11/2022	2.5 ft. bgs	40.443883	-104.593403	1.4	0.0

**Notes:**

1. Global Positioning System (GPS) data is provided in decimal degrees using World Geodetic System (WGS) 84 UTM Zone 13 North.

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

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

in. = Inches

bgs = Below ground surface

  = Source material characterization sample

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

March 22, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Peak 1 Tank Battery

Work Order #2203161

Enclosed are the results of analyses for samples received by Summit Scientific on 03/09/22 17:57. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President





PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-FL@4'	2203161-01	Soil	03/09/22 12:05	03/09/22 17:57
AST01@0-6"	2203161-02	Soil	03/09/22 12:35	03/09/22 17:57
SS01@10'	2203161-03	Soil	03/09/22 14:15	03/09/22 17:57
MH01-B@1'	2203161-04	Soil	03/09/22 13:40	03/09/22 17:57
MH01-E@0.5'	2203161-06	Soil	03/09/22 14:05	03/09/22 17:57

Summit Scientific

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

# Summit Scientific

2203161

741 Corporate Circle Suite I ♦ Golden, Colorado 80401  
303-277-9310 ♦ 303-374-5933 Fax

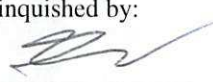
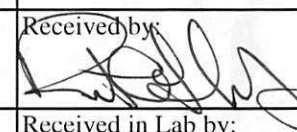
Page 1 of 1

Client: PDC / Tasman  
Address: 6855 W 119th Ave  
City/State/Zip: Broomfield, CO 80020  
Phone: Fax:  
Sampler Name: Robert Aronoff

Project Manager: Mark Longhurst  
E-Mail: mark.longhurst@pdce.com  
Project Name: Peak 1 Tank Battery  
Project Number:

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix				Analyze For:										Special Instructions			
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEXN (82608)	TPH (66-136)	pH, EC, SAR	Baron - HVS	TMBs	PAHs - 915	metals-915	Hold						
SEP01-FL@4'	3/9/22	12:05	3			✓			✓					✓	✓			✓							
AST01 @ 0-6"	3/9/22	12:35	3			✓			✓					✓	✓			✓							
SS01 @ 10'	3/9/22	14:15	3			✓			✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MH01-B@1'		13:40	3			✓			✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MH01-N@0.5'		14:00	3			✓			✓															✓	
MH01-E@0.5'		14:05	3			✓			✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
MH01-S@0.5'		14:10	3			✓			✓															✓	
MH01-W@0.5'	✓	14:20	3			✓			✓															✓	

Relinquished by: 	Date/Time: 3/9/2022 17:40	Received by: TLB	Date/Time: 3922 1757	<b>Turn Around Time (Check)</b> Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 Hours <input type="checkbox"/>	<b>Notes:</b> <del>RA</del> RA MH01-B@1' Run MH01-B@1' for metals
Relinquished by: TLB	Date/Time: 3922 1757	Received by: 	Date/Time: 3922 1757		
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:		

<b>Sample Integrity:</b> Temperature Upon Receipt: 7.7 Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
--	--

S<sub>2</sub>

## Sample Receipt Checklist

S2 Work Order#

2203161

Client: Peak/Tasmanian

Client Project ID:

Peak Tank BatteryShipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

Matrix (check all that apply):

☐ Air☒ Soil/Solid☐ Water☐ Other:


(Describe)

Temp (°C)	<u>7.7</u>
-----------	------------

Thermometer ID: G86A9201901378

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

3.9.22

Date/Time



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**SEP01-FL@4'**  
**2203161-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/09/22 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0172	03/09/22	03/09/22	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: **03/09/22 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		99.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/22 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0173	03/09/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/22 12:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		128 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**AST01@0-6"**  
**2203161-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/09/22 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0172	03/09/22	03/10/22	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: **03/09/22 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/22 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0173	03/09/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/22 12:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		129 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**SS01@10'**  
**2203161-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>0.025</b>	0.0020	mg/kg	1	BFC0172	03/09/22	03/10/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.14</b>	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>15</b>	0.10	"	10	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>12</b>	0.050	"	"	"	"	"	"	E
<b>1,3,5-Trimethylbenzene</b>	<b>7.4</b>	0.050	"	"	"	"	"	"	E
<b>Naphthalene</b>	<b>0.28</b>	0.0038	"	1	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>410</b>	5.0	"	10	"	"	"	"	

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.8 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		68.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		123 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>5100</b>	50	mg/kg	1	BFC0173	03/09/22	03/10/22	EPA 8015M	
<b>C28-C36 (ORO)</b>	<b>600</b>	50	"	"	"	"	"	"	

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		233 %	30-150		"	"	"	"	S-02

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**SS01@10'**  
**2203161-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.0500	mg/kg	10	BFC0175	03/10/22	03/12/22	EPA 8270D SIM	
<b>Anthracene</b>	<b>0.621</b>	0.0500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.0500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	
<b>Chrysene</b>	<b>0.104</b>	0.0500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	
Fluoranthene	ND	0.0500	"	"	"	"	"	"	
<b>Fluorene</b>	<b>0.225</b>	0.0500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	
Pyrene	ND	0.0500	"	"	"	"	"	"	
<b>1-Methylnaphthalene</b>	<b>4.29</b>	0.500	"	100	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>4.02</b>	0.500	"	"	"	"	"	"	

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	52.6 %	40-150	"	"	"	"	"	"	
Surrogate: Fluoranthene-d10	39.2 %	40-150	"	"	"	"	"	"	S-02

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

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0253</b>	0.0100	mg/L	1	BFC0211	03/11/22	03/13/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/09/22 14:15**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**SS01@10'**  
**2203161-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.61	0.241	mg/kg dry	1	BFC0192	03/10/22	03/14/22	EPA 6020B
Barium	153	0.481	"	"	"	"	"	"
Cadmium	ND	0.241	"	"	"	"	"	"
Copper	5.33	0.481	"	"	"	"	"	"
Lead	6.64	0.241	"	"	"	"	"	"
Nickel	5.62	0.481	"	"	"	"	"	"
Selenium	0.884	0.313	"	"	"	"	"	"
Silver	0.0279	0.0241	"	"	"	"	"	"
Zinc	22.2	0.481	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	143	0.0601	mg/L dry	1	BFC0202	03/10/22	03/13/22	EPA 6020B	
Magnesium	39.5	0.0601	"	"	"	"	"	"	
Sodium	925	0.0601	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	17.7	0.00100	units	1	BFC0262	03/14/22	03/14/22	Calculation	

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

Date Sampled: **03/09/22 14:15**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**SS01@10'**  
**2203161-03 (Soil)**

**Summit Scientific**

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

% Solids	83.1	%	1	BFC0178	03/10/22	03/10/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.10	0.0100	mmhos/cm	1	BFC0221	03/11/22	03/11/22	EPA 120.1	

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

Date Sampled: **03/09/22 14:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.99		pH Units	1	BFC0222	03/11/22	03/11/22	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-B@1'**  
**2203161-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0172	03/09/22	03/10/22	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: **03/09/22 13:40**

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

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0173	03/09/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		132 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-B@1'**  
**2203161-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.00534	0.00500	mg/kg	1	BFC0175	03/10/22	03/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	0.0113	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.0187	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	0.00801	0.00500	"	"	"	"	"	"	
Chrysene	0.0198	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	0.0683	0.00500	"	"	"	"	"	"	
Fluorene	0.00560	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.00522	0.00500	"	"	"	"	"	"	
Pyrene	0.0530	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	87.6 %	40-150	"	"	"	"	"	"	
Surrogate: Fluoranthene-d10	93.0 %	40-150	"	"	"	"	"	"	

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

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.864	0.0100	mg/L	1	BFC0211	03/11/22	03/13/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/09/22 13:40**

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

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-B@1'**  
**2203161-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.29	0.254	mg/kg dry	1	BFC0192	03/10/22	03/14/22	EPA 6020B
Barium	144	0.508	"	"	"	"	"	"
Cadmium	0.608	0.254	"	"	"	"	"	"
Copper	9.30	0.508	"	"	"	"	"	"
Lead	9.93	0.254	"	"	"	"	"	"
Nickel	6.63	0.508	"	"	"	"	"	"
Selenium	0.929	0.331	"	"	"	"	"	"
Silver	0.0451	0.0254	"	"	"	"	"	"
Zinc	37.9	0.508	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.5	0.0636	mg/L dry	1	BFC0202	03/10/22	03/13/22	EPA 6020B	
Magnesium	3.28	0.0636	"	"	"	"	"	"	
Sodium	7.57	0.0636	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.468	0.00100	units	1	BFC0262	03/14/22	03/14/22	Calculation	

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

Date Sampled: **03/09/22 13:40**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-B@1'**  
**2203161-04 (Soil)**

**Summit Scientific**

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

% Solids	78.7	%	1	BFC0178	03/10/22	03/10/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.138</b>	0.0100	mmhos/cm	1	BFC0221	03/11/22	03/11/22	EPA 120.1	

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

Date Sampled: **03/09/22 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.21</b>		pH Units	1	BFC0222	03/11/22	03/11/22	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-E@0.5'**  
**2203161-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0172	03/09/22	03/10/22	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: **03/09/22 14:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0173	03/09/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/09/22 14:05**

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

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-E@0.5'**  
**2203161-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFC0175	03/10/22	03/11/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		101 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		85.0 %	40-150		"	"	"	"	

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

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0987</b>	0.0100	mg/L	1	BFC0211	03/11/22	03/13/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/09/22 14:05**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-E@0.5'**  
**2203161-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	1.37	0.224	mg/kg dry	1	BFC0192	03/10/22	03/14/22	EPA 6020B
Barium	75.0	0.448	"	"	"	"	"	"
Cadmium	0.268	0.224	"	"	"	"	"	"
Copper	8.56	0.448	"	"	"	"	"	"
Lead	7.13	0.224	"	"	"	"	"	"
Nickel	5.01	0.448	"	"	"	"	"	"
Selenium	0.925	0.291	"	"	"	"	"	"
Silver	0.0440	0.0224	"	"	"	"	"	"
Zinc	38.2	0.448	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.07	0.0560	mg/L dry	1	BFC0202	03/10/22	03/13/22	EPA 6020B	
Magnesium	2.96	0.0560	"	"	"	"	"	"	
Sodium	5.21	0.0560	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.384	0.00100	units	1	BFC0262	03/14/22	03/14/22	Calculation	

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

Date Sampled: **03/09/22 14:05**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

**MH01-E@0.5'**  
**2203161-06 (Soil)**

**Summit Scientific**

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

% Solids	89.3	%	1	BFC0178	03/10/22	03/10/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.148	0.0100	mmhos/cm	1	BFC0221	03/11/22	03/11/22	EPA 120.1	

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

Date Sampled: **03/09/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.20		pH Units	1	BFC0222	03/11/22	03/11/22	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

### Summit Scientific

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

#### Batch BFC0172 - EPA 5030 Soil MS

##### Blank (BFC0172-BLK1)

Prepared: 03/09/22 Analyzed: 03/10/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0361		"	0.0400		90.2	70-130			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	70-130			

##### LCS (BFC0172-BS1)

Prepared: 03/09/22 Analyzed: 03/10/22

Benzene	0.0617	0.0020	mg/kg	0.0750		82.3	70-130			
Toluene	0.0644	0.0050	"	0.0750		85.8	70-130			
Ethylbenzene	0.0657	0.0050	"	0.0750		87.6	70-130			
m,p-Xylene	0.140	0.010	"	0.150		93.1	70-130			
o-Xylene	0.0666	0.0050	"	0.0750		88.8	70-130			
1,2,4-Trimethylbenzene	0.0721	0.0050	"	0.0750		96.2	70-130			
1,3,5-Trimethylbenzene	0.0693	0.0050	"	0.0750		92.4	70-130			
Naphthalene	0.0731	0.0038	"	0.0750		97.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0371		"	0.0400		92.7	70-130			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		99.9	70-130			

##### Matrix Spike (BFC0172-MS1)

Source: 2203156-01

Prepared: 03/09/22 Analyzed: 03/10/22

Benzene	0.0594	0.0020	mg/kg	0.0750	ND	79.2	70-130			
Toluene	0.0636	0.0050	"	0.0750	ND	84.8	70-130			
Ethylbenzene	0.0659	0.0050	"	0.0750	ND	87.8	70-130			
m,p-Xylene	0.138	0.010	"	0.150	ND	92.0	70-130			
o-Xylene	0.0667	0.0050	"	0.0750	ND	88.9	70-130			
1,2,4-Trimethylbenzene	0.0720	0.0050	"	0.0750	ND	96.0	70-130			
1,3,5-Trimethylbenzene	0.0701	0.0050	"	0.0750	ND	93.5	70-130			
Naphthalene	0.0724	0.0038	"	0.0750	ND	96.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0365		"	0.0400		91.4	70-130			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	70-130			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0172 - EPA 5030 Soil MS**

Matrix Spike Dup (BFC0172-MSD1)	Source: 2203156-01			Prepared: 03/09/22 Analyzed: 03/10/22						
Benzene	0.0608	0.0020	mg/kg	0.0750	ND	81.0	70-130	2.25	30	
Toluene	0.0670	0.0050	"	0.0750	ND	89.4	70-130	5.28	30	
Ethylbenzene	0.0678	0.0050	"	0.0750	ND	90.4	70-130	2.87	30	
m,p-Xylene	0.142	0.010	"	0.150	ND	94.6	70-130	2.79	30	
o-Xylene	0.0680	0.0050	"	0.0750	ND	90.7	70-130	2.00	30	
1,2,4-Trimethylbenzene	0.0745	0.0050	"	0.0750	ND	99.3	70-130	3.44	30	
1,3,5-Trimethylbenzene	0.0734	0.0050	"	0.0750	ND	97.8	70-130	4.47	30	
Naphthalene	0.0741	0.0038	"	0.0750	ND	98.8	70-130	2.25	30	
Surrogate: 1,2-Dichloroethane-d4	0.0354		"	0.0400		88.4	70-130			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.8	70-130			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0173 - EPA 3550A**

**Blank (BFC0173-BLK1)**

Prepared: 03/09/22 Analyzed: 03/10/22

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

**LCS (BFC0173-BS1)**

Prepared: 03/09/22 Analyzed: 03/10/22

C10-C28 (DRO)	630	50	mg/kg	500	126	70-130
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**Matrix Spike (BFC0173-MS1)**

**Source: 2203156-01**

Prepared: 03/09/22 Analyzed: 03/10/22

C10-C28 (DRO)	734	50	mg/kg	500	165	114	70-130
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**Matrix Spike Dup (BFC0173-MSD1)**

**Source: 2203156-01**

Prepared: 03/09/22 Analyzed: 03/10/22

C10-C28 (DRO)	680	50	mg/kg	500	165	103	70-130	7.68	20
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Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

### Summit Scientific

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

#### Batch BFC0175 - EPA 5030 Soil MS

##### Blank (BFC0175-BLK1)

Prepared & Analyzed: 03/10/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0308		"	0.0333		92.5	40-150			
Surrogate: Fluoranthene-d10	0.0240		"	0.0333		71.9	40-150			

##### LCS (BFC0175-BS1)

Prepared & Analyzed: 03/10/22

Acenaphthene	0.0232	0.00500	mg/kg	0.0333		69.6	31-137			
Anthracene	0.0243	0.00500	"	0.0333		72.8	30-120			
Benzo (a) anthracene	0.0253	0.00500	"	0.0333		75.9	30-120			
Benzo (a) pyrene	0.0232	0.00500	"	0.0333		69.7	30-120			
Benzo (b) fluoranthene	0.0239	0.00500	"	0.0333		71.8	30-120			
Benzo (k) fluoranthene	0.0251	0.00500	"	0.0333		75.4	30-120			
Chrysene	0.0256	0.00500	"	0.0333		76.7	30-120			
Dibenz (a,h) anthracene	0.0216	0.00500	"	0.0333		64.9	30-120			
Fluoranthene	0.0249	0.00500	"	0.0333		74.7	30-120			
Fluorene	0.0238	0.00500	"	0.0333		71.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0135	0.00500	"	0.0333		40.5	30-120			
Pyrene	0.0252	0.00500	"	0.0333		75.5	35-142			
1-Methylnaphthalene	0.0318	0.00500	"	0.0333		95.4	35-142			
2-Methylnaphthalene	0.0339	0.00500	"	0.0333		102	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0348		"	0.0333		104	40-150			
Surrogate: Fluoranthene-d10	0.0279		"	0.0333		83.7	40-150			

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

### Summit Scientific

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

#### Batch BFC0175 - EPA 5030 Soil MS

##### Matrix Spike (BFC0175-MS1)

Source: 2203156-01

Prepared & Analyzed: 03/10/22

Acenaphthene	0.0400	0.00500	mg/kg	0.0333	ND	120	31-137			
Anthracene	0.0244	0.00500	"	0.0333	ND	73.1	30-120			
Benzo (a) anthracene	0.0269	0.00500	"	0.0333	ND	80.8	30-120			
Benzo (a) pyrene	0.0213	0.00500	"	0.0333	ND	64.0	30-120			
Benzo (b) fluoranthene	0.0229	0.00500	"	0.0333	ND	68.8	30-120			
Benzo (k) fluoranthene	0.0212	0.00500	"	0.0333	ND	63.7	30-120			
Chrysene	0.0310	0.00500	"	0.0333	0.00734	70.9	30-120			
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.3	30-120			
Fluoranthene	0.0296	0.00500	"	0.0333	ND	88.9	30-120			
Fluorene	0.0337	0.00500	"	0.0333	0.0149	56.1	30-120			
Indeno (1,2,3-cd) pyrene	0.0104	0.00500	"	0.0333	ND	31.2	30-120			
Pyrene	0.0315	0.00500	"	0.0333	ND	94.5	35-142			
1-Methylnaphthalene	0.0294	0.00500	"	0.0333	ND	88.3	15-130			
2-Methylnaphthalene	0.0318	0.00500	"	0.0333	ND	95.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0242		"	0.0333		72.5	40-150			
Surrogate: Fluoranthene-d10	0.0319		"	0.0333		95.8	40-150			

##### Matrix Spike Dup (BFC0175-MSD1)

Source: 2203156-01

Prepared: 03/10/22 Analyzed: 03/11/22

Acenaphthene	0.0461	0.00500	mg/kg	0.0333	ND	138	31-137	14.2	30	QM-07
Anthracene	0.0307	0.00500	"	0.0333	ND	92.2	30-120	23.1	30	
Benzo (a) anthracene	0.0328	0.00500	"	0.0333	ND	98.3	30-120	19.5	30	
Benzo (a) pyrene	0.0271	0.00500	"	0.0333	ND	81.4	30-120	24.0	30	
Benzo (b) fluoranthene	0.0289	0.00500	"	0.0333	ND	86.6	30-120	22.9	30	
Benzo (k) fluoranthene	0.0266	0.00500	"	0.0333	ND	79.8	30-120	22.4	30	
Chrysene	0.0377	0.00500	"	0.0333	0.00734	91.1	30-120	19.6	30	
Dibenz (a,h) anthracene	0.0171	0.00500	"	0.0333	ND	51.4	30-120	24.4	30	
Fluoranthene	0.0363	0.00500	"	0.0333	ND	109	30-120	20.1	30	
Fluorene	0.0387	0.00500	"	0.0333	0.0149	71.3	30-120	14.0	30	
Indeno (1,2,3-cd) pyrene	0.0130	0.00500	"	0.0333	ND	39.0	30-120	22.1	30	
Pyrene	0.0377	0.00500	"	0.0333	ND	113	35-142	18.0	30	
1-Methylnaphthalene	0.0361	0.00500	"	0.0333	ND	108	15-130	20.3	50	
2-Methylnaphthalene	0.0411	0.00500	"	0.0333	ND	123	15-130	25.5	50	
Surrogate: 2-Methylnaphthalene-d10	0.0339		"	0.0333		102	40-150			
Surrogate: Fluoranthene-d10	0.0397		"	0.0333		119	40-150			

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0211 - EPA 3050B**

**Blank (BFC0211-BLK1)**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron ND 0.0100 mg/L

**LCS (BFC0211-BS1)**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 4.74 0.0100 mg/L 5.00 94.7 80-120

**Duplicate (BFC0211-DUP1)**

**Source: 2203066-01**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 0.424 0.0100 mg/L 0.436 2.69 20

**Matrix Spike (BFC0211-MS1)**

**Source: 2203066-01**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 4.99 0.0100 mg/L 5.00 0.436 91.1 75-125

**Matrix Spike Dup (BFC0211-MSD1)**

**Source: 2203066-01**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 5.36 0.0100 mg/L 5.00 0.436 98.4 75-125 7.06 25

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.*



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0192 - EPA 3050B**

**Blank (BFC0192-BLK1)**

Prepared: 03/10/22 Analyzed: 03/14/22

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

**LCS (BFC0192-BS1)**

Prepared: 03/10/22 Analyzed: 03/14/22

Arsenic	34.2	0.200	mg/kg wet	40.0	85.4	80-120
Barium	33.2	0.400	"	40.0	83.0	80-120
Cadmium	1.73	0.200	"	2.00	86.5	80-120
Copper	35.6	0.400	"	40.0	89.1	80-120
Lead	17.3	0.200	"	20.0	86.4	80-120
Nickel	34.6	0.400	"	40.0	86.4	80-120
Selenium	3.44	0.260	"	4.00	86.0	80-120
Silver	1.69	0.0200	"	2.00	84.3	80-120
Zinc	34.9	0.400	"	40.0	87.2	80-120

**Duplicate (BFC0192-DUP1)**

Source: 2203157-01

Prepared: 03/10/22 Analyzed: 03/14/22

Arsenic	3.32	0.225	mg/kg dry	3.43	3.28	20
Barium	26.4	0.450	"	30.9	15.5	20
Cadmium	0.133	0.225	"	0.206	43.1	20
Copper	8.65	0.450	"	8.53	1.41	20
Lead	7.79	0.225	"	7.73	0.681	20
Nickel	7.38	0.450	"	7.84	6.05	20
Selenium	0.722	0.293	"	0.697	3.45	20
Silver	0.0129	0.0225	"	0.0153	17.3	20
Zinc	35.6	0.450	"	37.2	4.26	20

QR-03

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0192 - EPA 3050B**

Matrix Spike (BFC0192-MS1)		Source: 2203157-01			Prepared: 03/10/22		Analyzed: 03/14/22			
Arsenic	38.5	0.225	mg/kg dry	45.0	3.43	78.0	75-125			
Barium	60.9	0.450	"	45.0	30.9	66.7	75-125			QR-03
Cadmium	2.16	0.225	"	2.25	0.206	86.6	75-125			
Copper	41.9	0.450	"	45.0	8.53	74.2	75-125			QR-03
Lead	24.8	0.225	"	22.5	7.73	75.8	75-125			
Nickel	40.8	0.450	"	45.0	7.84	73.3	75-125			QR-03
Selenium	3.67	0.293	"	4.50	0.697	65.9	75-125			QR-03
Silver	1.72	0.0225	"	2.25	0.0153	75.6	75-125			
Zinc	74.7	0.450	"	45.0	37.2	83.2	75-125			

Matrix Spike Dup (BFC0192-MSD1)		Source: 2203157-01			Prepared: 03/10/22		Analyzed: 03/14/22			
Arsenic	39.4	0.225	mg/kg dry	45.0	3.43	79.9	75-125	2.28	25	
Barium	63.5	0.450	"	45.0	30.9	72.5	75-125	4.19	25	QR-03
Cadmium	1.98	0.225	"	2.25	0.206	78.8	75-125	8.54	25	
Copper	42.9	0.450	"	45.0	8.53	76.4	75-125	2.39	25	
Lead	24.7	0.225	"	22.5	7.73	75.2	75-125	0.566	25	
Nickel	41.7	0.450	"	45.0	7.84	75.3	75-125	2.18	25	
Selenium	3.59	0.293	"	4.50	0.697	64.2	75-125	2.16	25	QR-03
Silver	1.77	0.0225	"	2.25	0.0153	77.8	75-125	2.92	25	
Zinc	78.3	0.450	"	45.0	37.2	91.2	75-125	4.69	25	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0361 - 3060A Mod**

**Blank (BFC0361-BLK1)**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BFC0361-BS1)**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent 23.8 0.30 mg/kg wet 25.0 95.4 80-120

**Duplicate (BFC0361-DUP1)**

**Source: 2203157-13**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BFC0361-MS1)**

**Source: 2203157-13**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent 30.9 0.30 mg/kg dry 27.4 ND 113 75-125

**Matrix Spike Dup (BFC0361-MSD1)**

**Source: 2203157-13**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent 27.5 0.30 mg/kg dry 27.4 ND 100 75-125 11.6 20

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0202 - General Preparation**

**Blank (BFC0202-BLK1)**

Prepared: 03/10/22 Analyzed: 03/13/22

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

**LCS (BFC0202-BS1)**

Prepared: 03/10/22 Analyzed: 03/13/22

Calcium	5.07	0.0500	mg/L wet	5.00	101	70-130
Magnesium	5.12	0.0500	"	5.00	102	70-130
Sodium	5.00	0.0500	"	5.00	100	70-130

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

#### Summit Scientific

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

#### Batch BFC0178 - General Preparation

Duplicate (BFC0178-DUP1)

Source: 2203121-01

Prepared & Analyzed: 03/10/22

% Solids	86.6	%	86.8	0.237	20
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Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

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

**Batch BFC0221 - General Preparation**

**Blank (BFC0221-BLK1)**

Prepared & Analyzed: 03/11/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFC0221-BS1)**

Prepared & Analyzed: 03/11/22

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 95-105

**Duplicate (BFC0221-DUP1)**

**Source: 2203106-01**

Prepared & Analyzed: 03/11/22

Specific Conductance (EC) 0.644 0.0100 mmhos/cm 0.646 0.310 20

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

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

**Summit Scientific**

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

**Batch BFC0222 - General Preparation**

**LCS (BFC0222-BS1)**

Prepared & Analyzed: 03/11/22

pH	9.18	pH Units	9.18	100	95-105
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**Duplicate (BFC0222-DUP1)**

Source: 2203106-01

Prepared & Analyzed: 03/11/22

pH	8.09	pH Units	8.13	0.493	20
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Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/22/22 15:10

### Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
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

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

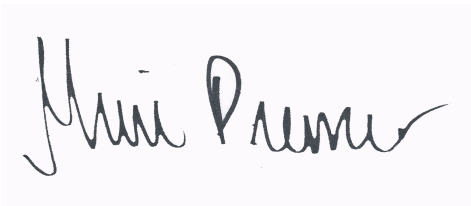
April 25, 2022

Mark Longhurst  
PDC Energy  
1775 Sherman St. STE. 3000  
Denver, CO 80203

RE: Peak 1 Tank Battery  
Work Order #2203177

Enclosed are the results of analyses for samples received by Summit Scientific on 03/10/22 16:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, reading "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury  
President





PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-DL-B@5'	2203177-01	Soil	03/10/22 10:20	03/10/22 16:45
SEP01-DL-E@2.5'	2203177-05	Soil	03/10/22 10:28	03/10/22 16:45
BKG01@1'	2203177-06	Soil	03/10/22 14:30	03/10/22 16:45
BKG01@2.5'	2203177-07	Soil	03/10/22 14:35	03/10/22 16:45
BKG01@4'	2203177-08	Soil	03/10/22 14:40	03/10/22 16:45
BKG01@5'	2203177-09	Soil	03/10/22 14:45	03/10/22 16:45
BKG01@10'	2203177-10	Soil	03/10/22 14:55	03/10/22 16:45
SS02@15'	2203177-11	Soil	03/10/22 09:30	03/10/22 16:45
SS03@10'	2203177-12	Soil	03/10/22 12:10	03/10/22 16:45
SS04@5'	2203177-13	Soil	03/10/22 12:15	03/10/22 16:45
SS05@2.5'	2203177-14	Soil	03/10/22 12:20	03/10/22 16:45
SS06@10'	2203177-15	Soil	03/10/22 13:35	03/10/22 16:45
SS07@5'	2203177-16	Soil	03/10/22 13:40	03/10/22 16:45
SS09@10'	2203177-18	Soil	03/10/22 13:55	03/10/22 16:45
SS10@5'	2203177-19	Soil	03/10/22 14:00	03/10/22 16:45
SS11@2.5'	2203177-20	Soil	03/10/22 14:05	03/10/22 16:45

Summit Scientific

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

# Summit Scientific

S.

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 2

Client: PDC / Tasman

Project Manager: Mark Longhurst

Address: 6855 W 119th Ave

E-Mail: mark.longhurst@PDCE.com

City/State/Zip: Broomfield/ CO/ 80020

Phone: 303-487-1228

Project Name: Peak 2 Tank Battery

Sampler Name: David Vig.

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	pH, EC, SAR	Boron - HWS	TMBs (1,2,4)&(1,3,5)	PAH - 915	Metals - 915		
1	SEP01-DL-B05'	3/10/22	1020	3			X			X				X	X	X	X	X	X	X	
2	SEP01-DL-N02.5'		1022	3			X			X										X	
3	SEP01-DL-W02.5'		1024	3			X			X										X	
4	SEP01-DL-S02.5'		1026	3			X			X										X	
5	SEP01-DL-E02.5'		1028	3			X			X			X	X	X	X	X	X	X		
6	BK60101'		1430	1			X			X									X		
7	BK60102.5'		1435	1			X			X									X		
8	BK60104'		1440	1			X			X									X		
9	BK60105'		1445	1			X			X									X		
10	BK601010'		1455	1			X			X									X		

Relinquished by:	Date/Time: 3/10/22 1645	Received by: Tasman's Lock Box RCH	Date/Time: 3/10/22 1645	<b>Turn Around Time</b> (Check) Same Day <input checked="" type="checkbox"/> 72 hours — 24 hours — Standard — 48 hours — <b>Sample Integrity:</b> Temperature Upon Receipt: 4.3 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	<b>Notes:</b>
Relinquished by: Tasman's Lock Box	Date/Time:	Received by:	Date/Time: 3/10/22 1645		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S.

303-277-9310

Page 2 of 2

Project Manager: Mark Longhurst

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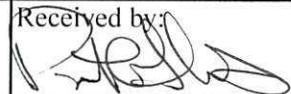
E-Mail: [mark.longhurst@PDCE.com](mailto:mark.longhurst@PDCE.com)

Phone: 303-487-1228

Project Name: Peak 2 Tank Battery

Sampler Name: David Vogel

Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	pH, EC, SAR	Boron - HWS	TMBs (1,2,4)&(1,3,5)	PAH - 915	Metals - 915		pH, EC, SAR by saturated paste	
1	SS02@15'	3/10/22	0930	3			X			X			X	X				X				
2	SS03@10'		1210	3			X			X			X	X				X				
3	SS04@5'		1215	3			X			X			X	X				X				
4	SS05@2.5'		1220	1			X			X											X	
5	SS06@10'		1335	3			X			X			X	X				X				
6	SS07@5'		1340	3			X			X			X	X				X				
7	SS08@2.5'		1345	1			X			X											X	
8	SS09@10'		1355	3			X			X			X	X				X				
9	SS10@5'		1400	3			X			X			X	X				X				
10	SS11@2.5'	✓	1405	1			X			X					X	X						
Relinquished by: 		Date/Time: 3/10/22 1645		Received by: Tasman's Lock Box		Date/Time:		Turn Around Time (Check)		Notes:												
Relinquished by: Tasman's Lock Box		Date/Time:		Received by: 		Date/Time: 3/10/22 1645		Same Day <input checked="" type="checkbox"/> 72 hours		24 hours <input type="checkbox"/> Standard												
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours <input type="checkbox"/>		Sample Integrity: 43												
Relinquished by:		Date/Time:		Received by:		Date/Time:		Temperature Upon Receipt: 43		Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												



S<sub>2</sub>

2/2

## Sample Receipt Checklist

S2 Work Order# 2203177

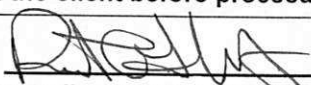
Client: Port TasmanClient Project ID: Peak 1 Tank BatteryShipped Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: \_\_\_\_\_
☐ ☒ ☐ ☐ ☐
Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
(Describe)

Temp (°C)	4.3
-----------	-----

Thermometer ID: G86A9201901378

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on ICE
Were all samples received intact <sup>(1)</sup> ?	-			
Was adequate sample volume provided <sup>(1)</sup> ?	-			
If custody seals are present, are they intact <sup>(1)</sup> ?	-			
Are samples with holding times due within 48 hours sample due within 48 hours present?	-			Same day
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	-			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	-			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	-			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
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.			-	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	
Additional Comments (if any):				

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

  
 Custodian Printed Name or Initials

 3-1-0-22  
 Date/Time



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-B@5'**  
**2203177-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	68	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		120 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-B@5'**  
**2203177-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFC0210	03/11/22	03/12/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		49.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		43.3 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.124	0.0100	mg/L	1	BFC0211	03/11/22	03/13/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 10:20**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-B@5'**  
**2203177-01 (Soil)**

### Summit Scientific

#### Total Metals by EPA 6020B

Arsenic	2.79	0.257	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B
Barium	179	0.514	"	"	"	"	"	"
Cadmium	ND	0.257	"	"	"	"	"	"
Copper	6.71	0.514	"	"	"	"	"	"
Lead	7.69	0.257	"	"	"	"	"	"
Nickel	6.67	0.514	"	"	"	"	"	"
Selenium	0.761	0.334	"	"	"	"	"	"
Silver	0.0278	0.0257	"	"	"	"	"	"
Zinc	25.6	0.514	"	"	"	"	"	"

#### Hexavalent Chromium by EPA Method 7196

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	28.4	0.0642	mg/L dry	1	BFC0226	03/11/22	03/15/22	EPA 6020B	
Magnesium	10.5	0.0642	"	"	"	"	"	"	
Sodium	30.5	0.0642	"	"	"	"	"	"	

#### Calculated Analysis

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.24	0.00100	units	1	BFC0330	03/16/22	03/16/22	Calculation	

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

Date Sampled: **03/10/22 10:20**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-B@5'**  
**2203177-01 (Soil)**

**Summit Scientific**

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

% Solids	77.8	%	1	BFC0287	03/15/22	03/15/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.398</b>	0.0100	mmhos/cm	1	BFC0250	03/14/22	03/14/22	EPA 120.1	

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

Date Sampled: **03/10/22 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>7.84</b>		pH Units	1	BFC0249	03/14/22	03/14/22	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-E@2.5'**  
**2203177-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 10:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		91.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		107 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 10:28**

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

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-E@2.5'**  
**2203177-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFC0210	03/11/22	03/12/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		40.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.4 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0998	0.0100	mg/L	1	BFC0211	03/11/22	03/13/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 10:28**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-E@2.5'**  
**2203177-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Arsenic	2.35	0.254	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B
Barium	173	0.508	"	"	"	"	"	"
Cadmium	ND	0.254	"	"	"	"	"	"
Copper	6.29	0.508	"	"	"	"	"	"
Lead	7.40	0.254	"	"	"	"	"	"
Nickel	6.07	0.508	"	"	"	"	"	"
Selenium	0.719	0.330	"	"	"	"	"	"
Silver	0.0367	0.0254	"	"	"	"	"	"
Zinc	25.7	0.508	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	45.8	0.0634	mg/L dry	1	BFC0226	03/11/22	03/15/22	EPA 6020B	
Magnesium	19.5	0.0634	"	"	"	"	"	"	
Sodium	36.3	0.0634	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.13	0.00100	units	1	BFC0330	03/16/22	03/16/22	Calculation	

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

Date Sampled: **03/10/22 10:28**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SEP01-DL-E@2.5'**  
**2203177-05 (Soil)**

**Summit Scientific**

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

% Solids	78.8	%	1	BFC0287	03/15/22	03/15/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.616</b>	0.0100	mmhos/cm	1	BFC0250	03/14/22	03/14/22	EPA 120.1	

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

Date Sampled: **03/10/22 10:28**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>7.91</b>		pH Units	1	BFC0249	03/14/22	03/14/22	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**BKG01@1'**  
**2203177-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>2.30</b>	0.223	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B	
Barium	<b>98.7</b>	0.445	"	"	"	"	"	"	
Cadmium	ND	0.223	"	"	"	"	"	"	
Copper	<b>9.20</b>	0.445	"	"	"	"	"	"	
Lead	<b>8.71</b>	0.223	"	"	"	"	"	"	
Nickel	<b>6.35</b>	0.445	"	"	"	"	"	"	
Selenium	<b>0.802</b>	0.289	"	"	"	"	"	"	
Silver	<b>0.0489</b>	0.0223	"	"	"	"	"	"	
Zinc	<b>39.2</b>	0.445	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/10/22 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>89.8</b>		%	1	BFC0287	03/15/22	03/15/22	Calculation	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**BKG01@2.5'**  
**2203177-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.98	0.224	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B	
Barium	138	0.448	"	"	"	"	"	"	
Cadmium	0.234	0.224	"	"	"	"	"	"	
Copper	6.26	0.448	"	"	"	"	"	"	
Lead	7.76	0.224	"	"	"	"	"	"	
Nickel	6.17	0.448	"	"	"	"	"	"	
Selenium	0.696	0.291	"	"	"	"	"	"	
Silver	0.0363	0.0224	"	"	"	"	"	"	
Zinc	24.4	0.448	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/10/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	89.2		%	1	BFC0287	03/15/22	03/15/22	Calculation	

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**BKG01@4'**  
**2203177-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.18	0.224	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B	
Barium	192	0.449	"	"	"	"	"	"	
Cadmium	ND	0.224	"	"	"	"	"	"	
Copper	4.72	0.449	"	"	"	"	"	"	
Lead	7.20	0.224	"	"	"	"	"	"	
Nickel	5.29	0.449	"	"	"	"	"	"	
Selenium	0.653	0.292	"	"	"	"	"	"	
Silver	0.0274	0.0224	"	"	"	"	"	"	
Zinc	21.0	0.449	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/10/22 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	89.2		%	1	BFC0287	03/15/22	03/15/22	Calculation	

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**BKG01@5'**  
**2203177-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.13	0.225	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B	
Barium	285	0.449	"	"	"	"	"	"	
Cadmium	ND	0.225	"	"	"	"	"	"	
Copper	4.25	0.449	"	"	"	"	"	"	
Lead	6.13	0.225	"	"	"	"	"	"	
Nickel	4.61	0.449	"	"	"	"	"	"	
Selenium	0.632	0.292	"	"	"	"	"	"	
Silver	0.0273	0.0225	"	"	"	"	"	"	
Zinc	18.7	0.449	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/10/22 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	89.0		%	1	BFC0287	03/15/22	03/15/22	Calculation	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**BKG01@10'**  
**2203177-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **03/10/22 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.71	0.225	mg/kg dry	1	BFC0217	03/11/22	03/15/22	EPA 6020B	
Barium	186	0.450	"	"	"	"	"	"	
Cadmium	ND	0.225	"	"	"	"	"	"	
Copper	4.72	0.450	"	"	"	"	"	"	
Lead	6.69	0.225	"	"	"	"	"	"	
Nickel	5.04	0.450	"	"	"	"	"	"	
Selenium	0.644	0.292	"	"	"	"	"	"	
Silver	0.0284	0.0225	"	"	"	"	"	"	
Zinc	19.7	0.450	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **03/10/22 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFC0361	03/17/22	03/17/22	EPA 7196A	

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

Date Sampled: **03/10/22 14:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	88.9		%	1	BFC0287	03/15/22	03/15/22	Calculation	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS02@15'**  
**2203177-11 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		98.6 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		122 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS02@15'**  
**2203177-11 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/26/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		76.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		78.2 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>11.8</b>	0.0656	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	<b>1.74</b>	0.0656	"	"	"	"	"	"	
Sodium	<b>9.50</b>	0.0656	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.683</b>	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 09:30**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS02@15'**  
**2203177-11 (Soil)**

**Summit Scientific**

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

% Solids	76.3	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.50	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS03@10'**  
**2203177-12 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		109 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>C10-C28 (DRO)</b>	<b>1900</b>	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
<b>C28-C36 (ORO)</b>	<b>120</b>	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		143 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS03@10'**  
**2203177-12 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
<b>Chrysene</b>	<b>0.0431</b>	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.2 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>10.8</b>	0.0604	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
<b>Magnesium</b>	<b>1.85</b>	0.0604	"	"	"	"	"	"	
<b>Sodium</b>	<b>3.66</b>	0.0604	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>0.271</b>	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 12:10**

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

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS03@10'**  
**2203177-12 (Soil)**

**Summit Scientific**

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

% Solids	82.7	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 12:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.34	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS04@5'**  
**2203177-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		116 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS04@5'**  
**2203177-13 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		43.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		45.7 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>56.4</b>	0.0621	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	<b>4.11</b>	0.0621	"	"	"	"	"	"	
Sodium	<b>10.4</b>	0.0621	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.360</b>	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 12:15**

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

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS04@5'**  
**2203177-13 (Soil)**

**Summit Scientific**

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

% Solids	80.6	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 12:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.962</b>	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS05@2.5'**  
**2203177-14 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **03/10/22 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		49.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.4 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>74.0</b>	0.0627	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	<b>4.75</b>	0.0627	"	"	"	"	"	"	
Sodium	<b>0.441</b>	0.0627	"	"	"	"	"	"	

#### Calculated Analysis

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS05@2.5'**  
**2203177-14 (Soil)**

**Summit Scientific**

**Calculated Analysis**

Date Sampled: **03/10/22 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0134	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.8		%	1	BFC0560	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 12:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.465	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS06@10'**  
**2203177-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		81.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		81.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		129 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS06@10'**  
**2203177-15 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		41.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		43.7 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>20.2</b>	0.0637	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	<b>2.04</b>	0.0637	"	"	"	"	"	"	
Sodium	<b>5.04</b>	0.0637	"	"	"	"	"	"	

#### Calculated Analysis

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.286</b>	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS06@10'**  
**2203177-15 (Soil)**

**Summit Scientific**

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

% Solids	78.5	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.828</b>	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS07@5'**  
**2203177-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		90.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		96.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 13:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		125 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS09@10'**  
**2203177-18 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 13:55**

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

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS09@10'**  
**2203177-18 (Soil)**

### Summit Scientific

#### PAH by EPA Method 8270D SIM

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		40.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		45.2 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.5	0.0609	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	3.93	0.0609	"	"	"	"	"	"	
Sodium	3.66	0.0609	"	"	"	"	"	"	

#### Calculated Analysis

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.161	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 13:55**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS09@10'**  
**2203177-18 (Soil)**

**Summit Scientific**

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

% Solids	82.0	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.465	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS10@5'**  
**2203177-19 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0208	03/10/22	03/10/22	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: **03/10/22 14:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		113 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		93.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0209	03/10/22	03/10/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		123 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS10@5'**  
**2203177-19 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		50.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		54.5 %	40-150		"	"	"	"	

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

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>8.04</b>	0.0562	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	<b>2.87</b>	0.0562	"	"	"	"	"	"	
Sodium	<b>0.308</b>	0.0562	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.0237</b>	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/10/22 14:00**

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

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS10@5'**  
**2203177-19 (Soil)**

**Summit Scientific**

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

% Solids	89.0	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/10/22 14:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.197	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS11@2.5'**  
**2203177-20 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.163	0.0100	mg/L	1	BFC0211	03/11/22	03/13/22	EPA 6020B	

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

Date Sampled: **03/10/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	20.3	0.0585	mg/L dry	1	BFC0226	03/11/22	03/15/22	EPA 6020B	
Magnesium	6.08	0.0585	"	"	"	"	"	"	
Sodium	24.5	0.0585	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/10/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.23	0.00100	units	1	BFC0330	03/16/22	03/16/22	Calculation	

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

Date Sampled: **03/10/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.5		%	1	BFC0287	03/15/22	03/15/22	Calculation	

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

Date Sampled: **03/10/22 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.308	0.0100	mmhos/cm	1	BFC0250	03/14/22	03/14/22	EPA 120.1	

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

**SS11@2.5'**  
**2203177-20 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/10/22 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>7.91</b>			pH Units	1	BFC0249	03/14/22	03/14/22	EPA 9045D	

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

### Summit Scientific

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

#### Batch BFC0208 - EPA 5030 Soil MS

##### Blank (BFC0208-BLK1)

Prepared & Analyzed: 03/10/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.4	50-150			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150			

##### LCS (BFC0208-BS1)

Prepared & Analyzed: 03/10/22

Benzene	0.0626	0.0020	mg/kg	0.0750		83.4	70-130			
Toluene	0.0664	0.0050	"	0.0750		88.5	70-130			
Ethylbenzene	0.0680	0.0050	"	0.0750		90.6	70-130			
m,p-Xylene	0.145	0.010	"	0.150		96.6	70-130			
o-Xylene	0.0680	0.0050	"	0.0750		90.6	70-130			
1,2,4-Trimethylbenzene	0.0731	0.0050	"	0.0750		97.4	70-130			
1,3,5-Trimethylbenzene	0.0727	0.0050	"	0.0750		97.0	70-130			
Naphthalene	0.0559	0.0038	"	0.0750		74.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0335		"	0.0400		83.8	50-150			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0377		"	0.0400		94.2	50-150			

##### Matrix Spike (BFC0208-MS1)

Source: 2203177-01

Prepared & Analyzed: 03/10/22

Benzene	0.0625	0.0020	mg/kg	0.0750	ND	83.3	70-130			
Toluene	0.0647	0.0050	"	0.0750	ND	86.3	70-130			
Ethylbenzene	0.0655	0.0050	"	0.0750	ND	87.3	70-130			
m,p-Xylene	0.137	0.010	"	0.150	ND	91.6	70-130			
o-Xylene	0.0664	0.0050	"	0.0750	ND	88.5	70-130			
1,2,4-Trimethylbenzene	0.0721	0.0050	"	0.0750	ND	96.1	70-130			
1,3,5-Trimethylbenzene	0.0706	0.0050	"	0.0750	ND	94.1	70-130			
Naphthalene	0.0702	0.0038	"	0.0750	ND	93.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0384		"	0.0400		95.9	50-150			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.5	50-150			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0208 - EPA 5030 Soil MS**

Matrix Spike Dup (BFC0208-MSD1)		Source: 2203177-01			Prepared & Analyzed: 03/10/22					
Benzene	0.0597	0.0020	mg/kg	0.0750	ND	79.6	70-130	4.47	30	
Toluene	0.0646	0.0050	"	0.0750	ND	86.2	70-130	0.139	30	
Ethylbenzene	0.0676	0.0050	"	0.0750	ND	90.1	70-130	3.20	30	
m,p-Xylene	0.144	0.010	"	0.150	ND	95.8	70-130	4.48	30	
o-Xylene	0.0693	0.0050	"	0.0750	ND	92.4	70-130	4.29	30	
1,2,4-Trimethylbenzene	0.0751	0.0050	"	0.0750	ND	100	70-130	4.08	30	
1,3,5-Trimethylbenzene	0.0740	0.0050	"	0.0750	ND	98.6	70-130	4.65	30	
Naphthalene	0.0728	0.0038	"	0.0750	ND	97.1	70-130	3.61	30	
Surrogate: 1,2-Dichloroethane-d4		0.0369	"	0.0400		92.2	50-150			
Surrogate: Toluene-d8		0.0406	"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene		0.0405	"	0.0400		101	50-150			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0209 - EPA 3550A**

**Blank (BFC0209-BLK1)**

Prepared & Analyzed: 03/10/22

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

**LCS (BFC0209-BS1)**

Prepared & Analyzed: 03/10/22

C10-C28 (DRO)	552	50	mg/kg	500	110	70-130
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**Matrix Spike (BFC0209-MS1)**

Source: 2203177-01

Prepared & Analyzed: 03/10/22

C10-C28 (DRO)	594	50	mg/kg	500	67.6	105	70-130
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**Matrix Spike Dup (BFC0209-MSD1)**

Source: 2203177-01

Prepared & Analyzed: 03/10/22

C10-C28 (DRO)	580	50	mg/kg	500	67.6	102	70-130	2.40	20
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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

### 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 BFC0210 - EPA 5030 Soil MS

##### Blank (BFC0210-BLK1)

Prepared: 03/11/22 Analyzed: 03/12/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0298		"	0.0333		89.4	40-150			
Surrogate: Fluoranthene-d10	0.0274		"	0.0333		82.2	40-150			

##### LCS (BFC0210-BS1)

Prepared: 03/11/22 Analyzed: 03/12/22

Acenaphthene	0.0297	0.00500	mg/kg	0.0333		89.1	31-137			
Anthracene	0.0297	0.00500	"	0.0333		89.2	30-120			
Benzo (a) anthracene	0.0254	0.00500	"	0.0333		76.3	30-120			
Benzo (a) pyrene	0.0250	0.00500	"	0.0333		75.0	30-120			
Benzo (b) fluoranthene	0.0247	0.00500	"	0.0333		74.2	30-120			
Benzo (k) fluoranthene	0.0316	0.00500	"	0.0333		94.7	30-120			
Chrysene	0.0309	0.00500	"	0.0333		92.6	30-120			
Dibenz (a,h) anthracene	0.0254	0.00500	"	0.0333		76.3	30-120			
Fluoranthene	0.0304	0.00500	"	0.0333		91.2	30-120			
Fluorene	0.0314	0.00500	"	0.0333		94.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0302	0.00500	"	0.0333		90.7	30-120			
Pyrene	0.0310	0.00500	"	0.0333		93.0	35-142			
1-Methylnaphthalene	0.0283	0.00500	"	0.0333		84.9	35-142			
2-Methylnaphthalene	0.0260	0.00500	"	0.0333		77.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0275		"	0.0333		82.5	40-150			
Surrogate: Fluoranthene-d10	0.0317		"	0.0333		95.0	40-150			

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

#### Summit Scientific

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

#### Batch BFC0210 - EPA 5030 Soil MS

##### Matrix Spike (BFC0210-MS1)

Source: 2203179-05

Prepared: 03/11/22 Analyzed: 03/16/22

Acenaphthene	0.0156	0.00500	mg/kg	0.0333	ND	46.8	31-137		
Anthracene	0.0167	0.00500	"	0.0333	ND	50.0	30-120		
Benzo (a) anthracene	0.0177	0.00500	"	0.0333	ND	53.2	30-120		
Benzo (a) pyrene	0.0142	0.00500	"	0.0333	ND	42.5	30-120		
Benzo (b) fluoranthene	0.0154	0.00500	"	0.0333	ND	46.2	30-120		
Benzo (k) fluoranthene	0.0147	0.00500	"	0.0333	ND	44.0	30-120		
Chrysene	0.0171	0.00500	"	0.0333	ND	51.2	30-120		
Dibenz (a,h) anthracene	0.0160	0.00500	"	0.0333	ND	48.1	30-120		
Fluoranthene	0.0181	0.00500	"	0.0333	ND	54.2	30-120		
Fluorene	0.0165	0.00500	"	0.0333	ND	49.4	30-120		
Indeno (1,2,3-cd) pyrene	0.0142	0.00500	"	0.0333	ND	42.5	30-120		
Pyrene	0.0183	0.00500	"	0.0333	ND	54.9	35-142		
1-Methylnaphthalene	0.0206	0.00500	"	0.0333	ND	61.7	15-130		
2-Methylnaphthalene	0.0215	0.00500	"	0.0333	ND	64.5	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0237		"	0.0333		71.2	40-150		
Surrogate: Fluoranthene-d10	0.0214		"	0.0333		64.3	40-150		

##### Matrix Spike Dup (BFC0210-MSD1)

Source: 2203179-05

Prepared: 03/11/22 Analyzed: 03/16/22

Acenaphthene	0.0136	0.00500	mg/kg	0.0333	ND	40.8	31-137	13.7	30
Anthracene	0.0207	0.00500	"	0.0333	ND	62.2	30-120	21.7	30
Benzo (a) anthracene	0.0156	0.00500	"	0.0333	ND	46.9	30-120	12.5	30
Benzo (a) pyrene	0.0165	0.00500	"	0.0333	ND	49.4	30-120	15.0	30
Benzo (b) fluoranthene	0.0200	0.00500	"	0.0333	ND	60.0	30-120	25.9	30
Benzo (k) fluoranthene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	10.8	30
Chrysene	0.0219	0.00500	"	0.0333	ND	65.7	30-120	24.7	30
Dibenz (a,h) anthracene	0.0144	0.00500	"	0.0333	ND	43.2	30-120	10.7	30
Fluoranthene	0.0152	0.00500	"	0.0333	ND	45.7	30-120	17.0	30
Fluorene	0.0174	0.00500	"	0.0333	ND	52.2	30-120	5.58	30
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.5	30-120	11.2	30
Pyrene	0.0163	0.00500	"	0.0333	ND	48.8	35-142	11.9	30
1-Methylnaphthalene	0.0217	0.00500	"	0.0333	ND	65.0	15-130	5.25	50
2-Methylnaphthalene	0.0259	0.00500	"	0.0333	ND	77.7	15-130	18.5	50
Surrogate: 2-Methylnaphthalene-d10	0.0160		"	0.0333		47.9	40-150		
Surrogate: Fluoranthene-d10	0.0143		"	0.0333		42.8	40-150		

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

**Summit Scientific**

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

**Batch BFC0507 - EPA 5030 Soil MS**

**Blank (BFC0507-BLK1)**

Prepared: 03/23/22 Analyzed: 03/25/22

Acenaphthene	ND	0.00500	mg/kg							
Acenaphthene	ND	0.00500	"							
Anthracene	ND	0.00500	"							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0216		"	0.0333	64.8	40-150				
Surrogate: 2-Methylnaphthalene-d10	0.0216		"	0.0333	64.8	40-150				
Surrogate: Fluoranthene-d10	0.0242		"	0.0333	72.7	40-150				
Surrogate: Fluoranthene-d10	0.0242		"	0.0333	72.7	40-150				

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

**Summit Scientific**

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

**Batch BFC0507 - EPA 5030 Soil MS**

**LCS (BFC0507-BS1)**

Prepared: 03/23/22 Analyzed: 03/25/22

Acenaphthene	0.0190	0.00500	mg/kg	0.0333	57.1	31-137
Acenaphthene	0.0190	0.00500	"	0.0333	57.1	31-137
Anthracene	0.0203	0.00500	"	0.0333	61.0	30-120
Anthracene	0.0203	0.00500	"	0.0333	61.0	30-120
Benzo (a) anthracene	0.0201	0.00500	"	0.0333	60.3	30-120
Benzo (a) anthracene	0.0201	0.00500	"	0.0333	60.3	30-120
Benzo (a) pyrene	0.0246	0.00500	"	0.0333	73.9	30-120
Benzo (a) pyrene	0.0246	0.00500	"	0.0333	73.9	30-120
Benzo (b) fluoranthene	0.0214	0.00500	"	0.0333	64.3	30-120
Benzo (b) fluoranthene	0.0214	0.00500	"	0.0333	64.3	30-120
Benzo (k) fluoranthene	0.0260	0.00500	"	0.0333	78.0	30-120
Benzo (k) fluoranthene	0.0260	0.00500	"	0.0333	78.0	30-120
Chrysene	0.0239	0.00500	"	0.0333	71.6	30-120
Chrysene	0.0239	0.00500	"	0.0333	71.6	30-120
Dibenz (a,h) anthracene	0.0263	0.00500	"	0.0333	79.0	30-120
Dibenz (a,h) anthracene	0.0263	0.00500	"	0.0333	79.0	30-120
Fluoranthene	0.0223	0.00500	"	0.0333	66.9	30-120
Fluoranthene	0.0223	0.00500	"	0.0333	66.9	30-120
Fluorene	0.0214	0.00500	"	0.0333	64.1	30-120
Fluorene	0.0214	0.00500	"	0.0333	64.1	30-120
Indeno (1,2,3-cd) pyrene	0.0391	0.00500	"	0.0333	117	30-120
Indeno (1,2,3-cd) pyrene	0.0391	0.00500	"	0.0333	117	30-120
Pyrene	0.0250	0.00500	"	0.0333	74.9	35-142
Pyrene	0.0250	0.00500	"	0.0333	74.9	35-142
1-Methylnaphthalene	0.0185	0.00500	"	0.0333	55.5	35-142
1-Methylnaphthalene	0.0185	0.00500	"	0.0333	55.5	35-142
2-Methylnaphthalene	0.0160	0.00500	"	0.0333	48.0	35-142
2-Methylnaphthalene	0.0160	0.00500	"	0.0333	48.0	35-142
Surrogate: 2-Methylnaphthalene-d10	0.0174		"	0.0333	52.3	40-150
Surrogate: 2-Methylnaphthalene-d10	0.0174		"	0.0333	52.3	40-150
Surrogate: Fluoranthene-d10	0.0213		"	0.0333	63.8	40-150
Surrogate: Fluoranthene-d10	0.0213		"	0.0333	63.8	40-150

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

**Summit Scientific**

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

**Batch BFC0507 - EPA 5030 Soil MS**

**Matrix Spike (BFC0507-MS1)**

Source: 2203177-11

Prepared: 03/23/22 Analyzed: 03/26/22

Acenaphthene	0.0296	0.00500	mg/kg	0.0333	ND	88.9	31-137
Acenaphthene	0.0296	0.00500	"	0.0333	ND	88.9	31-137
Anthracene	0.0294	0.00500	"	0.0333	ND	88.1	30-120
Anthracene	0.0294	0.00500	"	0.0333	ND	88.1	30-120
Benzo (a) anthracene	0.0316	0.00500	"	0.0333	ND	94.8	30-120
Benzo (a) anthracene	0.0316	0.00500	"	0.0333	ND	94.8	30-120
Benzo (a) pyrene	0.0296	0.00500	"	0.0333	ND	88.7	30-120
Benzo (a) pyrene	0.0296	0.00500	"	0.0333	ND	88.7	30-120
Benzo (b) fluoranthene	0.0315	0.00500	"	0.0333	ND	94.5	30-120
Benzo (b) fluoranthene	0.0315	0.00500	"	0.0333	ND	94.5	30-120
Benzo (k) fluoranthene	0.0288	0.00500	"	0.0333	ND	86.4	30-120
Benzo (k) fluoranthene	0.0288	0.00500	"	0.0333	ND	86.4	30-120
Chrysene	0.0310	0.00500	"	0.0333	ND	93.0	30-120
Chrysene	0.0310	0.00500	"	0.0333	ND	93.0	30-120
Dibenz (a,h) anthracene	0.0210	0.00500	"	0.0333	ND	63.1	30-120
Dibenz (a,h) anthracene	0.0210	0.00500	"	0.0333	ND	63.1	30-120
Fluoranthene	0.0289	0.00500	"	0.0333	ND	86.7	30-120
Fluoranthene	0.0289	0.00500	"	0.0333	ND	86.7	30-120
Fluorene	0.0290	0.00500	"	0.0333	ND	87.1	30-120
Fluorene	0.0290	0.00500	"	0.0333	ND	87.1	30-120
Indeno (1,2,3-cd) pyrene	0.0218	0.00500	"	0.0333	ND	65.4	30-120
Indeno (1,2,3-cd) pyrene	0.0218	0.00500	"	0.0333	ND	65.4	30-120
Pyrene	0.0314	0.00500	"	0.0333	ND	94.1	35-142
Pyrene	0.0314	0.00500	"	0.0333	ND	94.1	35-142
1-Methylnaphthalene	0.0268	0.00500	"	0.0333	ND	80.4	15-130
1-Methylnaphthalene	0.0268	0.00500	"	0.0333	ND	80.4	15-130
2-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.4	15-130
2-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.4	15-130
Surrogate: 2-Methylnaphthalene-d10	0.0238		"	0.0333		71.5	40-150
Surrogate: 2-Methylnaphthalene-d10	0.0238		"	0.0333		71.5	40-150
Surrogate: Fluoranthene-d10	0.0285		"	0.0333		85.6	40-150
Surrogate: Fluoranthene-d10	0.0285		"	0.0333		85.6	40-150

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

### Summit Scientific

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

#### Batch BFC0507 - EPA 5030 Soil MS

##### Matrix Spike Dup (BFC0507-MSD1)

Source: 2203177-11

Prepared: 03/23/22 Analyzed: 03/26/22

Acenaphthene	0.0259	0.00500	mg/kg	0.0333	ND	77.8	31-137	13.3	30	
Acenaphthene	0.0259	0.00500	"	0.0333	ND	77.8	31-137	13.3	30	
Anthracene	0.0293	0.00500	"	0.0333	ND	87.8	30-120	0.297	30	
Anthracene	0.0293	0.00500	"	0.0333	ND	87.8	30-120	0.297	30	
Benzo (a) anthracene	0.0290	0.00500	"	0.0333	ND	86.9	30-120	8.79	30	
Benzo (a) anthracene	0.0290	0.00500	"	0.0333	ND	86.9	30-120	8.79	30	
Benzo (a) pyrene	0.0276	0.00500	"	0.0333	ND	82.8	30-120	6.87	30	
Benzo (a) pyrene	0.0276	0.00500	"	0.0333	ND	82.8	30-120	6.87	30	
Benzo (b) fluoranthene	0.0295	0.00500	"	0.0333	ND	88.4	30-120	6.70	30	
Benzo (b) fluoranthene	0.0295	0.00500	"	0.0333	ND	88.4	30-120	6.70	30	
Benzo (k) fluoranthene	0.0276	0.00500	"	0.0333	ND	82.9	30-120	4.19	30	
Benzo (k) fluoranthene	0.0276	0.00500	"	0.0333	ND	82.9	30-120	4.19	30	
Chrysene	0.0292	0.00500	"	0.0333	ND	87.7	30-120	5.81	30	
Chrysene	0.0292	0.00500	"	0.0333	ND	87.7	30-120	5.81	30	
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	4.85	30	
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	4.85	30	
Fluoranthene	0.0286	0.00500	"	0.0333	ND	85.7	30-120	1.21	30	
Fluoranthene	0.0286	0.00500	"	0.0333	ND	85.7	30-120	1.21	30	
Fluorene	0.0253	0.00500	"	0.0333	ND	75.8	30-120	13.9	30	
Fluorene	0.0253	0.00500	"	0.0333	ND	75.8	30-120	13.9	30	
Indeno (1,2,3-cd) pyrene	0.0207	0.00500	"	0.0333	ND	62.1	30-120	5.19	30	
Indeno (1,2,3-cd) pyrene	0.0207	0.00500	"	0.0333	ND	62.1	30-120	5.19	30	
Pyrene	0.0287	0.00500	"	0.0333	ND	86.1	35-142	8.84	30	
Pyrene	0.0287	0.00500	"	0.0333	ND	86.1	35-142	8.84	30	
1-Methylnaphthalene	0.0233	0.00500	"	0.0333	ND	69.9	15-130	14.0	50	
1-Methylnaphthalene	0.0233	0.00500	"	0.0333	ND	69.9	15-130	14.0	50	
2-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.8	15-130	18.7	50	
2-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.8	15-130	18.7	50	
Surrogate: 2-Methylnaphthalene-d10	0.0239		"	0.0333		71.8	40-150			
Surrogate: 2-Methylnaphthalene-d10	0.0239		"	0.0333		71.8	40-150			
Surrogate: Fluoranthene-d10	0.0281		"	0.0333		84.2	40-150			
Surrogate: Fluoranthene-d10	0.0281		"	0.0333		84.2	40-150			

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0211 - EPA 3050B**

**Blank (BFC0211-BLK1)**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron ND 0.0100 mg/L

**LCS (BFC0211-BS1)**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 4.74 0.0100 mg/L 5.00 94.7 80-120

**Duplicate (BFC0211-DUP1)**

**Source: 2203066-01**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 0.424 0.0100 mg/L 0.436 2.69 20

**Matrix Spike (BFC0211-MS1)**

**Source: 2203066-01**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 4.99 0.0100 mg/L 5.00 0.436 91.1 75-125

**Matrix Spike Dup (BFC0211-MSD1)**

**Source: 2203066-01**

Prepared: 03/11/22 Analyzed: 03/13/22

Boron 5.36 0.0100 mg/L 5.00 0.436 98.4 75-125 7.06 25

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.*



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0217 - EPA 3050B**

**Blank (BFC0217-BLK1)**

Prepared: 03/11/22 Analyzed: 03/15/22

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

**LCS (BFC0217-BS1)**

Prepared: 03/11/22 Analyzed: 03/15/22

Arsenic	38.2	0.200	mg/kg wet	40.0	95.4	80-120
Barium	36.4	0.400	"	40.0	91.0	80-120
Cadmium	2.06	0.200	"	2.00	103	80-120
Copper	37.5	0.400	"	40.0	93.6	80-120
Lead	20.0	0.200	"	20.0	99.9	80-120
Nickel	36.5	0.400	"	40.0	91.3	80-120
Selenium	3.55	0.260	"	4.00	88.7	80-120
Silver	2.00	0.0200	"	2.00	100	80-120
Zinc	42.2	0.400	"	40.0	106	80-120

**Duplicate (BFC0217-DUP1)**

Source: 2203174-01

Prepared: 03/11/22 Analyzed: 03/15/22

Arsenic	0.819	0.208	mg/kg dry	1.03	23.2	20	QR-03
Barium	58.4	0.417	"	68.7	16.3	20	
Cadmium	0.0858	0.208	"	0.104	19.5	20	
Copper	2.46	0.417	"	2.67	8.37	20	
Lead	3.14	0.208	"	3.69	16.1	20	
Nickel	2.39	0.417	"	2.74	13.4	20	
Selenium	0.225	0.271	"	0.256	12.7	20	
Silver	0.0131	0.0208	"	0.0150	13.6	20	
Zinc	11.3	0.417	"	11.9	4.96	20	

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0217 - EPA 3050B**

Matrix Spike (BFC0217-MS1)		Source: 2203174-01			Prepared: 03/11/22 Analyzed: 03/15/22					
Arsenic	39.4	0.208	mg/kg dry	41.7	1.03	92.0	75-125			
Barium	97.5	0.417	"	41.7	68.7	69.0	75-125			QR-03
Cadmium	2.11	0.208	"	2.08	0.104	96.1	75-125			
Copper	40.7	0.417	"	41.7	2.67	91.3	75-125			
Lead	22.4	0.208	"	20.8	3.69	89.6	75-125			
Nickel	39.4	0.417	"	41.7	2.74	88.1	75-125			
Selenium	3.67	0.271	"	4.17	0.256	81.9	75-125			
Silver	1.91	0.0208	"	2.08	0.0150	90.7	75-125			
Zinc	55.3	0.417	"	41.7	11.9	104	75-125			

Matrix Spike Dup (BFC0217-MSD1)		Source: 2203174-01			Prepared: 03/11/22 Analyzed: 03/15/22					
Arsenic	39.6	0.208	mg/kg dry	41.7	1.03	92.6	75-125	0.638	25	
Barium	91.0	0.417	"	41.7	68.7	53.5	75-125	6.83	25	QR-03
Cadmium	2.05	0.208	"	2.08	0.104	93.2	75-125	2.88	25	
Copper	40.5	0.417	"	41.7	2.67	90.8	75-125	0.505	25	
Lead	21.7	0.208	"	20.8	3.69	86.4	75-125	3.00	25	
Nickel	39.5	0.417	"	41.7	2.74	88.3	75-125	0.190	25	
Selenium	3.50	0.271	"	4.17	0.256	78.0	75-125	4.56	25	
Silver	1.85	0.0208	"	2.08	0.0150	88.1	75-125	2.95	25	
Zinc	54.3	0.417	"	41.7	11.9	102	75-125	1.92	25	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0361 - 3060A Mod**

**Blank (BFC0361-BLK1)**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BFC0361-BS1)**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent 23.8 0.30 mg/kg wet 25.0 95.4 80-120

**Duplicate (BFC0361-DUP1)**

**Source: 2203157-13**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BFC0361-MS1)**

**Source: 2203157-13**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent 30.9 0.30 mg/kg dry 27.4 ND 113 75-125

**Matrix Spike Dup (BFC0361-MSD1)**

**Source: 2203157-13**

Prepared & Analyzed: 03/17/22

Chromium, Hexavalent 27.5 0.30 mg/kg dry 27.4 ND 100 75-125 11.6 20

Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0226 - General Preparation**

**Blank (BFC0226-BLK1)**

Prepared: 03/11/22 Analyzed: 03/15/22

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

**LCS (BFC0226-BS1)**

Prepared: 03/11/22 Analyzed: 03/15/22

Calcium	5.36	0.0500	mg/L wet	5.00	107	70-130
Magnesium	5.50	0.0500	"	5.00	110	70-130
Sodium	5.27	0.0500	"	5.00	105	70-130

**Batch BFC0522 - General Preparation**

**Blank (BFC0522-BLK1)**

Prepared: 03/23/22 Analyzed: 03/24/22

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

**LCS (BFC0522-BS1)**

Prepared: 03/23/22 Analyzed: 03/24/22

Calcium	5.60	0.0500	mg/L wet	5.00	112	70-130
Magnesium	6.03	0.0500	"	5.00	121	70-130
Sodium	6.03	0.0500	"	5.00	121	70-130

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.*



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

**Summit Scientific**

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

**Batch BFC0287 - General Preparation**

**Duplicate (BFC0287-DUP1)**

**Source: 2203021-01**

Prepared & Analyzed: 03/15/22

% Solids	85.5	%		85.3		0.253	20
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**Batch BFC0560 - General Preparation**

**Duplicate (BFC0560-DUP1)**

**Source: 2203177-11**

Prepared & Analyzed: 03/24/22

% Solids	74.4	%		76.3		2.55	20
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Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

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

**Batch BFC0250 - General Preparation**

**Blank (BFC0250-BLK1)**

Prepared & Analyzed: 03/14/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFC0250-BS1)**

Prepared & Analyzed: 03/14/22

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

**Duplicate (BFC0250-DUP1)**

**Source: 2203112-01**

Prepared & Analyzed: 03/14/22

Specific Conductance (EC) 0.768 0.0100 mmhos/cm 0.779 1.42 20

**Batch BFC0534 - General Preparation**

**Blank (BFC0534-BLK1)**

Prepared & Analyzed: 03/23/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFC0534-BS1)**

Prepared & Analyzed: 03/23/22

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

**Duplicate (BFC0534-DUP2)**

**Source: 2202085-01**

Prepared & Analyzed: 03/23/22

Specific Conductance (EC) 0.268 0.0100 mmhos/cm 0.269 0.522 20

Summit Scientific

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





PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

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

**Summit Scientific**

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

**Batch BFC0249 - General Preparation**

**LCS (BFC0249-BS1)**

Prepared & Analyzed: 03/14/22

pH	9.00	pH Units	9.18	98.0	95-105
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**Duplicate (BFC0249-DUP1)**

Source: 2203112-01

Prepared & Analyzed: 03/14/22

pH	8.08	pH Units	8.02	0.745	20
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Summit Scientific

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
04/25/22 14:13

### Notes and Definitions

QR-03      The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

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

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 31, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Peak 1 Tank Battery

Work Order #2203181

Enclosed are the results of analyses for samples received by Summit Scientific on 03/11/22 11:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury For Muri Premer  
Project Manager



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS12@10'	2203181-01	Soil	03/11/22 09:20	03/11/22 11:40
SS13@5'	2203181-02	Soil	03/11/22 09:25	03/11/22 11:40
SS15@10'	2203181-04	Soil	03/11/22 09:50	03/11/22 11:40
SS16@5'	2203181-05	Soil	03/11/22 09:55	03/11/22 11:40

Summit Scientific


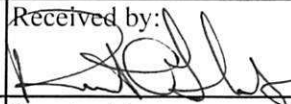
*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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303-277-9310

Page 1 of

Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions	
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	pH, EC, SAR	Boron - HWS	TMBS (1,2,4)&(1,3,5)	PAH - 915	Metals - 915		pH, EC, SAR by saturated paste	
1	SS12 C10'	3/11/22	0920	3			X			X			X	X			X					
2	SS13 C5'		0925	3			X			X			X	X			X					
3	SS14 C2.5'		0930	1			X			X										X		
4	SS15 C10'		0950	3			X			X			X	X			X					
5	SS16 C5'		0955	3			X			X			X	X			X					
6	SS17 C2.5'		1000	1			X			X										X		
7																						
8																						
9																						
10																						
Relinquished by: 		Date/Time: 3/11/22 1140		Received by: Tasman's Lock Box		Date/Time:		Turn Around Time (Check)		Same Day <input checked="" type="checkbox"/> 72 hours		24 hours		Standard		Notes:						
Relinquished by: Tasman's Lock Box		Date/Time:		Received by: 		Date/Time: 3/11/22 1140		48 hours		Sample Integrity:		Temperature Upon Receipt: 39		Samples Intact: <input checked="" type="checkbox"/> Yes No								
Relinquished by:		Date/Time:		Received by:		Date/Time:																

S<sub>2</sub>2/2  
Sample Receipt Checklist

S2 Work Order#

2203181

Client: PortasmanClient Project ID: Peak Tank BatteryShipped Via: H.D./P.U./FedEx/UPS/USPS/Other

Airbill #:

Matrix (check all that apply):

☐ Air☒ Soil/Solid☐ Water☐ Other:

(Describe)

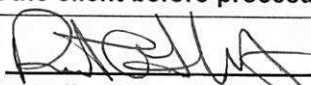
Temp (°C)

4.3

Thermometer ID: G86A9201901378

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on ICE
Were all samples received intact <sup>(1)</sup> ?	-			
Was adequate sample volume provided <sup>(1)</sup> ?	-			
If custody seals are present, are they intact <sup>(1)</sup> ?	-			
Are samples with holding times due within 48 hours sample due within 48 hours present?	-			Same day
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	-			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	-			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	-			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
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.			-	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	

Additional Comments (if any):

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.
  
Custodian Printed Name or Initials
3-1-0-22  
Date/Time



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS12@10'**  
**2203181-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFC0230	03/11/22	03/12/22	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: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		98.1 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0231	03/11/22	03/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:20**

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

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS12@10'**  
**2203181-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/26/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		70.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		68.2 %	40-150		"	"	"	"	

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

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>52.0</b>	0.0616	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	<b>4.06</b>	0.0616	"	"	"	"	"	"	
Sodium	<b>2.91</b>	0.0616	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.105</b>	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/11/22 09:20**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS12@10'**  
**2203181-01 (Soil)**

**Summit Scientific**

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

% Solids	81.2	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/11/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.04	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS13@5'**  
**2203181-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0230	03/11/22	03/12/22	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: **03/11/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		96.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0231	03/11/22	03/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		92.0 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS13@5'**  
**2203181-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/26/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.7 %	40-150		"	"	"	"	

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

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	47.1	0.0620	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	3.29	0.0620	"	"	"	"	"	"	
Sodium	1.35	0.0620	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0513	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/11/22 09:25**

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

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS13@5'**  
**2203181-02 (Soil)**

**Summit Scientific**

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

% Solids	80.6	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/11/22 09:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.274	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS15@10'**  
**2203181-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0230	03/11/22	03/12/22	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: **03/11/22 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		96.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0231	03/11/22	03/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		87.8 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS15@10'**  
**2203181-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		48.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		52.9 %	40-150		"	"	"	"	

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

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.7	0.0646	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	2.12	0.0646	"	"	"	"	"	"	
Sodium	1.65	0.0646	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0964	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/11/22 09:50**

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

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



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS15@10'**  
**2203181-04 (Soil)**

**Summit Scientific**

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

% Solids	77.5	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.35	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS16@5'**  
**2203181-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BFC0230	03/11/22	03/12/22	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: **03/11/22 09:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		101 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		100 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.5 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BFC0231	03/11/22	03/11/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		87.7 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS16@5'**  
**2203181-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anthracene	ND	0.00500	mg/kg	1	BFC0507	03/23/22	03/25/22	EPA 8270D SIM	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	45.9 %	40-150	"	"	"	"	"	"	
Surrogate: Fluoranthene-d10	45.0 %	40-150	"	"	"	"	"	"	

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

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	44.5	0.0626	mg/L dry	1	BFC0522	03/23/22	03/24/22	EPA 6020B	
Magnesium	3.82	0.0626	"	"	"	"	"	"	
Sodium	1.30	0.0626	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0502	0.00100	units	1	BFC0579	03/24/22	03/24/22	Calculation	

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

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

**SS16@5'**  
**2203181-05 (Soil)**

**Summit Scientific**

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

% Solids	79.9	%	1	BFC0560	03/24/22	03/24/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **03/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.358	0.0100	mmhos/cm	1	BFC0534	03/23/22	03/23/22	EPA 120.1	

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

### Summit Scientific

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

#### Batch BFC0230 - EPA 5030 Soil MS

##### Blank (BFC0230-BLK1)

Prepared: 03/11/22 Analyzed: 03/12/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.1	50-150			
Surrogate: Toluene-d8	0.0411		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150			

##### LCS (BFC0230-BS1)

Prepared: 03/11/22 Analyzed: 03/12/22

Benzene	0.0589	0.0020	mg/kg	0.0750		78.5	70-130			
Toluene	0.0622	0.0050	"	0.0750		83.0	70-130			
Ethylbenzene	0.0606	0.0050	"	0.0750		80.8	70-130			
m,p-Xylene	0.129	0.010	"	0.150		86.1	70-130			
o-Xylene	0.0627	0.0050	"	0.0750		83.6	70-130			
1,2,4-Trimethylbenzene	0.0670	0.0050	"	0.0750		89.3	70-130			
1,3,5-Trimethylbenzene	0.0656	0.0050	"	0.0750		87.4	70-130			
Naphthalene	0.0553	0.0038	"	0.0750		73.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0414		"	0.0400		104	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		97.9	50-150			

##### Matrix Spike (BFC0230-MS1)

Source: 2203181-01

Prepared: 03/11/22 Analyzed: 03/12/22

Benzene	0.0584	0.0020	mg/kg	0.0750	ND	77.8	70-130			
Toluene	0.0641	0.0050	"	0.0750	ND	85.4	70-130			
Ethylbenzene	0.0658	0.0050	"	0.0750	ND	87.8	70-130			
m,p-Xylene	0.140	0.010	"	0.150	ND	93.2	70-130			
o-Xylene	0.0669	0.0050	"	0.0750	ND	89.2	70-130			
1,2,4-Trimethylbenzene	0.0730	0.0050	"	0.0750	ND	97.3	70-130			
1,3,5-Trimethylbenzene	0.0711	0.0050	"	0.0750	ND	94.8	70-130			
Naphthalene	0.0692	0.0038	"	0.0750	ND	92.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	50-150			

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

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

**Batch BFC0230 - EPA 5030 Soil MS**

Matrix Spike Dup (BFC0230-MSD1)	Source: 2203181-01			Prepared: 03/11/22 Analyzed: 03/12/22						
Benzene	0.0602	0.0020	mg/kg	0.0750	ND	80.3	70-130	3.14	30	
Toluene	0.0658	0.0050	"	0.0750	ND	87.8	70-130	2.68	30	
Ethylbenzene	0.0674	0.0050	"	0.0750	ND	89.9	70-130	2.39	30	
m,p-Xylene	0.141	0.010	"	0.150	ND	94.3	70-130	1.24	30	
o-Xylene	0.0688	0.0050	"	0.0750	ND	91.8	70-130	2.92	30	
1,2,4-Trimethylbenzene	0.0752	0.0050	"	0.0750	ND	100	70-130	3.00	30	
1,3,5-Trimethylbenzene	0.0728	0.0050	"	0.0750	ND	97.0	70-130	2.34	30	
Naphthalene	0.0695	0.0038	"	0.0750	ND	92.7	70-130	0.562	30	
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	50-150			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

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

**Batch BFC0231 - EPA 3550A**

**Blank (BFC0231-BLK1)**

Prepared: 03/11/22 Analyzed: 03/12/22

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

**LCS (BFC0231-BS1)**

Prepared: 03/11/22 Analyzed: 03/12/22

C10-C28 (DRO)	547	50	mg/kg	500	109	70-130				
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**Matrix Spike (BFC0231-MS1)**

Source: 2203181-01

Prepared: 03/11/22 Analyzed: 03/12/22

C10-C28 (DRO)	434	50	mg/kg	500	23.5	82.1	70-130			
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**Matrix Spike Dup (BFC0231-MSD1)**

Source: 2203181-01

Prepared: 03/11/22 Analyzed: 03/12/22

C10-C28 (DRO)	428	50	mg/kg	500	23.5	80.9	70-130	1.39	20	
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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

### Summit Scientific

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

#### Batch BFC0507 - EPA 5030 Soil MS

##### Blank (BFC0507-BLK1)

Prepared: 03/23/22 Analyzed: 03/25/22

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
Surrogate: 2-Methylnaphthalene-d10	0.0216		"	0.0333		64.8		40-150			
Surrogate: Fluoranthene-d10	0.0242		"	0.0333		72.7		40-150			

##### LCS (BFC0507-BS1)

Prepared: 03/23/22 Analyzed: 03/25/22

Acenaphthene	0.0190	0.00500	mg/kg	0.0333		57.1		31-137			
Anthracene	0.0203	0.00500	"	0.0333		61.0		30-120			
Benzo (a) anthracene	0.0201	0.00500	"	0.0333		60.3		30-120			
Benzo (a) pyrene	0.0246	0.00500	"	0.0333		73.9		30-120			
Benzo (b) fluoranthene	0.0214	0.00500	"	0.0333		64.3		30-120			
Benzo (k) fluoranthene	0.0260	0.00500	"	0.0333		78.0		30-120			
Chrysene	0.0239	0.00500	"	0.0333		71.6		30-120			
Dibenz (a,h) anthracene	0.0263	0.00500	"	0.0333		79.0		30-120			
Fluoranthene	0.0223	0.00500	"	0.0333		66.9		30-120			
Fluorene	0.0214	0.00500	"	0.0333		64.1		30-120			
Indeno (1,2,3-cd) pyrene	0.0391	0.00500	"	0.0333		117		30-120			
Pyrene	0.0250	0.00500	"	0.0333		74.9		35-142			
1-Methylnaphthalene	0.0185	0.00500	"	0.0333		55.5		35-142			
2-Methylnaphthalene	0.0160	0.00500	"	0.0333		48.0		35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0174		"	0.0333		52.3		40-150			
Surrogate: Fluoranthene-d10	0.0213		"	0.0333		63.8		40-150			

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

### Summit Scientific

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

#### Batch BFC0507 - EPA 5030 Soil MS

##### Matrix Spike (BFC0507-MS1)

Source: 2203177-11

Prepared: 03/23/22 Analyzed: 03/26/22

Acenaphthene	0.0296	0.00500	mg/kg	0.0333	ND	88.9	31-137		
Anthracene	0.0294	0.00500	"	0.0333	ND	88.1	30-120		
Benzo (a) anthracene	0.0316	0.00500	"	0.0333	ND	94.8	30-120		
Benzo (a) pyrene	0.0296	0.00500	"	0.0333	ND	88.7	30-120		
Benzo (b) fluoranthene	0.0315	0.00500	"	0.0333	ND	94.5	30-120		
Benzo (k) fluoranthene	0.0288	0.00500	"	0.0333	ND	86.4	30-120		
Chrysene	0.0310	0.00500	"	0.0333	ND	93.0	30-120		
Dibenz (a,h) anthracene	0.0210	0.00500	"	0.0333	ND	63.1	30-120		
Fluoranthene	0.0289	0.00500	"	0.0333	ND	86.7	30-120		
Fluorene	0.0290	0.00500	"	0.0333	ND	87.1	30-120		
Indeno (1,2,3-cd) pyrene	0.0218	0.00500	"	0.0333	ND	65.4	30-120		
Pyrene	0.0314	0.00500	"	0.0333	ND	94.1	35-142		
1-Methylnaphthalene	0.0268	0.00500	"	0.0333	ND	80.4	15-130		
2-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.4	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0238		"	0.0333		71.5	40-150		
Surrogate: Fluoranthene-d10	0.0285		"	0.0333		85.6	40-150		

##### Matrix Spike Dup (BFC0507-MSD1)

Source: 2203177-11

Prepared: 03/23/22 Analyzed: 03/26/22

Acenaphthene	0.0259	0.00500	mg/kg	0.0333	ND	77.8	31-137	13.3	30
Anthracene	0.0293	0.00500	"	0.0333	ND	87.8	30-120	0.297	30
Benzo (a) anthracene	0.0290	0.00500	"	0.0333	ND	86.9	30-120	8.79	30
Benzo (a) pyrene	0.0276	0.00500	"	0.0333	ND	82.8	30-120	6.87	30
Benzo (b) fluoranthene	0.0295	0.00500	"	0.0333	ND	88.4	30-120	6.70	30
Benzo (k) fluoranthene	0.0276	0.00500	"	0.0333	ND	82.9	30-120	4.19	30
Chrysene	0.0292	0.00500	"	0.0333	ND	87.7	30-120	5.81	30
Dibenz (a,h) anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120	4.85	30
Fluoranthene	0.0286	0.00500	"	0.0333	ND	85.7	30-120	1.21	30
Fluorene	0.0253	0.00500	"	0.0333	ND	75.8	30-120	13.9	30
Indeno (1,2,3-cd) pyrene	0.0207	0.00500	"	0.0333	ND	62.1	30-120	5.19	30
Pyrene	0.0287	0.00500	"	0.0333	ND	86.1	35-142	8.84	30
1-Methylnaphthalene	0.0233	0.00500	"	0.0333	ND	69.9	15-130	14.0	50
2-Methylnaphthalene	0.0219	0.00500	"	0.0333	ND	65.8	15-130	18.7	50
Surrogate: 2-Methylnaphthalene-d10	0.0239		"	0.0333		71.8	40-150		
Surrogate: Fluoranthene-d10	0.0281		"	0.0333		84.2	40-150		

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

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

**Batch BFC0522 - General Preparation**

**Blank (BFC0522-BLK1)**

Prepared: 03/23/22 Analyzed: 03/24/22

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

**LCS (BFC0522-BS1)**

Prepared: 03/23/22 Analyzed: 03/24/22

Calcium	5.60	0.0500	mg/L wet	5.00	112	70-130
Magnesium	6.03	0.0500	"	5.00	121	70-130
Sodium	6.03	0.0500	"	5.00	121	70-130

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

**Summit Scientific**

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

**Batch BFC0560 - General Preparation**

Duplicate (BFC0560-DUP1)		Source: 2203177-11			Prepared & Analyzed: 03/24/22					
% Solids	74.4		%		76.3		2.55		20	

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

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

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

**Batch BFC0534 - General Preparation**

**Blank (BFC0534-BLK1)**

Prepared & Analyzed: 03/23/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFC0534-BS1)**

Prepared & Analyzed: 03/23/22

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

**Duplicate (BFC0534-DUP2)**

**Source: 2202085-01**

Prepared & Analyzed: 03/23/22

Specific Conductance (EC) 0.268 0.0100 mmhos/cm 0.269 0.522 20

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Peak 1 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
03/31/22 09:45

### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference