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November 21, 2023

Jenifer Hakkarinen
PDC Energy
1775 Sherman Street
Suite 3000
Denver, CO 80203

Work Order: **HS23110540**

Laboratory Results for: **Fritzler 1-17**

Dear Jenifer Hakkarinen,

ALS Environmental received 1 sample(s) on Nov 08, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

**Generated By: JUMOKE.LAWAL**
Tyler Monroe

**Client:** PDC Energy
**Project:** Fritzler 1-17
**Work Order:** HS23110540

## SAMPLE SUMMARY

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---|---|---|---|---|---|---|
| HS23110540-01 | Fritzler 1-17 | Water | | 07-Nov-2023 10:00 | 08-Nov-2023 09:30 | ☐ |

**Client:** PDC Energy **CASE NARRATIVE**
**Project:** Fritzler 1-17
**Work Order:** HS23110540

## GC Semivolatiles by Method RSK-175

### Batch ID: R451780

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

## GC Semivolatiles by Method SW8015M

### Batch ID: 203331

**Sample ID: Fritzler 1-17 (HS23110540-01)**

• Surrogate recoveries were outside of the control limits due to matrix interference.

## GC Volatiles by Method SW8015

### Batch ID: R451859

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

## GCMS Volatiles by Method SW8260

### Batch ID: R451476

**Sample ID: Fritzler 1-17 (HS23110540-01)**

• Lowest possible dilution due to sample matrix.

**Sample ID: HS23110528-10MS**

• MS/MSD was performed on an unrelated sample.

## Metals by Method E200.8

### Batch ID: 203514

**Sample ID: HS23110754-01MS**

• MS and MSD are for an unrelated sample (Calcium,Sodium)

## Wet Chemistry by Method E300

### Batch ID: R451973

**Sample ID: HS23110257-02MS**

• MS/MSD was performed on an unrelated sample.

**Sample ID: HS23110959-01MS**

• MS/MSD was performed on an unrelated sample.

## WetChemistry by Method E300

### Batch ID: R451973

**Sample ID: Fritzler 1-17 (HS23110540-01)**

• The reporting limit is elevated due to dilution for high concentrations of non-target analytes. (Sulfate)

**Client:** PDC Energy
**Project:** Fritzler 1-17
**Work Order:** HS23110540

**CASE NARRATIVE**

**WetChemistry by Method SM2320B**

**Batch ID: R451724**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

**WetChemistry by Method M2540C**

**Batch ID: R451664**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: PDC Energy
Project: Fritzler 1-17
Sample ID: Fritzler 1-17
Collection Date: 07-Nov-2023 10:00

**ANALYTICAL REPORT**
WorkOrder:HS23110540
Lab ID:HS23110540-01
Matrix:Water

| ANALYSES | RESULT | QUAL | REPORT LIMIT | UNITS | DILUTION FACTOR | DATE ANALYZED |
|---|---|---|---|---|---|---|
| **LOW LEVEL VOLATILES BY SW8260C** | | **Method:SW8260** | | | | Analyst: FT |
| Benzene | ND | | 500 | ug/L | 500 | 10-Nov-2023 18:30 |
| Ethylbenzene | ND | | 500 | ug/L | 500 | 10-Nov-2023 18:30 |
| m,p-Xylene | ND | | 1000 | ug/L | 500 | 10-Nov-2023 18:30 |
| o-Xylene | ND | | 500 | ug/L | 500 | 10-Nov-2023 18:30 |
| Toluene | ND | | 500 | ug/L | 500 | 10-Nov-2023 18:30 |
| Xylenes, Total | ND | | 500 | ug/L | 500 | 10-Nov-2023 18:30 |
| *Surr: 1,2-Dichloroethane-d4* | *99.8* | | *70-126* | *%REC* | *500* | *10-Nov-2023 18:30* |
| *Surr: 4-Bromofluorobenzene* | *97.7* | | *77-113* | *%REC* | *500* | *10-Nov-2023 18:30* |
| *Surr: Dibromofluoromethane* | *97.1* | | *77-123* | *%REC* | *500* | *10-Nov-2023 18:30* |
| *Surr: Toluene-d8* | *97.0* | | *82-127* | *%REC* | *500* | *10-Nov-2023 18:30* |
| **GASOLINE RANGE ORGANICS BY SW8015C** | | **Method:SW8015** | | | | Analyst: TS |
| **Gasoline Range Organics** | **145** | | **25.0** | **mg/L** | 500 | 15-Nov-2023 05:47 |
| *Surr: 4-Bromofluorobenzene* | *75.6* | | *70-123* | *%REC* | *500* | *15-Nov-2023 05:47* |
| **DISSOLVED GASES BY RSK-175** | | **Method:RSK-175** | | | | Analyst: E.H. |
| **Ethane** | **662** | | **200** | **ug/L** | 200 | 14-Nov-2023 11:11 |
| **Methane** | **4,020** | | **100** | **ug/L** | 200 | 14-Nov-2023 11:11 |
| Propane | ND | | 1.00 | ug/L | 1 | 14-Nov-2023 10:30 |
| **TPH DRO/ORO BY SW8015C** | | **Method:SW8015M** | | Prep:SW3511 / 10-Nov-2023 | | Analyst: SAM |
| **TPH (Diesel Range)** | **3.5** | | **0.051** | **mg/L** | 1 | 14-Nov-2023 15:49 |
| *Surr: 2-Fluorobiphenyl* | *221* | *S* | *60-135* | *%REC* | *1* | *14-Nov-2023 15:49* |
| **TOTAL METALS BY E200.8, REV 5.4, 1994** | | **Method:E200.8** | | Prep:E200.8 / 14-Nov-2023 | | Analyst: MSC |
| **Calcium** | **3.91** | | **0.500** | **mg/L** | 1 | 14-Nov-2023 22:57 |
| Magnesium | ND | | 0.500 | mg/L | 1 | 14-Nov-2023 22:57 |
| **Potassium** | **1.23** | | **0.500** | **mg/L** | 1 | 14-Nov-2023 22:57 |
| **Sodium** | **243** | | **4.00** | **mg/L** | 20 | 15-Nov-2023 14:13 |
| **ANIONS BY E300.0, REV 2.1, 1993** | | **Method:E300** | | | | Analyst: TH |
| **Chloride** | **276** | | **5.00** | **mg/L** | 10 | 15-Nov-2023 17:19 |
| Sulfate | ND | | 5.00 | mg/L | 10 | 15-Nov-2023 17:19 |
| **TOTAL DISSOLVED SOLIDS BY SM2540C -2011** | | **Method:M2540C** | | | | Analyst: DC |
| **Total Dissolved Solids (Residue, Filterable)** | **660** | | **10.0** | **mg/L** | 1 | 10-Nov-2023 12:00 |
| **ALKALINITY BY -2011** | | **Method:SM2320B** | | | | Analyst: DW |
| **Alkalinity, Bicarbonate (As CaCO3)** | **79.0** | | **50.0** | **mg/L** | 10 | 13-Nov-2023 23:42 |
| Alkalinity, Carbonate (As CaCO3) | ND | | 50.0 | mg/L | 10 | 13-Nov-2023 23:42 |
| **Alkalinity, Total (As CaCO3)** | **107** | | **50.0** | **mg/L** | 10 | 13-Nov-2023 23:42 |

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Weight / Prep Log**

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**Batch ID:** 203331 **Start Date:** 10 Nov 2023 13:09 **End Date:** 10 Nov 2023 13:09
**Method:** SW3511 **Prep Code:** 3511_DRO

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---|---|---|---|---|---|
| HS23110540-01 | | 32.36 (mL) | 2 (mL) | 0.0618 | 40 mL Amber |

**Batch ID:** 203514 **Start Date:** 14 Nov 2023 13:30 **End Date:** 14 Nov 2023 13:30
**Method:** TOTAL METALS PREP BY E200.8, REV 5.4, 1994 **Prep Code:** 200.8PR

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---|---|---|---|---|---|
| HS23110540-01 | | 10 (mL) | 10 (mL) | 1 | 250 mL plastic, HNO3 to pH <2 |

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

## DATES REPORT

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|---|---|---|---|---|---|---|
| **Batch ID:** 203331 ( 0 ) | **Test Name :** TPH DRO/ORO BY SW8015C | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | 10 Nov 2023 13:09 | 14 Nov 2023 15:49 | 1 |
| **Batch ID:** 203514 ( 0 ) | **Test Name :** TOTAL METALS BY E200.8, REV 5.4, 1994 | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | 14 Nov 2023 13:30 | 15 Nov 2023 14:13 | 20 |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | 14 Nov 2023 13:30 | 14 Nov 2023 22:57 | 1 |
| **Batch ID:** R451476 ( 0 ) | **Test Name :** LOW LEVEL VOLATILES BY SW8260C | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 10 Nov 2023 18:30 | 500 |
| **Batch ID:** R451664 ( 0 ) | **Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011 | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 10 Nov 2023 12:00 | 1 |
| **Batch ID:** R451724 ( 0 ) | **Test Name :** ALKALINITY BY -2011 | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 13 Nov 2023 23:42 | 10 |
| **Batch ID:** R451780 ( 0 ) | **Test Name :** DISSOLVED GASES BY RSK-175 | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 14 Nov 2023 11:11 | 200 |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 14 Nov 2023 10:30 | 1 |
| **Batch ID:** R451859 ( 0 ) | **Test Name :** GASOLINE RANGE ORGANICS BY SW8015C | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 15 Nov 2023 05:47 | 500 |
| **Batch ID:** R451973 ( 0 ) | **Test Name :** ANIONS BY E300.0, REV 2.1, 1993 | | | | **Matrix:** Water | |
| HS23110540-01 | Fritzler 1-17 | 07 Nov 2023 10:00 | | | 15 Nov 2023 17:19 | 10 |

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: 203331 ( 0 )** **Instrument: FID-16** **Method: TPH DRO/ORO BY SW8015C**

**MBLK** Sample ID: **MBLK-203331** Units: **mg/L** Analysis Date: **11-Nov-2023 15:55**
Client ID: Run ID: **FID-16_452399** SeqNo: **7687150** PrepDate: **10-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH (Diesel Range) | ND | 0.050 | | | | | | | | |
| *Surr: 2-Fluorobiphenyl* | *0.05156* | *0.0050* | *0.06* | *0* | *85.9* | *60 - 135* | | | | |

**LCS** Sample ID: **LCS-203331** Units: **mg/L** Analysis Date: **11-Nov-2023 16:25**
Client ID: Run ID: **FID-16_452399** SeqNo: **7687151** PrepDate: **10-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH (Diesel Range) | 0.5072 | 0.050 | 0.6 | 0 | 84.5 | 70 - 130 | | | | |
| *Surr: 2-Fluorobiphenyl* | *0.06099* | *0.0050* | *0.06* | *0* | *102* | *60 - 135* | | | | |

**LCSD** Sample ID: **LCSD-203331** Units: **mg/L** Analysis Date: **11-Nov-2023 16:54**
Client ID: Run ID: **FID-16_452399** SeqNo: **7687152** PrepDate: **10-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH (Diesel Range) | 0.556 | 0.050 | 0.6 | 0 | 92.7 | 70 - 130 | 0.5072 | 9.19 | 20 | |
| *Surr: 2-Fluorobiphenyl* | *0.05957* | *0.0050* | *0.06* | *0* | *99.3* | *60 - 135* | *0.06099* | *2.35* | *20* | |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: R451780 ( 0 )** **Instrument: FID-4** **Method: DISSOLVED GASES BY RSK-175**

**MBLK** Sample ID: **MBLK-231114** Units: **ug/L** Analysis Date: **14-Nov-2023 08:36**
Client ID: Run ID: **FID-4_451780** SeqNo: **7673723** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | ND | 1.00 | | | | | | | | |
| Methane | ND | 0.500 | | | | | | | | |
| Propane | ND | 1.00 | | | | | | | | |

**LCS** Sample ID: **LCS-231114** Units: **ug/L** Analysis Date: **14-Nov-2023 08:53**
Client ID: Run ID: **FID-4_451780** SeqNo: **7673724** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 20.73 | 1.00 | 18.04 | 0 | 115 | 75 - 125 | | | | |
| Methane | 8.368 | 0.500 | 9.647 | 0 | 86.7 | 75 - 125 | | | | |
| Propane | 32.01 | 1.00 | 26.46 | 0 | 121 | 75 - 125 | | | | |

**LCSD** Sample ID: **LCSD-231114** Units: **ug/L** Analysis Date: **14-Nov-2023 09:11**
Client ID: Run ID: **FID-4_451780** SeqNo: **7673725** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethane | 21.43 | 1.00 | 18.04 | 0 | 119 | 75 - 125 | 20.73 | 3.34 | 30 | |
| Methane | 8.462 | 0.500 | 9.647 | 0 | 87.7 | 75 - 125 | 8.368 | 1.11 | 30 | |
| Propane | 31.42 | 1.00 | 26.46 | 0 | 119 | 75 - 125 | 32.01 | 1.89 | 30 | |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID:** R451859 ( 0 ) **Instrument:** FID-20 **Method:** GASOLINE RANGE ORGANICS BY SW8015C

**MBLK** Sample ID: **MBLK-231114** Units: **mg/L** Analysis Date: **15-Nov-2023 02:51**
Client ID: Run ID: **FID-20_451859** SeqNo: **7675452** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | ND | 0.0500 | | | | | | | | |
| *Surr: 4-Bromofluorobenzene* | *0.08539* | *0.00500* | *0.1* | *0* | *85.4* | *70 - 121* | | | | |

**LCS** Sample ID: **LCS-231114** Units: **mg/L** Analysis Date: **15-Nov-2023 02:24**
Client ID: Run ID: **FID-20_451859** SeqNo: **7675450** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 0.9463 | 0.0500 | 1 | 0 | 94.6 | 76 - 124 | | | | |
| *Surr: 4-Bromofluorobenzene* | *0.08378* | *0.00500* | *0.1* | *0* | *83.8* | *52 - 138* | | | | |

**LCSD** Sample ID: **LCSD-231114** Units: **mg/L** Analysis Date: **15-Nov-2023 02:37**
Client ID: Run ID: **FID-20_451859** SeqNo: **7675451** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.022 | 0.0500 | 1 | 0 | 102 | 76 - 124 | 0.9463 | 7.66 | 20 | |
| *Surr: 4-Bromofluorobenzene* | *0.08562* | *0.00500* | *0.1* | *0* | *85.6* | *52 - 138* | *0.08378* | *2.17* | *20* | |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: 203514 ( 0 )** **Instrument: ICPMS06** **Method: TOTAL METALS BY E200.8, REV 5.4, 1994**

**MBLK** Sample ID: **MBLK-203514** Units: **ug/L** Analysis Date: **15-Nov-2023 13:58**
Client ID: Run ID: **ICPMS06_451896** SeqNo: **7676269** PrepDate: **14-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | ND | 500 | | | | | | | | |
| Magnesium | ND | 500 | | | | | | | | |
| Potassium | ND | 500 | | | | | | | | |
| Sodium | ND | 200 | | | | | | | | |

**LCS** Sample ID: **LCS-203514** Units: **ug/L** Analysis Date: **14-Nov-2023 22:30**
Client ID: Run ID: **ICPMS06_451742** SeqNo: **7674848** PrepDate: **14-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 4745 | 500 | 5000 | 0 | 94.9 | 85 - 115 | | | | |
| Magnesium | 4773 | 500 | 5000 | 0 | 95.5 | 85 - 115 | | | | |
| Potassium | 4682 | 500 | 5000 | 0 | 93.6 | 85 - 115 | | | | |
| Sodium | 4602 | 200 | 5000 | 0 | 92.0 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-203514** Units: **ug/L** Analysis Date: **14-Nov-2023 22:32**
Client ID: Run ID: **ICPMS06_451742** SeqNo: **7674849** PrepDate: **14-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 4767 | 500 | 5000 | 0 | 95.3 | 85 - 115 | 4745 | 0.46 | 20 | |
| Magnesium | 4919 | 500 | 5000 | 0 | 98.4 | 85 - 115 | 4773 | 3.01 | 20 | |
| Potassium | 4732 | 500 | 5000 | 0 | 94.6 | 85 - 115 | 4682 | 1.07 | 20 | |
| Sodium | 4720 | 200 | 5000 | 0 | 94.4 | 85 - 115 | 4602 | 2.53 | 20 | |

**MS** Sample ID: **HS23110754-01MS** Units: **ug/L** Analysis Date: **14-Nov-2023 22:36**
Client ID: Run ID: **ICPMS06_451742** SeqNo: **7674851** PrepDate: **14-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 133600 | 500 | 5000 | 124100 | 189 | 70 - 130 | | | | SO |
| Magnesium | 11440 | 500 | 5000 | 6759 | 93.7 | 70 - 130 | | | | |
| Potassium | 10060 | 500 | 5000 | 5495 | 91.2 | 70 - 130 | | | | |
| Sodium | 85990 | 200 | 5000 | 78980 | 140 | 70 - 130 | | | | SO |

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: 203514 ( 0 )** **Instrument: ICPMS06** **Method: TOTAL METALS BY E200.8, REV 5.4, 1994**

**MSD** Sample ID: **HS23110754-01MSD** Units: **ug/L** Analysis Date: **14-Nov-2023 22:38**
Client ID: Run ID: **ICPMS06_451742** SeqNo: **7674852** PrepDate: **14-Nov-2023** DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Calcium | 141300 | 500 | 5000 | 124100 | 344 | 70 - 130 | 133600 | 5.63 | 20 | SO |
| Magnesium | 12160 | 500 | 5000 | 6759 | 108 | 70 - 130 | 11440 | 6.03 | 20 | |
| Potassium | 10780 | 500 | 5000 | 5495 | 106 | 70 - 130 | 10060 | 6.95 | 20 | |
| Sodium | 91690 | 200 | 5000 | 78980 | 254 | 70 - 130 | 85990 | 6.42 | 20 | SO |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: R451476 ( 0 )** **Instrument: VOA12** **Method: LOW LEVEL VOLATILES BY SW8260C**

**MBLK** Sample ID: **VBLKW-231110** Units: **ug/L** Analysis Date: **10-Nov-2023 10:30**
Client ID: Run ID: **VOA12_451476** SeqNo: **7666153** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 1.0 | | | | | | | | |
| Ethylbenzene | ND | 1.0 | | | | | | | | |
| m,p-Xylene | ND | 2.0 | | | | | | | | |
| o-Xylene | ND | 1.0 | | | | | | | | |
| Toluene | ND | 1.0 | | | | | | | | |
| Xylenes, Total | ND | 3.0 | | | | | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *48.38* | *1.0* | *50* | *0* | *96.8* | *70 - 123* | | | | |
| *Surr: 4-Bromofluorobenzene* | *48.38* | *1.0* | *50* | *0* | *96.8* | *77 - 113* | | | | |
| *Surr: Dibromofluoromethane* | *48.85* | *1.0* | *50* | *0* | *97.7* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *48.97* | *1.0* | *50* | *0* | *97.9* | *81 - 120* | | | | |

**LCS** Sample ID: **VLCSW-231110** Units: **ug/L** Analysis Date: **10-Nov-2023 09:48**
Client ID: Run ID: **VOA12_451476** SeqNo: **7666152** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 17.6 | 1.0 | 20 | 0 | 88.0 | 74 - 120 | | | | |
| Ethylbenzene | 17.77 | 1.0 | 20 | 0 | 88.8 | 77 - 117 | | | | |
| m,p-Xylene | 36.27 | 2.0 | 40 | 0 | 90.7 | 77 - 122 | | | | |
| o-Xylene | 18.41 | 1.0 | 20 | 0 | 92.0 | 75 - 119 | | | | |
| Toluene | 18.37 | 1.0 | 20 | 0 | 91.8 | 77 - 118 | | | | |
| Xylenes, Total | 54.68 | 3.0 | 60 | 0 | 91.1 | 75 - 122 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *49.15* | *1.0* | *50* | *0* | *98.3* | *70 - 123* | | | | |
| *Surr: 4-Bromofluorobenzene* | *47.54* | *1.0* | *50* | *0* | *95.1* | *77 - 113* | | | | |
| *Surr: Dibromofluoromethane* | *48.5* | *1.0* | *50* | *0* | *97.0* | *73 - 126* | | | | |
| *Surr: Toluene-d8* | *48.8* | *1.0* | *50* | *0* | *97.6* | *81 - 120* | | | | |

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: R451476 ( 0 )** **Instrument: VOA12** **Method: LOW LEVEL VOLATILES BY SW8260C**

**MS** Sample ID: **HS23110528-10MS** Units: **ug/L** Analysis Date: **10-Nov-2023 11:33**
Client ID: Run ID: **VOA12_451476** SeqNo: **7666156** PrepDate: DF: **50**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 4793 | 50 | 1000 | 3251 | 154 | 70 - 127 | | | | S |
| Ethylbenzene | 1392 | 50 | 1000 | 86.37 | 131 | 70 - 124 | | | | S |
| m,p-Xylene | 2581 | 100 | 2000 | 103.7 | 124 | 70 - 130 | | | | |
| o-Xylene | 1294 | 50 | 1000 | 0 | 129 | 70 - 124 | | | | S |
| Toluene | 1264 | 50 | 1000 | 0 | 126 | 70 - 123 | | | | S |
| Xylenes, Total | 3875 | 150 | 3000 | 103.7 | 126 | 70 - 130 | | | | |
| *Surr: 1,2-Dichloroethane-d4* | *2421* | *50* | *2500* | *0* | *96.8* | *70 - 126* | | | | |
| *Surr: 4-Bromofluorobenzene* | *2473* | *50* | *2500* | *0* | *98.9* | *77 - 113* | | | | |
| *Surr: Dibromofluoromethane* | *2444* | *50* | *2500* | *0* | *97.7* | *77 - 123* | | | | |
| *Surr: Toluene-d8* | *2484* | *50* | *2500* | *0* | *99.3* | *82 - 127* | | | | |

**MSD** Sample ID: **HS23110528-10MSD** Units: **ug/L** Analysis Date: **10-Nov-2023 11:54**
Client ID: Run ID: **VOA12_451476** SeqNo: **7666157** PrepDate: DF: **50**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 4803 | 50 | 1000 | 3251 | 155 | 70 - 127 | 4793 | 0.195 | 20 | S |
| Ethylbenzene | 1313 | 50 | 1000 | 86.37 | 123 | 70 - 124 | 1392 | 5.88 | 20 | |
| m,p-Xylene | 2538 | 100 | 2000 | 103.7 | 122 | 70 - 130 | 2581 | 1.67 | 20 | |
| o-Xylene | 1199 | 50 | 1000 | 0 | 120 | 70 - 124 | 1294 | 7.65 | 20 | |
| Toluene | 1243 | 50 | 1000 | 0 | 124 | 70 - 123 | 1264 | 1.7 | 20 | S |
| Xylenes, Total | 3737 | 150 | 3000 | 103.7 | 121 | 70 - 130 | 3875 | 3.63 | 20 | |
| *Surr: 1,2-Dichloroethane-d4* | *2401* | *50* | *2500* | *0* | *96.0* | *70 - 126* | *2421* | *0.851* | *20* | |
| *Surr: 4-Bromofluorobenzene* | *2372* | *50* | *2500* | *0* | *94.9* | *77 - 113* | *2473* | *4.17* | *20* | |
| *Surr: Dibromofluoromethane* | *2464* | *50* | *2500* | *0* | *98.5* | *77 - 123* | *2444* | *0.822* | *20* | |
| *Surr: Toluene-d8* | *2416* | *50* | *2500* | *0* | *96.6* | *82 - 127* | *2484* | *2.76* | *20* | |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID:** R451664 ( 0 ) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

**MBLK** Sample ID: **WMBLK-11102023** Units: **mg/L** Analysis Date: **10-Nov-2023 12:00**
Client ID: Run ID: **Balance1_451664** SeqNo: **7671005** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (Residue, Filterable) | ND | 10.0 | | | | | | | | |

**LCS** Sample ID: **WLCS-11102023** Units: **mg/L** Analysis Date: **10-Nov-2023 12:00**
Client ID: Run ID: **Balance1_451664** SeqNo: **7671004** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (Residue, Filterable) | 1038 | 10.0 | 1000 | 0 | 104 | 85 - 115 | | | | |

**DUP** Sample ID: **HS23110659-01DUP** Units: **mg/L** Analysis Date: **10-Nov-2023 12:00**
Client ID: Run ID: **Balance1_451664** SeqNo: **7671003** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (Residue, Filterable) | 1432 | 10.0 | | | | | 1434 | 0.14 | 20 | |

**DUP** Sample ID: **HS23110599-01DUP** Units: **mg/L** Analysis Date: **10-Nov-2023 12:00**
Client ID: Run ID: **Balance1_451664** SeqNo: **7671001** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids (Residue, Filterable) | 3324 | 10.0 | | | | | 3324 | 0 | 20 | |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: R451724 ( 0 )** **Instrument: Skalar 03** **Method: ALKALINITY BY -2011**

**MBLK** Sample ID: **MBLK-11.13.2023** Units: **mg/L** Analysis Date: **13-Nov-2023 21:10**
Client ID: Run ID: **Skalar 03_451724** SeqNo: **7672626** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate (As CaCO3) | ND | 5.00 | | | | | | | | |
| Alkalinity, Carbonate (As CaCO3) | ND | 5.00 | | | | | | | | |
| Alkalinity, Total (As CaCO3) | ND | 5.00 | | | | | | | | |

**LCS** Sample ID: **LCS-11.13.2023** Units: **mg/L** Analysis Date: **13-Nov-2023 21:17**
Client ID: Run ID: **Skalar 03_451724** SeqNo: **7672627** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Carbonate (As CaCO3) | 908.2 | 5.00 | 1000 | 0 | 90.8 | 85 - 115 | | | | |
| Alkalinity, Total (As CaCO3) | 946 | 5.00 | 1000 | 0 | 94.6 | 85 - 115 | | | | |

**LCSD** Sample ID: **LCSD-11.13.2023** Units: **mg/L** Analysis Date: **13-Nov-2023 21:23**
Client ID: Run ID: **Skalar 03_451724** SeqNo: **7672628** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Carbonate (As CaCO3) | 906.6 | 5.00 | 1000 | 0 | 90.7 | 85 - 115 | 908.2 | 0.176 | 20 | |
| Alkalinity, Total (As CaCO3) | 944.6 | 5.00 | 1000 | 0 | 94.5 | 85 - 115 | 946 | 0.148 | 20 | |

**DUP** Sample ID: **HS23110641-01DUP** Units: **mg/L** Analysis Date: **13-Nov-2023 22:49**
Client ID: Run ID: **Skalar 03_451724** SeqNo: **7672616** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate (As CaCO3) | 342.3 | 5.00 | | | | | 337.8 | 1.32 | 20 | |
| Alkalinity, Carbonate (As CaCO3) | ND | 5.00 | | | | | 0 | 0 | 20 | |
| Alkalinity, Total (As CaCO3) | 342.3 | 5.00 | | | | | 337.8 | 1.32 | 20 | |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: R451973 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

**MBLK** Sample ID: **MBLK** Units: **mg/L** Analysis Date: **15-Nov-2023 15:14**
Client ID: Run ID: **ICS-Integrion_451973** SeqNo: **7677590** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 0.500 | | | | | | | | |
| Sulfate | ND | 0.500 | | | | | | | | |

**LCS** Sample ID: **LCS** Units: **mg/L** Analysis Date: **15-Nov-2023 15:20**
Client ID: Run ID: **ICS-Integrion_451973** SeqNo: **7677591** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 19.3 | 0.500 | 20 | 0 | 96.5 | 90 - 110 | | | | |
| Sulfate | 21.74 | 0.500 | 20 | 0 | 109 | 90 - 110 | | | | |

**MS** Sample ID: **HS23110959-01MS** Units: **mg/L** Analysis Date: **15-Nov-2023 15:37**
Client ID: Run ID: **ICS-Integrion_451973** SeqNo: **7677593** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 10.51 | 0.500 | 10 | 0.113 | 104 | 80 - 120 | | | | |
| Sulfate | 12.69 | 0.500 | 10 | 0.1082 | 126 | 80 - 120 | | | | S |

**MS** Sample ID: **HS23110257-02MS** Units: **mg/L** Analysis Date: **15-Nov-2023 18:18**
Client ID: Run ID: **ICS-Integrion_451973** SeqNo: **7677614** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 167.6 | 0.500 | 10 | 160.7 | 69.1 | 80 - 120 | | | | SEO |
| Sulfate | 99.06 | 0.500 | 10 | 95.73 | 33.2 | 80 - 120 | | | | SO |

**MSD** Sample ID: **HS23110959-01MSD** Units: **mg/L** Analysis Date: **15-Nov-2023 15:43**
Client ID: Run ID: **ICS-Integrion_451973** SeqNo: **7677594** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 10.52 | 0.500 | 10 | 0.113 | 104 | 80 - 120 | 10.51 | 0.0856 | 20 | |
| Sulfate | 12.79 | 0.500 | 10 | 0.1082 | 127 | 80 - 120 | 12.69 | 0.739 | 20 | S |

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** HS23110540

**QC BATCH REPORT**

**Batch ID: R451973 ( 0 )** **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

**MSD** Sample ID: **HS23110257-02MSD** Units: **mg/L** Analysis Date: **15-Nov-2023 18:24**
Client ID: Run ID: **ICS-Integrion_451973** SeqNo: **7677615** PrepDate: DF: **1**

| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 167.5 | 0.500 | 10 | 160.7 | 67.9 | 80 - 120 | 167.6 | 0.0698 | 20 | SEO |
| Sulfate | 99.56 | 0.500 | 10 | 95.73 | 38.2 | 80 - 120 | 99.06 | 0.504 | 20 | SO |

**The following samples were analyzed in this batch:** HS23110540-01

**Client:** PDC Energy
**Project:** Fritzler 1-17
**WorkOrder:** **HS23110540**

**QUALIFIERS, ACRONYMS, UNITS**

| Qualifier | Description |
|---|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte detected below quantitation limit |
| M | Manually integrated, see raw data for justification |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL/SDL |

| Acronym | Description |
|---|---|
| DCS | Detectability Check Study |
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MQL | Method Quantitation Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PDS | Post Digestion Spike |
| PQL | Practical Quantitaion Limit |
| SD | Serial Dilution |
| SDL | Sample Detection Limit |
| TRRP | Texas Risk Reduction Program |

| Unit Reported | Description |
|---|---|
| mg/L | Milligrams per Liter |

## CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|---|---|---|
| Arkansas | 88-00356 | 27-Mar-2024 |
| California | 2919; 2024 | 30-Apr-2024 |
| Dept of Defense | L23-358 | 31-May-2025 |
| Florida | E87611-38 | 30-Jun-2024 |
| Illinois | 2000322023-11 | 30-Jun-2024 |
| Kansas | E-10352 2023-2024 | 31-Jul-2024 |
| Louisiana | 03087 2023-2024 | 30-Jun-2024 |
| Maryland | 343; 2023-2024 | 30-Jun-2024 |
| North Carolina | 624-2023 | 31-Dec-2023 |
| North Dakota | R-193 2023-2024 | 30-Apr-2024 |
| Oklahoma | 2023-140 | 31-Aug-2024 |
| Texas | T104704231-23-32 | 30-Apr-2024 |
| Utah | TX026932023-14 | 31-Jul-2024 |

## Sample Receipt Checklist

**Work Order ID:** HS23110540 **Date/Time Received:** **08-Nov-2023 09:30**

**Client Name:** PDC Energy 80203 **Received by:** **Corey Grandits**

| **Completed By:** | /S/ Corey Grandits | 08-Nov-2023 15:55 | **Reviewed by:** | /S/ Tyler Monroe | 08-Nov-2023 16:40 |
|---|---|---|---|---|---|
| | eSignature | Date/Time | | eSignature | Date/Time |

Matrices: **W** Carrier name: **FedEx**

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shipping container/cooler? | Yes ☐ | No ☐ | Not Present ☑ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | 1 Page(s) |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Samplers name present on COC? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | |

| | | |
|---|---|---|
| Temperature(s)/Thermometer(s): | 3.3UC/3.2C | IR31 |
| Cooler(s)/Kit(s): | Blue | |
| Date/Time sample(s) sent to storage: | 11/8/23 | |

| | | | |
|---|---|---|---|
| Water - VOA vials have zero headspace? | Yes ☑ | No ☐ | No VOA vials submitted ☐ |
| Water - pH acceptable upon receipt? | Yes ☑ | No ☐ | N/A ☐ |
| pH adjusted? | Yes ☐ | No ☑ | N/A ☐ |
| pH adjusted by: | | | |

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

**ALS Environmental**
965 E 11th St
Loveland, CO 80537
PH: 970-305-1648

# Chain-of-Custody

WORKORDER #

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

| | | | |
|---|---|---|---|
| SAMPLER | Jeff Braden | DATE | 11/7/23 |
| PROJECT NAME | Fritzler 1-17 | FACILITY ID | 123-10764 |
| PROJECT No. | 09C2073580 | EDD FORMAT | COGCC EDD, LTE |
| | PDCE Bradenhead Sampling | PURCHASE ORDER | N/A |
| COMPANY NAME | PDC Energy | BILL TO COMPANY | PDC Energy |
| SEND REPORT TO | Jenifer Hakkarinen | INVOICE ATTN TO | Jenifer Hakkarinen |
| ADDRESS | 1775 Sherman ST, Suite 3000 | ADDRESS | 1775 Sherman Street, Suite 3000 |
| CITY / STATE / ZIP | Denver, CO 80203 | CITY / STATE / ZIP | Denver, Colorado |
| PHONE | 303-860-5815 | PHONE | 303.860.5815 |
| FAX | | FAX | |
| E-MAIL | jenifer.hakkarinen@pdce.com<br>jessica.johannsen@pdce.com<br>jbraden@ensolum.com | E-MAIL | jenifer.hakkarinen@pdce.com |

TURNAROUND: Standard

| Lab ID | Field ID | Matrix | Sample Date | Sample Time | # Bottles | Pres. | QC | RSK 175 (Dissolved Methane, Ethane, Propane) | SW8260_25 (BTEX & TPH GRO) | SW8015M (TPH DRO) | SM2320B (Alkalinity, Carbonate, Bicarbonate, Total) | EPA200.7/208 (Total Cations - see comments) | EPA 300.0 (Total Anions - see comments) | SM2540C (Total Dissolved Solids) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fritzler 1-17 | W | 11/7/23 | 1000 | 11 | 1,2 | II | X | X | X | X | X | X | X |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

HS23110540
PDC Energy
Fritzler 1-17

*Time Zone: MST

Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

**Comments:** Calcium, Chloride, Magnesium, Potassium, Sodium, Sulfate*
**Samples analyzed per COGCC Bradenhead Sampling Program**
If bubbles are present in voas, please proceed with analysis

BLUE 1231

3.5°

**Cations/Anions:**

| QC PACKAGE (check below) | |
|---|---|
| X | LEVEL II (Standard QC) |
| | LEVEL III (Std QC + forms) |
| | LEVEL IV (Std QC + forms + raw data) |
| | |

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY | | Jeff Braden | 11/7/23 | 1425 |
| RECEIVED BY | | Tyler Monroe | 11/7/23 | 1425 |
| RELINQUISHED BY | | Tyler Monroe | 11/7/23 | 1600 |
| RECEIVED BY | | CC | 11-8-23 | 0930 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

**Preservative Key:** 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035