

TABLE 1
FORMER OWL CREEK 7, 7-5 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE

Notes:

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

COGCC = Colorado Oil and Gas Conservation Commission

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

TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH-ORO = Total extractable petroleum hydrocarbons - oil range organics

1,2,4 - TMB = 1,2,4 Trimethylbenzene

1-M = 1-methylnaphthalene

mg/kg = Milligrams per kilogram

ft. = Feet

in. = Inches

bgs = Below ground surface

NA= Constituent not analyzed

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 2
FORMER OWL CREEK 7, 7-5 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS - VOC & PAHs

| Sample ID | Date Sampled | Depth | 1, 2, 4-TMB (mg/kg) | 1, 3, 5 TMB (mg/kg) | Acenaphthene (mg/kg) | Anthracene (mg/kg) | Benz(a) (mg/kg) | Benzo(a) (mg/kg) | Benzo(b) (mg/kg) | Benzo(k) (mg/kg) | Chrysene (mg/kg) | A,H (mg/kg) | Fluoranthene (mg/kg) | Fluorene (mg/kg) | 1,2,3-CD (mg/kg) | Pyrene (mg/kg) | 1-M (mg/kg) | 2-M (mg/kg) |
|--|--------------|-------------|------------------------|------------------------|-------------------------|-----------------------|--------------------|---------------------|---------------------|---------------------|---------------------|----------------|-------------------------|---------------------|---------------------|----------------|----------------|----------------|
| Residential SSL ^(1,2) | | | 30 | 27 | 360 | 1,800 | 1.1 | 0.11 | 1.1 | 11 | 110 | 0.11 | 240 | 240 | 1.1 | 180 | 18 | 24 |
| Protection of Groundwater SSL ^(1,2,3) | | | 0.0081 | 0.0087 | 0.55 | 6 | 0.011 | 0.24 | 0.3 | 2.9 | 9 | 0.096 | 8.9 | 0.54 | 0.98 | 1.3 | 0.006 | 0.019 |
| PWV01-W @ 2.5' | 1/28/2021 | 2.5 ft. bgs | 1.1 | <0.0050 | <0.00500 | 1.24 | <0.00500 | <0.00500 | 0.0131 | <0.00500 | 0.115 | <0.00500 | <0.00500 | 0.624 | <0.00500 | 0.0417 | 4.38 | <0.00500 |

Notes:

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3. SSLs are applicable if a pathway for communication with groundwater is present.

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1,2,4 - TMB = 1,2,4 Trimethylbenzene
 1,3,5 - TMB = 1,3,5 Trimethylbenzene

Benzo(a) = Benzoanthracene

Benzo(a) = Benzopyrene

Benzo(b) = Benzofluoranthene

Benzo(k) = Benzofluoranthene

A,H = Dibenzoanthracene

1,2,3-CD = Indenopyrene

1-M = 1-methylnaphthalene

2-M = 2-methylnaphthalene

mg/kg = Milligrams per kilogram

ft. = Feet

in. = Inches

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 3
FORMER OWL CREEK 7, 7-5 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
METALS

| Sample ID | Date Sampled | Depth | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (VI) (mg/kg) | Copper (mg/kg) | Lead (mg/kg) | Nickel (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | Zinc (mg/kg) |
|--|--------------|------------|--------------------|-------------------|--------------------|--------------------------|-------------------|-----------------|-------------------|---------------------|-------------------|-----------------|
| Residential SSL ^(1,2) | | | 0.68 | 15,000 | 71 | 0.3 | 3,100 | 400 | 1,500 | 390 | 390 | 23,000 |
| Protection of Groundwater SSL ^(1,2,3) | | | 0.29 | 82 | 0.38 | 0.00067 | 46 | 14 | 26 | 0.26 | 0.8 | 370 |
| PWV01-W @ 2.5' | 1/28/2021 | 2.5 ft bgs | 5.35 | 74.8 | <0.250 | <0.30 | 7.58 | 5.22 | 7.86 | 0.490 | 0.0266 | 30.3 |
| BKG-TB @ 2.5' | 1/29/2021 | 2.5 ft bgs | 2.78 | 82.0 | <0.240 | <0.30 | 5.45 | 5.90 | 5.87 | 1.63 | <0.0240 | 25.8 |

Notes:

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

COGCC = Colorado Oil and Gas Conservation Commission

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

mg/kg = Milligrams per kilogram

ft. = Feet

in. - Inches

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 4
FORMER OWL CREEK 7, 7-5 TANK BATTERY
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

| Sample ID | Date Sampled | Depth | pH (units) | EC (mmhos/cm) | SAR (units) | Boron (mg/L) |
|---|--------------|------------|--------------|---------------|--------------|--------------|
| Soil Suitability for Reclamation Standard ⁽¹⁾ | | | 6-8.3 | <4 | <6 | 2 |
| PWV01-W @ 2.5' | 1/28/2021 | 2.5 ft bgs | 8.39 | 0.377 | 2.80 | 0.324 |
| BKG-TB @ 2.5' | 1/29/2021 | 2.5 ft bgs | 8.50 | 0.744 | 1.61 | <0.0100 |

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

ft. = Feet

in. = Inches

bgs = Below ground surface

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

BOLD = Analytical result is in exceedance of applicable standard.

**TABLE 5
FORMER OWL CREEK 7, 7-5 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 ⁽²⁾ (ft.) | Groundwater Elevation (ft. AMSL) |
|---|--------------|-------------------|-------------------|------------------------|----------------------------|-----------------------|---------------------|---------------------|---|--|
| COGCC Table 915-1 Groundwater Standard (µg/L) ⁽¹⁾ | | 5 | 560 | 700 | 1,400 | 140 | 67 | 67 | - | - |
| GW01 | 2/22/2021 | <1.0 | <1.0 | 2.9 | 5.9 | 2.8 | 12 | 1.8 | ~ 4.5 | NM |

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

**TABLE 6
FORMER OWL CREEK 7, 7-5 TANK BATTERY
FIELD DATA SUMMARY TABLE**

| Sample ID | Date Sampled | Depth | GPS Data ⁽¹⁾ | | PDOP Value | VOC Concentration ⁽²⁾ (ppm) |
|----------------|--------------|-------------|-------------------------|---------------|------------|---|
| | | | Latitude | Longitude | | |
| AST01 @ 0-6" | 1/28/2021 | 0-6 in. bgs | 40.51344575 | -104.56536757 | 1.6 | 0.0 |
| SEP-DL01 @ 6' | 1/28/2021 | 6 ft. bgs | 40.51347882 | -104.56497238 | 1.3 | 0.0 |
| SEP-FL01 @ 6' | 1/28/2021 | 6 ft. bgs | 40.51346602 | -104.56503559 | 1.3 | 0.0 |
| PWV01-B @ 6' | 1/28/2021 | 6 ft. bgs | 40.51342929 | -104.56531227 | 1.1 | 5.0 |
| PWV01-W @ 2.5' | 1/28/2021 | 2.5 ft. bgs | 40.51342638 | -104.56534359 | 1.1 | 474.2 |
| PWV01-N @ 2.5' | 1/28/2021 | 2.5 ft. bgs | 40.51344939 | -104.56531126 | 1.1 | 0.0 |
| PWV01-S @ 2.5' | 1/28/2021 | 2.5 ft. bgs | 40.51340554 | -104.56530929 | 1.1 | 19.7 |
| PWV01-E @ 2.5' | 1/28/2021 | 2.5 ft. bgs | 40.51342777 | -104.56526681 | 1.1 | 0.1 |
| ECD01 @ 0-6" | 1/28/2021 | 0-6 in. bgs | 40.51345270 | -104.56492714 | 1.3 | 0.0 |
| MH01 @ 0-6" | 1/28/2021 | 0-6 in. bgs | 40.51360749 | -104.56465103 | 1.3 | 0.1 |
| BKG-TB @ 2.5' | 1/29/2021 | 2.5 ft bgs | NC | NC | NC | 0.0 |
| SS01 @ 7' | 2/16/2021 | 7 ft. bgs | NC | NC | NC | 0.1 |
| SS02 @ 3' | 2/16/2021 | 3 ft. bgs | 40.51346095 | -104.5652274 | NC | 0.2 |
| SS03 @ 5' | 2/16/2021 | 5 ft. bgs | 40.51346095 | -104.5652274 | NC | 0.1 |
| SS04 @ 3' | 2/16/2021 | 3 ft. bgs | 40.51343572 | -104.5651897 | 1.2 | 0.0 |
| SS05 @ 5' | 2/16/2021 | 5 ft. bgs | 40.51343572 | -104.5651897 | 1.2 | 0.3 |
| SS06 @ 3' | 2/16/2021 | 3 ft. bgs | 40.51339899 | -104.5652176 | 1.2 | 0.0 |
| SS07 @ 5' | 2/16/2021 | 3 ft. bgs | 40.51339899 | -104.5652176 | 1.2 | 0.1 |
| SS08 @ 7' | 2/16/2021 | 7 ft. bgs | NC | NC | NC | 1.9 |
| SS09 @ 3' | 2/16/2021 | 3 ft. bgs | 40.51338186 | -104.5652854 | 1.2 | 0.8 |
| SS10 @ 5' | 2/16/2021 | 5 ft. bgs | 40.51338186 | -104.5652854 | 1.2 | 2.6 |
| SS11 @ 3' | 2/17/2021 | 3 ft. bgs | 40.51334959 | -104.5653327 | 1.1 | 0.2 |
| SS12 @ 5' | 2/17/2021 | 5 ft. bgs | 40.51334959 | -104.5653327 | 1.1 | 0.5 |
| SS13 @ 3' | 2/17/2021 | 3 ft. bgs | 40.5133206 | -104.5653875 | 1.1 | 4.1 |
| SS14 @ 5' | 2/17/2021 | 5 ft. bgs | 40.5133206 | -104.5653875 | 1.1 | 0.0 |
| SS15 @ 7' | 2/17/2021 | 7 ft. bgs | NC | NC | NC | 0.4 |
| SS16 @ 7' | 2/17/2021 | 7 ft. bgs | NC | NC | NC | 0.8 |
| SS17 @ 3' | 2/17/2021 | 3 ft. bgs | 40.51330355 | -104.5654541 | 1.0 | 0.9 |
| SS18 @ 6' | 2/17/2021 | 6 ft. bgs | 40.51330355 | -104.5654541 | 1.0 | 7.3 |
| SS19 @ 7' | 2/17/2021 | 7 ft. bgs | NC | NC | NC | 0.1 |
| SS20 @ 3' | 2/17/2021 | 3 ft. bgs | 40.51332055 | -104.5655276 | 1.1 | 0.6 |
| SS21 @ 6' | 2/17/2021 | 6 ft. bgs | 40.51332055 | -104.5655276 | 1.1 | 0.6 |
| SS22 @ 7' | 2/17/2021 | 7 ft. bgs | NC | NC | NC | 0.4 |
| SS23 @ 7' | 2/18/2021 | 7 ft. bgs | NC | NC | NC | 0.7 |
| SS24 @ 7' | 2/18/2021 | 7 ft. bgs | NC | NC | NC | 0.9 |
| SS25 @ 3' | 2/18/2021 | 3 ft. bgs | 40.51334101 | -104.5655924 | 1.1 | 0.4 |
| SS26 @ 6' | 2/18/2021 | 6 ft. bgs | 40.51334101 | -104.5655924 | 1.1 | 0.1 |
| SS27 @ 3' | 2/18/2021 | 3 ft. bgs | 40.51335525 | -104.5656535 | 0.9 | 1.5 |
| SS28 @ 6' | 2/18/2021 | 6 ft. bgs | 40.51335525 | -104.5656535 | 0.9 | 0.2 |
| SS29 @ 3' | 2/18/2021 | 3 ft. bgs | 40.51338551 | -104.5656766 | 0.9 | 0.9 |
| SS30 @ 6' | 2/18/2021 | 6 ft. bgs | 40.51338551 | -104.5656766 | 0.9 | 1.1 |

**TABLE 6
FORMER OWL CREEK 7, 7-5 TANK BATTERY
FIELD DATA SUMMARY TABLE**

| Sample ID | Date Sampled | Depth | GPS Data ⁽¹⁾ | | PDOP Value | VOC Concentration ⁽²⁾ (ppm) |
|-------------|--------------|------------|-------------------------|--------------|------------|---|
| | | | Latitude | Longitude | | |
| SS31 @ 7' | 2/18/2021 | 7 ft. bgs | NC | NC | NC | 0.5 |
| SS32 @ 3' | 2/18/2021 | 3 ft. bgs | 40.51347893 | -104.5653368 | 1.0 | 2.4 |
| SS33 @ 6' | 2/18/2021 | 6 ft. bgs | 40.51347893 | -104.5653368 | 1.0 | 2.7 |
| SS34 @ 7' | 2/18/2021 | 7 ft. bgs | NC | NC | NC | 0.1 |
| SS35 @ 3' | 2/18/2021 | 3 ft. bgs | 40.51348663 | -104.5654132 | 1.0 | 5.8 |
| SS36 @ 6' | 2/18/2021 | 6 ft. bgs | 40.51348663 | -104.5654132 | 1.0 | 3.1 |
| SS37 @ 7' | 2/19/2021 | 7 ft. bgs | NC | NC | NC | 0.6 |
| SS38 @ 7' | 2/19/2021 | 7 ft. bgs | NC | NC | NC | 0.0 |
| SS39 @ 3' | 2/19/2021 | 3 ft. bgs | 40.51349092 | -104.5654785 | 1.5 | 3.9 |
| SS40 @ 6' | 2/19/2021 | 6 ft. bgs | 40.51349092 | -104.5654785 | 1.5 | 2.0 |
| SS41 @ 7' | 2/19/2021 | 7 ft. bgs | NC | NC | NC | 0.6 |
| SS42 @ 3' | 2/19/2021 | 3 ft. bgs | 40.51348411 | -104.5655354 | 1.6 | 0.5 |
| SS43 @ 6' | 2/19/2021 | 6 ft. bgs | 40.51348411 | -104.5655354 | 1.6 | 0.7 |
| SS44 @ 7' | 2/19/2021 | 7 ft. bgs | NC | NC | NC | 0.0 |
| SS45 @ 3' | 2/19/2021 | 3 ft. bgs | 40.51348078 | -104.5656071 | 1.5 | 0.9 |
| SS46 @ 6' | 2/19/2021 | 6 ft. bgs | 40.51348078 | -104.5656071 | 1.5 | 1.1 |
| SS47 @ 3' | 2/19/2021 | 3 ft. bgs | 40.51344371 | -104.5656594 | 1.5 | 0.2 |
| SS48 @ 6' | 2/19/2021 | 6 ft. bgs | 40.51344371 | -104.5656594 | 1.5 | 0.7 |
| SS49 @ 7' | 2/19/2021 | 7 ft. bgs | NC | NC | NC | 0.9 |
| SS50 @ 7.5' | 2/22/2021 | 7.5 ft bgs | NC | NC | NC | 0.5 |

Notes:

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

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

ft. = Feet

in. = inches

bgs = Below ground surface

PDOP = Position Dilution of Precision

ppm = Parts per million

NC = Data not collected

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 22, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2101283

Enclosed are the results of analyses for samples received by Summit Scientific on 01/28/21 18:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|--------------|---------------|--------|----------------|----------------|
| PWV01-B@6' | 2101283-01 | Soil | 01/28/21 16:20 | 01/28/21 18:30 |
| PWV01-W@2.5' | 2101283-02 | Soil | 01/28/21 16:35 | 01/28/21 18:30 |
| WDL01@4' | 2101283-03 | Soil | 01/28/21 15:27 | 01/28/21 18:30 |

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

S₂

2101283

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

Page 1 of 1

Client: PDL/Tasman Project Manager: Mark Longhurst
 Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDL.com
 City/State/Zip: Broomfield/CO/80020
 Phone: 303-487-1228 Project Name: Owl Creek 7,7-5
 Sampler Name: _____ 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 | BTEX | Naphthalene | TPH C6-36 | PH/EC | SAR | Boron | | | |
| 1 | PWV01-Be 6' | 1/28/21 | 1620 | 2 | | | X | | | X | | | | X | X | X | | | | | |
| 2 | PWV01-we 2.5' | | 1635 | 4 | | | X | | | X | | | | X | X | X | X | X | | | |
| 3 | WDL01e 4' | | 1527 | 2 | | | X | | | X | | | | X | X | X | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|--------------------------------|--|-----------------------------------|--|---------------|
| Relinquished by:  | Date/Time: <u>1/28/21 1810</u> | Received by:  | Date/Time: <u>01/28/2021 1810</u> | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: <u>35</u> Samples Intact: <input checked="" type="checkbox"/> Yes No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Sample Receipt Checklist

S2 Work Order 2101283

Client: POC/TARMAN Client Project ID: OWL CREEK 7-7-5

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

Matrix (check all that apply): _____ Air Soil/Solid _____ Water _____ Other: _____
(Describe)

| | |
|-----------|-----------|
| Temp (°C) | <u>35</u> |
|-----------|-----------|

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

TB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

01/28/2021
Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

PWV01-B@6'
2101283-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/28/21 16:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEA0326 | 01/28/21 | 01/28/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 16:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 143 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 115 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 108 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/28/21 16:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEA0329 | 01/28/21 | 01/28/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 16:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 93.2 % | 30-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

PWV01-W@2.5'
2101283-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEA0326 | 01/28/21 | 01/28/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | 0.011 | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | 1.1 | 0.050 | " | 10 | " | " | " | " | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | 1 | " | " | " | " | |
| Naphthalene | 0.075 | 0.010 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 2400 | 50 | " | 100 | " | " | " | " | |

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 87.3 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 135 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 912 % | 21-167 | | " | " | " | " | S-02 |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | 180 | 50 | mg/kg | 1 | BEA0329 | 01/28/21 | 01/28/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 92.6 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

PWV01-W@2.5'
2101283-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------|---------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Acenaphthene | ND | 0.00500 | mg/kg | 1 | BEB0255 | 02/17/21 | 02/18/21 | EPA 8270D SIM | |
| Anthracene | 1.24 | 0.250 | " | 50 | " | " | " | " | " |
| Benzo (a) anthracene | ND | 0.00500 | " | 1 | " | " | " | " | " |
| Benzo (a) pyrene | ND | 0.00500 | " | " | " | " | " | " | " |
| Benzo (b) fluoranthene | 0.0131 | 0.00500 | " | " | " | " | " | " | " |
| Benzo (k) fluoranthene | ND | 0.00500 | " | " | " | " | " | " | " |
| Chrysene | 0.115 | 0.00500 | " | " | " | " | " | " | " |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | " | " | " | " | " | " |
| Fluoranthene | ND | 0.00500 | " | " | " | " | " | " | " |
| Fluorene | 0.624 | 0.250 | " | 50 | " | " | " | " | " |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | 1 | " | " | " | " | " |
| Pyrene | 0.0417 | 0.00500 | " | " | " | " | " | " | " |
| 1-Methylnaphthalene | 4.38 | 0.250 | " | 50 | " | " | " | " | " |
| 2-Methylnaphthalene | ND | 0.00500 | " | 1 | " | " | " | " | " |

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 94.6 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 88.5 % | 40-150 | | " | " | " | " | |

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|--------------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Arsenic | 5.35 | 0.250 | mg/kg dry | 1 | BEB0264 | 02/17/21 | 02/18/21 | EPA 6020B | |
| Barium | 74.8 | 0.500 | " | " | " | " | " | " | |
| Boron | 0.324 | 0.0100 | mg/L | " | BEB0151 | 02/10/21 | 02/11/21 | " | |
| Cadmium | ND | 0.250 | mg/kg dry | " | BEB0264 | 02/17/21 | 02/18/21 | " | |
| Copper | 7.58 | 0.500 | " | " | " | " | " | " | |
| Lead | 5.22 | 0.250 | " | " | " | " | " | " | |
| Nickel | 7.86 | 0.500 | " | " | " | " | " | " | |
| Selenium | 0.490 | 0.325 | " | " | " | " | " | " | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

PWV01-W@2.5'
2101283-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

| Analyte | Result | Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|--------|-----------|----------|---------|----------|----------|-----------|-------|
| Silver | 0.0266 | 0.0250 | mg/kg dry | 1 | BEB0264 | 02/17/21 | 02/18/21 | EPA 6020B | |
| Zinc | 30.3 | 0.500 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------------|-----------|----------|---------|----------|----------|-----------|-------|
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BEB0272 | 02/18/21 | 02/18/21 | EPA 7196A | |

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

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Calcium | 36.4 | 0.0624 | mg/L dry | 1 | BEB0152 | 02/10/21 | 02/11/21 | EPA 6020B | |
| Magnesium | 9.96 | 0.0624 | " | " | " | " | " | " | |
| Sodium | 73.8 | 0.0624 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| Sodium Adsorption Ratio | 2.80 | 0.100 | units | 1 | BEB0201 | 02/12/21 | 02/12/21 | Calculation | |

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 80.1 | | % | 1 | BEA0332 | 01/28/21 | 01/29/21 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

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: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

PWV01-W@2.5'
2101283-02 (Soil)

Summit Scientific

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| Specific Conductance (EC) | 0.377 | 0.0100 | | mmhos/cm | 1 | BEB0186 | 02/10/21 | 02/11/21 | EPA 120.1 | |

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

Date Sampled: **01/28/21 16:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------|-------------|-----------|--|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | | | | | | | | |
| pH | 8.39 | | | pH Units | 1 | BEB0187 | 02/10/21 | 02/11/21 | EPA 9045D | |

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

WDL01@4'
2101283-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/28/21 15:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|---------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | 0.040 | 0.0020 | mg/kg | 1 | BEA0326 | 01/28/21 | 01/28/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | 0.0064 | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | 0.024 | 0.010 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.010 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | 3.7 | 0.50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 15:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 115 % | 23-173 | " | " | " | " | " | |
| Surrogate: Toluene-d8 | | 104 % | 20-170 | " | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 109 % | 21-167 | " | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/28/21 15:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEA0329 | 01/28/21 | 01/28/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 15:27**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 95.6 % | 30-150 | " | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEA0326 - EPA 5030 Soil MS

Blank (BEA0326-BLK1)

Prepared: 01/28/21 Analyzed: 01/29/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.010 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0394 | | " | 0.0400 | | 98.6 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0387 | | " | 0.0400 | | 96.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0392 | | " | 0.0400 | | 98.0 | 21-167 | | | |

LCS (BEA0326-BS1)

Prepared: 01/28/21 Analyzed: 01/29/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.137 | 0.0020 | mg/kg | 0.150 | | 91.6 | 70-130 | | | |
| Toluene | 0.136 | 0.0050 | " | 0.150 | | 90.7 | 70-130 | | | |
| Ethylbenzene | 0.131 | 0.0050 | " | 0.150 | | 87.3 | 70-130 | | | |
| m,p-Xylene | 0.263 | 0.010 | " | 0.300 | | 87.6 | 70-130 | | | |
| o-Xylene | 0.136 | 0.0050 | " | 0.150 | | 90.7 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0398 | | " | 0.0400 | | 99.5 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0399 | | " | 0.0400 | | 99.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0402 | | " | 0.0400 | | 100 | 21-167 | | | |

Matrix Spike (BEA0326-MS1)

Source: 2101281-05

Prepared: 01/28/21 Analyzed: 01/29/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.130 | 0.0020 | mg/kg | 0.150 | ND | 86.6 | 70-130 | | | |
| Toluene | 0.125 | 0.0050 | " | 0.150 | ND | 83.4 | 70-130 | | | |
| Ethylbenzene | 0.118 | 0.0050 | " | 0.150 | ND | 78.5 | 70-130 | | | |
| m,p-Xylene | 0.235 | 0.010 | " | 0.300 | ND | 78.3 | 70-130 | | | |
| o-Xylene | 0.120 | 0.0050 | " | 0.150 | ND | 80.3 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0398 | | " | 0.0400 | | 99.5 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0392 | | " | 0.0400 | | 97.9 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0401 | | " | 0.0400 | | 100 | 21-167 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

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 BEA0326 - EPA 5030 Soil MS

| Matrix Spike Dup (BEA0326-MSD1) | Source: 2101281-05 | | | Prepared: 01/28/21 Analyzed: 01/29/21 | | | | | | |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|-------|----|--|
| Benzene | 0.129 | 0.0020 | mg/kg | 0.150 | ND | 85.8 | 70-130 | 0.882 | 30 | |
| Toluene | 0.124 | 0.0050 | " | 0.150 | ND | 82.7 | 70-130 | 0.915 | 30 | |
| Ethylbenzene | 0.114 | 0.0050 | " | 0.150 | ND | 75.8 | 70-130 | 3.58 | 30 | |
| m,p-Xylene | 0.228 | 0.010 | " | 0.300 | ND | 76.0 | 70-130 | 2.89 | 30 | |
| o-Xylene | 0.116 | 0.0050 | " | 0.150 | ND | 77.4 | 70-130 | 3.65 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0416 | | " | 0.0400 | | 104 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0399 | | " | 0.0400 | | 99.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0411 | | " | 0.0400 | | 103 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEA0329 - EPA 3550A

Blank (BEA0329-BLK1)

Prepared & Analyzed: 01/28/21

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

LCS (BEA0329-BS1)

Prepared & Analyzed: 01/28/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|
| C10-C28 (DRO) | 469 | 50 | mg/kg | 500 | 93.8 | 70-130 | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|

Matrix Spike (BEA0329-MS1)

Source: 2101282-01

Prepared & Analyzed: 01/28/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|--|--|--|
| C10-C28 (DRO) | 409 | 50 | mg/kg | 500 | 14.9 | 78.7 | 70-130 | | | |
|---------------|-----|----|-------|-----|------|------|--------|--|--|--|

Matrix Spike Dup (BEA0329-MSD1)

Source: 2101282-01

Prepared & Analyzed: 01/28/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|
| C10-C28 (DRO) | 420 | 50 | mg/kg | 500 | 14.9 | 80.9 | 70-130 | 2.64 | 20 | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0255 - EPA 5030 Soil MS

Blank (BEB0255-BLK1)

Prepared & Analyzed: 02/17/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0181</i> | | " | <i>0.0333</i> | | <i>54.4</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0172</i> | | " | <i>0.0333</i> | | <i>51.5</i> | <i>40-150</i> | | | |

LCS (BEB0255-BS1)

Prepared & Analyzed: 02/17/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | 0.0248 | 0.00500 | mg/kg | 0.0333 | | 74.3 | 31-137 | | | |
| Anthracene | 0.0278 | 0.00500 | " | 0.0333 | | 83.4 | 30-120 | | | |
| Benzo (a) anthracene | 0.0245 | 0.00500 | " | 0.0333 | | 73.5 | 30-120 | | | |
| Benzo (a) pyrene | 0.0211 | 0.00500 | " | 0.0333 | | 63.3 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0240 | 0.00500 | " | 0.0333 | | 72.1 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0265 | 0.00500 | " | 0.0333 | | 79.4 | 30-120 | | | |
| Chrysene | 0.0223 | 0.00500 | " | 0.0333 | | 66.8 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0127 | 0.00500 | " | 0.0333 | | 38.2 | 30-120 | | | |
| Fluoranthene | 0.0222 | 0.00500 | " | 0.0333 | | 66.5 | 30-120 | | | |
| Fluorene | 0.0252 | 0.00500 | " | 0.0333 | | 75.7 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0129 | 0.00500 | " | 0.0333 | | 38.6 | 30-120 | | | |
| Pyrene | 0.0201 | 0.00500 | " | 0.0333 | | 60.3 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0246 | 0.00500 | " | 0.0333 | | 73.8 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0239 | 0.00500 | " | 0.0333 | | 71.7 | 35-142 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0305</i> | | " | <i>0.0333</i> | | <i>91.6</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0309</i> | | " | <i>0.0333</i> | | <i>92.6</i> | <i>40-150</i> | | | |

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0255 - EPA 5030 Soil MS

| Matrix Spike (BEB0255-MS1) | Source: 2102206-01 | | | Prepared & Analyzed: 02/17/21 | | | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|--|--|--|--|--|
| Acenaphthene | 0.0248 | 0.00500 | mg/kg | 0.0333 | ND | 74.3 | 31-137 | | | | | |
| Anthracene | 0.0275 | 0.00500 | " | 0.0333 | ND | 82.5 | 30-120 | | | | | |
| Benzo (a) anthracene | 0.0244 | 0.00500 | " | 0.0333 | ND | 73.1 | 30-120 | | | | | |
| Benzo (a) pyrene | 0.0205 | 0.00500 | " | 0.0333 | ND | 61.6 | 30-120 | | | | | |
| Benzo (b) fluoranthene | 0.0236 | 0.00500 | " | 0.0333 | ND | 70.7 | 30-120 | | | | | |
| Benzo (k) fluoranthene | 0.0260 | 0.00500 | " | 0.0333 | ND | 77.9 | 30-120 | | | | | |
| Chrysene | 0.0228 | 0.00500 | " | 0.0333 | ND | 68.4 | 30-120 | | | | | |
| Dibenz (a,h) anthracene | 0.0125 | 0.00500 | " | 0.0333 | ND | 37.4 | 30-120 | | | | | |
| Fluoranthene | 0.0230 | 0.00500 | " | 0.0333 | ND | 69.0 | 30-120 | | | | | |
| Fluorene | 0.0253 | 0.00500 | " | 0.0333 | ND | 76.0 | 30-120 | | | | | |
| Indeno (1,2,3-cd) pyrene | 0.0125 | 0.00500 | " | 0.0333 | ND | 37.5 | 30-120 | | | | | |
| Pyrene | 0.0205 | 0.00500 | " | 0.0333 | ND | 61.6 | 35-142 | | | | | |
| 1-Methylnaphthalene | 0.0249 | 0.00500 | " | 0.0333 | ND | 74.8 | 15-130 | | | | | |
| 2-Methylnaphthalene | 0.0230 | 0.00500 | " | 0.0333 | ND | 69.0 | 15-130 | | | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0273</i> | | <i>"</i> | <i>0.0333</i> | | <i>82.0</i> | <i>40-150</i> | | | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0295</i> | | <i>"</i> | <i>0.0333</i> | | <i>88.6</i> | <i>40-150</i> | | | | | |

| Matrix Spike Dup (BEB0255-MSD1) | Source: 2102206-01 | | | Prepared & Analyzed: 02/17/21 | | | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|------|----|--|--|--|
| Acenaphthene | 0.0219 | 0.00500 | mg/kg | 0.0333 | ND | 65.8 | 31-137 | 12.2 | 30 | | | |
| Anthracene | 0.0256 | 0.00500 | " | 0.0333 | ND | 76.8 | 30-120 | 7.19 | 30 | | | |
| Benzo (a) anthracene | 0.0221 | 0.00500 | " | 0.0333 | ND | 66.3 | 30-120 | 9.77 | 30 | | | |
| Benzo (a) pyrene | 0.0185 | 0.00500 | " | 0.0333 | ND | 55.4 | 30-120 | 10.5 | 30 | | | |
| Benzo (b) fluoranthene | 0.0212 | 0.00500 | " | 0.0333 | ND | 63.6 | 30-120 | 10.5 | 30 | | | |
| Benzo (k) fluoranthene | 0.0234 | 0.00500 | " | 0.0333 | ND | 70.1 | 30-120 | 10.6 | 30 | | | |
| Chrysene | 0.0204 | 0.00500 | " | 0.0333 | ND | 61.3 | 30-120 | 11.0 | 30 | | | |
| Dibenz (a,h) anthracene | 0.0116 | 0.00500 | " | 0.0333 | ND | 34.7 | 30-120 | 7.40 | 30 | | | |
| Fluoranthene | 0.0216 | 0.00500 | " | 0.0333 | ND | 64.8 | 30-120 | 6.32 | 30 | | | |
| Fluorene | 0.0221 | 0.00500 | " | 0.0333 | ND | 66.3 | 30-120 | 13.6 | 30 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0116 | 0.00500 | " | 0.0333 | ND | 34.8 | 30-120 | 7.44 | 30 | | | |
| Pyrene | 0.0193 | 0.00500 | " | 0.0333 | ND | 58.0 | 35-142 | 6.09 | 30 | | | |
| 1-Methylnaphthalene | 0.0235 | 0.00500 | " | 0.0333 | ND | 70.4 | 15-130 | 5.95 | 50 | | | |
| 2-Methylnaphthalene | 0.0210 | 0.00500 | " | 0.0333 | ND | 62.9 | 15-130 | 9.28 | 50 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0257</i> | | <i>"</i> | <i>0.0333</i> | | <i>77.2</i> | <i>40-150</i> | | | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0280</i> | | <i>"</i> | <i>0.0333</i> | | <i>84.1</i> | <i>40-150</i> | | | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

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

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

Batch BEB0151 - EPA 3050B

Blank (BEB0151-BLK1)

Prepared: 02/10/21 Analyzed: 02/11/21

Boron ND 0.0100 mg/L

LCS (BEB0151-BS1)

Prepared: 02/10/21 Analyzed: 02/11/21

Boron 4.92 0.0100 mg/L 5.00 98.4 80-120

Duplicate (BEB0151-DUP1)

Source: 2101283-02

Prepared: 02/10/21 Analyzed: 02/11/21

Boron 0.307 0.0100 mg/L 0.324 5.39 20

Matrix Spike (BEB0151-MS1)

Source: 2101283-02

Prepared: 02/10/21 Analyzed: 02/11/21

Boron 4.85 0.0100 mg/L 5.00 0.324 90.5 75-125

Matrix Spike Dup (BEB0151-MSD1)

Source: 2101283-02

Prepared: 02/10/21 Analyzed: 02/11/21

Boron 4.92 0.0100 mg/L 5.00 0.324 92.0 75-125 1.50 25

Batch BEB0264 - EPA 3050B

Blank (BEB0264-BLK1)

Prepared: 02/17/21 Analyzed: 02/18/21

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

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

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

Summit Scientific

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

Batch BEB0264 - EPA 3050B

LCS (BEB0264-BS1)

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--|------|--------|--|--|--|
| Arsenic | 45.0 | 0.200 | mg/kg wet | 40.0 | | 112 | 80-120 | | | |
| Barium | 38.9 | 0.400 | " | 40.0 | | 97.2 | 80-120 | | | |
| Cadmium | 2.05 | 0.200 | " | 2.00 | | 103 | 80-120 | | | |
| Copper | 43.3 | 0.400 | " | 40.0 | | 108 | 80-120 | | | |
| Lead | 20.0 | 0.200 | " | 20.0 | | 99.9 | 80-120 | | | |
| Nickel | 42.9 | 0.400 | " | 40.0 | | 107 | 80-120 | | | |
| Selenium | 4.31 | 0.260 | " | 4.00 | | 108 | 80-120 | | | |
| Silver | 2.03 | 0.0200 | " | 2.00 | | 101 | 80-120 | | | |
| Zinc | 46.2 | 0.400 | " | 40.0 | | 115 | 80-120 | | | |

Duplicate (BEB0264-DUP1)

Source: 2101283-02

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | |
|----------|--------|--------|-----------|--|--------|--|--|-------|----|--|
| Arsenic | 5.43 | 0.250 | mg/kg dry | | 5.35 | | | 1.52 | 30 | |
| Barium | 100 | 0.500 | " | | 74.8 | | | 29.1 | 30 | |
| Cadmium | 0.155 | 0.250 | " | | 0.151 | | | 2.49 | 30 | |
| Copper | 7.66 | 0.500 | " | | 7.58 | | | 1.05 | 30 | |
| Lead | 5.73 | 0.250 | " | | 5.22 | | | 9.37 | 30 | |
| Nickel | 7.88 | 0.500 | " | | 7.86 | | | 0.165 | 30 | |
| Selenium | 0.540 | 0.325 | " | | 0.490 | | | 9.58 | 30 | |
| Silver | 0.0287 | 0.0250 | " | | 0.0266 | | | 7.57 | 30 | |
| Zinc | 31.4 | 0.500 | " | | 30.3 | | | 3.40 | 30 | |

Matrix Spike (BEB0264-MS1)

Source: 2101283-02

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--------|------|--------|--|--|--|
| Arsenic | 57.1 | 0.250 | mg/kg dry | 50.0 | 5.35 | 104 | 75-125 | | | |
| Barium | 130 | 0.500 | " | 50.0 | 74.8 | 110 | 75-125 | | | |
| Cadmium | 2.62 | 0.250 | " | 2.50 | 0.151 | 98.7 | 75-125 | | | |
| Copper | 62.8 | 0.500 | " | 50.0 | 7.58 | 111 | 75-125 | | | |
| Lead | 26.4 | 0.250 | " | 25.0 | 5.22 | 85.0 | 75-125 | | | |
| Nickel | 58.5 | 0.500 | " | 50.0 | 7.86 | 101 | 75-125 | | | |
| Selenium | 5.52 | 0.325 | " | 5.00 | 0.490 | 101 | 75-125 | | | |
| Silver | 2.42 | 0.0250 | " | 2.50 | 0.0266 | 95.7 | 75-125 | | | |
| Zinc | 90.3 | 0.500 | " | 50.0 | 30.3 | 120 | 75-125 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

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

Summit Scientific

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

Batch BEB0264 - EPA 3050B

| Matrix Spike Dup (BEB0264-MSD1) | Source: 2101283-02 | | | Prepared: 02/17/21 Analyzed: 02/18/21 | | | | | | | |
|---------------------------------|--------------------|--------|-----------|---------------------------------------|--------|------|--------|------|----|--|--|
| Arsenic | 54.6 | 0.250 | mg/kg dry | 50.0 | 5.35 | 98.6 | 75-125 | 4.52 | 25 | | |
| Barium | 120 | 0.500 | " | 50.0 | 74.8 | 90.4 | 75-125 | 7.67 | 25 | | |
| Cadmium | 2.53 | 0.250 | " | 2.50 | 0.151 | 95.2 | 75-125 | 3.35 | 25 | | |
| Copper | 54.7 | 0.500 | " | 50.0 | 7.58 | 94.2 | 75-125 | 13.9 | 25 | | |
| Lead | 24.9 | 0.250 | " | 25.0 | 5.22 | 78.9 | 75-125 | 5.93 | 25 | | |
| Nickel | 55.1 | 0.500 | " | 50.0 | 7.86 | 94.5 | 75-125 | 6.00 | 25 | | |
| Selenium | 5.04 | 0.325 | " | 5.00 | 0.490 | 91.0 | 75-125 | 9.22 | 25 | | |
| Silver | 2.36 | 0.0250 | " | 2.50 | 0.0266 | 93.4 | 75-125 | 2.39 | 25 | | |
| Zinc | 87.0 | 0.500 | " | 50.0 | 30.3 | 114 | 75-125 | 3.65 | 25 | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BEB0272 - 3060A Mod

Blank (BEB0272-BLK1)

Prepared & Analyzed: 02/18/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEB0272-BS1)

Prepared & Analyzed: 02/18/21

Chromium, Hexavalent 24.2 0.30 mg/kg wet 25.0 97.0 80-120

Duplicate (BEB0272-DUP1)

Source: 2101283-02

Prepared & Analyzed: 02/18/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEB0272-MS1)

Source: 2101283-02

Prepared & Analyzed: 02/18/21

Chromium, Hexavalent 29.7 0.30 mg/kg dry 31.2 ND 95.0 75-125

Matrix Spike Dup (BEB0272-MSD1)

Source: 2101283-02

Prepared & Analyzed: 02/18/21

Chromium, Hexavalent 29.8 0.30 mg/kg dry 31.2 ND 95.4 75-125 0.420 20

Summit Scientific

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





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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

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

Summit Scientific

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

Batch BEB0152 - General Preparation

Blank (BEB0152-BLK1)

Prepared: 02/10/21 Analyzed: 02/11/21

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

LCS (BEB0152-BS1)

Prepared: 02/10/21 Analyzed: 02/11/21

| | | | | | | | | | | |
|-----------|------|--------|----------|------|--|------|--------|--|--|--|
| Calcium | 4.56 | 0.0500 | mg/L wet | 5.00 | | 91.2 | 70-130 | | | |
| Magnesium | 5.34 | 0.0500 | " | 5.00 | | 107 | 70-130 | | | |
| Sodium | 4.96 | 0.0500 | " | 5.00 | | 99.1 | 70-130 | | | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

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

Summit Scientific

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

Batch BEA0332 - General Preparation

| Duplicate (BEA0332-DUP1) | Source: 2101283-02 | | Prepared: 01/28/21 Analyzed: 01/29/21 | | |
|--------------------------|--------------------|---|---------------------------------------|-------|----|
| % Solids | 79.8 | % | 80.1 | 0.403 | 20 |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

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

Summit Scientific

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

Batch BEB0186 - General Preparation

Blank (BEB0186-BLK1)

Prepared & Analyzed: 02/11/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEB0186-BS1)

Prepared & Analyzed: 02/11/21

Specific Conductance (EC) 0.149 0.0100 mmhos/cm 0.150 99.6 90-110

Duplicate (BEB0186-DUP1)

Source: 2101283-02

Prepared & Analyzed: 02/11/21

Specific Conductance (EC) 0.377 0.0100 mmhos/cm 0.377 0.159 20

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/22/21 10:24

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 BEB0187 - General Preparation

LCS (BEB0187-BS1)

Prepared & Analyzed: 02/11/21

| | | | | | |
|----|------|----------|------|-----|--------|
| pH | 9.41 | pH Units | 9.21 | 102 | 95-105 |
|----|------|----------|------|-----|--------|

Duplicate (BEB0187-DUP1)

Source: 2101283-02

Prepared & Analyzed: 02/11/21

| | | | | | |
|----|------|----------|------|-------|----|
| pH | 8.38 | pH Units | 8.39 | 0.119 | 20 |
|----|------|----------|------|-------|----|

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/22/21 10:24

Notes and Definitions

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 05, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

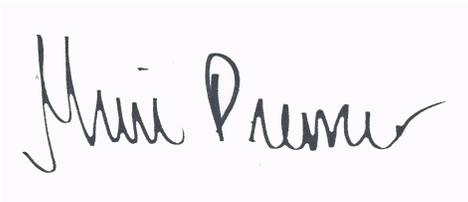
Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2101291

Enclosed are the results of analyses for samples received by Summit Scientific on 01/28/21 18:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized 'M' and 'P'.

Muri Premer For Paul Shrewsbury
President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/05/21 15:17

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-------------|---------------|--------|----------------|----------------|
| AST01@0-6" | 2101291-01 | Soil | 01/28/21 14:05 | 01/28/21 18:10 |
| SEP-DL01@6' | 2101291-02 | Soil | 01/28/21 14:25 | 01/28/21 18:10 |
| SEP-FL01@6' | 2101291-03 | Soil | 01/28/21 14:45 | 01/28/21 18:10 |

Summit Scientific

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Summit Scientific

S₂

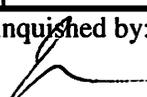
2101291

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: Owl Creek 7, 7-5
Sampler Name: Project Number:

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative | | | | Matrix | | | | Analysis Requested | | | | | | Special Instructions |
|----|--------------------|--------------|--------------|-----------------|--------------|------------------|------|-------|--------|------|----------------|-------|--------------------|--------------|----------|-------|-------------|-------------|----------------------|
| | | | | | HCl | HNO ₃ | None | Other | Water | Soil | Air-Canister # | Other | 8260 BTEX | 8260B GBTEXN | 8015 DRO | pH/EC | Naphthalene | TPH (66-36) | |
| 1 | ASTO1 @ 0-6" | 1/28/21 | 1405 | 2 | | | X | | | X | | | | X | | | X | X | |
| 2 | SEP-DLO1 @ 6' | ↓ | 1425 | ↓ | | | | | | | | | | ↓ | | | ↓ | ↓ | |
| 3 | SEP-FL01 @ 6' | ↓ | 1445 | ↓ | | | | | | | | | | ↓ | | | ↓ | ↓ | |
| 4 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|--|-------------------------|--|----------------------------|---|--------|
| Relinquished by:  | Date/Time: 1/28/21 1810 | Received by:  | Date/Time: 01/28/2021 1810 | Turn Around Time (Check) Same Day _____ 72 hours 24 hours _____ Standard <input checked="" type="checkbox"/> 48 hours _____ Sample Integrity: Temperature Upon Receipt: 3.5 Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No | Notes: |
| Relinquished by: Tasman's Lock Box | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Sample Receipt Checklist

S2 Work Order 2101291

Client: POC/TASMAN Client Project ID: OWL CREEK 7, 7-5

Shipped Via (H.D.) /P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): _____ Air X Soil/Solid _____ Water _____ Other: _____
(Describe)

| | |
|-----------|------------|
| Temp (°C) | <u>3.5</u> |
|-----------|------------|

Thermometer ID: 61857155-K

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

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

BB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

01/28/2021
Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/05/21 15:17

AST01@0-6"
2101291-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/28/21 14:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0044 | 02/03/21 | 02/03/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.010 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 14:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 115 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.9 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/28/21 14:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|------------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | 770 | 50 | mg/kg | 1 | BEB0045 | " | 02/04/21 | EPA 8015M | |
| C28-C36 (ORO) | 380 | 50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 14:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 95.9 % | 30-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/05/21 15:17

SEP-DL01@6'
2101291-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/28/21 14:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0044 | 02/03/21 | 02/04/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.010 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 14:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 138 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 104 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 100 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/28/21 14:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0045 | " | 02/04/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 14:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 91.8 % | 30-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/05/21 15:17

SEP-FL01@6'
2101291-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **01/28/21 14:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0044 | 02/03/21 | 02/04/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.010 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 14:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 132 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 105 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **01/28/21 14:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0045 | " | 02/04/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **01/28/21 14:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 89.8 % | 30-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/05/21 15:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEB0044 - EPA 5030 Soil MS

Blank (BEB0044-BLK1)

Prepared & Analyzed: 02/03/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| Naphthalene | ND | 0.010 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0509 | | " | 0.0400 | | 127 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0418 | | " | 0.0400 | | 104 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0380 | | " | 0.0400 | | 94.9 | 21-167 | | | |

LCS (BEB0044-BS1)

Prepared & Analyzed: 02/03/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.0714 | 0.0020 | mg/kg | 0.100 | | 71.4 | 70-130 | | | |
| Toluene | 0.0774 | 0.0050 | " | 0.100 | | 77.4 | 70-130 | | | |
| Ethylbenzene | 0.0871 | 0.0050 | " | 0.100 | | 87.1 | 70-130 | | | |
| m,p-Xylene | 0.167 | 0.010 | " | 0.200 | | 83.4 | 70-130 | | | |
| o-Xylene | 0.0854 | 0.0050 | " | 0.100 | | 85.4 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0391 | | " | 0.0400 | | 97.8 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0402 | | " | 0.0400 | | 100 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0405 | | " | 0.0400 | | 101 | 21-167 | | | |

Matrix Spike (BEB0044-MS1)

Source: 2101291-01

Prepared & Analyzed: 02/03/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.0778 | 0.0020 | mg/kg | 0.100 | ND | 77.8 | 70-130 | | | |
| Toluene | 0.0831 | 0.0050 | " | 0.100 | ND | 83.1 | 70-130 | | | |
| Ethylbenzene | 0.0963 | 0.0050 | " | 0.100 | ND | 96.3 | 70-130 | | | |
| m,p-Xylene | 0.181 | 0.010 | " | 0.200 | ND | 90.6 | 70-130 | | | |
| o-Xylene | 0.0910 | 0.0050 | " | 0.100 | ND | 91.0 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0404 | | " | 0.0400 | | 101 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0382 | | " | 0.0400 | | 95.4 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0390 | | " | 0.0400 | | 97.5 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/05/21 15:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEB0044 - EPA 5030 Soil MS

| Matrix Spike Dup (BEB0044-MSD1) | Source: 2101291-01 | | | Prepared & Analyzed: 02/03/21 | | | | | | |
|----------------------------------|--------------------|--------|-------|-------------------------------|----|------|--------|------|----|--|
| Benzene | 0.0732 | 0.0020 | mg/kg | 0.100 | ND | 73.2 | 70-130 | 6.00 | 30 | |
| Toluene | 0.0762 | 0.0050 | " | 0.100 | ND | 76.2 | 70-130 | 8.59 | 30 | |
| Ethylbenzene | 0.0917 | 0.0050 | " | 0.100 | ND | 91.7 | 70-130 | 4.88 | 30 | |
| m,p-Xylene | 0.172 | 0.010 | " | 0.200 | ND | 86.0 | 70-130 | 5.13 | 30 | |
| o-Xylene | 0.0879 | 0.0050 | " | 0.100 | ND | 87.9 | 70-130 | 3.45 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0381 | | " | 0.0400 | | 95.2 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0369 | | " | 0.0400 | | 92.2 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0381 | | " | 0.0400 | | 95.2 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/05/21 15:17

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0045 - EPA 3550A

Blank (BEB0045-BLK1)

Prepared: 02/03/21 Analyzed: 02/04/21

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

LCS (BEB0045-BS1)

Prepared: 02/03/21 Analyzed: 02/04/21

| | | | | | | | | | | | |
|---------------|-----|----|-------|-----|-----|------|--------|--|--|--|--|
| C10-C28 (DRO) | 475 | 50 | mg/kg | 500 | 771 | 95.1 | 70-130 | | | | |
|---------------|-----|----|-------|-----|-----|------|--------|--|--|--|--|

Matrix Spike (BEB0045-MS1)

Source: 2101291-01

Prepared: 02/03/21 Analyzed: 02/04/21

| | | | | | | | | | | | |
|---------------|-----|----|-------|-----|-----|----|--------|--|--|--|-------|
| C10-C28 (DRO) | 768 | 50 | mg/kg | 500 | 771 | NR | 70-130 | | | | QM-07 |
|---------------|-----|----|-------|-----|-----|----|--------|--|--|--|-------|

Matrix Spike Dup (BEB0045-MSD1)

Source: 2101291-01

Prepared: 02/03/21 Analyzed: 02/04/21

| | | | | | | | | | | | |
|---------------|-----|----|-------|-----|-----|------|--------|------|----|--|-------|
| C10-C28 (DRO) | 857 | 50 | mg/kg | 500 | 771 | 17.1 | 70-130 | 10.9 | 20 | | QM-07 |
|---------------|-----|----|-------|-----|-----|------|--------|------|----|--|-------|

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/05/21 15:17

Notes and Definitions

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

February 25, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2101305

Enclosed are the results of analyses for samples received by Summit Scientific on 01/29/21 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized initial "M".

Muri Premer For Paul Shrewsbury
President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/25/21 11:35

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|--------------|---------------|--------|----------------|----------------|
| BCKG-TB@2.5' | 2101305-01 | Soil | 01/29/21 14:03 | 01/29/21 16:00 |

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.

2101305

Sample Receipt Checklist

S2 Work Order _____

Client: POC/TARMAN Client Project ID: BOWL CREEK 7, 7.5

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

Matrix (check all that apply): Air Soil/Solid Water Other: _____ (Describe)

| | |
|-----------|-----|
| Temp (°C) | 5.2 |
|-----------|-----|

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

TJ
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

01/29/2001
Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/25/21 11:35

BCKG-TB@2.5'
2101305-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------|-------------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Arsenic | 2.78 | 0.240 | mg/kg dry | 1 | BEB0340 | 02/23/21 | 02/24/21 | EPA 6020B | |
| Barium | 82.0 | 0.480 | " | " | " | " | " | " | |
| Boron | ND | 0.0100 | mg/L | " | BEB0334 | 02/23/21 | 02/24/21 | " | |
| Cadmium | ND | 0.240 | mg/kg dry | " | BEB0340 | 02/23/21 | 02/24/21 | " | |
| Copper | 5.45 | 0.480 | " | " | " | " | " | " | |
| Lead | 5.90 | 0.240 | " | " | " | " | " | " | |
| Nickel | 5.87 | 0.480 | " | " | " | " | " | " | |
| Selenium | 1.63 | 0.312 | " | " | " | " | " | " | |
| Silver | ND | 0.0240 | " | " | " | " | " | " | |
| Zinc | 25.8 | 0.480 | " | " | " | " | " | " | |

Hexavalent Chromium by EPA Method 7196

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------|--------|-----------|-----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Chromium, Hexavalent | ND | 0.30 | mg/kg dry | 1 | BEB0333 | 02/23/21 | 02/24/21 | EPA 7196A | |

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

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------|-------------|-----------|----------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Calcium | 69.3 | 0.0600 | mg/L dry | 1 | BEB0326 | 02/22/21 | 02/24/21 | EPA 6020B | |
| Magnesium | 30.1 | 0.0600 | " | " | " | " | " | " | |
| Sodium | 63.8 | 0.0600 | " | " | " | " | " | " | |

Calculated Analysis

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--------------------------------|-------------|-----------|-------|----------|---------|----------|----------|-------------|-------|
| | | Limit | Units | | | | | | |
| Sodium Adsorption Ratio | 1.61 | 0.100 | units | 1 | BEB0366 | 02/24/21 | 02/24/21 | Calculation | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

BCKG-TB@2.5'
2101305-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------|--------|-----------------|-------|----------|---------|----------|----------|-------------|-------|
| % Solids | 83.4 | | % | 1 | BEB0356 | 02/24/21 | 02/24/21 | Calculation | |

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| Specific Conductance (EC) | 0.744 | 0.0100 | mmhos/cm | 1 | BEB0345 | 02/23/21 | 02/23/21 | EPA 120.1 | |

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

Date Sampled: **01/29/21 14:03**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------|--------|-----------------|----------|----------|---------|----------|----------|-----------|-------|
| pH | 8.50 | | pH Units | 1 | BEB0346 | 02/23/21 | 02/23/21 | EPA 9045D | |

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/25/21 11:35

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

Summit Scientific

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

Batch BEB0334 - EPA 3050B

Blank (BEB0334-BLK1)

Prepared: 02/23/21 Analyzed: 02/24/21

Boron ND 0.0100 mg/L

LCS (BEB0334-BS1)

Prepared: 02/23/21 Analyzed: 02/24/21

Boron 4.18 0.0100 mg/L 5.00 83.5 80-120

Duplicate (BEB0334-DUP1)

Source: 2102219-01

Prepared: 02/23/21 Analyzed: 02/24/21

Boron 0.0544 0.0100 mg/L 0.0532 2.08 20

Matrix Spike (BEB0334-MS1)

Source: 2102219-01

Prepared: 02/23/21 Analyzed: 02/24/21

Boron 4.25 0.0100 mg/L 5.00 0.0532 84.0 75-125

Matrix Spike Dup (BEB0334-MSD1)

Source: 2102219-01

Prepared: 02/23/21 Analyzed: 02/24/21

Boron 4.07 0.0100 mg/L 5.00 0.0532 80.4 75-125 4.29 25

Batch BEB0340 - EPA 3050B

Blank (BEB0340-BLK1)

Prepared: 02/23/21 Analyzed: 02/24/21

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

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/25/21 11:35

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

Summit Scientific

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

Batch BEB0340 - EPA 3050B

LCS (BEB0340-BS1)

Prepared: 02/23/21 Analyzed: 02/24/21

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--|------|--------|--|--|--|
| Arsenic | 37.9 | 0.200 | mg/kg wet | 40.0 | | 94.8 | 80-120 | | | |
| Barium | 36.0 | 0.400 | " | 40.0 | | 90.1 | 80-120 | | | |
| Cadmium | 1.85 | 0.200 | " | 2.00 | | 92.4 | 80-120 | | | |
| Copper | 35.7 | 0.400 | " | 40.0 | | 89.4 | 80-120 | | | |
| Lead | 18.2 | 0.200 | " | 20.0 | | 91.2 | 80-120 | | | |
| Nickel | 35.3 | 0.400 | " | 40.0 | | 88.3 | 80-120 | | | |
| Selenium | 4.37 | 0.260 | " | 4.00 | | 109 | 80-120 | | | |
| Silver | 1.80 | 0.0200 | " | 2.00 | | 90.1 | 80-120 | | | |
| Zinc | 37.4 | 0.400 | " | 40.0 | | 93.4 | 80-120 | | | |

Duplicate (BEB0340-DUP1)

Source: 2101298-03

Prepared: 02/23/21 Analyzed: 02/24/21

| | | | | | | | | | | |
|----------|--------|--------|-----------|--|--------|--|--|------|----|--|
| Arsenic | 3.42 | 0.231 | mg/kg dry | | 3.82 | | | 11.0 | 30 | |
| Barium | 85.6 | 0.462 | " | | 68.2 | | | 22.6 | 30 | |
| Cadmium | 0.189 | 0.231 | " | | 0.195 | | | 3.09 | 30 | |
| Copper | 7.07 | 0.462 | " | | 8.16 | | | 14.3 | 30 | |
| Lead | 6.35 | 0.231 | " | | 7.54 | | | 17.1 | 30 | |
| Nickel | 7.36 | 0.462 | " | | 8.39 | | | 13.1 | 30 | |
| Selenium | 1.37 | 0.300 | " | | 1.73 | | | 23.3 | 30 | |
| Silver | 0.0331 | 0.0231 | " | | 0.0322 | | | 2.82 | 30 | |
| Zinc | 29.1 | 0.462 | " | | 36.8 | | | 23.2 | 30 | |

Matrix Spike (BEB0340-MS1)

Source: 2101298-03

Prepared: 02/23/21 Analyzed: 02/24/21

| | | | | | | | | | | |
|----------|------|--------|-----------|------|--------|------|--------|--|--|--|
| Arsenic | 44.9 | 0.231 | mg/kg dry | 46.2 | 3.82 | 89.0 | 75-125 | | | |
| Barium | 121 | 0.462 | " | 46.2 | 68.2 | 115 | 75-125 | | | |
| Cadmium | 2.11 | 0.231 | " | 2.31 | 0.195 | 82.8 | 75-125 | | | |
| Copper | 47.5 | 0.462 | " | 46.2 | 8.16 | 85.2 | 75-125 | | | |
| Lead | 27.3 | 0.231 | " | 23.1 | 7.54 | 85.6 | 75-125 | | | |
| Nickel | 47.7 | 0.462 | " | 46.2 | 8.39 | 85.1 | 75-125 | | | |
| Selenium | 5.20 | 0.300 | " | 4.62 | 1.73 | 75.1 | 75-125 | | | |
| Silver | 1.88 | 0.0231 | " | 2.31 | 0.0322 | 80.3 | 75-125 | | | |
| Zinc | 77.6 | 0.462 | " | 46.2 | 36.8 | 88.5 | 75-125 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

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

Summit Scientific

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

Batch BEB0340 - EPA 3050B

| Matrix Spike Dup (BEB0340-MSD1) | Source: 2101298-03 | | | Prepared: 02/23/21 Analyzed: 02/24/21 | | | | | |
|---------------------------------|--------------------|--------|-----------|---------------------------------------|--------|------|--------|-------|----|
| Arsenic | 48.7 | 0.231 | mg/kg dry | 46.2 | 3.82 | 97.3 | 75-125 | 8.20 | 25 |
| Barium | 120 | 0.462 | " | 46.2 | 68.2 | 113 | 75-125 | 0.757 | 25 |
| Cadmium | 2.35 | 0.231 | " | 2.31 | 0.195 | 93.5 | 75-125 | 11.1 | 25 |
| Copper | 56.6 | 0.462 | " | 46.2 | 8.16 | 105 | 75-125 | 17.6 | 25 |
| Lead | 26.2 | 0.231 | " | 23.1 | 7.54 | 80.9 | 75-125 | 4.02 | 25 |
| Nickel | 52.6 | 0.462 | " | 46.2 | 8.39 | 95.8 | 75-125 | 9.81 | 25 |
| Selenium | 5.91 | 0.300 | " | 4.62 | 1.73 | 90.5 | 75-125 | 12.7 | 25 |
| Silver | 2.17 | 0.0231 | " | 2.31 | 0.0322 | 92.8 | 75-125 | 14.2 | 25 |
| Zinc | 81.7 | 0.462 | " | 46.2 | 36.8 | 97.3 | 75-125 | 5.14 | 25 |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BEB0333 - 3060A Mod

Blank (BEB0333-BLK1)

Prepared: 02/23/21 Analyzed: 02/24/21

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BEB0333-BS1)

Prepared: 02/23/21 Analyzed: 02/24/21

Chromium, Hexavalent 23.0 0.30 mg/kg wet 25.0 91.8 80-120

Duplicate (BEB0333-DUP1)

Source: 2101298-03

Prepared: 02/23/21 Analyzed: 02/24/21

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BEB0333-MS1)

Source: 2101298-03

Prepared: 02/23/21 Analyzed: 02/24/21

Chromium, Hexavalent 26.2 0.30 mg/kg dry 28.8 ND 91.0 75-125

Matrix Spike Dup (BEB0333-MSD1)

Source: 2101298-03

Prepared: 02/23/21 Analyzed: 02/24/21

Chromium, Hexavalent 26.1 0.30 mg/kg dry 28.8 ND 90.6 75-125 0.441 20

Summit Scientific

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





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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

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

Summit Scientific

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

Batch BEB0326 - General Preparation

Blank (BEB0326-BLK1)

Prepared: 02/22/21 Analyzed: 02/24/21

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

LCS (BEB0326-BS1)

Prepared: 02/22/21 Analyzed: 02/24/21

| | | | | | | |
|-----------|------|--------|----------|------|------|--------|
| Calcium | 3.83 | 0.0500 | mg/L wet | 5.00 | 76.6 | 70-130 |
| Magnesium | 5.30 | 0.0500 | " | 5.00 | 106 | 70-130 |
| Sodium | 4.95 | 0.0500 | " | 5.00 | 99.0 | 70-130 |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

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

Summit Scientific

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

Batch BEB0356 - General Preparation

Duplicate (BEB0356-DUP1)

Source: 2101305-01

Prepared & Analyzed: 02/24/21

| | | | | | | | | | | | |
|----------|------|--|---|--|------|--|--|-------|--|----|--|
| % Solids | 83.6 | | % | | 83.4 | | | 0.234 | | 20 | |
|----------|------|--|---|--|------|--|--|-------|--|----|--|

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

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

Summit Scientific

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

Batch BEB0345 - General Preparation

Blank (BEB0345-BLK1)

Prepared & Analyzed: 02/23/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEB0345-BS1)

Prepared & Analyzed: 02/23/21

Specific Conductance (EC) 0.147 0.0100 mmhos/cm 0.150 98.1 90-110

Duplicate (BEB0345-DUP1)

Source: 2101305-01

Prepared & Analyzed: 02/23/21

Specific Conductance (EC) 0.735 0.0100 mmhos/cm 0.744 1.20 20

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 02/25/21 11:35

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 BEB0346 - General Preparation

LCS (BEB0346-BS1)

Prepared & Analyzed: 02/23/21

| | | | | | |
|----|------|----------|------|-----|--------|
| pH | 9.23 | pH Units | 9.21 | 100 | 95-105 |
|----|------|----------|------|-----|--------|

Duplicate (BEB0346-DUP1)

Source: 2101305-01

Prepared & Analyzed: 02/23/21

| | | | | | |
|----|------|----------|------|-------|----|
| pH | 8.51 | pH Units | 8.50 | 0.118 | 20 |
|----|------|----------|------|-------|----|

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/25/21 11:35

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

March 02, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

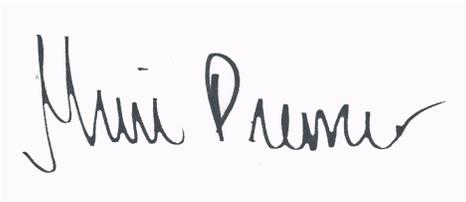
Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2102205

Enclosed are the results of analyses for samples received by Summit Scientific on 02/16/21 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized initial 'M'.

Muri Premer For Paul Shrewsbury
President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| SS01@7' | 2102205-01 | Soil | 02/16/21 11:00 | 02/16/21 16:30 |
| SS02@3' | 2102205-02 | Soil | 02/16/21 11:05 | 02/16/21 16:30 |
| SS03@5' | 2102205-03 | Soil | 02/16/21 11:07 | 02/16/21 16:30 |
| SS04@3' | 2102205-04 | Soil | 02/16/21 11:15 | 02/16/21 16:30 |
| SS05@5' | 2102205-05 | Soil | 02/16/21 11:17 | 02/16/21 16:30 |
| SS06@3' | 2102205-06 | Soil | 02/16/21 11:25 | 02/16/21 16:30 |
| SS07@5' | 2102205-07 | Soil | 02/16/21 11:27 | 02/16/21 16:30 |
| SS08@7' | 2102205-08 | Soil | 02/16/21 15:00 | 02/16/21 16:30 |
| SS09@3' | 2102205-09 | Soil | 02/16/21 15:05 | 02/16/21 16:30 |
| SS10@5' | 2102205-10 | Soil | 02/16/21 15:10 | 02/16/21 16:30 |

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

S₂

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

Client: PDC/Tasman

Project Manager: Mark Longhurst

Address:

E-Mail:

City/State/Zip:

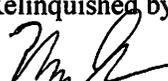
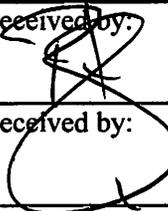
Phone:

Project Name: Owl Creek 7, 7-5

Sampler Name: Max Dahlgren

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 | GPTECH N-8260B | TPH (16-C36) | | | | | | | |
| 1 | SS01 @ 7' | 2/16/21 | 1100 | 2 | | | X | | | X | | | | X | X | | | | | | Additional analysis may be required pending results of full 915 analysis of sample provided from this location. |
| 2 | SS02 @ 3' | | 1105 | | | | | | | | | | | | | | | | | | |
| 3 | SS03 @ 5' | | 1107 | | | | | | | | | | | | | | | | | | |
| 4 | SS04 @ 3' | | 1115 | | | | | | | | | | | | | | | | | | |
| 5 | SS05 @ 5' | | 1117 | | | | | | | | | | | | | | | | | | |
| 6 | SS06 @ 3' | | 1125 | | | | | | | | | | | | | | | | | | |
| 7 | SS07 @ 5' | | 1127 | | | | | | | | | | | | | | | | | | |
| 8 | SS08 @ 7' | | 1500 | | | | | | | | | | | | | | | | | | |
| 9 | SS09 @ 3' | | 1505 | | | | | | | | | | | | | | | | | | |
| 10 | SS10 @ 5' | | 1510 | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|-------------------------|--|----------------------------|--|--------|
| Relinquished by:  | Date/Time: 2/16/21 1630 | Received by:  | Date/Time: 02/16/2021 1630 | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: 3.8 Samples Intact: <input checked="" type="checkbox"/> Yes No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Sample Receipt Checklist

S2 Work Order 2102205

Client: DOC/TASMAN Client Project ID: Owl Creek 7-7-5

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

Matrix (check all that apply): Air Soil/Solid Water Other: _____
(Describe)

| | |
|-----------|------------|
| Temp (°C) | <u>3.8</u> |
|-----------|------------|

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

Custodian Printed Name or Initials

Signature of Custodian

02/16/2021
Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS01@7'
2102205-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 116 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 86.8 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 92.3 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 73.0 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS01@7'
2102205-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 50.2 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 49.7 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS02@3'
2102205-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 123 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 96.3 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 79.8 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS02@3'
2102205-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 49.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.1 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS03@5'
2102205-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:07**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:07**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 113 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 96.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 94.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:07**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:07**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 80.9 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS03@5'
2102205-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:07**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:07**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 54.8 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 52.5 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS04@3'
2102205-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 126 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 88.3 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS04@3'
2102205-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:15**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:15**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 54.9 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 51.8 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS05@5'
2102205-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:17**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:17**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 115 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 108 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:17**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:17**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 83.7 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS05@5'
2102205-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:17**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:17**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 51.8 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.9 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS06@3'
2102205-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 107 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 109 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 104 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:25**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 81.5 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS06@3'
2102205-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 55.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 53.1 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS07@5'
2102205-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 11:27**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:27**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 107 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.3 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 11:27**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:27**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 82.7 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS07@5'
2102205-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 11:27**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/16/21 11:27**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 56.4 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 53.8 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS08@7'
2102205-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 15:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 100 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 15:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 96.6 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS08@7'
2102205-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 15:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 58.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 54.2 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS09@3'
2102205-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 15:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 109 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.4 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 15:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 96.2 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS09@3'
2102205-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 15:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 51.8 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 52.5 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

SS10@5'
2102205-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/16/21 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0247 | 02/16/21 | 02/16/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 110 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.1 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.4 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/16/21 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0249 | 02/16/21 | 02/16/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 90.9 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

SS10@5'
2102205-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/16/21 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0361 | 02/24/21 | 02/25/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/16/21 15:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 53.1 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.0 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

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 BEB0247 - EPA 5030 Soil MS

Blank (BEB0247-BLK1)

Prepared & Analyzed: 02/16/21

| | | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0354 | | " | 0.0400 | | 88.4 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0489 | | " | 0.0400 | | 122 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0408 | | " | 0.0400 | | 102 | 21-167 | | | | |

LCS (BEB0247-BS1)

Prepared & Analyzed: 02/16/21

| | | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|--|
| Benzene | 0.0772 | 0.0020 | mg/kg | 0.100 | | 77.2 | 70-130 | | | | |
| Toluene | 0.0919 | 0.0050 | " | 0.100 | | 91.9 | 70-130 | | | | |
| Ethylbenzene | 0.0935 | 0.0050 | " | 0.100 | | 93.5 | 70-130 | | | | |
| m,p-Xylene | 0.183 | 0.010 | " | 0.200 | | 91.5 | 70-130 | | | | |
| o-Xylene | 0.0913 | 0.0050 | " | 0.100 | | 91.3 | 70-130 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0347 | | " | 0.0400 | | 86.7 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0416 | | " | 0.0400 | | 104 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0391 | | " | 0.0400 | | 97.6 | 21-167 | | | | |

Matrix Spike (BEB0247-MS1)

Source: 2102205-01

Prepared & Analyzed: 02/16/21

| | | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|--|
| Benzene | 0.0713 | 0.0020 | mg/kg | 0.100 | ND | 71.3 | 70-130 | | | | |
| Toluene | 0.0790 | 0.0050 | " | 0.100 | ND | 79.0 | 70-130 | | | | |
| Ethylbenzene | 0.0909 | 0.0050 | " | 0.100 | ND | 90.9 | 70-130 | | | | |
| m,p-Xylene | 0.173 | 0.010 | " | 0.200 | ND | 86.7 | 70-130 | | | | |
| o-Xylene | 0.0865 | 0.0050 | " | 0.100 | ND | 86.5 | 70-130 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0332 | | " | 0.0400 | | 82.9 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0383 | | " | 0.0400 | | 95.7 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0368 | | " | 0.0400 | | 92.0 | 21-167 | | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

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 BEB0247 - EPA 5030 Soil MS

| Matrix Spike Dup (BEB0247-MSD1) | Source: 2102205-01 | | | Prepared & Analyzed: 02/16/21 | | | | | | |
|----------------------------------|--------------------|--------|-------|-------------------------------|----|------|--------|-------|----|--|
| Benzene | 0.0713 | 0.0020 | mg/kg | 0.100 | ND | 71.3 | 70-130 | 0.00 | 30 | |
| Toluene | 0.0795 | 0.0050 | " | 0.100 | ND | 79.5 | 70-130 | 0.606 | 30 | |
| Ethylbenzene | 0.0905 | 0.0050 | " | 0.100 | ND | 90.5 | 70-130 | 0.463 | 30 | |
| m,p-Xylene | 0.174 | 0.010 | " | 0.200 | ND | 87.0 | 70-130 | 0.380 | 30 | |
| o-Xylene | 0.0867 | 0.0050 | " | 0.100 | ND | 86.7 | 70-130 | 0.312 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0341 | | " | 0.0400 | | 85.3 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0388 | | " | 0.0400 | | 97.1 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0381 | | " | 0.0400 | | 95.3 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/02/21 09:46

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0249 - EPA 3550A

Blank (BEB0249-BLK1)

Prepared: 02/16/21 Analyzed: 02/17/21

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

LCS (BEB0249-BS1)

Prepared: 02/16/21 Analyzed: 02/17/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|
| C10-C28 (DRO) | 471 | 50 | mg/kg | 500 | 94.2 | 70-130 | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|

Matrix Spike (BEB0249-MS1)

Source: 2102205-01

Prepared: 02/16/21 Analyzed: 02/17/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|--|--|--|
| C10-C28 (DRO) | 455 | 50 | mg/kg | 500 | 15.9 | 87.8 | 70-130 | | | |
|---------------|-----|----|-------|-----|------|------|--------|--|--|--|

Matrix Spike Dup (BEB0249-MSD1)

Source: 2102205-01

Prepared: 02/16/21 Analyzed: 02/17/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|
| C10-C28 (DRO) | 393 | 50 | mg/kg | 500 | 15.9 | 75.4 | 70-130 | 14.6 | 20 | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0361 - EPA 5030 Soil MS

Blank (BEB0361-BLK1)

Prepared: 02/24/21 Analyzed: 02/25/21

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0162 | | " | 0.0333 | | 48.5 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0161 | | " | 0.0333 | | 48.2 | 40-150 | | | |

LCS (BEB0361-BS1)

Prepared: 02/24/21 Analyzed: 02/25/21

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Acenaphthene | 0.0261 | 0.00500 | mg/kg | 0.0333 | | 78.4 | 31-137 | | | |
| Anthracene | 0.0265 | 0.00500 | " | 0.0333 | | 79.5 | 30-120 | | | |
| Benzo (a) anthracene | 0.0263 | 0.00500 | " | 0.0333 | | 78.9 | 30-120 | | | |
| Benzo (a) pyrene | 0.0263 | 0.00500 | " | 0.0333 | | 78.8 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0298 | 0.00500 | " | 0.0333 | | 89.3 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0266 | 0.00500 | " | 0.0333 | | 79.8 | 30-120 | | | |
| Chrysene | 0.0258 | 0.00500 | " | 0.0333 | | 77.5 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0224 | 0.00500 | " | 0.0333 | | 67.3 | 30-120 | | | |
| Fluoranthene | 0.0223 | 0.00500 | " | 0.0333 | | 67.0 | 30-120 | | | |
| Fluorene | 0.0262 | 0.00500 | " | 0.0333 | | 78.5 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0208 | 0.00500 | " | 0.0333 | | 62.5 | 30-120 | | | |
| Pyrene | 0.0206 | 0.00500 | " | 0.0333 | | 61.7 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0226 | 0.00500 | " | 0.0333 | | 67.8 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0232 | 0.00500 | " | 0.0333 | | 69.6 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0288 | | " | 0.0333 | | 86.5 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0313 | | " | 0.0333 | | 93.9 | 40-150 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0361 - EPA 5030 Soil MS

| Matrix Spike (BEB0361-MS1) | Source: 2102205-01 | | | Prepared: 02/24/21 Analyzed: 02/25/21 | | | | | |
|---|---------------------------|---------|-------|---------------------------------------|----|-------------|---------------|--|--|
| Acenaphthene | 0.0262 | 0.00500 | mg/kg | 0.0333 | ND | 78.7 | 31-137 | | |
| Anthracene | 0.0258 | 0.00500 | " | 0.0333 | ND | 77.3 | 30-120 | | |
| Benzo (a) anthracene | 0.0249 | 0.00500 | " | 0.0333 | ND | 74.8 | 30-120 | | |
| Benzo (a) pyrene | 0.0248 | 0.00500 | " | 0.0333 | ND | 74.5 | 30-120 | | |
| Benzo (b) fluoranthene | 0.0281 | 0.00500 | " | 0.0333 | ND | 84.2 | 30-120 | | |
| Benzo (k) fluoranthene | 0.0256 | 0.00500 | " | 0.0333 | ND | 76.9 | 30-120 | | |
| Chrysene | 0.0243 | 0.00500 | " | 0.0333 | ND | 73.0 | 30-120 | | |
| Dibenz (a,h) anthracene | 0.0207 | 0.00500 | " | 0.0333 | ND | 62.1 | 30-120 | | |
| Fluoranthene | 0.0213 | 0.00500 | " | 0.0333 | ND | 64.0 | 30-120 | | |
| Fluorene | 0.0265 | 0.00500 | " | 0.0333 | ND | 79.6 | 30-120 | | |
| Indeno (1,2,3-cd) pyrene | 0.0195 | 0.00500 | " | 0.0333 | ND | 58.5 | 30-120 | | |
| Pyrene | 0.0190 | 0.00500 | " | 0.0333 | ND | 57.1 | 35-142 | | |
| 1-Methylnaphthalene | 0.0248 | 0.00500 | " | 0.0333 | ND | 74.3 | 15-130 | | |
| 2-Methylnaphthalene | 0.0235 | 0.00500 | " | 0.0333 | ND | 70.6 | 15-130 | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0286</i> | | " | <i>0.0333</i> | | <i>85.8</i> | <i>40-150</i> | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0288</i> | | " | <i>0.0333</i> | | <i>86.5</i> | <i>40-150</i> | | |

| Matrix Spike Dup (BEB0361-MSD1) | Source: 2102205-01 | | | Prepared: 02/24/21 Analyzed: 02/25/21 | | | | | |
|---|---------------------------|---------|-------|---------------------------------------|----|-------------|---------------|-------|----|
| Acenaphthene | 0.0268 | 0.00500 | mg/kg | 0.0333 | ND | 80.4 | 31-137 | 2.21 | 30 |
| Anthracene | 0.0267 | 0.00500 | " | 0.0333 | ND | 80.1 | 30-120 | 3.53 | 30 |
| Benzo (a) anthracene | 0.0262 | 0.00500 | " | 0.0333 | ND | 78.7 | 30-120 | 5.13 | 30 |
| Benzo (a) pyrene | 0.0275 | 0.00500 | " | 0.0333 | ND | 82.5 | 30-120 | 10.1 | 30 |
| Benzo (b) fluoranthene | 0.0303 | 0.00500 | " | 0.0333 | ND | 91.0 | 30-120 | 7.68 | 30 |
| Benzo (k) fluoranthene | 0.0273 | 0.00500 | " | 0.0333 | ND | 81.8 | 30-120 | 6.22 | 30 |
| Chrysene | 0.0258 | 0.00500 | " | 0.0333 | ND | 77.5 | 30-120 | 5.94 | 30 |
| Dibenz (a,h) anthracene | 0.0221 | 0.00500 | " | 0.0333 | ND | 66.2 | 30-120 | 6.38 | 30 |
| Fluoranthene | 0.0223 | 0.00500 | " | 0.0333 | ND | 67.0 | 30-120 | 4.58 | 30 |
| Fluorene | 0.0272 | 0.00500 | " | 0.0333 | ND | 81.6 | 30-120 | 2.47 | 30 |
| Indeno (1,2,3-cd) pyrene | 0.0207 | 0.00500 | " | 0.0333 | ND | 62.1 | 30-120 | 6.11 | 30 |
| Pyrene | 0.0199 | 0.00500 | " | 0.0333 | ND | 59.8 | 35-142 | 4.74 | 30 |
| 1-Methylnaphthalene | 0.0232 | 0.00500 | " | 0.0333 | ND | 69.5 | 15-130 | 6.59 | 50 |
| 2-Methylnaphthalene | 0.0237 | 0.00500 | " | 0.0333 | ND | 71.0 | 15-130 | 0.582 | 50 |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0283</i> | | " | <i>0.0333</i> | | <i>84.9</i> | <i>40-150</i> | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0305</i> | | " | <i>0.0333</i> | | <i>91.6</i> | <i>40-150</i> | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/02/21 09:46

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

March 12, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2102215

Enclosed are the results of analyses for samples received by Summit Scientific on 02/17/21 17:01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized initial "M".

Muri Premer For Paul Shrewsbury
President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| SS11@3' | 2102215-01 | Soil | 02/17/21 08:15 | 02/17/21 17:01 |
| SS12@5' | 2102215-02 | Soil | 02/17/21 08:20 | 02/17/21 17:01 |
| SS13@3' | 2102215-03 | Soil | 02/17/21 08:25 | 02/17/21 17:01 |
| SS14@5' | 2102215-04 | Soil | 02/17/21 08:30 | 02/17/21 17:01 |
| SS15@7' | 2102215-05 | Soil | 02/17/21 08:35 | 02/17/21 17:01 |
| SS16@7' | 2102215-06 | Soil | 02/17/21 08:40 | 02/17/21 17:01 |
| SS17@3' | 2102215-07 | Soil | 02/17/21 11:30 | 02/17/21 17:01 |
| SS18@6' | 2102215-08 | Soil | 02/17/21 11:35 | 02/17/21 17:01 |
| SS19@7' | 2102215-09 | Soil | 02/17/21 11:50 | 02/17/21 17:01 |
| SS20@3' | 2102215-10 | Soil | 02/17/21 12:40 | 02/17/21 17:01 |
| SS21@6' | 2102215-11 | Soil | 02/17/21 12:45 | 02/17/21 17:01 |
| SS22@7' | 2102215-12 | Soil | 02/17/21 12:50 | 02/17/21 17:01 |

Summit Scientific

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Summit Scientific

S₂

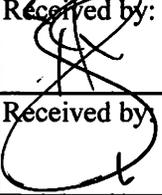
2102215.1

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

Page 1 of 2

Client: PDC / Tasman Project Manager: Mark Longhurst
 Address: _____ E-Mail: _____
 City/State/Zip: _____
 Phone: 970 481 6909 Project Name: Owl Creek 7, 7-5
 Sampler Name: Max Dahlgren 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 | GB/EAN -910 | TPH (66-036) | | | | | |
| 1 | SS11 @ 3' | 2/17/21 | 815 | 2 | | | X | | | X | | | X | X | | | | | |
| 2 | SS12 @ 5' | | 820 | | | | | | | | | | | | | | | | |
| 3 | SS13 @ 3' | | 825 | | | | | | | | | | | | | | | | |
| 4 | SS14 @ 5' | | 830 | | | | | | | | | | | | | | | | |
| 5 | SS15 @ 7' | | 835 | | | | | | | | | | | | | | | | |
| 6 | SS16 @ 7' | | 840 | | | | | | | | | | | | | | | | |
| 7 | SS17 @ 3' | | 1130 | | | | | | | | | | | | | | | | |
| 8 | SS18 @ 6' | | 1135 | | | | | | | | | | | | | | | | |
| 9 | SS19 @ 7' | | 1150 | | | | | | | | | | | | | | | | |
| 10 | SS20 @ 3' | | 1240 | | | | | | | | | | | | | | | | |

| | | | | | |
|---|-------------------------|--|----------------------------|--|---------------|
| Relinquished by:  | Date/Time: 2/17/21 1500 | Received by:  | Date/Time: 02/17/2021 1800 | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: <u>3.4</u> Samples Intact: <input checked="" type="radio"/> Yes No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Summit Scientific

S₂

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

Client: PAC / Tasman Project Manager: Mark Longhurst
 Address: _____ E-Mail: _____
 City/State/Zip: _____
 Phone: 970 481 6909 Project Name: Owl Creek 7, 7-5
 Sampler Name: Max Dahlgren 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 | GBEKN-910 | TPH (6-036) | | | | |
| 1 | 5521 @ 6' | 2/17/21 | 1245 | 2 | | | X | | | X | | | | X | X | | | |
| 2 | 5522 @ 7' | 2/17/21 | 1250 | 2 | | | X | | | X | | | | X | X | | | |
| 3 | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | |

| | | | | | |
|-------------------------------------|--------------------------------|---------------------------------|-----------------------------------|---|--------|
| Relinquished by: <u>[Signature]</u> | Date/Time: <u>2/17/21 1500</u> | Received by: <u>[Signature]</u> | Date/Time: <u>02/17/2021 1500</u> | Turn Around Time (Check) | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Same Day <input checked="" type="checkbox"/> 72 hours | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 24 hours <input type="checkbox"/> Standard | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | 48 hours <input type="checkbox"/> | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Sample Integrity: <u>S.F.</u> | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Temperature Upon Receipt: <u>[Signature]</u> | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No | |

Sample Receipt Checklist

S2 Work Order 2102215

Client: POC/TISMAN Client Project ID: OWL CREEK 7, 7-5

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

Matrix (check all that apply): Air Soil/Solid Water Other: _____
 (Describe)

Temp (°C) 3.4

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

[Signature]
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

02/17/2021
Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS11@3'
2102215-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 08:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 119 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 93.0 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 93.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 08:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 103 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS11@3'
2102215-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 08:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 48.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.7 % | 40-150 | | " | " | " | " | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS12@5'
2102215-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 107 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 105 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 63.8 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS12@5'
2102215-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 08:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:20**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 42.6 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 45.1 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS13@3'
2102215-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 08:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 08:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 98.2 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS13@3'
2102215-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 08:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:25**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 46.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 44.8 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS14@5'
2102215-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 08:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 119 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 95.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 08:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:30**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS14@5'
2102215-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 08:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 47.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 49.0 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS15@7'
2102215-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 08:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 108 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 08:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 95.6 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS15@7'
2102215-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 08:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 49.8 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.6 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS16@7'
2102215-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 108 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 92.6 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS16@7'
2102215-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 08:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 08:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 50.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.2 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS17@3'
2102215-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 11:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 104 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 99.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.4 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 11:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 84.0 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS17@3'
2102215-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------|----------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | 0.00526 | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 43.0 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 46.6 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS18@6'
2102215-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 11:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 108 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.9 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 11:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 89.8 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS18@6'
2102215-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 11:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:35**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 46.2 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 46.5 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS19@7'
2102215-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.3 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:50**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS19@7'
2102215-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 11:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/17/21 11:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 42.8 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.3 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS20@3'
2102215-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 12:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.7 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.1 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 12:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 88.2 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS20@3'
2102215-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 12:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 47.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.2 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS21@6'
2102215-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 12:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 108 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 100 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 12:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 96.6 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS21@6'
2102215-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 12:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 43.3 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.2 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

SS22@7'
2102215-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/17/21 12:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0266 | 02/17/21 | 02/17/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.8 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 95.5 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/17/21 12:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0267 | 02/17/21 | 02/17/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 96.4 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

SS22@7'
2102215-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/17/21 12:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0382 | 02/25/21 | 02/26/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/17/21 12:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 45.6 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.3 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

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 BEB0266 - EPA 5030 Soil MS

Blank (BEB0266-BLK1)

Prepared & Analyzed: 02/17/21

| | | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0425 | | " | 0.0400 | | 106 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0398 | | " | 0.0400 | | 99.4 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0388 | | " | 0.0400 | | 97.0 | 21-167 | | | | |

LCS (BEB0266-BS1)

Prepared & Analyzed: 02/17/21

| | | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|--|
| Benzene | 0.0957 | 0.0020 | mg/kg | 0.100 | | 95.7 | 70-130 | | | | |
| Toluene | 0.102 | 0.0050 | " | 0.100 | | 102 | 70-130 | | | | |
| Ethylbenzene | 0.106 | 0.0050 | " | 0.100 | | 106 | 70-130 | | | | |
| m,p-Xylene | 0.212 | 0.010 | " | 0.200 | | 106 | 70-130 | | | | |
| o-Xylene | 0.104 | 0.0050 | " | 0.100 | | 104 | 70-130 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0412 | | " | 0.0400 | | 103 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0398 | | " | 0.0400 | | 99.6 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0394 | | " | 0.0400 | | 98.4 | 21-167 | | | | |

Matrix Spike (BEB0266-MS1)

Source: 2102211-01

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|--|
| Benzene | 0.0949 | 0.0020 | mg/kg | 0.100 | ND | 94.9 | 70-130 | | | | |
| Toluene | 0.102 | 0.0050 | " | 0.100 | ND | 102 | 70-130 | | | | |
| Ethylbenzene | 0.104 | 0.0050 | " | 0.100 | ND | 104 | 70-130 | | | | |
| m,p-Xylene | 0.206 | 0.010 | " | 0.200 | ND | 103 | 70-130 | | | | |
| o-Xylene | 0.101 | 0.0050 | " | 0.100 | ND | 101 | 70-130 | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0410 | | " | 0.0400 | | 103 | 23-173 | | | | |
| Surrogate: Toluene-d8 | 0.0401 | | " | 0.0400 | | 100 | 20-170 | | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0382 | | " | 0.0400 | | 95.4 | 21-167 | | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

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 BEB0266 - EPA 5030 Soil MS

| Matrix Spike Dup (BEB0266-MSD1) | Source: 2102211-01 | | | Prepared: 02/17/21 Analyzed: 02/18/21 | | | | | | |
|----------------------------------|--------------------|--------|-------|---------------------------------------|----|------|--------|--------|----|--|
| Benzene | 0.0949 | 0.0020 | mg/kg | 0.100 | ND | 94.9 | 70-130 | 0.0316 | 30 | |
| Toluene | 0.103 | 0.0050 | " | 0.100 | ND | 103 | 70-130 | 0.409 | 30 | |
| Ethylbenzene | 0.106 | 0.0050 | " | 0.100 | ND | 106 | 70-130 | 2.00 | 30 | |
| m,p-Xylene | 0.209 | 0.010 | " | 0.200 | ND | 104 | 70-130 | 1.23 | 30 | |
| o-Xylene | 0.103 | 0.0050 | " | 0.100 | ND | 103 | 70-130 | 2.33 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0413 | | " | 0.0400 | | 103 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0397 | | " | 0.0400 | | 99.3 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0393 | | " | 0.0400 | | 98.2 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/12/21 11:21

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0267 - EPA 3550A

Blank (BEB0267-BLK1)

Prepared: 02/17/21 Analyzed: 02/18/21

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

LCS (BEB0267-BS1)

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|
| C10-C28 (DRO) | 485 | 50 | mg/kg | 500 | 97.0 | 70-130 | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|

Matrix Spike (BEB0267-MS1)

Source: 2102211-01

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|-----|--------|--|--|--|
| C10-C28 (DRO) | 524 | 50 | mg/kg | 500 | 14.4 | 102 | 70-130 | | | |
|---------------|-----|----|-------|-----|------|-----|--------|--|--|--|

Matrix Spike Dup (BEB0267-MSD1)

Source: 2102211-01

Prepared: 02/17/21 Analyzed: 02/18/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|-----|--------|------|----|--|
| C10-C28 (DRO) | 553 | 50 | mg/kg | 500 | 14.4 | 108 | 70-130 | 5.31 | 20 | |
|---------------|-----|----|-------|-----|------|-----|--------|------|----|--|

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0382 - EPA 5030 Soil MS

Blank (BEB0382-BLK1)

Prepared: 02/25/21 Analyzed: 02/26/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0145</i> | | " | <i>0.0333</i> | | <i>43.5</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0168</i> | | " | <i>0.0333</i> | | <i>50.3</i> | <i>40-150</i> | | | |

LCS (BEB0382-BS1)

Prepared: 02/25/21 Analyzed: 02/26/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | 0.0257 | 0.00500 | mg/kg | 0.0333 | | 77.0 | 31-137 | | | |
| Anthracene | 0.0264 | 0.00500 | " | 0.0333 | | 79.2 | 30-120 | | | |
| Benzo (a) anthracene | 0.0258 | 0.00500 | " | 0.0333 | | 77.3 | 30-120 | | | |
| Benzo (a) pyrene | 0.0262 | 0.00500 | " | 0.0333 | | 78.7 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0301 | 0.00500 | " | 0.0333 | | 90.2 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0279 | 0.00500 | " | 0.0333 | | 83.8 | 30-120 | | | |
| Chrysene | 0.0251 | 0.00500 | " | 0.0333 | | 75.3 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0185 | 0.00500 | " | 0.0333 | | 55.5 | 30-120 | | | |
| Fluoranthene | 0.0214 | 0.00500 | " | 0.0333 | | 64.3 | 30-120 | | | |
| Fluorene | 0.0256 | 0.00500 | " | 0.0333 | | 76.9 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0171 | 0.00500 | " | 0.0333 | | 51.4 | 30-120 | | | |
| Pyrene | 0.0196 | 0.00500 | " | 0.0333 | | 58.8 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0237 | 0.00500 | " | 0.0333 | | 71.1 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0233 | 0.00500 | " | 0.0333 | | 69.9 | 35-142 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0268</i> | | " | <i>0.0333</i> | | <i>80.3</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0297</i> | | " | <i>0.0333</i> | | <i>89.1</i> | <i>40-150</i> | | | |

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0382 - EPA 5030 Soil MS

| Matrix Spike (BEB0382-MS1) | Source: 2102215-01 | | | Prepared: 02/25/21 Analyzed: 02/26/21 | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|--|--|--|
| Acenaphthene | 0.0223 | 0.00500 | mg/kg | 0.0333 | ND | 66.8 | 31-137 | | | |
| Anthracene | 0.0221 | 0.00500 | " | 0.0333 | ND | 66.2 | 30-120 | | | |
| Benzo (a) anthracene | 0.0217 | 0.00500 | " | 0.0333 | ND | 65.1 | 30-120 | | | |
| Benzo (a) pyrene | 0.0222 | 0.00500 | " | 0.0333 | ND | 66.7 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0256 | 0.00500 | " | 0.0333 | ND | 76.7 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0242 | 0.00500 | " | 0.0333 | ND | 72.7 | 30-120 | | | |
| Chrysene | 0.0219 | 0.00500 | " | 0.0333 | ND | 65.6 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0161 | 0.00500 | " | 0.0333 | ND | 48.2 | 30-120 | | | |
| Fluoranthene | 0.0181 | 0.00500 | " | 0.0333 | ND | 54.2 | 30-120 | | | |
| Fluorene | 0.0224 | 0.00500 | " | 0.0333 | ND | 67.1 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0150 | 0.00500 | " | 0.0333 | ND | 45.0 | 30-120 | | | |
| Pyrene | 0.0165 | 0.00500 | " | 0.0333 | ND | 49.6 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0191 | 0.00500 | " | 0.0333 | ND | 57.4 | 15-130 | | | |
| 2-Methylnaphthalene | 0.0192 | 0.00500 | " | 0.0333 | ND | 57.6 | 15-130 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0236</i> | | <i>"</i> | <i>0.0333</i> | | <i>70.9</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0258</i> | | <i>"</i> | <i>0.0333</i> | | <i>77.4</i> | <i>40-150</i> | | | |

| Matrix Spike Dup (BEB0382-MSD1) | Source: 2102215-01 | | | Prepared: 02/25/21 Analyzed: 02/26/21 | | | | | | |
|---|---------------------------|---------|----------|--|----|-------------|---------------|------|----|--|
| Acenaphthene | 0.0253 | 0.00500 | mg/kg | 0.0333 | ND | 76.0 | 31-137 | 12.9 | 30 | |
| Anthracene | 0.0254 | 0.00500 | " | 0.0333 | ND | 76.2 | 30-120 | 14.1 | 30 | |
| Benzo (a) anthracene | 0.0243 | 0.00500 | " | 0.0333 | ND | 73.0 | 30-120 | 11.4 | 30 | |
| Benzo (a) pyrene | 0.0245 | 0.00500 | " | 0.0333 | ND | 73.4 | 30-120 | 9.54 | 30 | |
| Benzo (b) fluoranthene | 0.0293 | 0.00500 | " | 0.0333 | ND | 87.8 | 30-120 | 13.5 | 30 | |
| Benzo (k) fluoranthene | 0.0276 | 0.00500 | " | 0.0333 | ND | 82.7 | 30-120 | 12.9 | 30 | |
| Chrysene | 0.0247 | 0.00500 | " | 0.0333 | ND | 74.0 | 30-120 | 12.1 | 30 | |
| Dibenz (a,h) anthracene | 0.0174 | 0.00500 | " | 0.0333 | ND | 52.3 | 30-120 | 8.29 | 30 | |
| Fluoranthene | 0.0206 | 0.00500 | " | 0.0333 | ND | 61.8 | 30-120 | 13.1 | 30 | |
| Fluorene | 0.0253 | 0.00500 | " | 0.0333 | ND | 75.8 | 30-120 | 12.2 | 30 | |
| Indeno (1,2,3-cd) pyrene | 0.0162 | 0.00500 | " | 0.0333 | ND | 48.6 | 30-120 | 7.62 | 30 | |
| Pyrene | 0.0186 | 0.00500 | " | 0.0333 | ND | 55.9 | 35-142 | 12.1 | 30 | |
| 1-Methylnaphthalene | 0.0220 | 0.00500 | " | 0.0333 | ND | 66.0 | 15-130 | 13.9 | 50 | |
| 2-Methylnaphthalene | 0.0226 | 0.00500 | " | 0.0333 | ND | 67.7 | 15-130 | 16.1 | 50 | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0265</i> | | <i>"</i> | <i>0.0333</i> | | <i>79.4</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0286</i> | | <i>"</i> | <i>0.0333</i> | | <i>85.9</i> | <i>40-150</i> | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/12/21 11:21

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

March 10, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2102230

Enclosed are the results of analyses for samples received by Summit Scientific on 02/18/21 17:27. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', written in a cursive style.

Paul Shrewsbury

President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| SS23@7' | 2102230-01 | Soil | 02/18/21 09:00 | 02/18/21 17:27 |
| SS24@7' | 2102230-02 | Soil | 02/18/21 09:05 | 02/18/21 17:27 |
| SS25@3' | 2102230-03 | Soil | 02/18/21 10:40 | 02/18/21 17:27 |
| SS26@6' | 2102230-04 | Soil | 02/18/21 10:45 | 02/18/21 17:27 |
| SS27@3' | 2102230-05 | Soil | 02/18/21 10:55 | 02/18/21 17:27 |
| SS28@6' | 2102230-06 | Soil | 02/18/21 10:55 | 02/18/21 17:27 |
| SS29@3' | 2102230-07 | Soil | 02/18/21 11:45 | 02/18/21 17:27 |
| SS30@6' | 2102230-08 | Soil | 02/18/21 11:50 | 02/18/21 17:27 |
| SS31@7' | 2102230-09 | Soil | 02/18/21 12:15 | 02/18/21 17:27 |
| SS32@3' | 2102230-10 | Soil | 02/18/21 13:10 | 02/18/21 17:27 |
| SS33@6' | 2102230-11 | Soil | 02/18/21 13:15 | 02/18/21 17:27 |
| SS34@7' | 2102230-12 | Soil | 02/18/21 13:50 | 02/18/21 17:27 |
| SS35@3' | 2102230-13 | Soil | 02/18/21 14:15 | 02/18/21 17:27 |
| SS36@6' | 2102230-14 | Soil | 02/18/21 14:20 | 02/18/21 17:27 |

Summit Scientific

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Summit Scientific

S₂

2102230.1

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

Page 1 of 2

Client: PDC / Tasman Project Manager: Mark Longhurst
 Address: _____ E-Mail: _____
 City/State/Zip: _____
 Phone: 970 481 6909 Project Name: Owl Creek 7, 7-5
 Sampler Name: Max Dahlstrom Project Number: _____

| ID | Sample Description | Date Sampled | Time Sampled | # of containers | Preservative | | | | Matrix | | | | Analysis Requested | | | Special Instructions | |
|----|--------------------|--------------|--------------|-----------------|--------------|------------------|------|-------|--------|------|----------------|-------|--------------------|------------|--------------|----------------------|--|
| | | | | | HCl | HNO ₃ | None | Other | Water | Soil | Air-Canister # | Other | BTEX | Neptahalal | TPH (G-C-36) | | |
| 1 | SS23 @ 7' | 2/18/21 | 900 | 2 | | | X | | | X | | | | X | X | X | |
| 2 | SS24 @ 7' | | 905 | | | | | | | | | | | | | | |
| 3 | SS25 @ 3' | | 1040 | | | | | | | | | | | | | | |
| 4 | SS26 @ 6' | | 1045 | | | | | | | | | | | | | | |
| 5 | SS27 @ 3' | | 1055 | | | | | | | | | | | | | | |
| 6 | SS28 @ 6' | | 1055 | | | | | | | | | | | | | | |
| 7 | SS29 @ 3' | | 1145 | | | | | | | | | | | | | | |
| 8 | SS30 @ 6' | | 1150 | | | | | | | | | | | | | | |
| 9 | SS31 @ 7' | | 1215 | | | | | | | | | | | | | | |
| 10 | SS32 @ 3' | | 1310 | | | | | | | | | | | | | | |

| | | | | | |
|-------------------------------------|--|---------------------------------|---|---|--------|
| Relinquished by: <u>[Signature]</u> | Date/Time: <u>2/18/21</u> <u>1600</u> | Received by: <u>[Signature]</u> | Date/Time: <u>02/18/2021</u> <u>1600</u> | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <u>3.8</u> Samples Intact: <input checked="" type="checkbox"/> Yes No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Summit Scientific

S₂

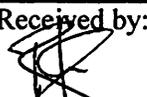
2102230.2

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

Page 2 of 2

Client: _____ Project Manager: _____
 Address: _____ E-Mail: _____
 City/State/Zip: _____
 Phone: _____ Project Name: Owl Creek 7, 7-5
 Sampler Name: _____ 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 | BTX -910 | PAHs -910 | TPH (C6-C26) 910 | | | | | |
| 1 | SS33 @ 6' | 2/18/21 | 1315 | 2 | | | X | | | X | | | | | | | | | | |
| 2 | SS34 @ 7' | | 1350 | | | | | | | | | | | | | | | | | |
| 3 | SS35 @ 3' | | 1415 | | | | | | | | | | | | | | | | | |
| 4 | SS36 @ 6' | | 1420 | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|----------------------------|--|-------------------------------|---|--------|
| Relinquished by:  | Date/Time: 2/18/21 1600 | Received by:  | Date/Time: 02/18/2021 1600 | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours ___ 24 hours ___ Standard ___ 48 hours ___ Sample Integrity: Temperature Upon Receipt: <u>38</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Sample Receipt Checklist

S2 Work Order 2102230

Client: POC/TASMAN Client Project ID: Owl Creek 7, 7-5

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

Matrix (check all that apply): Air Soil/Solid Water Other: _____
 (Describe)

| | |
|-----------|------------|
| Temp (°C) | <u>3.8</u> |
|-----------|------------|

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

TCC
 Custodian Printed Name or Initials

[Signature]
 Signature of Custodian

02/18/2021
 Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS23@7'
2102230-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 113 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 90.7 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 126 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS23@7'
2102230-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 09:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 09:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 50.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 49.6 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS24@7'
2102230-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 114 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 99.5 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 100 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 115 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS24@7'
2102230-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 09:05**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/18/21 09:05**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 50.9 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.5 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS25@3'
2102230-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 10:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 103 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 104 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 10:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 126 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS25@3'
2102230-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 43.7 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.5 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS26@6'
2102230-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 106 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 100 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 118 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS26@6'
2102230-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 10:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 43.6 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 42.8 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS27@3'
2102230-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 104 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 101 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 115 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS27@3'
2102230-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 45.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.2 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS28@6'
2102230-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 110 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 95.4 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.5 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:55**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS28@6'
2102230-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 10:55**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 41.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 45.2 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS29@3'
2102230-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 11:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 11:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 113 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 95.9 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.9 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 11:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 11:45**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS29@3'
2102230-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 11:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 11:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 41.1 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 44.6 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS30@6'
2102230-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 100 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.4 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 92.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 11:50**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 134 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS30@6'
2102230-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/01/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 11:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 43.7 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 49.8 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS31@7'
2102230-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 12:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 12:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 106 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.6 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 90.7 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 12:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 12:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 112 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS31@7'
2102230-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 12:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | Units | | | | | | |
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 12:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 49.1 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.0 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS32@3'
2102230-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 13:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 110 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 98.0 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 13:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:10**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS32@3'
2102230-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 13:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:10**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 50.6 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 52.0 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS33@6'
2102230-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 13:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 105 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 93.8 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 94.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 13:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 133 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS33@6'
2102230-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 13:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 47.7 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.5 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS34@7'
2102230-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 13:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 106 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 86.8 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 93.5 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 13:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:50**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 127 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS34@7'
2102230-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 13:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEC0001 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/18/21 13:50**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 48.1 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.8 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS35@3'
2102230-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 14:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 14:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 118 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 110 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 83.6 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 14:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 14:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 103 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS35@3'
2102230-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 14:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0001 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 14:15**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 44.4 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.6 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

SS36@6'
2102230-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/18/21 14:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0287 | 02/18/21 | 02/18/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | 02/18/21 | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | 02/18/21 | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 14:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 101 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.4 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 87.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/18/21 14:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0288 | 02/18/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/18/21 14:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 109 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

SS36@6'
2102230-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/18/21 14:20**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEC0001 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/18/21 14:20**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 46.0 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.9 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEB0287 - EPA 5030 Soil MS

Blank (BEB0287-BLK1)

Prepared: 02/18/21 Analyzed: 02/19/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0262 | | " | 0.0400 | | 65.4 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0494 | | " | 0.0400 | | 123 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0416 | | " | 0.0400 | | 104 | 21-167 | | | |

LCS (BEB0287-BS1)

Prepared: 02/18/21 Analyzed: 02/19/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.0766 | 0.0020 | mg/kg | 0.100 | | 76.6 | 70-130 | | | |
| Toluene | 0.0847 | 0.0050 | " | 0.100 | | 84.7 | 70-130 | | | |
| Ethylbenzene | 0.0924 | 0.0050 | " | 0.100 | | 92.4 | 70-130 | | | |
| m,p-Xylene | 0.178 | 0.010 | " | 0.200 | | 88.8 | 70-130 | | | |
| o-Xylene | 0.0888 | 0.0050 | " | 0.100 | | 88.8 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0278 | | " | 0.0400 | | 69.6 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0399 | | " | 0.0400 | | 99.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0391 | | " | 0.0400 | | 97.6 | 21-167 | | | |

Matrix Spike (BEB0287-MS1)

Source: 2102230-01

Prepared: 02/18/21 Analyzed: 02/19/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.0808 | 0.0020 | mg/kg | 0.100 | ND | 80.8 | 70-130 | | | |
| Toluene | 0.0781 | 0.0050 | " | 0.100 | ND | 78.1 | 70-130 | | | |
| Ethylbenzene | 0.0939 | 0.0050 | " | 0.100 | ND | 93.9 | 70-130 | | | |
| m,p-Xylene | 0.178 | 0.010 | " | 0.200 | ND | 89.2 | 70-130 | | | |
| o-Xylene | 0.0889 | 0.0050 | " | 0.100 | ND | 88.9 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0312 | | " | 0.0400 | | 78.0 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0356 | | " | 0.0400 | | 89.0 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0374 | | " | 0.0400 | | 93.5 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEB0287 - EPA 5030 Soil MS

| Matrix Spike Dup (BEB0287-MSD1) | Source: 2102230-01 | | | Prepared: 02/18/21 Analyzed: 02/19/21 | | | | | | |
|--|---------------------------|--------|-------|--|----|------|--------|------|----|--|
| Benzene | 0.0842 | 0.0020 | mg/kg | 0.100 | ND | 84.2 | 70-130 | 4.11 | 30 | |
| Toluene | 0.0830 | 0.0050 | " | 0.100 | ND | 83.0 | 70-130 | 6.07 | 30 | |
| Ethylbenzene | 0.0961 | 0.0050 | " | 0.100 | ND | 96.1 | 70-130 | 2.37 | 30 | |
| m,p-Xylene | 0.183 | 0.010 | " | 0.200 | ND | 91.6 | 70-130 | 2.69 | 30 | |
| o-Xylene | 0.0927 | 0.0050 | " | 0.100 | ND | 92.7 | 70-130 | 4.13 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0314 | | " | 0.0400 | | 78.6 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0367 | | " | 0.0400 | | 91.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0384 | | " | 0.0400 | | 96.0 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/10/21 15:55

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0288 - EPA 3550A

Blank (BEB0288-BLK1)

Prepared: 02/18/21 Analyzed: 02/19/21

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

LCS (BEB0288-BS1)

Prepared: 02/18/21 Analyzed: 02/19/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|-----|--------|--|--|--|--|
| C10-C28 (DRO) | 536 | 50 | mg/kg | 500 | 107 | 70-130 | | | | |
|---------------|-----|----|-------|-----|-----|--------|--|--|--|--|

Matrix Spike (BEB0288-MS1)

Source: 2102230-01

Prepared: 02/18/21 Analyzed: 02/19/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|-----|--------|--|--|--|
| C10-C28 (DRO) | 528 | 50 | mg/kg | 500 | 17.2 | 102 | 70-130 | | | |
|---------------|-----|----|-------|-----|------|-----|--------|--|--|--|

Matrix Spike Dup (BEB0288-MSD1)

Source: 2102230-01

Prepared: 02/18/21 Analyzed: 02/19/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|
| C10-C28 (DRO) | 485 | 50 | mg/kg | 500 | 17.2 | 93.5 | 70-130 | 8.68 | 20 | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEC0001 - EPA 5030 Soil MS

Blank (BEC0001-BLK1)

Prepared: 03/01/21 Analyzed: 03/02/21

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Fluorene | ND | 0.00500 | mg/kg | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0166 | | " | 0.0333 | | 49.7 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0176 | | " | 0.0333 | | 52.9 | 40-150 | | | |

LCS (BEC0001-BS1)

Prepared: 03/01/21 Analyzed: 03/02/21

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|--|------|--------|--|--|--|
| Fluorene | 0.0252 | 0.00500 | mg/kg | 0.0333 | | 75.6 | 30-120 | | | |
| 1-Methylnaphthalene | 0.0218 | 0.00500 | " | 0.0333 | | 65.3 | 35-142 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0278 | | " | 0.0333 | | 83.3 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0313 | | " | 0.0333 | | 94.0 | 40-150 | | | |

Matrix Spike (BEC0001-MS1)

Source: 2102230-01

Prepared: 03/01/21 Analyzed: 03/02/21

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|----|------|--------|--|--|--|
| Fluorene | 0.0237 | 0.00500 | mg/kg | 0.0333 | ND | 71.0 | 30-120 | | | |
| 1-Methylnaphthalene | 0.0291 | 0.00500 | " | 0.0333 | ND | 87.2 | 15-130 | | | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0323 | | " | 0.0333 | | 97.0 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0376 | | " | 0.0333 | | 113 | 40-150 | | | |

Matrix Spike Dup (BEC0001-MSD1)

Source: 2102230-01

Prepared: 03/01/21 Analyzed: 03/02/21

| | | | | | | | | | | |
|------------------------------------|--------|---------|-------|--------|----|------|--------|------|----|--|
| Fluorene | 0.0276 | 0.00500 | mg/kg | 0.0333 | ND | 82.8 | 30-120 | 15.3 | 30 | |
| 1-Methylnaphthalene | 0.0251 | 0.00500 | " | 0.0333 | ND | 75.2 | 15-130 | 14.7 | 50 | |
| Surrogate: 2-Methylnaphthalene-d10 | 0.0291 | | " | 0.0333 | | 87.4 | 40-150 | | | |
| Surrogate: Fluoranthene-d10 | 0.0363 | | " | 0.0333 | | 109 | 40-150 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/10/21 15:55

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

March 04, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2102250

Enclosed are the results of analyses for samples received by Summit Scientific on 02/19/21 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large, stylized 'M' and 'P'.

Muri Premer For Paul Shrewsbury

President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| SS37@7' | 2102250-01 | Soil | 02/19/21 08:15 | 02/19/21 18:00 |
| SS38@7' | 2102250-02 | Soil | 02/19/21 08:20 | 02/19/21 18:00 |
| SS39@3' | 2102250-03 | Soil | 02/19/21 08:40 | 02/19/21 18:00 |
| SS40@6' | 2102250-04 | Soil | 02/19/21 08:45 | 02/19/21 18:00 |
| SS41@7' | 2102250-05 | Soil | 02/19/21 09:00 | 02/19/21 18:00 |
| SS42@3' | 2102250-06 | Soil | 02/19/21 09:05 | 02/19/21 18:00 |
| SS43@6' | 2102250-07 | Soil | 02/19/21 09:10 | 02/19/21 18:00 |
| SS44@7' | 2102250-08 | Soil | 02/19/21 09:30 | 02/19/21 18:00 |
| SS45@3' | 2102250-09 | Soil | 02/19/21 10:00 | 02/19/21 18:00 |
| SS46@6' | 2102250-10 | Soil | 02/19/21 10:05 | 02/19/21 18:00 |
| SS47@3' | 2102250-11 | Soil | 02/19/21 10:30 | 02/19/21 18:00 |
| SS48@6' | 2102250-12 | Soil | 02/19/21 10:35 | 02/19/21 18:00 |
| SS49@7' | 2102250-13 | Soil | 02/19/21 10:45 | 02/19/21 18:00 |

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.

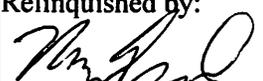
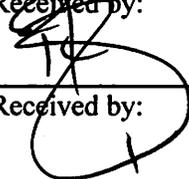
Summit Scientific

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403 2102250.1
303-277-9310

Client: PDC / Tasman Project Manager: Mark Longhurst
 Address: _____ E-Mail: mark.longhurst@pdce.com
 City/State/Zip: _____
 Phone: 970 481 6909 Project Name: Owl Creek 7,7-5
 Sampler Name: Max Dahlgren 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 | BTEX | Naphthalene | TPH (C6-C36) | | | | |
| 1 | SS37 @ 7' | 2/19/21 | 815 | 2 | | | X | | | X | | | | X | X | X | | | |
| 2 | SS38 @ 7' | | 820 | | | | | | | | | | | X | X | X | | | |
| 3 | SS39 @ 3' | | 840 | | | | | | | | | | | X | X | X | | | |
| 4 | SS40 @ 6' | | 845 | | | | | | | | | | | X | X | X | | | |
| 5 | SS41 @ 7' | | 900 | | | | | | | | | | | X | X | X | | | |
| 6 | SS42 @ 3' | | 905 | | | | | | | | | | | X | X | X | | | |
| 7 | SS43 @ 6' | | 910 | | | | | | | | | | | X | X | X | | | |
| 8 | SS44 @ 7' | | 930 | | | | | | | | | | | X | X | X | | | |
| 9 | SS45 @ 3' | | 1000 | | | | | | | | | | | X | X | X | | | |
| 10 | SS46 @ 6' | | 1005 | | | | | | | | | | | X | X | X | | | |

| | | | | | |
|---|--|--|---|--|--------|
| Relinquished by:  | Date/Time: <u>2/19/21</u> <u>1245</u> | Received by:  | Date/Time: <u>02/19/2021</u> <u>1245</u> | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <u>4.1</u> Samples Intact: <input checked="" type="radio"/> Yes No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Summit Scientific

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403 2102250.2
303-277-9310

Client: PDC/Tasman Project Manager: _____
 Address: _____ E-Mail: _____
 City/State/Zip: _____
 Phone: _____ Project Name: Owl Creek 7,7-5
 Sampler Name: Max Dahlgren 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 | BTEX | Naphthalene | TPH (66-C36) | | |
| 1 | SS47 @ 3' | 2/19/21 | 1030 | 2 | | | X | | | X | | | X | X | X | | |
| 2 | SS48 @ 6' | ↓ | 1035 | ↓ | | | | | | | | | | | | | |
| 3 | SS49 @ 7' | ↓ | 1045 | ↓ | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |

| | | | | | |
|-------------------------------------|--------------------------------|---------------------------------|--------------------------------|---|--------|
| Relinquished by: <u>[Signature]</u> | Date/Time: <u>2/19/21 1245</u> | Received by: <u>[Signature]</u> | Date/Time: <u>2/19/21 1245</u> | Turn Around Time (Check) Same Day <u>X</u> 72 hours — 24 hours — Standard — 48 hours — Sample Integrity: Temperature Upon Receipt: <u>4.1</u> Samples Intact: <u>Yes</u> No | Notes: |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |
| Relinquished by: | Date/Time: | Received by: | Date/Time: | | |

Sample Receipt Checklist

S2 Work Order 2102250

Client: PDC / TASMAN Client Project ID: OWL CREEK 7 , 7 - 5

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

Matrix (check all that apply): Air Soil/Solid Water Other: _____
 (Describe)

| | |
|-----------|-----|
| Temp (°C) | 4.1 |
|-----------|-----|

Thermometer ID: 61857155-K

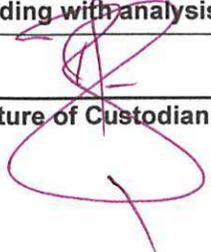
| | Yes | No | N/A | Comments (if any) |
|---|-----|----|-----|-------------------|
| If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun. | ✓ | | | |
| Were all samples received intact ⁽¹⁾ ? | ✓ | | | |
| Was adequate sample volume provided ⁽¹⁾ ? | ✓ | | | |
| If custody seals are present, are they intact ⁽¹⁾ ? | | | ✓ | |
| Are samples with holding times due within 48 hours sample due within 48 hours present? | ✓ | | | |
| Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ? | ✓ | | | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | ✓ | | | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | ✓ | | | |
| Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ? | ✓ | | | |
| For volatiles in water – is there headspace present? If yes, contact client and note in narrative. | | | ✓ | |
| Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect | | | ✓ | |
| If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments. | | | ✓ | |
| If dissolved metals are requested, were samples field filtered? | | | ✓ | |

Additional Comments (if any):

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

RZ

 Custodian Printed Name or Initials



 Signature of Custodian

2/19/21

 Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS37@7'
2102250-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 08:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 114 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 95.9 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 93.3 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 08:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:15**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS37@7'
2102250-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 08:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | Units | | | | | | |
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:15**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 46.3 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.5 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS38@7'
2102250-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 108 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 96.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 88.8 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS38@7'
2102250-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | Units | | | | | | |
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:20**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 51.0 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 50.0 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS39@3'
2102250-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 129 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.6 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 104 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:40**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 94.8 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS39@3'
2102250-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 08:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|---------------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | 0.0187 | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:40**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 43.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 58.4 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS40@6'
2102250-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 08:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 107 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.7 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 08:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 90.9 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS40@6'
2102250-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 08:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 08:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 48.3 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 41.5 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS41@7'
2102250-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 115 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 91.4 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 96.8 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 09:00**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:00**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS41@7'
2102250-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 09:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:00**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 45.5 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 46.4 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS42@3'
2102250-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 113 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.8 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 93.7 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/19/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 93.6 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS42@3'
2102250-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | Units | | | | | | |
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:05**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 48.7 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 40.8 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS43@6'
2102250-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 09:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 136 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.9 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 101 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 09:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 97.7 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS43@6'
2102250-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 09:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | Units | | | | | | |
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:10**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 43.5 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 48.8 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS44@7'
2102250-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 09:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/19/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 112 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 103 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 97.3 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 09:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 97.3 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS44@7'
2102250-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 09:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | Units | | | | | | |
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 09:30**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 44.0 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 44.9 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS45@3'
2102250-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 10:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/20/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 125 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.9 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.9 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 10:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 97.0 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS45@3'
2102250-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 10:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:00**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 46.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 46.4 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS46@6'
2102250-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 10:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/20/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 113 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 95.1 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 99.0 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 10:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:05**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 97.4 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS46@6'
2102250-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 10:05**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:05**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 45.3 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 45.4 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS47@3'
2102250-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/20/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 122 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 94.6 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 101 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: o-Terphenyl | | 96.7 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS47@3'
2102250-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 40.2 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 40.2 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS48@6'
2102250-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 10:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/20/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 124 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 97.2 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 10:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:35**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 96.5 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS48@6'
2102250-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 10:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:35**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 45.9 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 43.1 % | 40-150 | | " | " | " | " | |

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

SS49@7'
2102250-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/19/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0305 | 02/19/21 | 02/20/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 119 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 93.3 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 98.2 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/19/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0306 | 02/19/21 | 02/20/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 95.2 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

SS49@7'
2102250-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/19/21 10:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------|--|-------|----------|---------|----------|----------|---------------|-------|
| | | Limit | | | | | | | | |
| Fluorene | ND | 0.00500 | | mg/kg | 1 | BEC0002 | 03/01/21 | 03/02/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | | " | " | " | " | " | " | |

Date Sampled: **02/19/21 10:45**

| Analyte | Result | Reporting | | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------|--|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | | | | | | | | |
| Surrogate: 2-Methylnaphthalene-d10 | | 50.8 % | | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 47.3 % | | 40-150 | | " | " | " | " | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEB0305 - EPA 5030 Soil MS

Blank (BEB0305-BLK1)

Prepared & Analyzed: 02/19/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0370 | | " | 0.0400 | | 92.6 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0387 | | " | 0.0400 | | 96.7 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0376 | | " | 0.0400 | | 93.9 | 21-167 | | | |

LCS (BEB0305-BS1)

Prepared & Analyzed: 02/19/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.0715 | 0.0020 | mg/kg | 0.100 | | 71.5 | 70-130 | | | |
| Toluene | 0.0988 | 0.0050 | " | 0.100 | | 98.8 | 70-130 | | | |
| Ethylbenzene | 0.0870 | 0.0050 | " | 0.100 | | 87.0 | 70-130 | | | |
| m,p-Xylene | 0.163 | 0.010 | " | 0.200 | | 81.7 | 70-130 | | | |
| o-Xylene | 0.0820 | 0.0050 | " | 0.100 | | 82.0 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0298 | | " | 0.0400 | | 74.6 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0362 | | " | 0.0400 | | 90.4 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0369 | | " | 0.0400 | | 92.2 | 21-167 | | | |

Matrix Spike (BEB0305-MS1)

Source: 2102250-01

Prepared & Analyzed: 02/19/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.0818 | 0.0020 | mg/kg | 0.100 | ND | 81.8 | 70-130 | | | |
| Toluene | 0.0746 | 0.0050 | " | 0.100 | ND | 74.6 | 70-130 | | | |
| Ethylbenzene | 0.0912 | 0.0050 | " | 0.100 | ND | 91.2 | 70-130 | | | |
| m,p-Xylene | 0.170 | 0.010 | " | 0.200 | ND | 85.1 | 70-130 | | | |
| o-Xylene | 0.0852 | 0.0050 | " | 0.100 | ND | 85.2 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0357 | | " | 0.0400 | | 89.3 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0346 | | " | 0.0400 | | 86.5 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0361 | | " | 0.0400 | | 90.2 | 21-167 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

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 BEB0305 - EPA 5030 Soil MS

| Matrix Spike Dup (BEB0305-MSD1) | Source: 2102250-01 | | | Prepared & Analyzed: 02/19/21 | | | | | | |
|----------------------------------|--------------------|--------|-------|-------------------------------|----|------|--------|------|----|--|
| Benzene | 0.0846 | 0.0020 | mg/kg | 0.100 | ND | 84.6 | 70-130 | 3.32 | 30 | |
| Toluene | 0.0763 | 0.0050 | " | 0.100 | ND | 76.3 | 70-130 | 2.19 | 30 | |
| Ethylbenzene | 0.0957 | 0.0050 | " | 0.100 | ND | 95.7 | 70-130 | 4.82 | 30 | |
| m,p-Xylene | 0.178 | 0.010 | " | 0.200 | ND | 89.0 | 70-130 | 4.44 | 30 | |
| o-Xylene | 0.0884 | 0.0050 | " | 0.100 | ND | 88.4 | 70-130 | 3.73 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0343 | | " | 0.0400 | | 85.8 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0355 | | " | 0.0400 | | 88.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0364 | | " | 0.0400 | | 91.0 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 03/04/21 13:02

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0306 - EPA 3550A

Blank (BEB0306-BLK1)

Prepared & Analyzed: 02/19/21

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

LCS (BEB0306-BS1)

Prepared & Analyzed: 02/19/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|-----|--------|--|--|--|--|
| C10-C28 (DRO) | 536 | 50 | mg/kg | 500 | 107 | 70-130 | | | | |
|---------------|-----|----|-------|-----|-----|--------|--|--|--|--|

Matrix Spike (BEB0306-MS1)

Source: 2102250-01

Prepared & Analyzed: 02/19/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|-----|--------|--|--|--|
| C10-C28 (DRO) | 528 | 50 | mg/kg | 500 | 12.7 | 103 | 70-130 | | | |
|---------------|-----|----|-------|-----|------|-----|--------|--|--|--|

Matrix Spike Dup (BEB0306-MSD1)

Source: 2102250-01

Prepared & Analyzed: 02/19/21

| | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|
| C10-C28 (DRO) | 485 | 50 | mg/kg | 500 | 12.7 | 94.4 | 70-130 | 8.68 | 20 | |
|---------------|-----|----|-------|-----|------|------|--------|------|----|--|

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEC0002 - EPA 5030 Soil MS

Blank (BEC0002-BLK1)

Prepared & Analyzed: 03/01/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0151</i> | | " | <i>0.0333</i> | | <i>45.4</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0169</i> | | " | <i>0.0333</i> | | <i>50.6</i> | <i>40-150</i> | | | |

LCS (BEC0002-BS1)

Prepared & Analyzed: 03/01/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | 0.0276 | 0.00500 | mg/kg | 0.0333 | | 82.8 | 31-137 | | | |
| Anthracene | 0.0273 | 0.00500 | " | 0.0333 | | 81.9 | 30-120 | | | |
| Benzo (a) anthracene | 0.0274 | 0.00500 | " | 0.0333 | | 82.3 | 30-120 | | | |
| Benzo (a) pyrene | 0.0277 | 0.00500 | " | 0.0333 | | 83.0 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0297 | 0.00500 | " | 0.0333 | | 89.0 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0282 | 0.00500 | " | 0.0333 | | 84.7 | 30-120 | | | |
| Chrysene | 0.0274 | 0.00500 | " | 0.0333 | | 82.3 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0272 | 0.00500 | " | 0.0333 | | 81.6 | 30-120 | | | |
| Fluoranthene | 0.0233 | 0.00500 | " | 0.0333 | | 69.9 | 30-120 | | | |
| Fluorene | 0.0278 | 0.00500 | " | 0.0333 | | 83.3 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0261 | 0.00500 | " | 0.0333 | | 78.4 | 30-120 | | | |
| Pyrene | 0.0225 | 0.00500 | " | 0.0333 | | 67.5 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0250 | 0.00500 | " | 0.0333 | | 75.1 | 35-142 | | | |
| 2-Methylnaphthalene | 0.0242 | 0.00500 | " | 0.0333 | | 72.5 | 35-142 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0285</i> | | " | <i>0.0333</i> | | <i>85.4</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0318</i> | | " | <i>0.0333</i> | | <i>95.3</i> | <i>40-150</i> | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEC0002 - EPA 5030 Soil MS

| Matrix Spike (BEC0002-MS1) | Source: 2102122-06 | | | Prepared: 03/01/21 Analyzed: 03/02/21 | | | | | | |
|---|---------------------------|---------|----------|--|---------|-------------|---------------|--|--|--|
| Acenaphthene | 0.0319 | 0.00500 | mg/kg | 0.0333 | ND | 95.7 | 31-137 | | | |
| Anthracene | 0.0316 | 0.00500 | " | 0.0333 | ND | 94.9 | 30-120 | | | |
| Benzo (a) anthracene | 0.0264 | 0.00500 | " | 0.0333 | ND | 79.2 | 30-120 | | | |
| Benzo (a) pyrene | 0.0264 | 0.00500 | " | 0.0333 | ND | 79.2 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0370 | 0.00500 | " | 0.0333 | 0.00598 | 92.9 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0348 | 0.00500 | " | 0.0333 | ND | 104 | 30-120 | | | |
| Chrysene | 0.0540 | 0.00500 | " | 0.0333 | 0.0252 | 86.6 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0152 | 0.00500 | " | 0.0333 | ND | 45.6 | 30-120 | | | |
| Fluoranthene | 0.0294 | 0.00500 | " | 0.0333 | 0.00209 | 81.9 | 30-120 | | | |
| Fluorene | 0.0268 | 0.00500 | " | 0.0333 | ND | 80.5 | 30-120 | | | |
| Indeno (1,2,3-cd) pyrene | 0.0135 | 0.00500 | " | 0.0333 | ND | 40.4 | 30-120 | | | |
| Pyrene | 0.0476 | 0.00500 | " | 0.0333 | 0.00818 | 118 | 35-142 | | | |
| 1-Methylnaphthalene | 0.0387 | 0.00500 | " | 0.0333 | 0.00377 | 105 | 15-130 | | | |
| 2-Methylnaphthalene | 0.0434 | 0.00500 | " | 0.0333 | 0.00719 | 109 | 15-130 | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0357</i> | | <i>"</i> | <i>0.0333</i> | | <i>107</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0330</i> | | <i>"</i> | <i>0.0333</i> | | <i>99.1</i> | <i>40-150</i> | | | |

| Matrix Spike Dup (BEC0002-MSD1) | Source: 2102122-06 | | | Prepared: 03/01/21 Analyzed: 03/02/21 | | | | | | |
|---|---------------------------|---------|----------|--|---------|-------------|---------------|------|----|--|
| Acenaphthene | 0.0306 | 0.00500 | mg/kg | 0.0333 | ND | 91.9 | 31-137 | 4.00 | 30 | |
| Anthracene | 0.0307 | 0.00500 | " | 0.0333 | ND | 92.2 | 30-120 | 2.95 | 30 | |
| Benzo (a) anthracene | 0.0252 | 0.00500 | " | 0.0333 | ND | 75.6 | 30-120 | 4.57 | 30 | |
| Benzo (a) pyrene | 0.0249 | 0.00500 | " | 0.0333 | ND | 74.8 | 30-120 | 5.77 | 30 | |
| Benzo (b) fluoranthene | 0.0351 | 0.00500 | " | 0.0333 | 0.00598 | 87.5 | 30-120 | 5.02 | 30 | |
| Benzo (k) fluoranthene | 0.0323 | 0.00500 | " | 0.0333 | ND | 96.8 | 30-120 | 7.55 | 30 | |
| Chrysene | 0.0499 | 0.00500 | " | 0.0333 | 0.0252 | 74.3 | 30-120 | 7.85 | 30 | |
| Dibenz (a,h) anthracene | 0.0117 | 0.00500 | " | 0.0333 | ND | 35.2 | 30-120 | 25.6 | 30 | |
| Fluoranthene | 0.0277 | 0.00500 | " | 0.0333 | 0.00209 | 76.7 | 30-120 | 6.00 | 30 | |
| Fluorene | 0.0254 | 0.00500 | " | 0.0333 | ND | 76.2 | 30-120 | 5.43 | 30 | |
| Indeno (1,2,3-cd) pyrene | 0.0110 | 0.00500 | " | 0.0333 | ND | 33.1 | 30-120 | 19.8 | 30 | |
| Pyrene | 0.0439 | 0.00500 | " | 0.0333 | 0.00818 | 107 | 35-142 | 8.15 | 30 | |
| 1-Methylnaphthalene | 0.0356 | 0.00500 | " | 0.0333 | 0.00377 | 95.4 | 15-130 | 8.43 | 50 | |
| 2-Methylnaphthalene | 0.0403 | 0.00500 | " | 0.0333 | 0.00719 | 99.3 | 15-130 | 7.52 | 50 | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0316</i> | | <i>"</i> | <i>0.0333</i> | | <i>94.8</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0317</i> | | <i>"</i> | <i>0.0333</i> | | <i>95.2</i> | <i>40-150</i> | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
03/04/21 13:02

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

February 24, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Owl Creek 7,7-5

Work Order #2102273

Enclosed are the results of analyses for samples received by Summit Scientific on 02/22/21 18:03. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Muri Premer For Paul Shrewsbury
President



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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|----------------|----------------|
| SS50@7.5' | 2102273-01 | Soil | 02/22/21 09:45 | 02/22/21 18:03 |
| GW01 | 2102273-02 | Water | 02/22/21 09:30 | 02/22/21 18:03 |

Summit Scientific

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

Summit Scientific

S₂

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

| | |
|---------------------------------------|---------------------------------|
| 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: Owl Creek 7, 7-5 |
| Sampler Name: Max Dahlgren | 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 | BTEX | TPH - (C6 - C36) | Naphthalene | 1,2,4 - TMB | 1,3, 5 - TMB | Fluorene | 1-Methylnaphthalene | | ON HOLD |
| 1 | SS50 @ 7.5' | 2/22/2021 | 945 | 2 | | | X | | | X | | | X | X | X | X | | X | X | | |
| 2 | GW01 | 2/22/2021 | 930 | 3 | X | | | | X | | | | X | | X | X | | | | | |
| 3 | SS51 @ 2.5' | 2/22/2021 | 940 | 2 | | | X | | | X | | | | | | | | | | | X |
| 4 | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|---|--|--|--|
| Relinquished by: <i>Keon Fletcher</i> Date/Time: <i>2/22/21 1530</i> | Received by: <i>Tasman's Lock Box</i> Date/Time: <i>2/22/21 1530</i> | Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <i>4.3</i> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No | Notes: <i>Use 915 methods for all analysis</i> |
| Relinquished by: <i>Tasman's Lock Box</i> Date/Time: <i>02/22/2021 1730</i> | Received by: <i>[Signature]</i> Date/Time: <i>02/22/2021 1730</i> | | |
| Relinquished by: _____ Date/Time: _____ | Received by: _____ Date/Time: _____ | | |

Sample Receipt Checklist

S2 Work Order 2102273

Client: PDC/TABMAN Client Project ID: Owl Creek 7, 7-5

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

Matrix (check all that apply): Air Soil/Solid Water Other: (BOTH)
(Describe)

| | |
|-----------|------------|
| Temp (°C) | <u>4.3</u> |
|-----------|------------|

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

RB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

02/22/201
Date/Time



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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

SS50@7.5'
2102273-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/22/21 09:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| Benzene | ND | 0.0020 | mg/kg | 1 | BEB0327 | 02/22/21 | 02/22/21 | EPA 8260B | |
| Toluene | ND | 0.0050 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.010 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | " | " | " | " | " | |
| Naphthalene | ND | 0.0038 | " | " | " | " | " | " | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | " | " | " | " | " | |

Date Sampled: **02/22/21 09:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | | 103 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 100 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 104 % | 21-167 | | " | " | " | " | |

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/22/21 09:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------|--------|-----------|-------|----------|---------|----------|----------|-----------|-------|
| | | Limit | Units | | | | | | |
| C10-C28 (DRO) | ND | 50 | mg/kg | 1 | BEB0328 | 02/22/21 | 02/22/21 | EPA 8015M | |
| C28-C36 (ORO) | ND | 50 | " | " | " | " | " | " | |

Date Sampled: **02/22/21 09:45**

| Analyte | Result | Reporting | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------|--------|-----------|--------|----------|-------|----------|----------|--------|-------|
| | | Limit | Units | | | | | | |
| Surrogate: o-Terphenyl | | 95.4 % | 30-150 | | " | " | " | " | |

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/24/21 15:52

SS50@7.5'
2102273-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/22/21 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------|--------|-----------------|-------|----------|---------|----------|----------|---------------|-------|
| Fluorene | ND | 0.00500 | mg/kg | 1 | BEB0329 | 02/23/21 | 02/24/21 | EPA 8270D SIM | |
| 1-Methylnaphthalene | ND | 0.00500 | " | " | " | " | " | " | |

Date Sampled: **02/22/21 09:45**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 2-Methylnaphthalene-d10 | | 44.7 % | 40-150 | | " | " | " | " | |
| Surrogate: Fluoranthene-d10 | | 41.3 % | 40-150 | | " | " | " | " | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/24/21 15:52

GW01
2102273-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/22/21 09:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------|------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| Benzene | ND | 1.0 | ug/l | 1 | BEB0310 | 02/22/21 | 02/22/21 | EPA 8260B | |
| Toluene | ND | 1.0 | " | " | " | " | " | " | |
| Ethylbenzene | 2.9 | 1.0 | " | " | " | " | " | " | |
| Xylenes (total) | 5.9 | 2.0 | " | " | " | " | " | " | |
| Naphthalene | 2.8 | 1.0 | " | " | " | " | " | " | |
| 1,2,4-Trimethylbenzene | 12 | 1.0 | " | " | " | " | " | " | |
| 1,3,5-Trimethylbenzene | 1.8 | 1.0 | " | " | " | " | " | " | |

Date Sampled: **02/22/21 09:30**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|--------|-----------------|--------|----------|-------|----------|----------|--------|-------|
| Surrogate: 1,2-Dichloroethane-d4 | | 134 % | 23-173 | | " | " | " | " | |
| Surrogate: Toluene-d8 | | 95.0 % | 20-170 | | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 107 % | 21-167 | | " | " | " | " | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

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 BEB0310 - EPA 5030 Water MS

Blank (BEB0310-BLK1)

Prepared & Analyzed: 02/22/21

| | | | | | | | | | | | |
|----------------------------------|------|-----|------|------|--|------|--|--------|--|--|--|
| 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 | 17.9 | | " | 13.3 | | 134 | | 23-173 | | | |
| Surrogate: Toluene-d8 | 12.4 | | " | 13.3 | | 93.2 | | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.3 | | " | 13.3 | | 99.9 | | 21-167 | | | |

LCS (BEB0310-BS1)

Prepared & Analyzed: 02/22/21

| | | | | | | | | | | | |
|----------------------------------|------|-----|------|------|--|------|--|--------|--|--|--|
| Benzene | 40.8 | 1.0 | ug/l | 33.3 | | 122 | | 51-132 | | | |
| Toluene | 36.8 | 1.0 | " | 33.3 | | 110 | | 51-138 | | | |
| Ethylbenzene | 38.9 | 1.0 | " | 33.3 | | 117 | | 58-146 | | | |
| m,p-Xylene | 73.5 | 2.0 | " | 66.7 | | 110 | | 57-144 | | | |
| o-Xylene | 38.9 | 1.0 | " | 33.3 | | 117 | | 53-146 | | | |
| Naphthalene | 40.6 | 1.0 | " | 33.3 | | 122 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 31.4 | 1.0 | " | 33.3 | | 94.2 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 37.7 | 1.0 | " | 33.3 | | 113 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 17.3 | | " | 13.3 | | 130 | | 23-173 | | | |
| Surrogate: Toluene-d8 | 12.5 | | " | 13.3 | | 93.5 | | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.8 | | " | 13.3 | | 104 | | 21-167 | | | |

Matrix Spike (BEB0310-MS1)

Source: 2102254-01

Prepared & Analyzed: 02/22/21

| | | | | | | | | | | | |
|----------------------------------|------|-----|------|------|----|------|--|--------|--|--|--|
| Benzene | 41.4 | 1.0 | ug/l | 33.3 | ND | 124 | | 34-141 | | | |
| Toluene | 37.1 | 1.0 | " | 33.3 | ND | 111 | | 27-151 | | | |
| Ethylbenzene | 38.9 | 1.0 | " | 33.3 | ND | 117 | | 29-160 | | | |
| m,p-Xylene | 73.6 | 2.0 | " | 66.7 | ND | 110 | | 20-166 | | | |
| o-Xylene | 38.2 | 1.0 | " | 33.3 | ND | 115 | | 33-159 | | | |
| Naphthalene | 34.3 | 1.0 | " | 33.3 | ND | 103 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 31.2 | 1.0 | " | 33.3 | ND | 93.7 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 37.8 | 1.0 | " | 33.3 | ND | 113 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 17.4 | | " | 13.3 | | 130 | | 23-173 | | | |
| Surrogate: Toluene-d8 | 12.4 | | " | 13.3 | | 93.4 | | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.8 | | " | 13.3 | | 104 | | 21-167 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BEB0310 - EPA 5030 Water MS

| Matrix Spike Dup (BEB0310-MSD1) | Source: 2102254-01 | | | Prepared & Analyzed: 02/22/21 | | | | | | |
|----------------------------------|--------------------|-----|------|-------------------------------|----|------|--------|-------|----|--|
| Benzene | 40.7 | 1.0 | ug/l | 33.3 | ND | 122 | 34-141 | 1.58 | 30 | |
| Toluene | 36.9 | 1.0 | " | 33.3 | ND | 111 | 27-151 | 0.460 | 30 | |
| Ethylbenzene | 39.0 | 1.0 | " | 33.3 | ND | 117 | 29-160 | 0.282 | 30 | |
| m,p-Xylene | 73.9 | 2.0 | " | 66.7 | ND | 111 | 20-166 | 0.312 | 30 | |
| o-Xylene | 39.1 | 1.0 | " | 33.3 | ND | 117 | 33-159 | 2.35 | 30 | |
| Naphthalene | 37.0 | 1.0 | " | 33.3 | ND | 111 | 70-130 | 7.59 | 30 | |
| 1,2,4-Trimethylbenzene | 31.4 | 1.0 | " | 33.3 | ND | 94.2 | 70-130 | 0.543 | 30 | |
| 1,3,5-Trimethylbenzene | 37.9 | 1.0 | " | 33.3 | ND | 114 | 70-130 | 0.290 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 17.4 | | " | 13.3 | | 131 | 23-173 | | | |
| Surrogate: Toluene-d8 | 12.5 | | " | 13.3 | | 93.5 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 13.9 | | " | 13.3 | | 104 | 21-167 | | | |

Batch BEB0327 - EPA 5030 Soil MS

| Blank (BEB0327-BLK1) | Prepared: 02/22/21 Analyzed: 02/23/21 | | | | | | | | | |
|----------------------------------|---------------------------------------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | ND | 0.0020 | mg/kg | | | | | | | |
| Toluene | ND | 0.0050 | " | | | | | | | |
| Ethylbenzene | ND | 0.0050 | " | | | | | | | |
| Xylenes (total) | ND | 0.010 | " | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.0050 | " | | | | | | | |
| Naphthalene | ND | 0.0038 | " | | | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.50 | " | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0410 | | " | 0.0400 | | 103 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0415 | | " | 0.0400 | | 104 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0370 | | " | 0.0400 | | 92.6 | 21-167 | | | |

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: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

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

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

Batch BEB0327 - EPA 5030 Soil MS

LCS (BEB0327-BS1)

Prepared: 02/22/21 Analyzed: 02/23/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|--|------|--------|--|--|--|
| Benzene | 0.0928 | 0.0020 | mg/kg | 0.100 | | 92.8 | 70-130 | | | |
| Toluene | 0.106 | 0.0050 | " | 0.100 | | 106 | 70-130 | | | |
| Ethylbenzene | 0.106 | 0.0050 | " | 0.100 | | 106 | 70-130 | | | |
| m,p-Xylene | 0.210 | 0.010 | " | 0.200 | | 105 | 70-130 | | | |
| o-Xylene | 0.101 | 0.0050 | " | 0.100 | | 101 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0397 | | " | 0.0400 | | 99.2 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0403 | | " | 0.0400 | | 101 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0360 | | " | 0.0400 | | 89.9 | 21-167 | | | |

Matrix Spike (BEB0327-MS1)

Source: 2102268-01

Prepared: 02/22/21 Analyzed: 02/23/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|--|--|--|
| Benzene | 0.0921 | 0.0020 | mg/kg | 0.100 | ND | 92.1 | 70-130 | | | |
| Toluene | 0.103 | 0.0050 | " | 0.100 | ND | 103 | 70-130 | | | |
| Ethylbenzene | 0.105 | 0.0050 | " | 0.100 | ND | 105 | 70-130 | | | |
| m,p-Xylene | 0.208 | 0.010 | " | 0.200 | ND | 104 | 70-130 | | | |
| o-Xylene | 0.101 | 0.0050 | " | 0.100 | ND | 101 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0398 | | " | 0.0400 | | 99.5 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0394 | | " | 0.0400 | | 98.5 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0370 | | " | 0.0400 | | 92.4 | 21-167 | | | |

Matrix Spike Dup (BEB0327-MSD1)

Source: 2102268-01

Prepared: 02/22/21 Analyzed: 02/23/21

| | | | | | | | | | | |
|----------------------------------|--------|--------|-------|--------|----|------|--------|-------|----|--|
| Benzene | 0.0919 | 0.0020 | mg/kg | 0.100 | ND | 91.9 | 70-130 | 0.261 | 30 | |
| Toluene | 0.105 | 0.0050 | " | 0.100 | ND | 105 | 70-130 | 2.00 | 30 | |
| Ethylbenzene | 0.106 | 0.0050 | " | 0.100 | ND | 106 | 70-130 | 1.25 | 30 | |
| m,p-Xylene | 0.210 | 0.010 | " | 0.200 | ND | 105 | 70-130 | 0.975 | 30 | |
| o-Xylene | 0.104 | 0.0050 | " | 0.100 | ND | 104 | 70-130 | 2.83 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | 0.0413 | | " | 0.0400 | | 103 | 23-173 | | | |
| Surrogate: Toluene-d8 | 0.0399 | | " | 0.0400 | | 99.8 | 20-170 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.0371 | | " | 0.0400 | | 92.8 | 21-167 | | | |

Summit Scientific

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

Project: Owl Creek 7,7-5

Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 02/24/21 15:52

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEB0328 - EPA 3550A

Blank (BEB0328-BLK1)

Prepared: 02/22/21 Analyzed: 02/23/21

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

LCS (BEB0328-BS1)

Prepared: 02/22/21 Analyzed: 02/23/21

| | | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|--|
| C10-C28 (DRO) | 420 | 50 | mg/kg | 500 | 84.0 | 70-130 | | | | | |
|---------------|-----|----|-------|-----|------|--------|--|--|--|--|--|

Matrix Spike (BEB0328-MS1)

Source: 2102268-01

Prepared: 02/22/21 Analyzed: 02/23/21

| | | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|--|--|--|--|
| C10-C28 (DRO) | 418 | 50 | mg/kg | 500 | 14.5 | 80.6 | 70-130 | | | | |
|---------------|-----|----|-------|-----|------|------|--------|--|--|--|--|

Matrix Spike Dup (BEB0328-MSD1)

Source: 2102268-01

Prepared: 02/22/21 Analyzed: 02/23/21

| | | | | | | | | | | | |
|---------------|-----|----|-------|-----|------|------|--------|-------|----|--|--|
| C10-C28 (DRO) | 416 | 50 | mg/kg | 500 | 14.5 | 80.3 | 70-130 | 0.317 | 20 | | |
|---------------|-----|----|-------|-----|------|------|--------|-------|----|--|--|

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0329 - EPA 5030 Soil MS

Blank (BEB0329-BLK1)

Prepared: 02/23/21 Analyzed: 02/24/21

| | | | | | | | | | | |
|---|---------------|---------|-------|---------------|--|-------------|---------------|--|--|--|
| Acenaphthene | ND | 0.00500 | mg/kg | | | | | | | |
| Anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) anthracene | ND | 0.00500 | " | | | | | | | |
| Benzo (a) pyrene | ND | 0.00500 | " | | | | | | | |
| Benzo (b) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Benzo (k) fluoranthene | ND | 0.00500 | " | | | | | | | |
| Chrysene | ND | 0.00500 | " | | | | | | | |
| Dibenz (a,h) anthracene | ND | 0.00500 | " | | | | | | | |
| Fluoranthene | ND | 0.00500 | " | | | | | | | |
| Fluorene | ND | 0.00500 | " | | | | | | | |
| Indeno (1,2,3-cd) pyrene | ND | 0.00500 | " | | | | | | | |
| Pyrene | ND | 0.00500 | " | | | | | | | |
| 1-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| 2-Methylnaphthalene | ND | 0.00500 | " | | | | | | | |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0185</i> | | " | <i>0.0333</i> | | <i>55.6</i> | <i>40-150</i> | | | |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0177</i> | | " | <i>0.0333</i> | | <i>53.2</i> | <i>40-150</i> | | | |

LCS (BEB0329-BS1)

Prepared: 02/23/21 Analyzed: 02/24/21

| | | | | | | |
|---|---------------|---------|-------|---------------|-------------|---------------|
| Acenaphthene | 0.0232 | 0.00500 | mg/kg | 0.0333 | 69.6 | 31-137 |
| Anthracene | 0.0274 | 0.00500 | " | 0.0333 | 82.2 | 30-120 |
| Benzo (a) anthracene | 0.0240 | 0.00500 | " | 0.0333 | 71.9 | 30-120 |
| Benzo (a) pyrene | 0.0203 | 0.00500 | " | 0.0333 | 61.0 | 30-120 |
| Benzo (b) fluoranthene | 0.0198 | 0.00500 | " | 0.0333 | 59.3 | 30-120 |
| Benzo (k) fluoranthene | 0.0198 | 0.00500 | " | 0.0333 | 59.5 | 30-120 |
| Chrysene | 0.0221 | 0.00500 | " | 0.0333 | 66.4 | 30-120 |
| Dibenz (a,h) anthracene | 0.0205 | 0.00500 | " | 0.0333 | 61.4 | 30-120 |
| Fluoranthene | 0.0224 | 0.00500 | " | 0.0333 | 67.3 | 30-120 |
| Fluorene | 0.0213 | 0.00500 | " | 0.0333 | 63.8 | 30-120 |
| Indeno (1,2,3-cd) pyrene | 0.0218 | 0.00500 | " | 0.0333 | 65.5 | 30-120 |
| Pyrene | 0.0196 | 0.00500 | " | 0.0333 | 58.7 | 35-142 |
| 1-Methylnaphthalene | 0.0229 | 0.00500 | " | 0.0333 | 68.7 | 35-142 |
| 2-Methylnaphthalene | 0.0229 | 0.00500 | " | 0.0333 | 68.7 | 35-142 |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.0278</i> | | " | <i>0.0333</i> | <i>83.4</i> | <i>40-150</i> |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0302</i> | | " | <i>0.0333</i> | <i>90.8</i> | <i>40-150</i> |

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

Project: Owl Creek 7,7-5

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEB0329 - EPA 5030 Soil MS

| Matrix Spike (BEB0329-MS1) | Source: 2102235-01 | | | Prepared: 02/23/21 | | Analyzed: 02/24/21 | | | | |
|---|---------------------------|---------|-------|--------------------|---------|--------------------|---------------|--|--|-------------|
| Acenaphthene | 0.276 | 0.00500 | mg/kg | 0.0333 | ND | 829 | 31-137 | | | QM-07 |
| Anthracene | 0.238 | 0.00500 | " | 0.0333 | ND | 715 | 30-120 | | | QM-07 |
| Benzo (a) anthracene | 0.0239 | 0.00500 | " | 0.0333 | ND | 71.8 | 30-120 | | | |
| Benzo (a) pyrene | 0.0205 | 0.00500 | " | 0.0333 | ND | 61.4 | 30-120 | | | |
| Benzo (b) fluoranthene | 0.0254 | 0.00500 | " | 0.0333 | 0.00684 | 55.8 | 30-120 | | | |
| Benzo (k) fluoranthene | 0.0260 | 0.00500 | " | 0.0333 | ND | 78.1 | 30-120 | | | |
| Chrysene | 0.0379 | 0.00500 | " | 0.0333 | 0.0198 | 54.4 | 30-120 | | | |
| Dibenz (a,h) anthracene | 0.0121 | 0.00500 | " | 0.0333 | ND | 36.2 | 30-120 | | | |
| Fluoranthene | 0.0401 | 0.00500 | " | 0.0333 | 0.0182 | 65.6 | 30-120 | | | |
| Fluorene | 0.445 | 0.00500 | " | 0.0333 | 0.447 | NR | 30-120 | | | QM-07 |
| Indeno (1,2,3-cd) pyrene | 0.0130 | 0.00500 | " | 0.0333 | ND | 39.0 | 30-120 | | | |
| Pyrene | 0.0415 | 0.00500 | " | 0.0333 | 0.0181 | 70.2 | 35-142 | | | |
| 1-Methylnaphthalene | 1.09 | 0.00500 | " | 0.0333 | 0.676 | NR | 15-130 | | | QM-07 |
| 2-Methylnaphthalene | 1.31 | 0.00500 | " | 0.0333 | 0.911 | NR | 15-130 | | | QM-07 |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.00576</i> | | " | <i>0.0333</i> | | <i>17.3</i> | <i>40-150</i> | | | <i>S-02</i> |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0308</i> | | " | <i>0.0333</i> | | <i>92.3</i> | <i>40-150</i> | | | |

| Matrix Spike Dup (BEB0329-MSD1) | Source: 2102235-01 | | | Prepared: 02/23/21 | | Analyzed: 02/24/21 | | | | |
|---|---------------------------|---------|-------|--------------------|---------|--------------------|---------------|-------|----|-------------|
| Acenaphthene | 0.169 | 0.00500 | mg/kg | 0.0333 | ND | 508 | 31-137 | 48.1 | 30 | QM-07 |
| Anthracene | 0.0373 | 0.00500 | " | 0.0333 | ND | 112 | 30-120 | 146 | 30 | QM-07 |
| Benzo (a) anthracene | 0.0259 | 0.00500 | " | 0.0333 | ND | 77.7 | 30-120 | 7.83 | 30 | |
| Benzo (a) pyrene | 0.0218 | 0.00500 | " | 0.0333 | ND | 65.4 | 30-120 | 6.33 | 30 | |
| Benzo (b) fluoranthene | 0.0259 | 0.00500 | " | 0.0333 | 0.00684 | 57.2 | 30-120 | 1.80 | 30 | |
| Benzo (k) fluoranthene | 0.0263 | 0.00500 | " | 0.0333 | ND | 78.9 | 30-120 | 1.03 | 30 | |
| Chrysene | 0.0380 | 0.00500 | " | 0.0333 | 0.0198 | 54.5 | 30-120 | 0.126 | 30 | |
| Dibenz (a,h) anthracene | 0.0122 | 0.00500 | " | 0.0333 | ND | 36.6 | 30-120 | 1.00 | 30 | |
| Fluoranthene | 0.0440 | 0.00500 | " | 0.0333 | 0.0182 | 77.3 | 30-120 | 9.33 | 30 | |
| Fluorene | 0.245 | 0.00500 | " | 0.0333 | 0.447 | NR | 30-120 | 58.0 | 30 | QM-07 |
| Indeno (1,2,3-cd) pyrene | 0.0124 | 0.00500 | " | 0.0333 | ND | 37.3 | 30-120 | 4.51 | 30 | |
| Pyrene | 0.0501 | 0.00500 | " | 0.0333 | 0.0181 | 95.8 | 35-142 | 18.6 | 30 | |
| 1-Methylnaphthalene | 1.01 | 0.00500 | " | 0.0333 | 0.676 | NR | 15-130 | 7.71 | 50 | QM-07 |
| 2-Methylnaphthalene | 1.10 | 0.00500 | " | 0.0333 | 0.911 | 579 | 15-130 | 16.9 | 50 | QM-07 |
| <i>Surrogate: 2-Methylnaphthalene-d10</i> | <i>0.00608</i> | | " | <i>0.0333</i> | | <i>18.2</i> | <i>40-150</i> | | | <i>S-02</i> |
| <i>Surrogate: Fluoranthene-d10</i> | <i>0.0348</i> | | " | <i>0.0333</i> | | <i>104</i> | <i>40-150</i> | | | |

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

Project: Owl Creek 7,7-5

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
02/24/21 15:52

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference