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October 17, 2022

Max Trehus
PDC Energy
4000 Burlington Ave.
Evans, CO 80620

Work Order: **HS22100082**

Laboratory Results for: **Seltzer LD 21-033HC Facility# 447395**

Dear Max Trehus ,

ALS Environmental received 2 sample(s) on Oct 01, 2022 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: Seltzer LD 21-033HC Facility# 447395
Work Order: HS22100082

SAMPLE SUMMARY

| Lab Samp ID | Client Sample ID | Matrix | TagNo | Collection Date | Date Received | Hold |
|---------------|------------------|--------|-------|-------------------|-------------------|--------------------------|
| HS22100082-01 | 21-033HC A | Water | | 30-Sep-2022 10:40 | 01-Oct-2022 11:45 | <input type="checkbox"/> |
| HS22100082-02 | 21-032HC B | Water | | 30-Sep-2022 10:40 | 01-Oct-2022 11:45 | <input type="checkbox"/> |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
Work Order: HS22100082

CASE NARRATIVE

GC Semivolatiles by Method RSK-175**Batch ID: R418928****Sample ID: HS22100112-02DUP**

- Duplicate is for an unrelated sample

GC Semivolatiles by Method SW8015M**Batch ID: 184464****Sample ID: 21-033HC A (HS22100082-01)**

- The surrogate recoveries could not be determined due to dilution below the calibration range.

GC Volatiles by Method SW8015**Batch ID: R418744**

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

GCMS Volatiles by Method SW8260**Batch ID: R419279****Sample ID: 21-033HC A (HS22100082-01)**

- Lowest practical dilution due to sample matrix and/or high concentration of non-target analyte(s).

Metals by Method E200.8**Batch ID: 184791****Sample ID: 21-033HC A (HS22100082-01)**

- Sample ran at 10x due to high concentration of Calcium.

Sample ID: HS22100264-01MS

- MS and MSD are for an unrelated sample

Batch ID: 184647**Sample ID: 21-032HC B (HS22100082-02)**

- Sample ran at 10x due to high concentration of Calcium.

Sample ID: HS22100299-01MS

- MS and MSD are for an unrelated sample

Sample ID: HS22100305-01MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SM2320B**Batch ID: R419486**

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

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
Work Order: HS22100082

CASE NARRATIVE

WetChemistry by Method SM2320B

WetChemistry by Method E300

Batch ID: R419049

Sample ID: HS22091533-01MS

- MS and MSD are for an unrelated sample

Sample ID: HS22100460-01MS

- MS and MSD are for an unrelated sample
-

WetChemistry by Method M2540C

Batch ID: R419008

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

Client: PDC Energy
 Project: Seltzer LD 21-033HC Facility# 447395
 Sample ID: 21-033HC A
 Collection Date: 30-Sep-2022 10:40

ANALYTICAL REPORT

WorkOrder:HS22100082
 Lab ID:HS22100082-01
 Matrix:Water

| ANALYSES | RESULT | QUAL | MDL | REPORT LIMIT | UNITS | DILUTION FACTOR | DATE ANALYZED |
|--|--------|-----------------------|--------|---------------------------|-------|--------------------|-------------------|
| LOW LEVEL VOLATILES BY SW8260C | | Method:SW8260 | | Analyst: AKP | | | |
| Benzene | 45 | | 5.0 | 25 | ug/L | 25 | 13-Oct-2022 00:52 |
| Ethylbenzene | 44 | | 7.5 | 25 | ug/L | 25 | 13-Oct-2022 00:52 |
| m,p-Xylene | 140 | | 12 | 50 | ug/L | 25 | 13-Oct-2022 00:52 |
| o-Xylene | 100 | | 7.5 | 25 | ug/L | 25 | 13-Oct-2022 00:52 |
| Toluene | 130 | | 5.0 | 25 | ug/L | 25 | 13-Oct-2022 00:52 |
| Xylenes, Total | 240 | | 7.5 | 25 | ug/L | 25 | 13-Oct-2022 00:52 |
| Surr: 1,2-Dichloroethane-d4 | 97.3 | | | 70-126 | %REC | 25 | 13-Oct-2022 00:52 |
| Surr: 4-Bromofluorobenzene | 96.3 | | | 77-113 | %REC | 25 | 13-Oct-2022 00:52 |
| Surr: Dibromofluoromethane | 102 | | | 77-123 | %REC | 25 | 13-Oct-2022 00:52 |
| Surr: Toluene-d8 | 102 | | | 82-127 | %REC | 25 | 13-Oct-2022 00:52 |
| GASOLINE RANGE ORGANICS BY SW8015C | | Method:SW8015 | | Analyst: FT | | | |
| Gasoline Range Organics | 27.6 | | 0.100 | 0.500 | mg/L | 10 | 06-Oct-2022 12:57 |
| Surr: 4-Bromofluorobenzene | 117 | | | 70-123 | %REC | 10 | 06-Oct-2022 12:57 |
| DISSOLVED GASES BY RSK-175 | | Method:RSK-175 | | Analyst: PPM | | | |
| Ethane | 99.1 | | 1.44 | 10.0 | ug/L | 10 | 06-Oct-2022 12:12 |
| Methane | 250 | | 1.07 | 5.00 | ug/L | 10 | 06-Oct-2022 12:12 |
| Propane | 51.2 | | 1.00 | 1.00 | ug/L | 1 | 06-Oct-2022 10:58 |
| TPH DRO/ORO BY SW8015C | | Method:SW8015M | | Prep:SW3511 / 06-Oct-2022 | | Analyst: PPM | |
| DRO (>C10 - C28) | 150 | | 2.0 | 5.1 | mg/L | 100 | 06-Oct-2022 18:09 |
| Surr: 2-Fluorobiphenyl | 0 | JS | | 60-135 | %REC | 100 | 06-Oct-2022 18:09 |
| TOTAL METALS BY E200.8, REV 5.4, 1994 | | Method:E200.8 | | Prep:E200.8 / 13-Oct-2022 | | Analyst: JHD | |
| Calcium | 4,630 | | 1.80 | 50.0 | mg/L | 100 | 14-Oct-2022 16:36 |
| Magnesium | 0.463 | J | 0.0780 | 5.00 | mg/L | 10 | 14-Oct-2022 14:18 |
| Potassium | 356 | | 0.330 | 5.00 | mg/L | 10 | 14-Oct-2022 14:18 |
| Sodium | 1,080 | | 0.210 | 2.00 | mg/L | 10 | 14-Oct-2022 14:18 |
| ANIONS BY E300.0, REV 2.1, 1993 | | Method:E300 | | Analyst: TH | | | |
| Chloride | 8,650 | | 40.0 | 100 | mg/L | 200 | 10-Oct-2022 14:16 |
| Sulfate | 898 | | 2.00 | 5.00 | mg/L | 10 | 10-Oct-2022 14:11 |
| TOTAL DISSOLVED SOLIDS BY SM2540C -2011 | | Method:M2540C | | Analyst: CWG | | | |
| Total Dissolved Solids (Residue, Filterable) | 23,400 | | 5.00 | 10.0 | mg/L | 1 | 07-Oct-2022 15:32 |
| ALKALINITY BY SM 2320B-2011 | | Method:SM2320B | | Analyst: JAC | | | |
| Alkalinity, Bicarbonate (As CaCO3) | 217 | | 5.00 | 5.00 | mg/L | 1 | 14-Oct-2022 22:04 |
| Alkalinity, Carbonate (As CaCO3) | 111 | | 5.00 | 5.00 | mg/L | 1 | 14-Oct-2022 22:04 |
| Alkalinity, Total (As CaCO3) | 329 | | 5.00 | 5.00 | mg/L | 1 | 14-Oct-2022 22:04 |

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

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
Sample ID: 21-032HC B
Collection Date: 30-Sep-2022 10:40

ANALYTICAL REPORT

WorkOrder:HS22100082
Lab ID:HS22100082-02
Matrix:Water

| ANALYSES | RESULT | QUAL | MDL | REPORT LIMIT | UNITS | DILUTION FACTOR | DATE ANALYZED |
|--|--------|------|--------|-----------------|---------------------------|--------------------|-------------------|
| DISSOLVED METALS BY E200.8, REV 5.4, Method:E200.8 (dissolved) 1994 | | | | | Prep:E200.8 / 11-Oct-2022 | | Analyst: JHD |
| Calcium | 4,450 | | 1.80 | 50.0 | mg/L | 100 | 14-Oct-2022 16:56 |
| Magnesium | 0.424 | J | 0.0780 | 5.00 | mg/L | 10 | 13-Oct-2022 19:41 |
| Potassium | 330 | | 0.330 | 5.00 | mg/L | 10 | 13-Oct-2022 19:41 |
| Sodium | 1,060 | | 0.210 | 2.00 | mg/L | 10 | 13-Oct-2022 19:41 |

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

Weight / Prep Log

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

Batch ID: 184324 **Start Date:** 03 Oct 2022 17:00 **End Date:** 03 Oct 2022 17:30
Method: SAMPLE FILTRATION - 0.45 MICRON FILTER **Prep Code:** FILTRATION

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---------------|-----------|---------------|--------------|-------------|----------------------|
| HS22100082-02 | | 100 (mL) | 100 (mL) | 1 | 120 ml Plastic, Neat |

Batch ID: 184464 **Start Date:** 06 Oct 2022 09:10 **End Date:** 07 Oct 2022 13:00
Method: SW3511 **Prep Code:** 3511_DRO

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---------------|-----------|---------------|--------------|-------------|-------------|
| HS22100082-01 | | 32.43 (mL) | 2 (mL) | 0.06167 | 40 mL Amber |

Batch ID: 184647 **Start Date:** 11 Oct 2022 08:00 **End Date:** 11 Oct 2022 12:00
Method: DISSOLVED METALS DIGESTION BY E200.8,REV 5.4,1994 **Prep Code:** 200.8_DISSPR

| Sample ID | Container | Sample Wt/Vol | Final Volume | Prep Factor | |
|---------------|-----------|---------------|--------------|-------------|----------------------|
| HS22100082-02 | | 10 (mL) | 10 (mL) | 1 | 120 ml Plastic, Neat |

Batch ID: 184791 **Start Date:** 13 Oct 2022 09:00 **End Date:** 13 Oct 2022 13:00
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 | |
|---------------|-----------|---------------|--------------|-------------|-------------------------------|
| HS22100082-01 | | 10 (mL) | 10 (mL) | 1 | 250 mL plastic, HNO3 to pH <2 |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

DATES REPORT

| Sample ID | Client Samp ID | Collection Date | Leachate Date | Prep Date | Analysis Date | DF |
|--------------------------------|----------------|--|---------------|-------------------|----------------------|-----|
| Batch ID: 184464 (0) | | Test Name : TPH DRO/ORO BY SW8015C | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | 06 Oct 2022 09:10 | 06 Oct 2022 18:09 | 100 |
| Batch ID: 184647 (0) | | Test Name : DISSOLVED METALS BY E200.8, REV 5.4, 1994 | | | Matrix: Water | |
| HS22100082-02 | 21-032HC B | 30 Sep 2022 10:40 | | 11 Oct 2022 08:00 | 14 Oct 2022 16:56 | 100 |
| HS22100082-02 | 21-032HC B | 30 Sep 2022 10:40 | | 11 Oct 2022 08:00 | 13 Oct 2022 19:41 | 10 |
| Batch ID: 184791 (0) | | Test Name : TOTAL METALS BY E200.8, REV 5.4, 1994 | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | 13 Oct 2022 09:00 | 14 Oct 2022 16:36 | 100 |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | 13 Oct 2022 09:00 | 14 Oct 2022 14:18 | 10 |
| Batch ID: R418744 (0) | | Test Name : GASOLINE RANGE ORGANICS BY SW8015C | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 06 Oct 2022 12:57 | 10 |
| Batch ID: R418928 (0) | | Test Name : DISSOLVED GASES BY RSK-175 | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 06 Oct 2022 12:12 | 10 |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 06 Oct 2022 10:58 | 1 |
| Batch ID: R419008 (0) | | Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011 | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 07 Oct 2022 15:32 | 1 |
| Batch ID: R419049 (0) | | Test Name : ANIONS BY E300.0, REV 2.1, 1993 | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 10 Oct 2022 14:16 | 200 |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 10 Oct 2022 14:11 | 10 |
| Batch ID: R419279 (0) | | Test Name : LOW LEVEL VOLATILES BY SW8260C | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 13 Oct 2022 00:52 | 25 |
| Batch ID: R419486 (0) | | Test Name : ALKALINITY BY SM 2320B-2011 | | | Matrix: Water | |
| HS22100082-01 | 21-033HC A | 30 Sep 2022 10:40 | | | 14 Oct 2022 22:04 | 1 |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: 184464 (0) | | Instrument: FID-16 | | Method: TPH DRO/ORO BY SW8015C | | | | | | |
|--|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|-----------|------|
| MBLK | Sample ID: MBLK-184464 | Units: mg/L | | Analysis Date: 06-Oct-2022 12:47 | | | | | | |
| Client ID: | Run ID: FID-16_418959 | SeqNo: 6909448 | | PrepDate: 06-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (>C10 - C28) | U | 0.050 | | | | | | | | |
| Surr: 2-Fluorobiphenyl | 0.05797 | 0.0050 | 0.06 | 0 | 96.6 | 60 - 135 | | | | |
| LCS | Sample ID: LCS-184464 | Units: mg/L | | Analysis Date: 06-Oct-2022 13:16 | | | | | | |
| Client ID: | Run ID: FID-16_418959 | SeqNo: 6909449 | | PrepDate: 06-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (>C10 - C28) | 0.6419 | 0.050 | 0.6 | 0 | 107 | 70 - 130 | | | | |
| Surr: 2-Fluorobiphenyl | 0.06492 | 0.0050 | 0.06 | 0 | 108 | 60 - 135 | | | | |
| LCSD | Sample ID: LCSD-184464 | Units: mg/L | | Analysis Date: 06-Oct-2022 13:46 | | | | | | |
| Client ID: | Run ID: FID-16_418959 | SeqNo: 6909499 | | PrepDate: 06-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (>C10 - C28) | 0.619 | 0.050 | 0.6 | 0 | 103 | 70 - 130 | 0.6419 | 3.62 | 20 | |
| Surr: 2-Fluorobiphenyl | 0.06585 | 0.0050 | 0.06 | 0 | 110 | 60 - 135 | 0.06492 | 1.41 | 20 | |
| The following samples were analyzed in this batch: HS22100082-01 | | | | | | | | | | |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R418928 (0) | | Instrument: FID-4 | | Method: DISSOLVED GASES BY RSK-175 | | | | | |
|-------------------------|------------------------|-------------------|----------------|------------------------------------|-----------|---------------|---------------|------|----------------|
| MBLK | Sample ID: MBLK-221006 | Units: ug/L | | Analysis Date: 06-Oct-2022 09:22 | | | | | |
| Client ID: | Run ID: FID-4_418928 | | SeqNo: 6909206 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Ethane | U | 1.00 | | | | | | | |
| Methane | U | 0.500 | | | | | | | |
| Propane | U | 1.00 | | | | | | | |

| LCS | Sample ID: LCS-221006 | Units: ug/L | | Analysis Date: 06-Oct-2022 09:36 | | | | | |
|------------|-----------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: FID-4_418928 | | SeqNo: 6909207 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Ethane | 18.28 | 1.00 | 18.04 | 0 | 101 | 75 - 125 | | | |
| Methane | 7.877 | 0.500 | 9.647 | 0 | 81.7 | 75 - 125 | | | |
| Propane | 29.43 | 1.00 | 26.46 | 0 | 111 | 75 - 125 | | | |

| LCSD | Sample ID: LCSD-221006 | Units: ug/L | | Analysis Date: 06-Oct-2022 09:51 | | | | | |
|-------------|------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: FID-4_418928 | | SeqNo: 6909208 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Ethane | 17.63 | 1.00 | 18.04 | 0 | 97.7 | 75 - 125 | 18.28 | 3.63 | 30 |
| Methane | 7.604 | 0.500 | 9.647 | 0 | 78.8 | 75 - 125 | 7.877 | 3.52 | 30 |
| Propane | 28.94 | 1.00 | 26.46 | 0 | 109 | 75 - 125 | 29.43 | 1.7 | 30 |

| DUP | Sample ID: HS22100112-02DUP | Units: ug/L | | Analysis Date: 06-Oct-2022 13:48 | | | | | |
|------------|-----------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|-------|----------------|
| Client ID: | Run ID: FID-4_418928 | | SeqNo: 6909222 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Ethane | 1.148 | 1.00 | | | | | 0 | 200 | 30 R |
| Methane | 11.55 | 0.500 | | | | | 11.48 | 0.659 | 30 |
| Propane | U | 1.00 | | | | | 0 | 0 | 30 |

The following samples were analyzed in this batch: HS22100082-01

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R418744 (0) | | Instrument: FID-20 | | Method: GASOLINE RANGE ORGANICS BY SW8015C | | | | | | |
|--|------------------------|--------------------|---------|--|------|---------------|---------------|------|-----------|------|
| MBLK | Sample ID: MBLK-221006 | Units: mg/L | | Analysis Date: 06-Oct-2022 12:26 | | | | | | |
| Client ID: | Run ID: FID-20_418744 | SeqNo: 6904229 | | PrepDate: | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Gasoline Range Organics | U | 0.0500 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 0.1108 | 0.00500 | 0.1 | 0 | 111 | 70 - 121 | | | | |
| LCS | Sample ID: LCS-221006 | Units: mg/L | | Analysis Date: 06-Oct-2022 11:55 | | | | | | |
| Client ID: | Run ID: FID-20_418744 | SeqNo: 6904227 | | PrepDate: | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Gasoline Range Organics | 0.9167 | 0.0500 | 1 | 0 | 91.7 | 76 - 124 | | | | |
| Surr: 4-Bromofluorobenzene | 0.08975 | 0.00500 | 0.1 | 0 | 89.8 | 52 - 138 | | | | |
| LCSD | Sample ID: LCSD-221006 | Units: mg/L | | Analysis Date: 06-Oct-2022 12:10 | | | | | | |
| Client ID: | Run ID: FID-20_418744 | SeqNo: 6904228 | | PrepDate: | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Gasoline Range Organics | 1.008 | 0.0500 | 1 | 0 | 101 | 76 - 124 | 0.9167 | 9.54 | 20 | |
| Surr: 4-Bromofluorobenzene | 0.09579 | 0.00500 | 0.1 | 0 | 95.8 | 52 - 138 | 0.08975 | 6.51 | 20 | |
| The following samples were analyzed in this batch: HS22100082-01 | | | | | | | | | | |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: 184647 (0) | | Instrument: ICPMS07 | | Method: DISSOLVED METALS BY E200.8, REV 5.4, 1994 (DISSOLVED) | | | | | |
|------------------------|---------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| MBLK | Sample ID: MBLKF2-184647 | Units: ug/L | | Analysis Date: 13-Oct-2022 13:28 | | | | | |
| Client ID: | Run ID: ICPMS07_419350 | SeqNo: 6918664 | | PrepDate: 11-Oct-2022 | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------|------|-----|--|--|--|--|--|--|---|
| Calcium | U | 500 | | | | | | | |
| Magnesium | 18.9 | 500 | | | | | | | J |
| Potassium | U | 500 | | | | | | | |
| Sodium | U | 200 | | | | | | | |

| MBLK | Sample ID: MBLKF3-184647 | Units: ug/L | | Analysis Date: 13-Oct-2022 13:29 | | | | | |
|-------------|---------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICPMS07_419350 | SeqNo: 6918665 | | PrepDate: 11-Oct-2022 | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------|-------|-----|--|--|--|--|--|--|---|
| Calcium | U | 500 | | | | | | | |
| Magnesium | 15.81 | 500 | | | | | | | J |
| Potassium | U | 500 | | | | | | | |
| Sodium | U | 200 | | | | | | | |

| MBLK | Sample ID: MBLKF1-184647 | Units: ug/L | | Analysis Date: 13-Oct-2022 13:26 | | | | | |
|-------------|---------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICPMS07_419350 | SeqNo: 6918663 | | PrepDate: 11-Oct-2022 | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------|-------|-----|--|--|--|--|--|--|---|
| Calcium | U | 500 | | | | | | | |
| Magnesium | 16.55 | 500 | | | | | | | J |
| Potassium | U | 500 | | | | | | | |
| Sodium | U | 200 | | | | | | | |

| MBLK | Sample ID: MBLK-184647 | Units: ug/L | | Analysis Date: 13-Oct-2022 13:24 | | | | | |
|-------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICPMS07_419350 | SeqNo: 6918662 | | PrepDate: 11-Oct-2022 | | DF: 1 | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------|---|-----|--|--|--|--|--|--|--|
| Calcium | U | 500 | | | | | | | |
| Magnesium | U | 500 | | | | | | | |
| Potassium | U | 500 | | | | | | | |
| Sodium | U | 200 | | | | | | | |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: 184647 (0) | | Instrument: ICPMS07 | | Method: DISSOLVED METALS BY E200.8, REV 5.4, 1994 (DISSOLVED) | | | | | | |
|------------------------|--------|------------------------|---------|---|------|----------------------------------|---------------|-------|-----------|------|
| LCS | | Sample ID: LCS-184647 | | Units: ug/L | | Analysis Date: 13-Oct-2022 13:31 | | | | |
| Client ID: | | Run ID: ICPMS07_419350 | | SeqNo: 6918666 | | PrepDate: 11-Oct-2022 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 4895 | 500 | 5000 | 0 | 97.9 | 85 - 115 | | | | |
| Magnesium | 5243 | 500 | 5000 | 0 | 105 | 85 - 115 | | | | |
| Potassium | 5191 | 500 | 5000 | 0 | 104 | 85 - 115 | | | | |
| Sodium | 5187 | 200 | 5000 | 0 | 104 | 85 - 115 | | | | |

| | | | | | | | | | | |
|------------|--------|----------------------------|---------|----------------|------|----------------------------------|---------------|-------|-----------|------|
| MS | | Sample ID: HS22100305-01MS | | Units: ug/L | | Analysis Date: 13-Oct-2022 13:37 | | | | |
| Client ID: | | Run ID: ICPMS07_419350 | | SeqNo: 6918669 | | PrepDate: 11-Oct-2022 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 404600 | 500 | 5000 | 395800 | 177 | 85 - 115 | | | | SEO |
| Magnesium | 50710 | 500 | 5000 | 45640 | 102 | 85 - 115 | | | | O |
| Potassium | 12550 | 500 | 5000 | 7636 | 98.3 | 85 - 115 | | | | |
| Sodium | 17270 | 200 | 5000 | 12120 | 103 | 85 - 115 | | | | |

| | | | | | | | | | | |
|------------|--------|----------------------------|---------|----------------|------|----------------------------------|---------------|-------|-----------|------|
| MS | | Sample ID: HS22100299-01MS | | Units: ug/L | | Analysis Date: 13-Oct-2022 14:07 | | | | |
| Client ID: | | Run ID: ICPMS07_419350 | | SeqNo: 6918675 | | PrepDate: 11-Oct-2022 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 98320 | 500 | 5000 | 94490 | 76.5 | 85 - 115 | | | | SO |
| Magnesium | 67860 | 500 | 5000 | 62400 | 109 | 85 - 115 | | | | O |
| Potassium | 13610 | 500 | 5000 | 8595 | 100 | 85 - 115 | | | | |
| Sodium | 18860 | 200 | 5000 | 13340 | 110 | 85 - 115 | | | | |

| | | | | | | | | | | |
|------------|--------|-----------------------------|---------|----------------|------|----------------------------------|---------------|-------|-----------|------|
| MSD | | Sample ID: HS22100305-01MSD | | Units: ug/L | | Analysis Date: 13-Oct-2022 13:39 | | | | |
| Client ID: | | Run ID: ICPMS07_419350 | | SeqNo: 6918670 | | PrepDate: 11-Oct-2022 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 406400 | 500 | 5000 | 395800 | 213 | 85 - 115 | 404600 | 0.439 | 20 | SEO |
| Magnesium | 51230 | 500 | 5000 | 45640 | 112 | 85 - 115 | 50710 | 1.01 | 20 | O |
| Potassium | 12650 | 500 | 5000 | 7636 | 100 | 85 - 115 | 12550 | 0.801 | 20 | |
| Sodium | 17580 | 200 | 5000 | 12120 | 109 | 85 - 115 | 17270 | 1.8 | 20 | |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: 184647 (0) | | Instrument: ICPMS07 | | Method: DISSOLVED METALS BY E200.8, REV 5.4, 1994 (DISSOLVED) | | | | | | |
|------------------------|--------|-----------------------------|---------|---|------|----------------------------------|---------------|-------|-----------|------|
| MSD | | Sample ID: HS22100299-01MSD | | Units: ug/L | | Analysis Date: 13-Oct-2022 14:09 | | | | |
| Client ID: | | Run ID: ICPMS07_419350 | | SeqNo: 6918676 | | PrepDate: 11-Oct-2022 | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 95500 | 500 | 5000 | 94490 | 20.1 | 85 - 115 | 98320 | 2.91 | 20 | SO |
| Magnesium | 64890 | 500 | 5000 | 62400 | 49.8 | 85 - 115 | 67860 | 4.48 | 20 | SO |
| Potassium | 13150 | 500 | 5000 | 8595 | 91.0 | 85 - 115 | 13610 | 3.47 | 20 | |
| Sodium | 18100 | 200 | 5000 | 13340 | 95.3 | 85 - 115 | 18860 | 4.1 | 20 | |

The following samples were analyzed in this batch: HS22100082-02

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: 184791 (0) | | Instrument: ICPMS07 | | Method: TOTAL METALS BY E200.8, REV 5.4, 1994 | | | | | | |
|------------------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|-----------|------|
| MBLK | Sample ID: MBLK-184791 | Units: ug/L | | Analysis Date: 14-Oct-2022 12:56 | | | | | | |
| Client ID: | Run ID: ICPMS07_419448 | SeqNo: 6920986 | | PrepDate: 13-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | U | 500 | | | | | | | | |
| Magnesium | 9.532 | 500 | | | | | | | | J |
| Potassium | U | 500 | | | | | | | | |
| Sodium | U | 200 | | | | | | | | |

| LCS | Sample ID: LCS-184791 | Units: ug/L | | Analysis Date: 14-Oct-2022 13:30 | | | | | | |
|------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|-----------|------|
| Client ID: | Run ID: ICPMS07_419448 | SeqNo: 6920987 | | PrepDate: 13-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 5130 | 500 | 5000 | 0 | 103 | 85 - 115 | | | | |
| Magnesium | 5204 | 500 | 5000 | 0 | 104 | 85 - 115 | | | | |
| Potassium | 5120 | 500 | 5000 | 0 | 102 | 85 - 115 | | | | |
| Sodium | 5120 | 200 | 5000 | 0 | 102 | 85 - 115 | | | | |

| MS | Sample ID: HS22100264-01MS | Units: ug/L | | Analysis Date: 14-Oct-2022 14:04 | | | | | | |
|------------|-----------------------------------|-----------------------|---------|---|------|---------------|---------------|------|-----------|------|
| Client ID: | Run ID: ICPMS07_419448 | SeqNo: 6920989 | | PrepDate: 13-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 86020 | 500 | 5000 | 80770 | 105 | 70 - 130 | | | | O |
| Magnesium | 17030 | 500 | 5000 | 12010 | 100 | 70 - 130 | | | | |
| Potassium | 10590 | 500 | 5000 | 5472 | 102 | 70 - 130 | | | | |
| Sodium | 64310 | 200 | 5000 | 58960 | 107 | 70 - 130 | | | | O |

| MSD | Sample ID: HS22100264-01MSD | Units: ug/L | | Analysis Date: 14-Oct-2022 14:06 | | | | | | |
|------------|------------------------------------|-----------------------|---------|---|------|---------------|---------------|------|-----------|------|
| Client ID: | Run ID: ICPMS07_419448 | SeqNo: 6920990 | | PrepDate: 13-Oct-2022 | | DF: 1 | | | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 88310 | 500 | 5000 | 80770 | 151 | 70 - 130 | 86020 | 2.63 | 20 | SO |
| Magnesium | 17190 | 500 | 5000 | 12010 | 104 | 70 - 130 | 17030 | 0.94 | 20 | |
| Potassium | 10730 | 500 | 5000 | 5472 | 105 | 70 - 130 | 10590 | 1.28 | 20 | |
| Sodium | 65330 | 200 | 5000 | 58960 | 127 | 70 - 130 | 64310 | 1.57 | 20 | O |

The following samples were analyzed in this batch: HS22100082-01

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R419279 (0) | | Instrument: VOA7 | | Method: LOW LEVEL VOLATILES BY SW8260C | | | | | |
|-------------------------|-------------------------|------------------|----------------|--|-----------|---------------|---------------|------|----------------|
| MBLK | Sample ID: VBLKW-221012 | Units: ug/L | | Analysis Date: 12-Oct-2022 20:25 | | | | | |
| Client ID: | Run ID: VOA7_419279 | | SeqNo: 6917195 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------------------------|-------|-----|----|---|------|----------|--|--|--|
| Benzene | U | 1.0 | | | | | | | |
| Ethylbenzene | U | 1.0 | | | | | | | |
| m,p-Xylene | U | 2.0 | | | | | | | |
| o-Xylene | U | 1.0 | | | | | | | |
| Toluene | U | 1.0 | | | | | | | |
| Xylenes, Total | U | 1.0 | | | | | | | |
| Total BTEX | U | 1.0 | | | | | | | |
| Surr: 1,2-Dichloroethane-d4 | 48.66 | 1.0 | 50 | 0 | 97.3 | 70 - 123 | | | |
| Surr: 4-Bromofluorobenzene | 47.57 | 1.0 | 50 | 0 | 95.1 | 77 - 113 | | | |
| Surr: Dibromofluoromethane | 50.87 | 1.0 | 50 | 0 | 102 | 73 - 126 | | | |
| Surr: Toluene-d8 | 51.48 | 1.0 | 50 | 0 | 103 | 81 - 120 | | | |

| LCS | Sample ID: VLCSW-221012 | Units: ug/L | | Analysis Date: 12-Oct-2022 19:46 | | | | | |
|------------|-------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: VOA7_419279 | | SeqNo: 6917193 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |

| | | | | | | | | | |
|-----------------------------|-------|-----|----|---|------|----------|--|--|--|
| Benzene | 22.04 | 1.0 | 20 | 0 | 110 | 74 - 120 | | | |
| Ethylbenzene | 21.38 | 1.0 | 20 | 0 | 107 | 77 - 117 | | | |
| m,p-Xylene | 43.89 | 2.0 | 40 | 0 | 110 | 77 - 122 | | | |
| o-Xylene | 21.91 | 1.0 | 20 | 0 | 110 | 75 - 119 | | | |
| Toluene | 21.56 | 1.0 | 20 | 0 | 108 | 77 - 118 | | | |
| Xylenes, Total | 65.8 | 1.0 | 60 | 0 | 110 | 75 - 122 | | | |
| Surr: 1,2-Dichloroethane-d4 | 48.8 | 1.0 | 50 | 0 | 97.6 | 70 - 123 | | | |
| Surr: 4-Bromofluorobenzene | 48.29 | 1.0 | 50 | 0 | 96.6 | 77 - 113 | | | |
| Surr: Dibromofluoromethane | 51.52 | 1.0 | 50 | 0 | 103 | 73 - 126 | | | |
| Surr: Toluene-d8 | 51.19 | 1.0 | 50 | 0 | 102 | 81 - 120 | | | |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R419279 (0) | | Instrument: VOA7 | | Method: LOW LEVEL VOLATILES BY SW8260C | | | | | | |
|-----------------------------|--------|----------------------------|---------|--|------|----------------------------------|---------------|-------|-----------|------|
| MS | | Sample ID: HS22100504-02MS | | Units: ug/L | | Analysis Date: 13-Oct-2022 03:43 | | | | |
| Client ID: | | Run ID: VOA7_419279 | | SeqNo: 6917229 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | 20.2 | 1.0 | 20 | 0 | 101 | 70 - 127 | | | | |
| Ethylbenzene | 19.52 | 1.0 | 20 | 0 | 97.6 | 70 - 124 | | | | |
| m,p-Xylene | 40.03 | 2.0 | 40 | 0 | 100 | 70 - 130 | | | | |
| o-Xylene | 19.63 | 1.0 | 20 | 0 | 98.2 | 70 - 124 | | | | |
| Toluene | 19.87 | 1.0 | 20 | 0 | 99.3 | 70 - 123 | | | | |
| Xylenes, Total | 59.66 | 1.0 | 60 | 0 | 99.4 | 70 - 130 | | | | |
| Surr: 1,2-Dichloroethane-d4 | 49.56 | 1.0 | 50 | 0 | 99.1 | 70 - 126 | | | | |
| Surr: 4-Bromofluorobenzene | 47.84 | 1.0 | 50 | 0 | 95.7 | 77 - 113 | | | | |
| Surr: Dibromofluoromethane | 51.73 | 1.0 | 50 | 0 | 103 | 77 - 123 | | | | |
| Surr: Toluene-d8 | 51.48 | 1.0 | 50 | 0 | 103 | 82 - 127 | | | | |

| | | | | | | | | | | |
|-----------------------------|--------|-----------------------------|---------|----------------|------|----------------------------------|---------------|--------|-----------|------|
| MSD | | Sample ID: HS22100504-02MSD | | Units: ug/L | | Analysis Date: 13-Oct-2022 04:03 | | | | |
| Client ID: | | Run ID: VOA7_419279 | | SeqNo: 6917230 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | 19.93 | 1.0 | 20 | 0 | 99.6 | 70 - 127 | 20.2 | 1.39 | 20 | |
| Ethylbenzene | 19.2 | 1.0 | 20 | 0 | 96.0 | 70 - 124 | 19.52 | 1.64 | 20 | |
| m,p-Xylene | 39.49 | 2.0 | 40 | 0 | 98.7 | 70 - 130 | 40.03 | 1.34 | 20 | |
| o-Xylene | 19.64 | 1.0 | 20 | 0 | 98.2 | 70 - 124 | 19.63 | 0.0292 | 20 | |
| Toluene | 19.45 | 1.0 | 20 | 0 | 97.2 | 70 - 123 | 19.87 | 2.12 | 20 | |
| Xylenes, Total | 59.13 | 1.0 | 60 | 0 | 98.6 | 70 - 130 | 59.66 | 0.886 | 20 | |
| Surr: 1,2-Dichloroethane-d4 | 48.33 | 1.0 | 50 | 0 | 96.7 | 70 - 126 | 49.56 | 2.51 | 20 | |
| Surr: 4-Bromofluorobenzene | 48.18 | 1.0 | 50 | 0 | 96.4 | 77 - 113 | 47.84 | 0.717 | 20 | |
| Surr: Dibromofluoromethane | 51.23 | 1.0 | 50 | 0 | 102 | 77 - 123 | 51.73 | 0.984 | 20 | |
| Surr: Toluene-d8 | 51.46 | 1.0 | 50 | 0 | 103 | 82 - 127 | 51.48 | 0.0305 | 20 | |

The following samples were analyzed in this batch: HS22100082-01

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R419008 (0) | | Instrument: Balance1 | | Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011 | | | | | | |
|--|-----------------------------|----------------------|---------|--|------|---------------|---------------|--------|-----------|------|
| MBLK | Sample ID: WBLK-100722 | Units: mg/L | | Analysis Date: 07-Oct-2022 15:32 | | | | | | |
| Client ID: | Run ID: Balance1_419008 | SeqNo: 6910376 | | 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) | | U | 10.0 | | | | | | | |
| LCS | Sample ID: WLCS-100722 | Units: mg/L | | Analysis Date: 07-Oct-2022 15:32 | | | | | | |
| Client ID: | Run ID: Balance1_419008 | SeqNo: 6910377 | | 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) | | 1048 | 10.0 | 1000 | 0 | 105 | 85 - 115 | | | |
| DUP | Sample ID: HS22100366-10DUP | Units: mg/L | | Analysis Date: 07-Oct-2022 15:32 | | | | | | |
| Client ID: | Run ID: Balance1_419008 | SeqNo: 6910375 | | 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) | | 20680 | 10.0 | | | | 20700 | 0.0967 | 5 | |
| DUP | Sample ID: HS22100087-01DUP | Units: mg/L | | Analysis Date: 07-Oct-2022 15:32 | | | | | | |
| Client ID: | Run ID: Balance1_419008 | SeqNo: 6910361 | | 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) | | 416 | 10.0 | | | | 418 | 0.48 | 5 | |
| The following samples were analyzed in this batch: HS22100082-01 | | | | | | | | | | |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R419049 (0) | | Instrument: ICS-Integrion | | Method: ANIONS BY E300.0, REV 2.1, 1993 | | | | | |
|-------------------------|------------------------------|---------------------------|----------------|---|-----------|---------------|---------------|------|----------------|
| MBLK | Sample ID: MBLK | Units: mg/L | | Analysis Date: 10-Oct-2022 11:48 | | | | | |
| Client ID: | Run ID: ICS-Integrion_419049 | | SeqNo: 6911236 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride | U | 0.500 | | | | | | | |
| Sulfate | U | 0.500 | | | | | | | |

| LCS | Sample ID: LCS | Units: mg/L | | Analysis Date: 10-Oct-2022 11:59 | | | | | |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICS-Integrion_419049 | | SeqNo: 6911237 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride | 20.1 | 0.500 | 20 | 0 | 101 | 90 - 110 | | | |
| Sulfate | 20.31 | 0.500 | 20 | 0 | 102 | 90 - 110 | | | |

| MS | Sample ID: HS22100460-01MS | Units: mg/L | | Analysis Date: 10-Oct-2022 12:31 | | | | | |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICS-Integrion_419049 | | SeqNo: 6911239 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride | 488.7 | 0.500 | 10 | 492.3 | -36.1 | 80 - 120 | | | SEO |
| Sulfate | 154.3 | 0.500 | 10 | 148.4 | 58.7 | 80 - 120 | | | SEO |

| MS | Sample ID: HS22091533-01MS | Units: mg/L | | Analysis Date: 10-Oct-2022 14:53 | | | | | |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICS-Integrion_419049 | | SeqNo: 6911260 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride | 81.48 | 0.500 | 10 | 74.26 | 72.2 | 80 - 120 | | | SO |
| Sulfate | 54.96 | 0.500 | 10 | 46.53 | 84.3 | 80 - 120 | | | O |

| MSD | Sample ID: HS22100460-01MSD | Units: mg/L | | Analysis Date: 10-Oct-2022 12:36 | | | | | |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|---------|----------------|
| Client ID: | Run ID: ICS-Integrion_419049 | | SeqNo: 6911240 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride | 488.7 | 0.500 | 10 | 492.3 | -36.0 | 80 - 120 | 488.7 | 0.00164 | 20 SEO |
| Sulfate | 154.2 | 0.500 | 10 | 148.4 | 58.4 | 80 - 120 | 154.3 | 0.0207 | 20 SEO |

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R419049 (0) | | Instrument: ICS-Integrion | | Method: ANIONS BY E300.0, REV 2.1, 1993 | | | | | | |
|-------------------------|--------|------------------------------|---------|---|------|----------------------------------|---------------|-------|-----------|------|
| MSD | | Sample ID: HS22091533-01MSD | | Units: mg/L | | Analysis Date: 10-Oct-2022 14:58 | | | | |
| Client ID: | | Run ID: ICS-Integrion_419049 | | SeqNo: 6911261 | | PrepDate: | | DF: 1 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Chloride | 83.68 | 0.500 | 10 | 74.26 | 94.2 | 80 - 120 | 81.48 | 2.67 | 20 | O |
| Sulfate | 56.41 | 0.500 | 10 | 46.53 | 98.7 | 80 - 120 | 54.96 | 2.59 | 20 | O |

The following samples were analyzed in this batch: HS22100082-01

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

QC BATCH REPORT

| Batch ID: R419486 (0) | | Instrument: ManTech01 | | Method: ALKALINITY BY SM 2320B-2011 | | | | | |
|------------------------------------|--------------------------|-----------------------|---------|-------------------------------------|------|---------------|---------------|------|----------------|
| MBLK | Sample ID: WBLKW1-221014 | Units: mg/L | | Analysis Date: 14-Oct-2022 21:19 | | | | | |
| Client ID: | Run ID: ManTech01_419486 | SeqNo: 6922148 | | 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) | U | 5.00 | | | | | | | |
| Alkalinity, Carbonate (As CaCO3) | U | 5.00 | | | | | | | |
| Alkalinity, Total (As CaCO3) | U | 5.00 | | | | | | | |

| LCS | Sample ID: LCS1-221014 | Units: mg/L | | Analysis Date: 14-Oct-2022 21:28 | | | | | |
|----------------------------------|--------------------------|----------------|---------|----------------------------------|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ManTech01_419486 | SeqNo: 6922149 | | 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) | 958.8 | 5.00 | 1000 | 0 | 95.9 | 85 - 115 | | | |
| Alkalinity, Total (As CaCO3) | 983.3 | 5.00 | 1000 | 0 | 98.3 | 85 - 115 | | | |

| LCSD | Sample ID: LCSD1-221014 | Units: mg/L | | Analysis Date: 14-Oct-2022 21:36 | | | | | |
|----------------------------------|--------------------------|----------------|---------|----------------------------------|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ManTech01_419486 | SeqNo: 6922150 | | 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) | 935.7 | 5.00 | 1000 | 0 | 93.6 | 85 - 115 | 958.8 | 2.43 | 20 |
| Alkalinity, Total (As CaCO3) | 972.6 | 5.00 | 1000 | 0 | 97.3 | 85 - 115 | 983.3 | 1.1 | 20 |

| DUP | Sample ID: HS22100079-01DUP | Units: mg/L | | Analysis Date: 14-Oct-2022 21:57 | | | | | |
|------------------------------------|-----------------------------|----------------|---------|----------------------------------|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ManTech01_419486 | SeqNo: 6922152 | | 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) | 1340 | 5.00 | | | | | 1376 | 2.66 | 20 |
| Alkalinity, Carbonate (As CaCO3) | U | 5.00 | | | | | 0 | 0 | 20 |
| Alkalinity, Total (As CaCO3) | 1340 | 5.00 | | | | | 1376 | 2.66 | 20 |

The following samples were analyzed in this batch: HS22100082-01

Client: PDC Energy
Project: Seltzer LD 21-033HC Facility# 447395
WorkOrder: HS22100082

**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 Quantitation Limit |
| SD | Serial Dilution |
| SDL | Sample Detection Limit |
| TRRP | Texas Risk Reduction Program |

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

CERTIFICATIONS,ACCREDITATIONS & LICENSES

| Agency | Number | Expire Date |
|-----------------|--------------------|-------------|
| Arkansas | 22-041-0 | 27-Mar-2023 |
| California | 2919 2022-2023 | 30-Apr-2023 |
| Dept of Defense | L21-682 | 31-Dec-2023 |
| Florida | E87611-36 | 30-Jun-2023 |
| Illinois | 2000322022-9 | 09-May-2023 |
| Kansas | E-10352; 2022-2023 | 31-Jul-2023 |
| Kentucky | 123043, 2022-2023 | 30-Apr-2023 |
| Louisiana | 03087, 2022-2023 | 30-Jun-2023 |
| Maryland | 343, 2022-2023 | 30-Jun-2023 |
| North Carolina | 624-2022 | 31-Dec-2022 |
| North Dakota | R-193 2022-2023 | 30-Apr-2023 |
| Oklahoma | 2022-141 | 31-Aug-2023 |
| Texas | T104704231-22-29 | 30-Apr-2023 |
| Utah | TX026932022-13 | 31-Jul-2023 |

Sample Receipt Checklist

Work Order ID: HS22100082

Date/Time Received: 01-Oct-2022 11:45

Client Name: PDC Energy 80620

Received by: Paresh M. Giga

Completed By: /S/ Nelson D. Dusara

16-Sep-2022 11:53

Reviewed by: /S/ Bernadette A. Fini

04-Oct-2022 10:17

eSignature

Date/Time

eSignature

Date/Time

Matrices: **WATER**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 ☐

COC IDs:n/a

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):

2.0/1.8 C UC/C

ir 31

Cooler(s)/Kit(s):

47454

Date/Time sample(s) sent to storage:

10/01/2022 13:00

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:

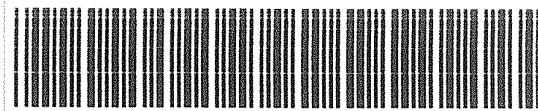
Corrective Action:



Chain of Custody Form

Page _____ of _____

HS22100082

PDC Energy
Seltzer LD 21-033HC

ALS Project Manager:

| Customer Information | | | Project Information | | | Standard Method Request for Analysis | | | | | | | | | | | | | |
|----------------------|--|-----------------|-----------------------|--------|-------|--------------------------------------|--|---|---|---|---|---|---|---|---|---|------|--|--|
| Purchase Order | | Project Name | Seltzer LD 21-033HC | | | A | Dissolved Gases (Methane, Ethane, Propane) | | | | | | | | | | | | |
| Work Order | | Project Number | | | | B | BTEX 8260 | | | | | | | | | | | | |
| Company Name | PDC Energy | Bill To Company | PDC Energy | | | C | DRO 8015 | | | | | | | | | | | | |
| Send Report To | Max Trehus | Invoice Attn. | Max Trehus | | | D | GRO 8015 | | | | | | | | | | | | |
| Address | 4000 Burlington Ave | Address | 1775 Sherman St #3000 | | | E | Anions (Cl, SO ₄), Alk (T, CO ₃ , HCO ₃), TDS | | | | | | | | | | | | |
| City/State/Zip | Evans, CO 80620 | City/State/Zip | Denver, CO 80203 | | | F | Dissolved Ca, Mg, K, Na - need to lab filter | | | | | | | | | | | | |
| Phone | 720-762-3569 | Phone | 303-860-5800 | | | G | Total Ca, Mg, K, Na | | | | | | | | | | | | |
| Fax | | Fax | | | | H | | | | | | | | | | | | | |
| e-Mail Address | max.trehus@pdce.com jenifer.hakkarinen@pdce.com jessica.johannsen@pdce.com | e-Mail Address | | | | I | | | | | | | | | | | | | |
| J | | | | | | | | | | | | | | | | | | | |
| No. | Sample Description | Date | Time | Matrix | Pres. | # Bottles | A | B | C | D | E | F | G | H | I | J | Hold | | |
| 1 | 21-033HC A | 9/30/22 | 10:40 | W | 8 | 3 | X | | | | | | | | | | | | |
| 2 | 21-033HC A | | | W | 1 | 3 | | X | | | | | | | | | | | |
| 3 | 21-033HC A | | | W | 1 | 3 | | | X | | | | | | | | | | |
| 4 | 21-033HC A | | | W | 1 | 3 | | | | X | | | | | | | | | |
| 5 | 21-033HC A | | | W | 8 | 1 | | | | | X | | | | | | | | |
| 6 | 21-033HC B | | | W | 8 | 1 | | | | | | X | | | | | | | |
| 7 | 21-033HC A | | | W | 2 | 1 | | | | | | | X | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|---|--|--|--|--|---|--|--|--------------------------|--|
| Sampler(s): Please Print & Sign | | | Shipment Method: | | Required Turnaround Time: | | | Results Due Date: | |
| Relinquished by: | | | | | <input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour | | | | |
| Date: 9/30/22 Time: 15:00 | | | Received by: Karen Craven 9-30-22 1500 | | Notes: | | | Facility ID: 447395 | |
| Relinquished by: Karen Craven | | | Date: 9-30-22 Time: 1530 | | Received by (Laboratory): CONET 9/10/11/12/14/5 | | | Cooler Temp. 2.0 | |
| Logged by (Laboratory): | | | Date: | | Time: | | | Checked by (Laboratory): | |
| Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035 | | | | | | | | | |
| QC Package: (Check Box Below) | | | | | | | | | |
| <input checked="" type="checkbox"/> Level II: Standard QC <input type="checkbox"/> TRRP-Checklist | | | | | | | | | |
| <input type="checkbox"/> Level III: Std QC + Raw Data <input type="checkbox"/> TRRP Level IV | | | | | | | | | |
| <input type="checkbox"/> Level IV: SW846 CLP-Like | | | | | | | | | |
| Other: | | | | | | | | | |

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

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47454

ORIGIN ID: FTCA (970) 490-1511
SAMPLE CONTROL
ALS HOUSTON
225 COMMERCE DR. VE
FORT COLLINS, CO 80524
UNITED STATES US

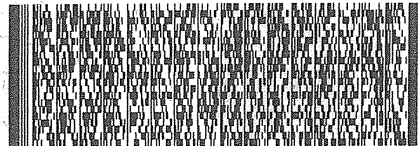
SHIP DATE: 30SEP22
ACTWGT: 32.10 LB
CAD: 0730254/CAFE3616
DIMS: 24x16x14 IN
BILL THIRD PARTY

TO **SAMPLE RECEIVING**
ALS ENVIRONMENTAL
10450 STANCLIFF RD.
SUITE 210
HOUSTON TX 77099

47454

(281) 580-5656

REF: 6710-ENV-FC-LB-00



FedEx
Express

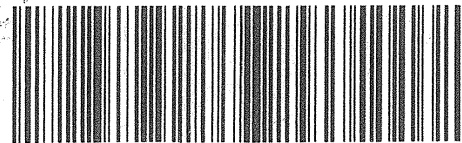


TRK# 5066 7517 5659
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 SGRA

77099
TX-US IAH



Part # 157077-434-MTW EXP 0922