



**PDC Energy, Inc.**  
**Fourth Quarter 2022 Groundwater Monitoring Summary**

October 27, 2022

Former Loloff 35-5 Tank Battery  
NENE Section 35 T5N R64W  
Remediation # 19818

This groundwater monitoring summary has been prepared by Tasman, Inc. for the former Loloff 35-5 tank battery.

### **Site History and Background**

On October 15, 2021, a historic hydrocarbon release was discovered beneath the former separator during decommissioning activities. Following the discovery, mitigation activities were initiated and between October 15, and December 3, 2021, approximately 980 cubic yards of impacted material were removed from the former excavation. During excavation activities, groundwater was encountered in the excavation at approximately 3 feet below ground surface (bgs). Groundwater vacuum recovery was conducted concurrent with excavation activities and approximately 220 barrels (bbls) of groundwater were removed from location. On April 14, and April 15, 2022, seventeen (17) monitoring wells (BH01 – BH17) were installed to confirm the absence of dissolved-phase hydrocarbon impacts within and adjacent to the former excavation extent.

### **Supplemental Site Investigation Activities**

On November 2, 2022, supplemental site investigation activities were conducted to assess soil suitability for reclamation constituents in native soil surrounding the former excavation extent. Three background soil borings (BKG04 – BKG06) were advanced to approximately 5 feet bgs and nine samples were submitted to Summit Scientific Laboratory for analysis of pH, electrical conductivity (EC), and sodium adsorption ratio (SAR).

Soil analytical results indicated that pH, EC, and SAR were in exceedance of the COGCC Table 915-1 regulatory standards in native soil on site. The background soil boring locations are illustrated on Figure 1. Soil analytical results are summarized in Table 1. The GPS coordinates and field recorded VOC concentrations are summarized in Table 2. The laboratory analytical report is included in Attachment A. The boring logs are included as Attachment B.

### **Groundwater Monitoring Activities**

On October 6, 2022, groundwater monitoring was conducted at all 17 monitoring wells (BH01 – BH17). Seventeen groundwater samples were submitted to Summit Scientific Laboratory for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), naphthalene, 1,2,4-trimethylbenzene (TMB), and 1,3,5-TMB

by EPA Method 8260B, chloride and sulfate anions by EPA Method 300.0 and total dissolved solids (TDS) by Method SM 2540C.

Fourth quarter 2022 analytical results indicated that organic compound concentrations were in compliance with the applicable COGCC Table 915-1 groundwater standards in all 17 monitoring well locations. Additionally, TDS and sulfate and chloride anion concentrations were in compliance with the applicable regulatory standards or within 1.25x the background concentration of the cross-gradient monitoring well (BH17) in all monitoring well locations. Sample locations and corresponding analytical results are illustrated on Figures 2 and 3. Groundwater elevation data is illustrated on Figure 4. Groundwater analytical results are summarized in Tables 3 and 4. The laboratory analytical report is included in Attachment A.

### **Current Remediation Activities and Path Forward**

Monitored natural attenuation (MNA) was selected as the remediation strategy for this site during the second quarter 2022 and will remain the selected remediation strategy through the first quarter 2023.

First quarter 2023 groundwater sampling will be conducted in January 2023.



**Legend**

- Underground Flowline Location  
(Collected via Trimble GPS)
- Excavation Extent  
(Collected via Trimble GPS)
- + Soil Boring Location  
(Collected via Trimble GPS)

**Notes**

All locations are approximate unless otherwise noted.

GPS – Global Positioning System

0 ft.      25 ft.      50 ft.

Image Source: Google Earth; June 2021  
Projection: WGS 84 UTM Zone 13 North

|              |                   |
|--------------|-------------------|
| DATE:        | November 16, 2022 |
| DESIGNED BY: | C. Hamlin         |
| DRAWN BY:    | S. Anderson       |

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**PDC Energy, Inc. – DJ Basin**  
**Former Loloff 35-5 Tank Battery**  
NENE, Section 35, Township 5 North, Range 64 West  
Weld County, Colorado

SOIL BORING  
LOCATION MAP

FIGURE  
1

| BH11                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.75      | 1.50      |

| BH10                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.98      | 1.68      |

| BH08                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.83      | 1.61      |

| BH01                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.45      | 1.52      |

| BH05                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 1.95      | 1.59      |

| BH13                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.22      | 1.92      |

| BH04                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.83      | 1.65      |

| BH02                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.82      | 1.58      |

| BH14                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 2.94      | 1.47      |

| BH03                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.11      | 1.32      |

| BH15                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.04      | 1.67      |

| BH06                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.09      | 1.62      |

| BH17                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.14      | 1.66      |

| BH16                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.01      | 1.51      |

| BH12                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.01      | 1.45      |

| BH07                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.08      | 1.43      |

| BH09                     |           |           |
|--------------------------|-----------|-----------|
| Compound (µg/L)          | 7/15/2022 | 10/6/2022 |
| Benzene                  | <1.0      | <1.0      |
| Toluene                  | <1.0      | <1.0      |
| Ethylbenzene             | <1.0      | <1.0      |
| Total Xylenes            | <2.0      | <2.0      |
| Naphthalene              | <1.0      | <1.0      |
| 1,2,4-TMB                | <1.0      | <1.0      |
| 1,3,5-TMB                | <1.0      | <1.0      |
| Depth to Water (ft. bgs) | 3.14      | 1.33      |



**Legend**

- Excavation Extent (Collected via Trimble GPS)
- Groundwater Sample Location
- Underground Flowline Location (Collected via Trimble GPS)
- Monitoring Well Location (Collected via Trimble GPS)
- Groundwater Flow Direction (4Q22)

**Notes**

All locations are approximate unless otherwise noted.

µg/L – Micrograms per liter

TMB – Trimethylbenzene

ft. bgs – Feet below ground surface

GPS – Global Positioning System

0 ft. 25 ft. 50 ft.

Image Source: Google Earth; 2021 Google  
Projection: WGS 84 UTM Zone 13 North

DATE: October 27, 2022

DESIGNED BY: C. Hamlin

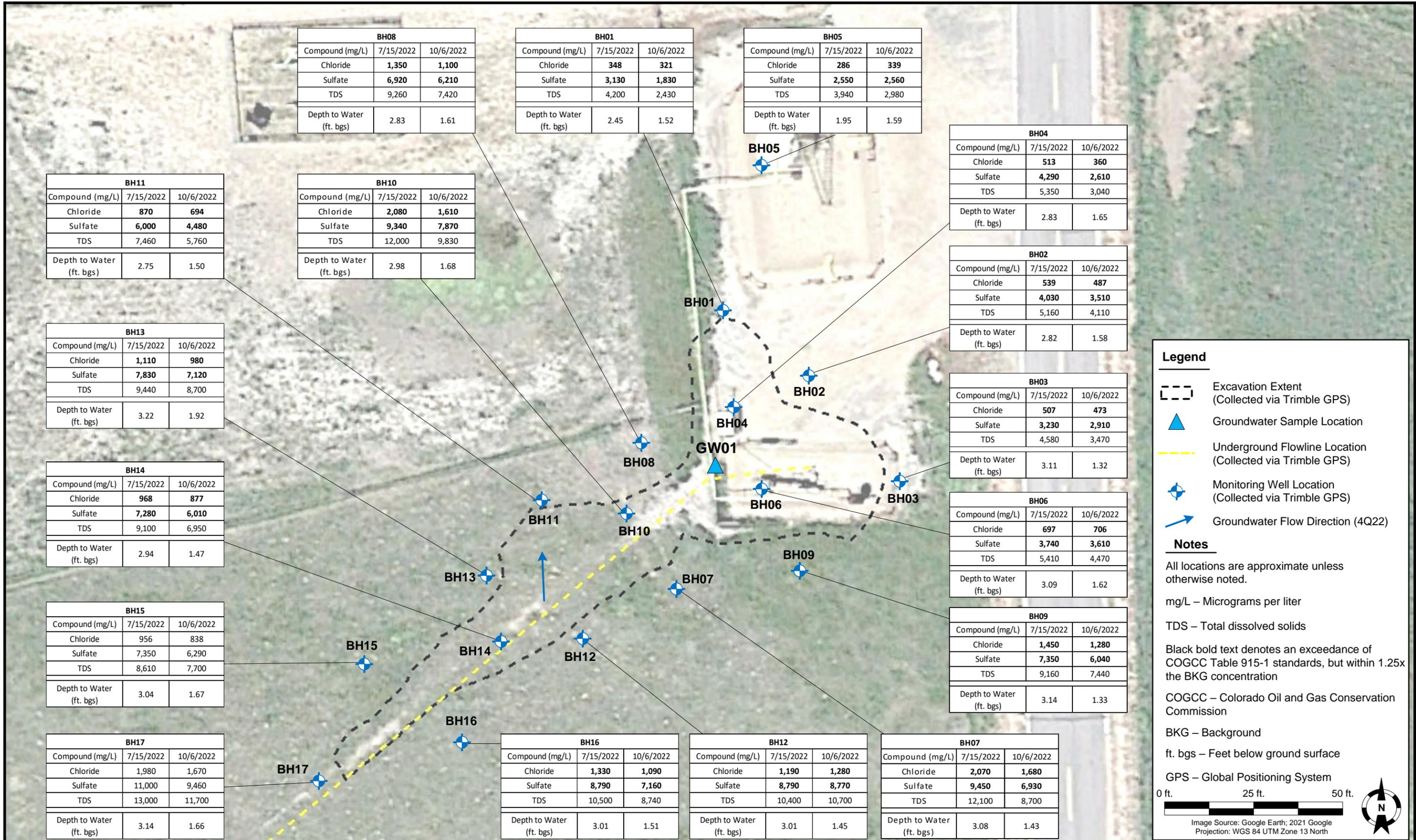
DRAWN BY: C. Jonjak

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**PDC Energy, Inc. – DJ Basin**  
**Former Loloff 35-5 Tank Battery**  
NENE, Section 35, Township 5 North, Range 64 West  
Weld County, Colorado

**GROUNDWATER ANALYTICAL RESULTS MAP**

**FIGURE 2**



- Legend**
- Excavation Extent (Collected via Trimble GPS)
  - Groundwater Sample Location
  - Underground Flowline Location (Collected via Trimble GPS)
  - Monitoring Well Location (Collected via Trimble GPS)
  - Groundwater Flow Direction (4Q22)

**Notes**

All locations are approximate unless otherwise noted.

mg/L – Micrograms per liter

TDS – Total dissolved solids

Black bold text denotes an exceedance of COGCC Table 915-1 standards, but within 1.25x the BKG concentration

COGCC – Colorado Oil and Gas Conservation Commission

BKG – Background

ft. bgs – Feet below ground surface

GPS – Global Positioning System

0 ft.      25 ft.      50 ft.

Image Source: Google Earth; 2021 Google  
Projection: WGS 84 UTM Zone 13 North

DATE: October 27, 2022

DESIGNED BY: C. Hamlin

DRAWN BY: C. Jonjak

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NENE, Section 35, Township 5 North, Range 64 West  
Weld County, Colorado

**GROUNDWATER ANALYTICAL RESULTS MAP (INORGANIC PARAMETERS)**

**FIGURE 3**



**Legend**

- Excavation Extent (Collected via Trimble GPS)
- Underground Flowline Location (Collected via Trimble GPS)
- Groundwater Sample Location
- Monitoring Well Location (Collected via Trimble GPS)
- Groundwater Elevation Contour (Dashed where inferred)

**4681.91** Groundwater Elevation (ft. AMSL)

Groundwater Flow Direction (4Q22)

**Notes**

All locations are approximate unless otherwise noted.

ft. AMSL – Feet Above Mean Sea Level

GPS – Global Positioning System

\* – Well not used for contouring purposes due to anomalous groundwater elevation

0 ft.      25 ft.      50 ft.

Image Source: Google Earth; 2021 Google  
Projection: WGS 84 UTM Zone 13 North

DATE: November 4, 2022

DESIGNED BY: C. Hamlin

DRAWN BY: J. Marcus



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**Former Loloff 35-5 Tank Battery**  
NENE, Section 35, Township 5 North, Range 64 West  
Weld County, Colorado

**GROUNDWATER  
ELEVATION CONTOUR  
MAP (11/06/2022)**

**FIGURE  
4**

**TABLE 1**  
**FORMER LOLOFF 35-5 & 6 TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC COMPOUNDS**

| Sample ID   | Date Sampled | Depth       | pH (units)   | EC (mmhos/cm) | SAR (units)  | Boron (mg/L) |
|---|--------------|-------------|--------------|---------------|--------------|--------------|
| <b>Soil Suitability for Reclamation Standard <sup>(1)</sup></b> |              |             | <b>6-8.3</b> | <b>&lt;4</b>  | <b>&lt;6</b> | <b>2</b>     |
| SS01 @ 3'   | 10/14/2021   | 3 ft. bgs   | 8.16         | 1.34          | 3.87         | 0.257        |
| SS51 @ 2.5  | 12/2/2021    | 2.5 ft. bgs | 8.02         | 0.336         | <b>13.5</b>  | 1.34         |
| BH01 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 8.01         | 1.23          | 0.0408       | 0.375        |
| BH01 @ 5'   | 4/14/2022    | 5 ft. bgs   | NA           | NA            | 0.246        | NA           |
| BH02 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 8.12         | 0.946         | 0.102        | 0.544        |
| BH02 @ 5'   | 4/14/2022    | 5 ft. bgs   | NA           | NA            | 0.340        | NA           |
| BH03 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 8.24         | 1.06          | 0.107        | 0.731        |
| BH03 @ 4'   | 4/14/2022    | 4 ft. bgs   | NA           | NA            | 0.0767       | NA           |
| BH04 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 7.70         | 1.24          | 0.0562       | 0.396        |
| BH04 @ 5'   | 4/14/2022    | 5 ft. bgs   | NA           | NA            | 0.313        | NA           |
| BH05 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 7.98         | 1.27          | 0.150        | 0.553        |
| BH05 @ 5'   | 4/14/2022    | 5 ft. bgs   | NA           | NA            | 0.123        | NA           |
| BH06 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 7.91         | 1.47          | 0.115        | 0.451        |
| BH06 @ 5'   | 4/14/2022    | 5 ft. bgs   | NA           | NA            | 0.0757       | NA           |
| BH07 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 7.82         | <b>5.94</b>   | 0.366        | 0.744        |
| BH07 @ 4'   | 4/14/2022    | 4 ft. bgs   | NA           | NA            | 0.254        | NA           |
| BH08 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | <b>8.54</b>  | 2.33          | 0.118        | 0.478        |
| BH08 @ 4'   | 4/14/2022    | 4 ft. bgs   | NA           | NA            | 0.219        | NA           |
| BH09 @ 2.5'   | 4/14/2022    | 2.5 ft. bgs | 7.66         | 3.70          | 0.152        | 0.605        |
| BH09 @ 4'   | 4/14/2022    | 4 ft. bgs   | NA           | NA            | 0.156        | NA           |
| BH10 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 7.91         | <b>8.47</b>   | 0.474        | 0.475        |
| BH10 @ 4'   | 4/15/2022    | 4 ft. bgs   | NA           | NA            | 0.414        | NA           |
| BH11 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 7.91         | <b>9.92</b>   | 0.369        | 0.659        |
| BH11 @ 3.5'   | 4/15/2022    | 3.5 ft. bgs | NA           | NA            | 0.320        | NA           |
| BH12 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 8.01         | <b>4.58</b>   | 0.622        | 0.670        |
| BH12 @ 4'   | 4/15/2022    | 4 ft. bgs   | NA           | NA            | 0.413        | NA           |
| BH13 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 8.03         | <b>9.28</b>   | 0.759        | 0.924        |
| BH13 @ 3.5'   | 4/15/2022    | 3.5 ft. bgs | NA           | NA            | 0.206        | NA           |
| BH14 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 7.84         | <b>4.45</b>   | 0.300        | 0.405        |
| BH14 @ 3.5'   | 4/15/2022    | 3.5 ft. bgs | NA           | NA            | 0.984        | NA           |
| BH14 @ 5'   | 4/15/2022    | 5 ft. bgs   | NA           | NA            | 0.202        | NA           |
| BH15 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 8.04         | <b>7.73</b>   | 0.551        | 1.05         |
| BH15 @ 3.5'   | 4/15/2022    | 3.5 ft. bgs | NA           | NA            | 0.361        | NA           |

**TABLE 1**  
**FORMER LOLOFF 35-5 & 6 TANK BATTERY**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC COMPOUNDS**

| Sample ID   | Date Sampled | Depth       | pH (units)   | EC (mmhos/cm) | SAR (units)  | Boron (mg/L) |
|---|--------------|-------------|--------------|---------------|--------------|--------------|
| <b>Soil Suitability for Reclamation Standard <sup>(1)</sup></b> |              |             | <b>6-8.3</b> | <b>&lt;4</b>  | <b>&lt;6</b> | <b>2</b>     |
| BH16 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 7.98         | <b>7.67</b>   | 0.294        | 0.896        |
| BH16 @ 3.5'   | 4/15/2022    | 3.5 ft. bgs | NA           | NA            | 0.466        | NA           |
| BH17 @ 2.5'   | 4/15/2022    | 2.5 ft. bgs | 7.88         | <b>9.77</b>   | 0.967        | 0.854        |
| BH17 @ 3.5'   | 4/15/2022    | 3.5 ft. bgs | NA           | NA            | 0.401        | NA           |
| BKG02 @ 2.5'  | 4/14/2022    | 2.5 ft. bgs | 8.02         | <b>4.24</b>   | 0.204        | 0.777        |
| BKG02 @ 4'  | 4/14/2022    | 4 ft. bgs   | 8.03         | 3.61          | 0.236        | 0.486        |
| BKG02 @ 5'  | 4/14/2022    | 5 ft. bgs   | <b>8.48</b>  | 2.50          | 0.211        | 0.485        |
| BKG03 @ 2.5'  | 4/14/2022    | 4 ft. bgs   | 8.01         | <b>6.20</b>   | 0.583        | 0.766        |
| BKG03 @ 4'  | 4/14/2022    | 2.5 ft. bgs | 8.15         | <b>4.26</b>   | 0.198        | 0.645        |
| BKG03 @ 5'  | 4/14/2022    | 5 ft. bgs   | 8.15         | 3.23          | 0.247        | 0.423        |
| BKG04 @ 2.5'  | 11/2/2022    | 2.5 ft. bgs | 8.08         | <b>6.23</b>   | <b>12.9</b>  | NA           |
| BKG04 @ 4'  | 11/2/2022    | 4 ft. bgs   | 7.81         | <b>5.06</b>   | <b>15.3</b>  | NA           |
| BKG04 @ 5'  | 11/2/2022    | 5 ft. bgs   | 8.18         | 3.80          | <b>16.3</b>  | NA           |
| BKG05 @ 2.5'  | 11/2/2022    | 2.5 ft. bgs | 8.08         | <b>4.48</b>   | <b>10.2</b>  | NA           |
| BKG05 @ 4'  | 11/2/2022    | 4 ft. bgs   | 8.29         | 2.98          | <b>10.2</b>  | NA           |
| BKG05 @ 5'  | 11/2/2022    | 5 ft. bgs   | <b>8.44</b>  | 1.83          | <b>10.8</b>  | NA           |
| BKG06 @ 2.5'  | 11/2/2022    | 2.5 ft. bgs | <b>8.36</b>  | 2.03          | <b>8.00</b>  | NA           |
| BKG06 @ 4'  | 11/2/2022    | 4 ft. bgs   | 8.11         | 1.60          | <b>6.61</b>  | NA           |
| BKG06 @ 5'  | 11/2/2022    | 5 ft. bgs   | 8.20         | 1.51          | <b>6.11</b>  | NA           |

**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

NA = Constituent not analyzed

     = Source

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

**BOLD** = Analytical result is in exceedance of applicable standard, but below background concentration

**TABLE 2  
FORMER LOLOFF 35-5 6 TANK BATTERY  
FIELD DATA SUMMARY TABLE**

| Sample ID    | Date Sampled | Depth       | GPS Data <sup>(1)</sup> |             | PDOP Value | VOC Concentration <sup>(2)</sup><br>(ppm) |
|--------------|--------------|-------------|-------------------------|-------------|------------|---|
|              |              |             | Latitude                | Longitude   |            |   |
| SS01 @ 3'    | 10/14/2021   | 2 ft. bgs   | 40.362695               | -104.507675 | 1.2        | 580                                       |
| SS02 @ 5'    | 10/15/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 3.1                                       |
| SS03 @ 4'    | 10/15/2021   | 4 ft. bgs   | 40.362713               | -104.507799 | 1.3        | 4.8                                       |
| SS04 @ 2.5'  | 10/15/2021   | 2.5 ft. bgs | 40.362713               | -104.507799 | 1.3        | 3.3                                       |
| SS05 @ 4'    | 10/15/2021   | 4 ft. bgs   | 40.362670               | -104.507768 | 1.3        | 1.8                                       |
| SS06 @ 2.5'  | 10/15/2021   | 2.5 ft. bgs | 40.362670               | -104.507768 | 1.3        | 1.4                                       |
| SS07 @ 4'    | 10/18/2021   | 4 ft. bgs   | 40.362653               | -104.507721 | 1.1        | 6.5                                       |
| SS08 @ 2.5'  | 10/18/2021   | 2.5 ft. bgs | 40.362653               | -104.507721 | 1.1        | 0.7                                       |
| SS09 @ 5'    | 10/18/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 6.2                                       |
| SS10 @ 4'    | 10/19/2021   | 4 ft. bgs   | 40.362724               | -104.507682 | 1.2        | 79.4                                      |
| SS11 @ 2.5'  | 10/19/2021   | 2.5 ft. bgs | 40.362724               | -104.507682 | 1.2        | 0.9                                       |
| SS12 @ 5'    | 10/20/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 0.0                                       |
| SS13 @ 4'    | 10/20/2021   | 4 ft. bgs   | 40.362663               | -104.507639 | 1.2        | 6.0                                       |
| SS14 @ 2.5'  | 10/20/2021   | 2.5 ft. bgs | 40.362663               | -104.507639 | 1.2        | 0.2                                       |
| SS15 @ 4'    | 10/20/2021   | 4 ft. bgs   | 40.362708               | -104.507608 | 1.3        | 10.3                                      |
| SS16 @ 2.5'  | 10/20/2021   | 2.5 ft. bgs | 40.362708               | -104.507608 | 1.3        | 0.4                                       |
| SS17 @ 5'    | 10/21/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 0.4                                       |
| SS18 @ 4'    | 10/21/2021   | 4 ft. bgs   | -104.507771             | 40.362741   | 1.1        | 13.5                                      |
| SS19 @ 2.5'  | 10/21/2021   | 2.5 ft. bgs | -104.507771             | 40.362741   | 1.1        | 0.3                                       |
| SS20 @ 4'    | 10/21/2021   | 4 ft. bgs   | -104.507686             | 40.362757   | 1.1        | 0.2                                       |
| SS21 @ 2.5'  | 10/21/2021   | 2.5 ft. bgs | -104.507686             | 40.362757   | 1.1        | 0.1                                       |
| SS22 @ 5'    | 10/21/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 0.3                                       |
| SS23 @ 4'    | 10/21/2021   | 4 ft. bgs   | -104.507620             | 40.362741   | 1.3        | 0.3                                       |
| SS24 @ 2.5'  | 10/21/2021   | 2.5 ft. bgs | -104.507620             | 40.362741   | 1.3        | 0.2                                       |
| SS25 @ 5'    | 10/22/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 0.3                                       |
| SS26 @ 4'    | 10/22/2021   | 4 ft. bgs   | -104.507702             | 40.362786   | 1.5        | 0.8                                       |
| SS27 @ 2.5'  | 10/22/2021   | 2.5 ft. bgs | -104.507702             | 40.362786   | 1.5        | 0.5                                       |
| SS28 @ 4'    | 10/22/2021   | 4 ft. bgs   | -104.507777             | 40.362782   | 1.5        | 0.8                                       |
| SS29 @ 2.5'  | 10/22/2021   | 2.5 ft. bgs | -104.507777             | 40.362782   | 1.5        | 0.5                                       |
| SS30 @ 4'    | 10/22/2021   | 4 ft. bgs   | -104.507731             | 40.362814   | 1.1        | 5.8                                       |
| SS31 @ 2.5'  | 10/22/2021   | 2.5 ft. bgs | -104.507731             | 40.362814   | 1.1        | 0.3                                       |
| BKG01 @ 2.5' | 10/26/2021   | 2.5 ft. bgs | -104.507812             | 40.362555   | 1.4        | 0.2                                       |
| BKG01 @ 4'   | 10/26/2021   | 4 ft. bgs   | -104.507812             | 40.362555   | 1.4        | 0.0                                       |
| BKG01 @ 6'   | 10/26/2021   | 6 ft. bgs   | -104.507812             | 40.362555   | 1.4        | 0.2                                       |
| SS32 @ 5'    | 11/29/2021   | 5 ft. bgs   | NC                      | NC          | NC         | 2.7                                       |
| SS33 @ 4'    | 11/30/2021   | 4 ft. bgs   | 40.362639               | -104.507820 | 1          | 5.9                                       |
| SS34 @ 2.5'  | 11/30/2021   | 2.5 ft. bgs | 40.362639               | -104.507820 | 1          | 2.8                                       |
| SS35 @ 4'    | 11/30/2021   | 4 ft. bgs   | NC                      | NC          | NC         | 21.0                                      |
| SS36 @ 2.5'  | 11/30/2021   | 2.5 ft. bgs | NC                      | NC          | NC         | 5.1                                       |
| SS37 @ 5'    | 12/1/2021    | 5 ft. bgs   | NC                      | NC          | NC         | 1.3                                       |
| SS38 @ 4'    | 12/1/2021    | 4 ft. bgs   | 40.362669               | -104.507925 | 1.2        | 7.3                                       |
| SS39 @ 2.5'  | 12/1/2021    | 2.5 ft. bgs | 40.362669               | -104.507925 | 1.2        | 3.0                                       |

**TABLE 2  
FORMER LOLOFF 35-5 6 TANK BATTERY  
FIELD DATA SUMMARY TABLE**

| Sample ID   | Date Sampled | Depth       | GPS Data <sup>(1)</sup> |             | PDOP Value | VOC Concentration <sup>(2)</sup><br>(ppm) |
|-------------|--------------|-------------|-------------------------|-------------|------------|---|
|             |              |             | Latitude                | Longitude   |            |   |
| SS40 @ 4'   | 12/1/2021    | 4 ft. bgs   | 40.362644               | -104.507963 | 1.1        | 9.6                                       |
| SS41 @ 2.5' | 12/1/2021    | 2.5 ft. bgs | 40.362644               | -104.507963 | 1.1        | 1.1                                       |
| SS42 @ 4'   | 12/1/2021    | 4 ft. bgs   | 40.362595               | -104.507878 | 1.1        | 17.8                                      |
| SS43 @ 2.5' | 12/1/2021    | 2.5 ft. bgs | 40.362595               | -104.507878 | 1.1        | 3.2                                       |
| SS44 @ 5'   | 12/1/2021    | 5 ft. bgs   | NC                      | NC          | NC         | 5.3                                       |
| SS45 @ 4'   | 12/2/2021    | 4 ft. bgs   | 40.362577               | -104.508031 | 1.1        | 7.5                                       |
| SS46 @ 2.5' | 12/2/2021    | 2.5 ft. bgs | 40.362577               | -104.508031 | 1.1        | 4.1                                       |
| SS47 @ 5'   | 12/2/2021    | 5 ft. bgs   | NC                      | NC          | NC         | 4.3                                       |
| SS48 @ 4'   | 12/2/2021    | 4 ft. bgs   | 40.362555               | -104.507950 | 1          | 8.3                                       |
| SS49 @ 2.5' | 12/2/2021    | 2.5 ft. bgs | 40.362555               | -104.507950 | 1          | 2.9                                       |
| SS50 @ 4'   | 12/2/2021    | 4 ft. bgs   | 40.362519               | -104.508089 | 1.2        | 3.0                                       |
| SS51 @ 2.5' | 12/2/2021    | 2.5 ft. bgs | 40.362519               | -104.508089 | 1.2        | 1.1                                       |
| SS52 @ 5'   | 12/2/2021    | 5 ft. bgs   | NC                      | NC          | NC         | 3.3                                       |
| SS53 @ 4'   | 12/2/2021    | 4 ft. bgs   | 40.362511               | -104.508052 | 1.2        | 22.3                                      |
| SS54 @ 2.5' | 12/2/2021    | 2.5 ft. bgs | 40.362511               | -104.508052 | 1.2        | 3.9                                       |
| SS55 @ 4'   | 12/2/2021    | 4 ft. bgs   | 40.362479               | -104.508137 | 1.2        | 91.1                                      |
| SS56 @ 2.5' | 12/2/2021    | 2.5 ft. bgs | 40.362479               | -104.508137 | 1.2        | 3.5                                       |
| SS57 @ 2.5' | 12/3/2021    | 2.5 ft. bgs | 40.362780               | -104.507782 | 1.0        | 0.0                                       |
| SS58 @ 4'   | 12/3/2021    | 4 ft. bgs   | 40.362780               | -104.507782 | 1.0        | 1.4                                       |
| SS59 @ 5'   | 12/3/2021    | 5 ft. bgs   | 40.362780               | -104.507782 | 1.0        | 1.6                                       |
| SS60 @ 2.5' | 12/3/2021    | 2.5 ft. bgs | 40.362822               | -104.507783 | 1.0        | 1.0                                       |
| SS61 @ 4'   | 12/3/2021    | 4 ft. bgs   | 40.362822               | -104.507783 | 1.0        | 1.5                                       |
| SS62 @ 5'   | 12/3/2021    | 5 ft. bgs   | 40.362822               | -104.507783 | 1.0        | 0.9                                       |
| BH01 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362825               | -104.507746 | NC         | 0.2                                       |
| BH01 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362825               | -104.507746 | NC         | 0.5                                       |
| BH02 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362775               | -104.507660 | NC         | 0.0                                       |
| BH02 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362775               | -104.507660 | NC         | 0.1                                       |
| BH03 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362693               | -104.507569 | NC         | 0.1                                       |
| BH03 @ 4'   | 4/14/2022    | 4 ft. bgs   | 40.362693               | -104.507569 | NC         | 0.0                                       |
| BH04 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362751               | -104.507736 | NC         | 0.1                                       |
| BH04 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362751               | -104.507736 | NC         | 0.1                                       |
| BH05 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362937               | -104.507707 | NC         | 0.1                                       |
| BH05 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362937               | -104.507707 | NC         | 0.4                                       |
| BH06 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362688               | -104.507707 | NC         | 0.0                                       |
| BH06 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362688               | -104.507707 | NC         | 0.4                                       |
| BH07 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362611               | -104.507795 | NC         | 0.0                                       |
| BH07 @ 4'   | 4/14/2022    | 4 ft. bgs   | 40.362611               | -104.507795 | NC         | 0.0                                       |
| BH08 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362724               | -104.507830 | NC         | 0.0                                       |
| BH08 @ 4'   | 4/14/2022    | 4 ft. bgs   | 40.362724               | -104.507830 | NC         | 0.5                                       |
| BH09 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362625               | -104.507671 | NC         | 0.1                                       |
| BH09 @ 4'   | 4/14/2022    | 4 ft. bgs   | 40.362625               | -104.507671 | NC         | 8.1                                       |
| BH10 @ 2.5' | 4/15/2022    | 2.5 ft. bgs | 40.362670               | -104.507844 | NC         | 0.3                                       |

**TABLE 2  
FORMER LOLOFF 35-5 6 TANK BATTERY  
FIELD DATA SUMMARY TABLE**

| Sample ID    | Date Sampled | Depth       | GPS Data <sup>(1)</sup> |             | PDOP Value | VOC Concentration <sup>(2)</sup><br>(ppm) |
|--------------|--------------|-------------|-------------------------|-------------|------------|---|
|              |              |             | Latitude                | Longitude   |            |   |
| BH10 @ 4'    | 4/15/2022    | 4 ft. bgs   | 40.362670               | -104.507844 | NC         | 243                                       |
| BH11 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362678               | -104.507844 | NC         | 0.7                                       |
| BH11 @ 3.5'  | 4/15/2022    | 3.5 ft. bgs | 40.362678               | -104.507844 | NC         | 0.8                                       |
| BH12 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362574               | -104.507890 | NC         | 0.1                                       |
| BH12 @ 4'    | 4/15/2022    | 4 ft. bgs   | 40.362574               | -104.507890 | NC         | 0.8                                       |
| BH13 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362623               | -104.507986 | NC         | 0.1                                       |
| BH13 @ 3.5'  | 4/15/2022    | 3.5 ft. bgs | 40.362623               | -104.507986 | NC         | 0.2                                       |
| BH14 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362572               | -104.507973 | NC         | 0.6                                       |
| BH14 @ 3.5'  | 4/15/2022    | 3.5 ft. bgs | 40.362572               | -104.507973 | NC         | 0.7                                       |
| BH14 @ 5'    | 4/15/2022    | 5 ft. bgs   | 40.362572               | -104.507973 | NC         | 28.2                                      |
| BH15 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362555               | -104.508110 | NC         | 0.1                                       |
| BH15 @ 3.5'  | 4/15/2022    | 3.5 ft. bgs | 40.362555               | -104.508110 | NC         | 0.1                                       |
| BH16 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362495               | -104.508012 | NC         | 0.1                                       |
| BH16 @ 3.5'  | 4/15/2022    | 3.5 ft. bgs | 40.362495               | -104.508012 | NC         | 0.0                                       |
| BH17 @ 2.5'  | 4/15/2022    | 2.5 ft. bgs | 40.362465               | -104.508156 | NC         | 0.1                                       |
| BH17 @ 3.5'  | 4/15/2022    | 3.5 ft. bgs | 40.362465               | -104.508156 | NC         | 0.2                                       |
| BKG02 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362580               | -104.508171 | NC         | 0.1                                       |
| BKG02 @ 4'   | 4/14/2022    | 4 ft. bgs   | 40.362580               | -104.508171 | NC         | 0.1                                       |
| BKG02 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362580               | -104.508171 | NC         | 0.1                                       |
| BKG03 @ 2.5' | 4/14/2022    | 2.5 ft. bgs | 40.362771               | -104.507967 | NC         | 0.0                                       |
| BKG03 @ 4'   | 4/14/2022    | 4 ft. bgs   | 40.362771               | -104.507967 | NC         | 0.1                                       |
| BKG03 @ 5'   | 4/14/2022    | 5 ft. bgs   | 40.362771               | -104.507967 | NC         | 0.0                                       |
| BKG04        | 11/2/2022    | 5 ft. bgs   | 40.362677               | -104.508129 | NC         | 0.2                                       |
| BKG05        | 11/2/2022    | 5 ft. bgs   | 40.362454               | -104.508325 | NC         | 0.1                                       |
| BKG06        | 11/2/2022    | 5 ft. bgs   | 40.362892               | -104.507845 | NC         | 0.2                                       |

**Notes:**

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

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

bgs = Below ground surface

     = Source material characterization sample

NC = Data not collected

**TABLE 3**  
**FORMER LOLOFF 35-5 TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**  
**ORGANIC COMPOUNDS**

| Sample ID   | Date Sampled | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | Naphthalene (µg/L) | 1,2,4-TMB (µg/L) | 1,3,5-TMB (µg/L) | Depth to Water <sup>(2)</sup> (ft.) | Groundwater Elevation (ft. AMSL) |
|---|--------------|----------------|----------------|---------------------|----------------------|--------------------|------------------|------------------|-------------------------------------|----------------------------------|
| <b>COGCC Table 915-1 Groundwater Standard (µg/L) <sup>(1)</sup></b> |              | <b>5</b>       | <b>560</b>     | <b>700</b>          | <b>1,400</b>         | <b>140</b>         | <b>67</b>        | <b>67</b>        | -                                   | -                                |
| GW01  | 10/15/2021   | 220            | <1.0           | 10                  | <2.0                 | 39                 | 400              | <1.0             | ~3                                  | NA                               |
| BH01  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.03                                | 4576.64                          |
| BH01  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.45                                | 4576.22                          |
| BH01  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.52                                | 4577.15                          |
| BH02  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.17                                | 4576.59                          |
| BH02  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.82                                | 4575.94                          |
| BH02  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.58                                | 4577.18                          |
| BH03  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.25                                | 4576.49                          |
| BH03  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.11                                | 4575.63                          |
| BH03  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.32                                | 4577.42                          |
| BH04  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.21                                | 4576.61                          |
| BH04  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.83                                | 4575.99                          |
| BH04  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.65                                | 4577.17                          |
| BH05  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.00                                | 4576.69                          |
| BH05  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.95                                | 4576.74                          |
| BH05  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.59                                | 4577.10                          |
| BH06  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.18                                | 4576.65                          |
| BH06  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.09                                | 4575.74                          |
| BH06  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.62                                | 4577.21                          |
| BH07  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.22                                | 4576.55                          |
| BH07  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.08                                | 4575.69                          |
| BH07  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.43                                | 4577.34                          |
| BH08  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.21                                | 4576.61                          |
| BH08  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.83                                | 4575.99                          |
| BH08  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.61                                | 4577.21                          |
| BH09  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.23                                | 4576.47                          |
| BH09  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.14                                | 4575.56                          |
| BH09  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.33                                | 4577.37                          |
| BH10  | 4/20/2022    | <1.0           | <1.0           | 1.2                 | 2.2                  | <1.0               | 6.8              | <1.0             | 2.24                                | 4576.63                          |
| BH10  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.98                                | 4575.89                          |
| BH10  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.68                                | 4577.19                          |
| BH11  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.05                                | 4576.70                          |
| BH11  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.75                                | 4576.00                          |
| BH11  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.50                                | 4577.25                          |
| BH12  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.13                                | 4576.61                          |
| BH12  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.01                                | 4575.73                          |
| BH12  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.45                                | 4577.29                          |
| BH13  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.43                                | 4576.74                          |
| BH13  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.22                                | 4575.95                          |
| BH13  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.92                                | 4577.25                          |
| BH14  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.08                                | 4576.70                          |
| BH14  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.94                                | 4575.84                          |
| BH14  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.47                                | 4577.31                          |
| BH15  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.18                                | 4576.76                          |
| BH15  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.04                                | 4575.90                          |
| BH15  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.67                                | 4577.27                          |
| BH16  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.11                                | 4576.66                          |

**TABLE 3  
FORMER LOLOFF 35-5 TANK BATTERY  
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE  
ORGANIC COMPOUNDS**

| Sample ID   | Date Sampled | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | Naphthalene (µg/L) | 1,2,4-TMB (µg/L) | 1,3,5-TMB (µg/L) | Depth to Water <sup>(2)</sup> (ft.) | Groundwater Elevation (ft. AMSL) |
|---|--------------|----------------|----------------|---------------------|----------------------|--------------------|------------------|------------------|-------------------------------------|----------------------------------|
| <b>COGCC Table 915-1 Groundwater Standard (µg/L) <sup>(1)</sup></b> |              | <b>5</b>       | <b>560</b>     | <b>700</b>          | <b>1,400</b>         | <b>140</b>         | <b>67</b>        | <b>67</b>        | -                                   | -                                |
| BH16  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.01                                | 4575.76                          |
| BH16  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.51                                | 4577.26                          |
| BH17  | 4/20/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 2.20                                | 4576.73                          |
| BH17  | 7/15/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 3.14                                | 4575.79                          |
| BH17  | 10/6/2022    | <1.0           | <1.0           | <1.0                | <2.0                 | <1.0               | <1.0             | <1.0             | 1.66                                | 4577.27                          |

**Notes:**

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

TMB = Trimethylbenzene

COGCC = Colorado Oil and Gas Conservation Commission

µg/L = Micrograms per liter

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

ft. = Feet

AMSL = Above Mean Sea Level

NA = Not applicable

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

**TABLE 4**  
**FORMER LOLOFF 35-5 TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC PARAMETERS**

| Sample ID   | Date Sampled | TDS<br>(unit)          | Chloride Ion<br>(mg/L)            | Sulfate Ion<br>(mg/L)             | Depth to<br>Water <sup>(2)</sup><br>(ft.) | Groundwater<br>Elevation<br>(ft. AMSL) |
|---|--------------|------------------------|-----------------------------------|-----------------------------------|---|--|
| <b>COGCC Table 915-1<br/>Groundwater Standard (mg/L) <sup>(1)</sup></b> |              | <b>&lt;1.25 x BCKG</b> | <b>250 or<br/>&lt;1.25 x BCKG</b> | <b>250 or<br/>&lt;1.25 x BCKG</b> | -   | -                                      |
| BH01  | 4/20/2022    | 3,320                  | <b>273</b>                        | <b>2,500</b>                      | 2.03                                      | 4576.64                                |
| BH01  | 7/15/2022    | 4,200                  | <b>348</b>                        | <b>3,130</b>                      | 2.45                                      | 4576.22                                |
| BH01  | 10/6/2022    | 2,430                  | <b>321</b>                        | <b>1,830</b>                      | 1.52                                      | 4577.15                                |
| BH02  | 4/20/2022    | 4,770                  | <b>588</b>                        | <b>3,260</b>                      | 2.17                                      | 4576.59                                |
| BH02  | 7/15/2022    | 5,160                  | <b>539</b>                        | <b>4,030</b>                      | 2.82                                      | 4575.94                                |
| BH02  | 10/6/2022    | 4,110                  | <b>487</b>                        | <b>3,510</b>                      | 1.58                                      | 4577.18                                |
| BH03  | 4/20/2022    | 3,710                  | <b>418</b>                        | <b>2,170</b>                      | 2.25                                      | 4576.49                                |
| BH03  | 7/15/2022    | 4,580                  | <b>507</b>                        | <b>3,230</b>                      | 3.11                                      | 4575.63                                |
| BH03  | 10/6/2022    | 3,470                  | <b>473</b>                        | <b>2,910</b>                      | 1.32                                      | 4577.42                                |
| BH04  | 4/20/2022    | 5,520                  | <b>500</b>                        | <b>4,110</b>                      | 2.21                                      | 4576.61                                |
| BH04  | 7/15/2022    | 5,350                  | <b>513</b>                        | <b>4,290</b>                      | 2.83                                      | 4575.99                                |
| BH04  | 10/6/2022    | 3,040                  | <b>360</b>                        | <b>2,610</b>                      | 1.65                                      | 4577.17                                |
| BH05  | 4/20/2022    | 4,100                  | <b>314</b>                        | <b>2,760</b>                      | 2.00                                      | 4576.69                                |
| BH05  | 7/15/2022    | 3,940                  | <b>286</b>                        | <b>2,550</b>                      | 1.95                                      | 4576.74                                |
| BH05  | 10/6/2022    | 2,980                  | <b>339</b>                        | <b>2,560</b>                      | 1.59                                      | 4577.10                                |
| BH06  | 4/20/2022    | 4,750                  | <b>652</b>                        | <b>2,860</b>                      | 2.18                                      | 4576.65                                |
| BH06  | 7/15/2022    | 5,410                  | <b>697</b>                        | <b>3,740</b>                      | 3.09                                      | 4575.74                                |
| BH06  | 10/6/2022    | 4,470                  | <b>706</b>                        | <b>3,610</b>                      | 1.62                                      | 4577.21                                |
| BH07  | 4/20/2022    | 11,600                 | <b>1,850</b>                      | <b>8,390</b>                      | 2.22                                      | 4576.55                                |
| BH07  | 7/15/2022    | 12,100                 | <b>2,070</b>                      | <b>9,450</b>                      | 3.08                                      | 4575.69                                |
| BH07  | 10/6/2022    | 8,700                  | <b>1,680</b>                      | <b>6,930</b>                      | 1.43                                      | 4577.34                                |
| BH08  | 4/20/2022    | 9,470                  | <b>1,360</b>                      | <b>6,940</b>                      | 2.21                                      | 4576.61                                |
| BH08  | 7/15/2022    | 9,260                  | <b>1,350</b>                      | <b>6,920</b>                      | 2.83                                      | 4575.99                                |
| BH08  | 10/6/2022    | 7,420                  | <b>1,100</b>                      | <b>6,210</b>                      | 1.61                                      | 4577.21                                |
| BH09  | 4/20/2022    | 7,500                  | <b>868</b>                        | <b>5,180</b>                      | 2.23                                      | 4576.47                                |
| BH09  | 7/15/2022    | 9,160                  | <b>1,450</b>                      | <b>7,350</b>                      | 3.14                                      | 4575.56                                |
| BH09  | 10/6/2022    | 7,440                  | <b>1,280</b>                      | <b>6,040</b>                      | 1.33                                      | 4577.37                                |
| BH10  | 4/20/2022    | 12,100                 | <b>1,980</b>                      | <b>9,000</b>                      | 2.24                                      | 4576.63                                |
| BH10  | 7/15/2022    | 12,000                 | <b>2,080</b>                      | <b>9,340</b>                      | 2.98                                      | 4575.89                                |
| BH10  | 10/6/2022    | 9,830                  | <b>1,610</b>                      | <b>7,870</b>                      | 1.68                                      | 4577.19                                |
| BH11  | 4/20/2022    | 9,210                  | <b>1,130</b>                      | <b>6,920</b>                      | 2.05                                      | 4576.70                                |
| BH11  | 7/15/2022    | 7,460                  | <b>870</b>                        | <b>6,000</b>                      | 2.75                                      | 4576.00                                |

**TABLE 4**  
**FORMER LOLOFF 35-5 TANK BATTERY**  
**GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE**  
**INORGANIC PARAMETERS**

| Sample ID   | Date Sampled | TDS (unit)             | Chloride Ion (mg/L)           | Sulfate Ion (mg/L)            | Depth to Water <sup>(2)</sup> (ft.) | Groundwater Elevation (ft. AMSL) |
|---|--------------|------------------------|-------------------------------|-------------------------------|-------------------------------------|----------------------------------|
| <b>COGCC Table 915-1 Groundwater Standard (mg/L) <sup>(1)</sup></b> |              | <b>&lt;1.25 x BCKG</b> | <b>250 or &lt;1.25 x BCKG</b> | <b>250 or &lt;1.25 x BCKG</b> | -                                   | -                                |
| BH11  | 10/6/2022    | 5,760                  | <b>694</b>                    | <b>4,480</b>                  | 1.50                                | 4577.25                          |
| BH12  | 4/20/2022    | 10,900                 | <b>1,360</b>                  | <b>9,100</b>                  | 2.13                                | 4576.61                          |
| BH12  | 7/15/2022    | 10,400                 | <b>1,190</b>                  | <b>8,790</b>                  | 3.01                                | 4575.73                          |
| BH12  | 10/6/2022    | 10,700                 | <b>1,280</b>                  | <b>8,770</b>                  | 1.45                                | 4577.29                          |
| BH13  | 4/20/2022    | 9,370                  | <b>1,050</b>                  | <b>7,540</b>                  | 2.43                                | 4576.74                          |
| BH13  | 7/15/2022    | 9,440                  | <b>1,110</b>                  | <b>7,830</b>                  | 3.22                                | 4575.95                          |
| BH13  | 10/6/2022    | 8,700                  | <b>980</b>                    | <b>7,120</b>                  | 1.92                                | 4577.25                          |
| BH14  | 4/20/2022    | 9,160                  | <b>955</b>                    | <b>7,440</b>                  | 2.08                                | 4576.70                          |
| BH14  | 7/15/2022    | 9,100                  | <b>968</b>                    | <b>7,280</b>                  | 2.94                                | 4575.84                          |
| BH14  | 10/6/2022    | 6,950                  | <b>877</b>                    | <b>6,010</b>                  | 1.47                                | 4577.31                          |
| BH15  | 4/20/2022    | 8,900                  | 1,010                         | 7,170                         | 2.18                                | 4576.76                          |
| BH15  | 7/15/2022    | 8,610                  | 956                           | 7,350                         | 3.04                                | 4575.90                          |
| BH15  | 10/6/2022    | 7,700                  | <b>838</b>                    | <b>6,290</b>                  | 1.67                                | 4577.27                          |
| BH16  | 4/20/2022    | 11,600                 | <b>1,460</b>                  | <b>9,420</b>                  | 2.11                                | 4576.66                          |
| BH16  | 7/15/2022    | 10,500                 | <b>1,330</b>                  | <b>8,790</b>                  | 3.01                                | 4575.76                          |
| BH16  | 10/6/2022    | 8,740                  | <b>1,090</b>                  | <b>7,160</b>                  | 1.51                                | 4577.26                          |
| BH17  | 4/20/2022    | 15,000                 | 2,180                         | 11,400                        | 2.20                                | 4576.73                          |
| BH17  | 7/15/2022    | 13,000                 | 1,980                         | 11,000                        | 3.14                                | 4575.79                          |
| BH17  | 10/6/2022    | 11,700                 | 1,670                         | 9,460                         | 1.66                                | 4577.27                          |

**Notes:**

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

TDS = Total dissolved solids

COGCC = Colorado Oil and Gas Conservation Commission

BCKG = Background

mg/L = Milligrams per liter

ft. = Feet

AMSL = Above Mean Sea Level

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

█ = Cross-gradient well location used for background concentration.

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

## Attachment A

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

November 15, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Loloff 35-5,6 Tank Battery

Work Order #2211052

Enclosed are the results of analyses for samples received by Summit Scientific on 11/02/22 17:37. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury

President



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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID  | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|------------|---------------|--------|----------------|----------------|
| BKG04@2.5' | 2211052-01    | Soil   | 11/02/22 13:15 | 11/02/22 17:37 |
| BKG04@4'   | 2211052-02    | Soil   | 11/02/22 13:20 | 11/02/22 17:37 |
| BKG04@5'   | 2211052-03    | Soil   | 11/02/22 13:25 | 11/02/22 17:37 |
| BKG05@2.5' | 2211052-04    | Soil   | 11/02/22 13:18 | 11/02/22 17:37 |
| BKG05@4'   | 2211052-05    | Soil   | 11/02/22 13:20 | 11/02/22 17:37 |
| BKG05@5'   | 2211052-06    | Soil   | 11/02/22 13:21 | 11/02/22 17:37 |
| BKG06@2.5' | 2211052-07    | Soil   | 11/02/22 13:29 | 11/02/22 17:37 |
| BKG06@4'   | 2211052-08    | Soil   | 11/02/22 13:31 | 11/02/22 17:37 |
| BKG06@5'   | 2211052-09    | Soil   | 11/02/22 13:34 | 11/02/22 17:37 |

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

2211052

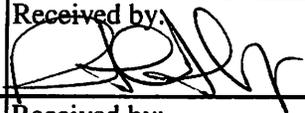
S<sub>2</sub>

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

Page 1 of 1

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: Loloff 95-5 and 6 Tank Battery  
Sampler Name: Sam Anderson 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) | 1,2,4 & 1,3,5-TMB | Boron - HWS | pH, EC, SAR * | PAHs |                                |
| 1  | BK604 e 2.5'       | 11/2/22      | 1315         | 1               |              |      | X    |       |        | X    |                |       |                    |                  |                   |             |               |      | pH, EC, SAR by saturated paste |
| 2  | BK604 e 4'         |              | 1320         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 3  | BK604 e 5'         |              | 1325         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 4  | BK605 e 2.5'       |              | 1318         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 5  | BK605 e 4'         |              | 1320         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 6  | BK605 e 5'         |              | 1321         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 7  | BK606 e 2.5'       |              | 1329         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 8  | BK606 e 4'         |              | 1331         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 9  | BK606 e 5'         |              | 1334         |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |
| 10 | ..                 |              |              |                 |              |      |      |       |        |      |                |       |                    |                  |                   |             |               |      |                                |

|   |                          |  |                          |  |                                     |
|---|--------------------------|--|--------------------------|--|-------------------------------------|
| Relinquished by:  | Date/Time: 11/2/22 1508  | Received by: Tasman's Lock Box   | Date/Time: 11/2/22 1508  | <b>Turn Around Time (Check)</b><br>Same Day _____ 72 hours _____<br>24 hours _____ Standard <input checked="" type="checkbox"/><br>48 hours _____<br><b>Sample Integrity:</b><br>Temperature Upon Receipt: 8.7<br>Samples Intact: <input checked="" type="checkbox"/> Yes No | <b>Notes:</b><br>* = just pH and EC |
| Relinquished by: Tasman's Lock Box  | Date/Time: 11/22/22 1737 | Received by:  | Date/Time: 11/22/22 1737 |  |                                     |
| Relinquished by:  | Date/Time:               | Received by:   | Date/Time:               |  |                                     |



Sample Receipt Checklist

S2 Work Order# 2211052

Client: Pactasman Client Project ID: Loloff 355 / 6 Tank Battery

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

-

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

Temp (°C)

Thermometer #

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

PS  
Custodian/Printed Name

11-2-22 1737  
Date/Time



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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG04@2.5'**  
**2211052-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:15**

| Analyte   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |        | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | 434    | 0.0623    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | 480    | 0.0623    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 1640   | 0.0623    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:15**

| Analyte                 | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |        | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | 12.9   | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:15**

| Analyte  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     | Units |          |         |          |          |             |       |
| % Solids | 80.2   |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:15**

| Analyte | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     | Units    |          |         |          |          |           |       |
| pH      | 8.08   |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:15**

| Analyte                   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |        | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | 6.23   | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG04@4'**  
**2211052-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:20**

| Analyte   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |        | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | 454    | 0.0632    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | 922    | 0.0632    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 2470   | 0.0632    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:20**

| Analyte                 | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |        | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | 15.3   | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:20**

| Analyte  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     | Units |          |         |          |          |             |       |
| % Solids | 79.1   |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:20**

| Analyte | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     | Units    |          |         |          |          |           |       |
| pH      | 7.81   |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:20**

| Analyte                   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |        | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | 5.06   | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG04@5'**  
**2211052-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:25**

| Analyte   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |        | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | 273    | 0.0618    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | 941    | 0.0618    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 2530   | 0.0618    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:25**

| Analyte                 | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |        | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | 16.3   | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:25**

| Analyte  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     | Units |          |         |          |          |             |       |
| % Solids | 80.9   |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:25**

| Analyte | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     | Units    |          |         |          |          |           |       |
| pH      | 8.18   |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:25**

| Analyte                   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |        | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | 3.80   | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG05@2.5'**  
**2211052-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:18**

| Analyte   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium   | 373    | 0.0615          | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | 388    | 0.0615          | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 1170   | 0.0615          | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:18**

| Analyte                 | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 10.2   | 0.00100         | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:18**

| Analyte  | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 81.2   |                 | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:18**

| Analyte | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH      | 8.08   |                 | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:18**

| Analyte                   | Result | Reporting Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 4.48   | 0.0100          | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG05@4'**  
**2211052-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:20**

| Analyte   | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |             | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | <b>91.9</b> | 0.0647    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | <b>157</b>  | 0.0647    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | <b>693</b>  | 0.0647    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:20**

| Analyte                 | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |             | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | <b>10.2</b> | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:20**

| Analyte  | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |             | Limit     | Units |          |         |          |          |             |       |
| % Solids | <b>77.3</b> |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:20**

| Analyte | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |             | Limit     | Units    |          |         |          |          |           |       |
| pH      | <b>8.29</b> |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:20**

| Analyte                   | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |             | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | <b>2.98</b> | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG05@5'**  
**2211052-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:21**

| Analyte   | Result     | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |            | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | <b>166</b> | 0.0584    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | <b>237</b> | 0.0584    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | <b>923</b> | 0.0584    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:21**

| Analyte                 | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |             | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | <b>10.8</b> | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:21**

| Analyte  | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |             | Limit     | Units |          |         |          |          |             |       |
| % Solids | <b>85.6</b> |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:21**

| Analyte | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |             | Limit     | Units    |          |         |          |          |           |       |
| pH      | <b>8.44</b> |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:21**

| Analyte                   | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |             | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | <b>1.83</b> | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG06@2.5'**  
**2211052-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:29**

| Analyte   | Result     | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |            | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | <b>150</b> | 0.0646    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | <b>140</b> | 0.0646    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | <b>566</b> | 0.0646    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:29**

| Analyte                 | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |             | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | <b>8.00</b> | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:29**

| Analyte  | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |             | Limit     | Units |          |         |          |          |             |       |
| % Solids | <b>77.3</b> |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:29**

| Analyte | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |             | Limit     | Units    |          |         |          |          |           |       |
| pH      | <b>8.36</b> |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:29**

| Analyte                   | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |             | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | <b>2.03</b> | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG06@4'**  
**2211052-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:31**

| Analyte   | Result     | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |            | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | <b>317</b> | 0.0591    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | <b>308</b> | 0.0591    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | <b>688</b> | 0.0591    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:31**

| Analyte                 | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |             | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | <b>6.61</b> | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:31**

| Analyte  | Result      | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |             | Limit     | Units |          |         |          |          |             |       |
| % Solids | <b>84.5</b> |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:31**

| Analyte | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |             | Limit     | Units    |          |         |          |          |           |       |
| pH      | <b>8.11</b> |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:31**

| Analyte                   | Result      | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |             | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | <b>1.60</b> | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

**BKG06@5'**  
**2211052-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **11/02/22 13:34**

| Analyte   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|           |        | Limit     | Units    |          |         |          |          |           |       |
| Calcium   | 257    | 0.0577    | mg/L dry | 1        | BFK0310 | 11/11/22 | 11/13/22 | EPA 6020B |       |
| Magnesium | 225    | 0.0577    | "        | "        | "       | "        | "        | "         |       |
| Sodium    | 556    | 0.0577    | "        | "        | "       | "        | "        | "         |       |

**Calculated Analysis**

Date Sampled: **11/02/22 13:34**

| Analyte                 | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|-------------------------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|                         |        | Limit     | Units |          |         |          |          |             |       |
| Sodium Adsorption Ratio | 6.11   | 0.00100   | units | 1        | BFK0360 | 11/14/22 | 11/14/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:34**

| Analyte  | Result | Reporting |       | Dilution | Batch   | Prepared | Analyzed | Method      | Notes |
|----------|--------|-----------|-------|----------|---------|----------|----------|-------------|-------|
|          |        | Limit     | Units |          |         |          |          |             |       |
| % Solids | 86.7   |           | %     | 1        | BFK0252 | 11/09/22 | 11/10/22 | Calculation |       |

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

Date Sampled: **11/02/22 13:34**

| Analyte | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|         |        | Limit     | Units    |          |         |          |          |           |       |
| pH      | 8.20   |           | pH Units | 1        | BFK0151 | 11/05/22 | 11/05/22 | EPA 9045D |       |

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013**

Date Sampled: **11/02/22 13:34**

| Analyte                   | Result | Reporting |          | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---------------------------|--------|-----------|----------|----------|---------|----------|----------|-----------|-------|
|                           |        | Limit     | Units    |          |         |          |          |           |       |
| Specific Conductance (EC) | 1.51   | 0.0100    | mmhos/cm | 1        | BFK0132 | 11/04/22 | 11/04/22 | EPA 120.1 |       |

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/15/22 11:39

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

**Summit Scientific**

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

**Batch BFK0310 - General Preparation**

**Blank (BFK0310-BLK1)**

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

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

**LCS (BFK0310-BS1)**

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

|           |      |        |          |      |      |        |
|-----------|------|--------|----------|------|------|--------|
| Calcium   | 4.56 | 0.0500 | mg/L wet | 5.00 | 91.2 | 70-130 |
| Magnesium | 4.91 | 0.0500 | "        | 5.00 | 98.2 | 70-130 |
| Sodium    | 5.12 | 0.0500 | "        | 5.00 | 102  | 70-130 |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/15/22 11:39

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

**Summit Scientific**

| Analyte | Result | Reporting |       | Spike<br>Level | Source |      | %REC   |     | RPD   |  | Notes |
|---------|--------|-----------|-------|----------------|--------|------|--------|-----|-------|--|-------|
|         |        | Limit     | Units |                | Result | %REC | Limits | RPD | Limit |  |       |

**Batch BFK0252 - General Preparation**

| <b>Duplicate (BFK0252-DUP1)</b> |      | <b>Source: 2211052-01</b> |  | <b>Prepared: 11/09/22 Analyzed: 11/10/22</b> |         |
|---------------------------------|------|---------------------------|--|--|---------|
| % Solids                        | 82.5 | %                         |  | 80.2   | 2.80 20 |

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/15/22 11:39

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

**Summit Scientific**

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

**Batch BFK0151 - General Preparation**

**LCS (BFK0151-BS1)**

Prepared & Analyzed: 11/05/22

pH 9.00 pH Units 9.18 98.0 95-105

**Duplicate (BFK0151-DUP1)**

Source: 2211052-01

Prepared & Analyzed: 11/05/22

pH 8.14 pH Units 8.08 0.740 20

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 11/15/22 11:39

**Saturation Paste by the Western Region Soil, Plant and Water Reference Methods 2013 - Quality Control**  
**Summit Scientific**

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

**Batch BFK0132 - General Preparation**

**Blank (BFK0132-BLK1)**

Prepared & Analyzed: 11/04/22

Specific Conductance (EC)      ND      0.0100    mmhos/cm

**LCS (BFK0132-BS1)**

Prepared & Analyzed: 11/04/22

Specific Conductance (EC)      0.145      0.0100    mmhos/cm      0.150      96.7      95-105

**Duplicate (BFK0132-DUP1)**

**Source: 2210421-14**

Prepared & Analyzed: 11/04/22

Specific Conductance (EC)      1.71      0.0100    mmhos/cm      1.73      1.22      20

Summit Scientific

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

Project: Loloff 35-5,6 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
11/15/22 11:39

### 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

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 20, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Loloff 35-5 Tank Battery

Work Order #2210101

Enclosed are the results of analyses for samples received by Summit Scientific on 10/06/22 17:34. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury

President



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

Project: Loloff 35-5 Tank Battery

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| BH01      | 2210101-01    | Water  | 10/06/22 10:48 | 10/06/22 17:34 |
| BH02      | 2210101-02    | Water  | 10/06/22 10:36 | 10/06/22 17:34 |
| BH03      | 2210101-03    | Water  | 10/06/22 10:23 | 10/06/22 17:34 |
| BH04      | 2210101-04    | Water  | 10/06/22 10:42 | 10/06/22 17:34 |
| BH05      | 2210101-05    | Water  | 10/06/22 10:30 | 10/06/22 17:34 |
| BH06      | 2210101-06    | Water  | 10/06/22 12:59 | 10/06/22 17:34 |
| BH07      | 2210101-07    | Water  | 10/06/22 12:51 | 10/06/22 17:34 |
| BH08      | 2210101-08    | Water  | 10/06/22 12:00 | 10/06/22 17:34 |
| BH09      | 2210101-09    | Water  | 10/06/22 12:44 | 10/06/22 17:34 |
| BH10      | 2210101-10    | Water  | 10/06/22 12:27 | 10/06/22 17:34 |
| BH11      | 2210101-11    | Water  | 10/06/22 11:48 | 10/06/22 17:34 |
| BH12      | 2210101-12    | Water  | 10/06/22 12:37 | 10/06/22 17:34 |
| BH13      | 2210101-13    | Water  | 10/06/22 12:14 | 10/06/22 17:34 |
| BH14      | 2210101-14    | Water  | 10/06/22 12:23 | 10/06/22 17:34 |
| BH15      | 2210101-15    | Water  | 10/06/22 11:56 | 10/06/22 17:34 |
| BH16      | 2210101-16    | Water  | 10/06/22 12:08 | 10/06/22 17:34 |
| BH17      | 2210101-17    | Water  | 10/06/22 11:42 | 10/06/22 17:34 |

Summit Scientific

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# Summit Scientific

S<sub>2</sub>

2210101.1

4653 Table Mountain Drive ♦ Golden, Colorado 80403  
303-277-9310 ♦ 303-374-5933 (f)

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: Loloff 35-5 Tank Battery <sup>CJ</sup>  
 Sampler Name: Chase Jonjak, Gabe Semenza 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) | TMB's(1,2,4)&(1,3,5) | Boron - HWS | pH, EC, SAR | PAH - 915 |                      | Metals - 915 | TDS, Cl, SO4 |   |  |
| 1  | BH01               | 10/05/2022   | 1048         | 4               | X            |      | X    |       | X      |      |                |                    | X            |              | X                    |             |             |           |                      |              |              | X |  |
| 2  | BH02               |              | 1036         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 3  | BH03               |              | 1023         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 4  | BH04               |              | 1042         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 5  | BH05               |              | 1030         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 6  | BH06               |              | 1259         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 7  | BH07               |              | 1251         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 8  | BH08               |              | 1200         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 9  | BH09               |              | 1244         |                 |              |      |      |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |
| 10 | BH10               |              | 1227         |                 |              |      | X    |       |        |      |                |                    |              |              |                      |             |             |           |                      |              |              |   |  |

|   |   |   |  |
|---|---|---|--|
| Relinquished by: <u>Chase J</u><br>Date/Time: <u>10/05/2022 1452</u>        | Received by: <u>Tasman Lockbox</u><br>Date/Time: <u>10/05/2022 1452</u> | <b>Turn Around Time (Check)</b><br>Same Day <input type="checkbox"/> 72 hours<br>24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/><br>48 hours <input type="checkbox"/><br><b>Sample Integrity:</b><br>Temperature Upon Receipt: <u>6.6</u><br>Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <b>Notes:</b><br>Samples with no HCl due to reactions. |
| Relinquished by: <u>Tasman Lockbox</u><br>Date/Time: <u>10/02/2022 1734</u> | Received by: <u>[Signature]</u><br>Date/Time: <u>10/02/2022 1734</u>    |   |  |
| Relinquished by: _____<br>Date/Time: _____                                  | Received by: _____<br>Date/Time: _____                                  |   |  |

# Summit Scientific

2210101.2

S<sub>2</sub>

4653 Table Mountain Drive ♦ Golden, Colorado 80403  
303-277-9310 ♦ 303-374-5933 (f)

|  |   |
|--|---|
| 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: <u>Loloff 35-5 Tank battery</u> |
| Sampler Name: <u>Chase Jonjak, Gabriele Sennerza</u> | 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) | TMB's(1,2,4)&(1,3,5) | Boron - HWS | pH, EC, SAR | PAH - 915 | Metals - 915 |                      |
| 1  | BH11               | <u>10/05/2022</u> | <u>1148</u>  | <u>4</u>        | <u>3</u>     |      | <u>1</u> |       | <u>X</u> |      |                |       | <u>X</u>           | <u>X</u>     |                      |             |             |           | <u>X</u>     |                      |
| 2  | BH12               |                   | <u>1237</u>  |                 |              |      | <u>X</u> |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 3  | BH13               |                   | <u>1214</u>  |                 | <u>3</u>     |      | <u>1</u> |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 4  | BH14               |                   | <u>1223</u>  |                 |              |      | <u>X</u> |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 5  | BH15               |                   | <u>1156</u>  |                 |              |      | <u>X</u> |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 6  | BH16               |                   | <u>1208</u>  |                 |              |      | <u>X</u> |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 7  | BH17               |                   | <u>1142</u>  |                 |              |      | <u>X</u> |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 8  |                    |                   |              |                 |              |      |          |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 9  |                    |                   |              |                 |              |      |          |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |
| 10 |                    |                   |              |                 |              |      |          |       |          |      |                |       |                    |              |                      |             |             |           |              |                      |

|  |                                   |                                    |                                   |                                      |   |
|--|-----------------------------------|------------------------------------|-----------------------------------|--------------------------------------|---|
| Relinquished by: <u>Chase</u>          | Date/Time: <u>10/06/2022 1452</u> | Received by: <u>Tasman Lockbox</u> | Date/Time: <u>10/05/2022 1452</u> | Turn Around Time (Check)             | Notes:<br><u>Samples with no HCl detect reactions</u> |
| Relinquished by: <u>Tasman Lockbox</u> | Date/Time: <u>10/02/22 1734</u>   | Received by: <u>[Signature]</u>    | Date/Time: <u>10/02/22 1734</u>   | Same Day _____ 72 hours _____        |   |
| Relinquished by:                       | Date/Time:                        | Received by:                       | Date/Time:                        | 24 hours _____ Standard <u>X</u>     |   |
| Relinquished by:                       | Date/Time:                        | Received by:                       | Date/Time:                        | 48 hours _____                       |   |
|  |                                   |                                    |                                   | Sample Integrity:                    |   |
|  |                                   |                                    |                                   | Temperature Upon Receipt: <u>6.6</u> |   |
|  |                                   |                                    |                                   | Samples Intact: <u>(Yes)</u> No      |   |

S<sub>2</sub>

2/2

Sample Receipt Checklist

S2 Work Order# 2010101

Client: Doc/Tasman Client Project ID: Loloff 35-5 Tank Battery

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

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

Temp (°C) Ce.Ce Thermometer # 1

|   | Yes                                 | No                                  | N/A                                 | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, is the temperature < 6°C? <sup>(1)</sup><br><b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>on ICE</u>     |
| If custody seals are present, are they intact? <sup>(1)</sup>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Are samples due within 48 hours present?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                   |
| Are water samples with short hold times present?<br>Note the short hold analysis in the comments column<br>- pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                   |
| Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Were all samples received intact? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Was adequate sample volume provided? <sup>(1)</sup>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                   |
| Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>HCl</u>        |
| 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.

[Signature]  
Custodian Printed Name

10-6-22 2:00  
Date/Time



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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH01**  
**2210101-01 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 10:48**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 10:48**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 91.4 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 105 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 91.3 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 10:48**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>321</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>1830</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 10:48**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>2430</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH02**  
**2210101-02 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 10:36**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 10:36**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 83.9 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 84.2 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 91.4 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 10:36**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>487</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>3510</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 10:36**

| Analyte                | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                        |             | Limit     |  |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>4110</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH03**  
**2210101-03 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 10:23**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 10:23**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 82.9 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 89.0 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 89.6 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 10:23**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>473</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>2910</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 10:23**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>3470</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH04**  
**2210101-04 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 10:42**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 10:42**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 81.9 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 99.8 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 89.3 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 10:42**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>360</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>2610</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 10:42**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>3040</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH05**  
**2210101-05 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 10:30**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 10:30**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 83.9 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 101 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 90.2 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 10:30**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>339</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>2560</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 10:30**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>2980</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH06**  
**2210101-06 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:59**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:59**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 87.3 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 103 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 75.6 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:59**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>706</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>3610</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:59**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>4470</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH07**  
**2210101-07 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:51**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:51**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 101 %     |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 99.8 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 100 %     |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:51**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>1680</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>6930</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:51**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>8700</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

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: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH08**  
**2210101-08 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:00**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:00**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 81.3 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 80.1 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 83.2 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:00**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>1100</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>6210</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:00**

| Analyte                | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                        |             | Limit     |  |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>7420</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH09**  
**2210101-09 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:44**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:44**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 81.1 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 95.9 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 91.9 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:44**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>1280</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>6040</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:44**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>7440</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH10**  
**2210101-10 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:27**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:27**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 43.1 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 102 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 80.6 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:27**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>1610</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>7870</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:27**

| Analyte                | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                        |             | Limit     |  |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>9830</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH11**  
**2210101-11 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 11:48**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 11:48**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 95.1 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 100 %     |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 87.1 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 11:48**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>694</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>4480</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 11:48**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>5760</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH12**  
**2210101-12 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:37**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:37**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 85.1 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 91.4 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 85.4 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:37**

| Analyte         | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                 |             | Limit     |  |       |          |         |          |          |           |       |
| <b>Chloride</b> | <b>1280</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| <b>Sulfate</b>  | <b>8770</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:37**

| Analyte                       | Result       | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|--------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |              | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>10700</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH13**  
**2210101-13 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:14**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:14**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 88.7 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 96.3 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 77.4 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:14**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>980</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>7120</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:14**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>8700</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH14**  
**2210101-14 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:23**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:23**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 79.8 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 95.0 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 81.7 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:23**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>877</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>6010</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:23**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>6950</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH15**  
**2210101-15 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 11:56**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 11:56**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 85.2 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 98.8 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 86.3 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 11:56**

| Analyte         | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                 |             | Limit     |  |       |          |         |          |          |           |       |
| <b>Chloride</b> | <b>838</b>  | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| <b>Sulfate</b>  | <b>6290</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 11:56**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>7700</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH16**  
**2210101-16 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 12:08**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 12:08**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 101 %     |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 97.9 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 86.3 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 12:08**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>1090</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>7160</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 12:08**

| Analyte                       | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|-------------------------------|-------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                               |             | Limit     |  |       |          |         |          |          |         |       |
| <b>Total Dissolved Solids</b> | <b>8740</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

**BH17**  
**2210101-17 (Water)**

**Summit Scientific**

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

Date Sampled: **10/06/22 11:42**

| Analyte                | Result | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|------------------------|--------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|                        |        | Limit     |  |       |          |         |          |          |           |       |
| Benzene                | ND     | 1.0       |  | ug/l  | 1        | BFJ0181 | 10/07/22 | 10/09/22 | EPA 8260B |       |
| Toluene                | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Ethylbenzene           | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| Xylenes (total)        | ND     | 2.0       |  | "     | "        | "       | "        | "        | "         |       |
| Naphthalene            | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |
| 1,3,5-Trimethylbenzene | ND     | 1.0       |  | "     | "        | "       | "        | "        | "         |       |

Date Sampled: **10/06/22 11:42**

| Analyte                          | Result | Reporting |  | Units  | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
|                                  |        | Limit     |  |        |          |       |          |          |        |       |
| Surrogate: 1,2-Dichloroethane-d4 |        | 82.0 %    |  | 23-173 |          | "     | "        | "        | "      |       |
| Surrogate: Toluene-d8            |        | 75.7 %    |  | 20-170 |          | "     | "        | "        | "      |       |
| Surrogate: 4-Bromofluorobenzene  |        | 69.2 %    |  | 21-167 |          | "     | "        | "        | "      |       |

**Anions by EPA Method 300.0**

Date Sampled: **10/06/22 11:42**

| Analyte  | Result      | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|----------|-------------|-----------|--|-------|----------|---------|----------|----------|-----------|-------|
|          |             | Limit     |  |       |          |         |          |          |           |       |
| Chloride | <b>1670</b> | 12.0      |  | mg/L  | 200      | BFJ0335 | 10/13/22 | 10/13/22 | EPA 300.0 |       |
| Sulfate  | <b>9460</b> | 60.0      |  | "     | "        | "       | "        | "        | "         |       |

**Total Dissolved Solids by SM2540C**

Date Sampled: **10/06/22 11:42**

| Analyte                | Result       | Reporting |  | Units | Dilution | Batch   | Prepared | Analyzed | Method  | Notes |
|------------------------|--------------|-----------|--|-------|----------|---------|----------|----------|---------|-------|
|                        |              | Limit     |  |       |          |         |          |          |         |       |
| Total Dissolved Solids | <b>11700</b> | 10.0      |  | mg/L  | 1        | BFJ0291 | 10/12/22 | 10/12/22 | SM2540C |       |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

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

#### Summit Scientific

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

#### Batch BFJ0181 - EPA 5030 Water MS

##### Blank (BFJ0181-BLK1)

Prepared: 10/07/22 Analyzed: 10/09/22

|                                  |      |     |      |      |  |      |        |  |  |  |
|----------------------------------|------|-----|------|------|--|------|--------|--|--|--|
| Benzene                          | ND   | 1.0 | ug/l |      |  |      |        |  |  |  |
| Toluene                          | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| Ethylbenzene                     | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| Xylenes (total)                  | ND   | 2.0 | "    |      |  |      |        |  |  |  |
| Naphthalene                      | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| 1,2,4-Trimethylbenzene           | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| 1,3,5-Trimethylbenzene           | ND   | 1.0 | "    |      |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 5.57 |     | "    | 13.3 |  | 41.8 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 13.9 |     | "    | 13.3 |  | 105  | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 12.6 |     | "    | 13.3 |  | 94.4 | 21-167 |  |  |  |

##### LCS (BFJ0181-BS1)

Prepared: 10/07/22 Analyzed: 10/09/22

|                                  |      |     |      |      |  |      |        |  |  |  |
|----------------------------------|------|-----|------|------|--|------|--------|--|--|--|
| Benzene                          | 30.9 | 1.0 | ug/l | 41.7 |  | 74.1 | 51-132 |  |  |  |
| Toluene                          | 37.4 | 1.0 | "    | 41.7 |  | 89.9 | 51-138 |  |  |  |
| Ethylbenzene                     | 40.2 | 1.0 | "    | 41.7 |  | 96.5 | 58-146 |  |  |  |
| m,p-Xylene                       | 81.0 | 2.0 | "    | 83.3 |  | 97.2 | 57-144 |  |  |  |
| o-Xylene                         | 40.4 | 1.0 | "    | 41.7 |  | 96.8 | 53-146 |  |  |  |
| Naphthalene                      | 32.2 | 1.0 | "    | 41.7 |  | 77.3 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 40.7 | 1.0 | "    | 41.7 |  | 97.8 | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 42.4 | 1.0 | "    | 41.7 |  | 102  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 12.7 |     | "    | 13.3 |  | 95.0 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 14.1 |     | "    | 13.3 |  | 106  | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 12.4 |     | "    | 13.3 |  | 92.6 | 21-167 |  |  |  |

##### Matrix Spike (BFJ0181-MS1)

Source: 2210101-01

Prepared: 10/07/22 Analyzed: 10/09/22

|                                  |      |     |      |      |    |      |        |  |  |  |
|----------------------------------|------|-----|------|------|----|------|--------|--|--|--|
| Benzene                          | 30.4 | 1.0 | ug/l | 41.7 | ND | 72.9 | 34-141 |  |  |  |
| Toluene                          | 37.1 | 1.0 | "    | 41.7 | ND | 89.1 | 27-151 |  |  |  |
| Ethylbenzene                     | 40.7 | 1.0 | "    | 41.7 | ND | 97.8 | 29-160 |  |  |  |
| m,p-Xylene                       | 80.6 | 2.0 | "    | 83.3 | ND | 96.8 | 20-166 |  |  |  |
| o-Xylene                         | 40.8 | 1.0 | "    | 41.7 | ND | 97.9 | 33-159 |  |  |  |
| Naphthalene                      | 41.5 | 1.0 | "    | 41.7 | ND | 99.6 | 70-130 |  |  |  |
| 1,2,4-Trimethylbenzene           | 42.5 | 1.0 | "    | 41.7 | ND | 102  | 70-130 |  |  |  |
| 1,3,5-Trimethylbenzene           | 43.4 | 1.0 | "    | 41.7 | ND | 104  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 12.9 |     | "    | 13.3 |    | 96.8 | 23-173 |  |  |  |
| Surrogate: Toluene-d8            | 13.7 |     | "    | 13.3 |    | 103  | 20-170 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 13.0 |     | "    | 13.3 |    | 97.6 | 21-167 |  |  |  |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 10/20/22 15:57

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

**Summit Scientific**

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

**Batch BFJ0181 - EPA 5030 Water MS**

| Matrix Spike Dup (BFJ0181-MSD1)  | Source: 2210101-01 |     |      | Prepared: 10/07/22 Analyzed: 10/09/22 |    |      |        |        |    |
|----------------------------------|--------------------|-----|------|---------------------------------------|----|------|--------|--------|----|
| Benzene                          | 30.6               | 1.0 | ug/l | 41.7                                  | ND | 73.5 | 34-141 | 0.820  | 30 |
| Toluene                          | 37.2               | 1.0 | "    | 41.7                                  | ND | 89.4 | 27-151 | 0.296  | 30 |
| Ethylbenzene                     | 40.8               | 1.0 | "    | 41.7                                  | ND | 98.0 | 29-160 | 0.221  | 30 |
| m,p-Xylene                       | 80.8               | 2.0 | "    | 83.3                                  | ND | 97.0 | 20-166 | 0.248  | 30 |
| o-Xylene                         | 40.6               | 1.0 | "    | 41.7                                  | ND | 97.5 | 33-159 | 0.393  | 30 |
| Naphthalene                      | 43.2               | 1.0 | "    | 41.7                                  | ND | 104  | 70-130 | 3.97   | 30 |
| 1,2,4-Trimethylbenzene           | 42.5               | 1.0 | "    | 41.7                                  | ND | 102  | 70-130 | 0.0470 | 30 |
| 1,3,5-Trimethylbenzene           | 43.5               | 1.0 | "    | 41.7                                  | ND | 104  | 70-130 | 0.207  | 30 |
| Surrogate: 1,2-Dichloroethane-d4 | 13.4               |     | "    | 13.3                                  |    | 100  | 23-173 |        |    |
| Surrogate: Toluene-d8            | 14.0               |     | "    | 13.3                                  |    | 105  | 20-170 |        |    |
| Surrogate: 4-Bromofluorobenzene  | 12.8               |     | "    | 13.3                                  |    | 96.2 | 21-167 |        |    |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 10/20/22 15:57

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

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

**Batch BFJ0335 - General Preparation**

**Blank (BFJ0335-BLK1)**

Prepared & Analyzed: 10/13/22

|          |    |        |      |  |  |  |  |  |  |
|----------|----|--------|------|--|--|--|--|--|--|
| Chloride | ND | 0.0600 | mg/L |  |  |  |  |  |  |
| Sulfate  | ND | 0.300  | "    |  |  |  |  |  |  |

**LCS (BFJ0335-BS1)**

Prepared & Analyzed: 10/13/22

|          |      |        |      |      |     |        |  |  |
|----------|------|--------|------|------|-----|--------|--|--|
| Chloride | 3.17 | 0.0600 | mg/L | 3.00 | 106 | 90-110 |  |  |
| Sulfate  | 15.1 | 0.300  | "    | 15.0 | 101 | 90-110 |  |  |

**Duplicate (BFJ0335-DUP1)**

Source: 2210101-01

Prepared & Analyzed: 10/13/22

|          |      |      |      |  |      |  |       |    |
|----------|------|------|------|--|------|--|-------|----|
| Chloride | 322  | 12.0 | mg/L |  | 321  |  | 0.436 | 20 |
| Sulfate  | 1970 | 60.0 | "    |  | 1830 |  | 7.54  | 20 |

**Matrix Spike (BFJ0335-MS1)**

Source: 2210101-01

Prepared & Analyzed: 10/13/22

|          |      |      |      |      |      |     |        |  |
|----------|------|------|------|------|------|-----|--------|--|
| Chloride | 948  | 12.0 | mg/L | 600  | 321  | 105 | 80-120 |  |
| Sulfate  | 5160 | 60.0 | "    | 3000 | 1830 | 111 | 80-120 |  |

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 10/20/22 15:57

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

**Summit Scientific**

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

**Batch BFJ0291 - General Preparation**

**Blank (BFJ0291-BLK1)**

Prepared & Analyzed: 10/12/22

Total Dissolved Solids      ND      10.0      mg/L

**Duplicate (BFJ0291-DUP1)**

Source: 2210101-01

Prepared & Analyzed: 10/12/22

Total Dissolved Solids      2490      10.0      mg/L      2430      2.15      20

Summit Scientific

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

Project: Loloff 35-5 Tank Battery

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
10/20/22 15:57

### 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

## **ATTACHMENT B**



# TASMAN

## Borehole Logging Form

BOREHOLE ID: **BK604** SITE NAME: **Luloff 35-5 und 6 TB** CLIENT NAME: **PDC ENERGY**

Date Completed: **11/2/22** Location: \_\_\_\_\_

Drilling Company: **Tasman** Surface Completion: **N/A** DTW: **3'** TD: **5'**

Type of Drill: **HA = Hand Auger** Geologist: **Sam Anderson** Project Manager: **B.Nelson**

Bit Size: **2 3/8"** Logging Method: \_\_\_\_\_

Well Const. Material: Diameter: **1"** Screen: **Sch 40 PVC Slotted 0.010** Riser: **Sch 40 PVC Blank**

| Depth (feet) | Well Completion | Sample Type | % Recovery | PID (ppm) | Laboratory Sample    | USCS | Description  |
|--------------|-----------------|-------------|------------|-----------|----------------------|------|--|
| 1            | e               | ↑           | ↑          | 0.1       |                      | CL   | 0-3' = Brown, clay, moderate to low plasticity<br>dry, subsoil, no obs or staining |
| 2            |                 |             |            | 0.1       | BK604 @ 2.5'<br>1315 |      | -P   |
| 3            |                 | HA          | 100%       | 0.1       |                      |      |  |
| 4            | '2 @ high mud   | ↓           | ↓          | 0.2       | BK604 @ 4'<br>1320   | SP   | 3-5' = Tan / Brown, sand with silt, fine grain, subsoil, organic obs / no stain.   |
| 5            |                 |             |            | 0.1       | BK604 @ 5'<br>1325   |      |  |
| 6            | X               |             |            |           |                      |      |  |
| 7            |                 |             |            |           |                      |      |  |
| 8            |                 |             |            |           |                      |      |  |
| 9            |                 |             |            |           |                      |      |  |
| 10           |                 |             |            |           |                      |      |  |
| 11           |                 |             |            |           |                      |      |  |
| 12           |                 |             |            |           |                      |      |  |
| 13           |                 |             |            |           |                      |      |  |
| 14           |                 |             |            |           |                      |      |  |
| 15           |                 |             |            |           |                      |      |  |
| 16           |                 |             |            |           |                      |      |  |
| 17           |                 |             |            |           |                      |      |  |
| 18           |                 |             |            |           |                      |      |  |
| 19           |                 |             |            |           |                      |      |  |
| 20           |                 |             |            |           |                      |      |  |
| 21           |                 |             |            |           |                      |      |  |
| 22           |                 |             |            |           |                      |      |  |
| 23           |                 |             |            |           |                      |      |  |
| 24           |                 |             |            |           |                      |      |  |
| 25           |                 |             |            |           |                      |      |  |



# TASMAN

## Borehole Logging Form

BOREHOLE ID: **BK605**      SITE NAME: **Laloff 35-S and 6 TB**      CLIENT NAME: **PDC ENERGY**

Date Completed: **11/2/22**      Location:

Drilling Company: **Tasman**      Surface Completion: **NA**      DTW: **3'**      TD: **5'**

Type of Drill: **Hand Auger**      Geologist: **Sam Anderson**      Project Manager: **B. Nelson**

Bit Size: **2 3/8"**      Logging Method:

Well Const. Material: Diameter: **1"**      Screen: **Sch 40 PVC Slotted 0.010**      Riser: **Sch 40 PVC Blank**

| Depth (feet) | Well Completion | Sample Type | % Recovery | PID (ppm) | Laboratory Sample | USCS | Description   |
|--------------|-----------------|-------------|------------|-----------|-------------------|------|---|
| 1            | X               | HA          | 100%       | 0.0       |                   | CL   | 0-2' = Brown, clay, material plasticity, <del>odor</del><br>no HC odor/staining |
| 2            |                 |             |            | 0.0       | BK605 @ 2.5'      |      |   |
| 3            |                 |             |            | 0.0       | 1318              | SP   | 2-5' = Brown/tan, sand, well sorted, fine grain, sub-sieved, no odor/staining   |
| 4            |                 |             |            | 0.0       | BK605 @ 4'        |      |   |
| 5            |                 |             |            | 0.1       | 1320              |      | sub-sieved @ 3'   |
| 6            |                 |             |            |           |                   |      |   |
| 7            |                 |             |            |           |                   |      |   |
| 8            |                 |             |            |           |                   |      |   |
| 9            |                 |             |            |           |                   |      |   |
| 10           |                 |             |            |           |                   |      |   |
| 11           |                 |             |            |           |                   |      |   |
| 12           |                 |             |            |           |                   |      |   |
| 13           |                 |             |            |           |                   |      |   |
| 14           |                 |             |            |           |                   |      |   |
| 15           |                 |             |            |           |                   |      |   |
| 16           |                 |             |            |           |                   |      |   |
| 17           |                 |             |            |           |                   |      |   |
| 18           |                 |             |            |           |                   |      |   |
| 19           |                 |             |            |           |                   |      |   |
| 20           |                 |             |            |           |                   |      |   |
| 21           |                 |             |            |           |                   |      |   |
| 22           |                 |             |            |           |                   |      |   |
| 23           |                 |             |            |           |                   |      |   |
| 24           |                 |             |            |           |                   |      |   |
| 25           |                 |             |            |           |                   |      |   |



# TASMAN

## Borehole Logging Form

BOREHOLE ID: **BK606**      SITE NAME: **Laloff 35-5 and 6 TB**      CLIENT NAME: **PDC ENERGY**

Date Completed: **11/2/22**      Location:

Drilling Company: **Tasman**      Surface Completion: **N/A**      DTW: **3'**      TD: **5'**

Type of Drill: **Hand Auger**      Geologist: **Sam Anderson**      Project Manager: **B.Nelson**

Bit Size: **2 3/8"**      Logging Method:

Well Const. Material: Diameter: **1"**      Screen: **Sch 40 PVC Slotted 0.010**      Riser: **Sch 40 PVC Blank**

| Depth (feet) | Well Completion | Sample Type | % Recovery | PID (ppm) | Laboratory Sample | USCS     | Description  |
|--------------|-----------------|-------------|------------|-----------|-------------------|----------|--|
| 1            |                 | ↑           | ↑          | 0.1       |                   | CL       | 0-2' = Brown, clay, low plasticity, moist no odor/staining.                            |
| 2            |                 |             |            | 0.2       | BK606 2.5'        | SP       | 2-5' = Tan, sand, well sorted, fine grain, silty, organic odor/staining saturated @ 2" |
| 3            |                 | HA          | 100%       | 0.1       | 1339              |          |  |
| 4            |                 |             |            | 0.1       | BK606 4'          |          |  |
| 5            |                 |             | ↓          | ↓         | 0.1               | BK606 5' |  |
| 6            | X               |             |            |           |                   |          |  |
| 7            |                 |             |            |           |                   |          |  |
| 8            |                 |             |            |           |                   |          |  |
| 9            |                 |             |            |           |                   |          |  |
| 10           |                 |             |            |           |                   |          |  |
| 11           |                 |             |            |           |                   |          |  |
| 12           |                 |             |            |           |                   |          |  |
| 13           |                 |             |            |           |                   |          |  |
| 14           |                 |             |            |           |                   |          |  |
| 15           |                 |             |            |           |                   |          |  |
| 16           |                 |             |            |           |                   |          |  |
| 17           |                 |             |            |           |                   |          |  |
| 18           |                 |             |            |           |                   |          |  |
| 19           |                 |             |            |           |                   |          |  |
| 20           |                 |             |            |           |                   |          |  |
| 21           |                 |             |            |           |                   |          |  |
| 22           |                 |             |            |           |                   |          |  |
| 23           |                 |             |            |           |                   |          |  |
| 24           |                 |             |            |           |                   |          |  |
| 25           |                 |             |            |           |                   |          |  |