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October 27, 2023

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

Work Order: **HS23101051**

Laboratory Results for: **City of Greeley 1-30**

Dear Jenifer Hakkarinen,

ALS Environmental received 1 sample(s) on Oct 17, 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:** City of Greeley 1-30  
**Work Order:** HS23101051

**SAMPLE SUMMARY**

| Lab Samp ID   | Client Sample ID     | Matrix | TagNo | Collection Date   | Date Received     | Hold                     |
|---------------|----------------------|--------|-------|-------------------|-------------------|--------------------------|
| HS23101051-01 | City of Greeley 1-30 | Water  |       | 16-Oct-2023 12:00 | 17-Oct-2023 08:00 | <input type="checkbox"/> |

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**Work Order:** HS23101051

**CASE NARRATIVE**

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**GC Semivolatiles by Method RSK-175****Batch ID: R449897**

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

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**GC Semivolatiles by Method SW8015M****Batch ID: 202177****Sample ID: City of Greeley 1-30 (HS23101051-01)**

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

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**GC Volatiles by Method SW8015****Batch ID: R449494****Sample ID: City of Greeley 1-30 (HS23101051-01)**

- Lowest possible dilution due to sample matrix.

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**GCMS Volatiles by Method SW8260****Batch ID: R450004****Sample ID: City of Greeley 1-30 (HS23101051-01)**

- Lowest possible dilution due to sample matrix.

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**Metals by Method E200.8****Batch ID: 202611****Sample ID: HS23101018-01MS/HS23101019-01MS**

- MS and MSD are for unrelated samples.

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**Wet Chemistry by Method E300****Batch ID: R450209****Sample ID: HS23101380-01MS/HS23101380-02MS**

- MS and MSD are for unrelated samples.

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**WetChemistry by Method SM2320B****Batch ID: R450230**

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

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**WetChemistry by Method E300****Batch ID: R450209****Sample ID: City of Greeley 1-30 (HS23101051-01)**

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

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**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**Work Order:** HS23101051

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**CASE NARRATIVE**

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**WetChemistry by Method M2540C**

**Batch ID: R449689**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
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Client: PDC Energy  
 Project: City of Greeley 1-30  
 Sample ID: City of Greeley 1-30  
 Collection Date: 16-Oct-2023 12:00

**ANALYTICAL REPORT**

WorkOrder:HS23101051  
 Lab ID:HS23101051-01  
 Matrix:Water

| ANALYSES                                       | RESULT        | QUAL                  | REPORT<br>LIMIT | UNITS                     | DILUTION<br>FACTOR | DATE<br>ANALYZED         |
|--|---------------|-----------------------|-----------------|---------------------------|--------------------|--------------------------|
| <b>LOW LEVEL VOLATILES BY SW8260C</b>          |               | <b>Method:SW8260</b>  |                 | Analyst: FT               |                    |                          |
| <b>Benzene</b>                                 | <b>2,200</b>  |                       | <b>500</b>      | <b>ug/L</b>               | 500                | 25-Oct-2023 00:58        |
| Ethylbenzene                                   | ND            |                       | 500             | ug/L                      | 500                | 25-Oct-2023 00:58        |
| <b>m,p-Xylene</b>                              | <b>2,000</b>  |                       | <b>1000</b>     | <b>ug/L</b>               | 500                | 25-Oct-2023 00:58        |
| o-Xylene                                       | ND            |                       | 500             | ug/L                      | 500                | 25-Oct-2023 00:58        |
| <b>Toluene</b>                                 | <b>4,000</b>  |                       | <b>500</b>      | <b>ug/L</b>               | 500                | 25-Oct-2023 00:58        |
| <b>Xylenes, Total</b>                          | <b>2,500</b>  |                       | <b>500</b>      | <b>ug/L</b>               | 500                | 25-Oct-2023 00:58        |
| <i>Surr: 1,2-Dichloroethane-d4</i>             | <i>100</i>    |                       | <i>70-126</i>   | <i>%REC</i>               | <i>500</i>         | <i>25-Oct-2023 00:58</i> |
| <i>Surr: 4-Bromofluorobenzene</i>              | <i>93.3</i>   |                       | <i>77-113</i>   | <i>%REC</i>               | <i>500</i>         | <i>25-Oct-2023 00:58</i> |
| <i>Surr: Dibromofluoromethane</i>              | <i>105</i>    |                       | <i>77-123</i>   | <i>%REC</i>               | <i>500</i>         | <i>25-Oct-2023 00:58</i> |
| <i>Surr: Toluene-d8</i>                        | <i>100</i>    |                       | <i>82-127</i>   | <i>%REC</i>               | <i>500</i>         | <i>25-Oct-2023 00:58</i> |
| <b>GASOLINE RANGE ORGANICS BY SW8015C</b>      |               | <b>Method:SW8015</b>  |                 | Analyst: TS               |                    |                          |
| Gasoline Range Organics                        | ND            |                       | 25.0            | mg/L                      | 500                | 18-Oct-2023 04:41        |
| <i>Surr: 4-Bromofluorobenzene</i>              | <i>119</i>    |                       | <i>70-123</i>   | <i>%REC</i>               | <i>500</i>         | <i>18-Oct-2023 04:41</i> |
| <b>DISSOLVED GASES BY RSK-175</b>              |               | <b>Method:RSK-175</b> |                 | Analyst: SAM              |                    |                          |
| <b>Ethane</b>                                  | <b>5,230</b>  |                       | <b>500</b>      | <b>ug/L</b>               | 500                | 20-Oct-2023 16:01        |
| <b>Methane</b>                                 | <b>13,300</b> |                       | <b>250</b>      | <b>ug/L</b>               | 500                | 20-Oct-2023 16:01        |
| <b>Propane</b>                                 | <b>2,760</b>  |                       | <b>500</b>      | <b>ug/L</b>               | 500                | 20-Oct-2023 16:01        |
| <b>TPH DRO/ORO BY SW8015C</b>                  |               | <b>Method:SW8015M</b> |                 | Prep:SW3511 / 18-Oct-2023 |                    | Analyst: SAM             |
| <b>TPH (Diesel Range)</b>                      | <b>0.60</b>   |                       | <b>0.051</b>    | <b>mg/L</b>               | 1                  | 25-Oct-2023 00:19        |
| <i>Surr: 2-Fluorobiphenyl</i>                  | <i>154</i>    | <i>S</i>              | <i>60-135</i>   | <i>%REC</i>               | <i>1</i>           | <i>25-Oct-2023 00:19</i> |
| <b>TOTAL METALS BY E200.8, REV 5.4, 1994</b>   |               | <b>Method:E200.8</b>  |                 | Prep:E200.8 / 26-Oct-2023 |                    | Analyst: MSC             |
| <b>Calcium</b>                                 | <b>18.8</b>   |                       | <b>2.50</b>     | <b>mg/L</b>               | 5                  | 26-Oct-2023 22:44        |
| <b>Magnesium</b>                               | <b>3.98</b>   |                       | <b>2.50</b>     | <b>mg/L</b>               | 5                  | 26-Oct-2023 22:44        |
| <b>Potassium</b>                               | <b>4.55</b>   |                       | <b>2.50</b>     | <b>mg/L</b>               | 5                  | 26-Oct-2023 22:44        |
| <b>Sodium</b>                                  | <b>1,150</b>  |                       | <b>100</b>      | <b>mg/L</b>               | 500                | 27-Oct-2023 11:36        |
| <b>ANIONS BY E300.0, REV 2.1, 1993</b>         |               | <b>Method:E300</b>    |                 | Analyst: TH               |                    |                          |
| <b>Chloride</b>                                | <b>2,220</b>  |                       | <b>25.0</b>     | <b>mg/L</b>               | 50                 | 26-Oct-2023 14:32        |
| Sulfate  | ND            |                       | 1.00            | mg/L                      | 2                  | 26-Oct-2023 14:26        |
| <b>TOTAL DISSOLVED SOLIDS BY SM2540C -2011</b> |               | <b>Method:M2540C</b>  |                 | Analyst: DC               |                    |                          |
| Total Dissolved Solids (Residue, Filterable)   | 1,300         |                       | 10.0            | mg/L                      | 1                  | 19-Oct-2023 12:00        |
| <b>ALKALINITY BY -2011</b>                     |               | <b>Method:SM2320B</b> |                 | Analyst: DW               |                    |                          |
| Alkalinity, Bicarbonate (As CaCO3)             | 158           |                       | 5.00            | mg/L                      | 1                  | 26-Oct-2023 20:21        |
| Alkalinity, Carbonate (As CaCO3)               | 12.6          |                       | 5.00            | mg/L                      | 1                  | 26-Oct-2023 20:21        |
| Alkalinity, Total (As CaCO3)                   | 171           |                       | 5.00            | mg/L                      | 1                  | 26-Oct-2023 20:21        |

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

Weight / Prep Log

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

|                         |                                      |                                    |
|-------------------------|--------------------------------------|------------------------------------|
| <b>Batch ID:</b> 202177 | <b>Start Date:</b> 18 Oct 2023 08:30 | <b>End Date:</b> 18 Oct 2023 08:30 |
| <b>Method:</b> SW3511   | <b>Prep Code:</b> 3511_DRO           |                                    |

| Sample ID     | Container | Sample Wt/Vol | Final Volume | Prep Factor |             |
|---------------|-----------|---------------|--------------|-------------|-------------|
| HS23101051-01 |           | 32.49 (mL)    | 2 (mL)       | 0.06156     | 40 mL Amber |

|   |                                      |                                    |
|---|--------------------------------------|------------------------------------|
| <b>Batch ID:</b> 202611                                   | <b>Start Date:</b> 26 Oct 2023 12:30 | <b>End Date:</b> 26 Oct 2023 12:30 |
| <b>Method:</b> TOTAL METALS PREP BY E200.8, REV 5.4, 1994 | <b>Prep Code:</b> 200.8PR            |                                    |

| Sample ID     | Container | Sample Wt/Vol | Final Volume | Prep Factor |                               |
|---------------|-----------|---------------|--------------|-------------|-------------------------------|
| HS23101051-01 |           | 10 (mL)       | 10 (mL)      | 1           | 250 mL plastic, HNO3 to pH <2 |

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**DATES REPORT**

| Sample ID                      | Client Samp ID       | Collection Date   | Leachate Date | Prep Date         | Analysis Date        | DF  |
|--------------------------------|----------------------|---|---------------|-------------------|----------------------|-----|
| <b>Batch ID:</b> 202177 ( 0 )  |                      | <b>Test Name :</b> TPH DRO/ORO BY SW8015C                 |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               | 18 Oct 2023 08:30 | 25 Oct 2023 00:19    | 1   |
| <b>Batch ID:</b> 202611 ( 0 )  |                      | <b>Test Name :</b> TOTAL METALS BY E200.8, REV 5.4, 1994  |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               | 26 Oct 2023 12:30 | 27 Oct 2023 11:36    | 500 |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               | 26 Oct 2023 12:30 | 26 Oct 2023 22:44    | 5   |
| <b>Batch ID:</b> R449494 ( 0 ) |                      | <b>Test Name :</b> GASOLINE RANGE ORGANICS BY SW8015C     |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 18 Oct 2023 04:41    | 500 |
| <b>Batch ID:</b> R449689 ( 0 ) |                      | <b>Test Name :</b> TOTAL DISSOLVED SOLIDS BY SM2540C-2011 |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 19 Oct 2023 12:00    | 1   |
| <b>Batch ID:</b> R449897 ( 0 ) |                      | <b>Test Name :</b> DISSOLVED GASES BY RSK-175             |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 20 Oct 2023 16:01    | 500 |
| <b>Batch ID:</b> R450004 ( 0 ) |                      | <b>Test Name :</b> LOW LEVEL VOLATILES BY SW8260C         |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 25 Oct 2023 00:58    | 500 |
| <b>Batch ID:</b> R450209 ( 0 ) |                      | <b>Test Name :</b> ANIONS BY E300.0, REV 2.1, 1993        |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 26 Oct 2023 14:32    | 50  |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 26 Oct 2023 14:26    | 2   |
| <b>Batch ID:</b> R450230 ( 0 ) |                      | <b>Test Name :</b> ALKALINITY BY -2011                    |               |                   | <b>Matrix:</b> Water |     |
| HS23101051-01                  | City of Greeley 1-30 | 16 Oct 2023 12:00   |               |                   | 26 Oct 2023 20:21    | 1   |

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: 202177 ( 0 )   |                               | Instrument: FID-16    |             | Method: TPH DRO/ORO BY SW8015C          |             |                 |                |             |           |      |
|--|-------------------------------|-----------------------|-------------|---|-------------|-----------------|----------------|-------------|-----------|------|
| <b>MBLK</b>  | Sample ID: <b>MBLK-202177</b> | Units: <b>mg/L</b>    |             | Analysis Date: <b>24-Oct-2023 15:55</b> |             |                 |                |             |           |      |
| Client ID:   | Run ID: <b>FID-16_450061</b>  | SeqNo: <b>7632267</b> |             | PrepDate: <b>18-Oct-2023</b>            |             | DF: <b>1</b>    |                |             |           |      |
| Analyte  | Result                        | PQL                   | SPK Val     | SPK Ref Value                           | %REC        | Control Limit   | RPD Ref Value  | %RPD        | RPD Limit | Qual |
| TPH (Diesel Range)   | ND                            | 0.050                 |             |   |             |                 |                |             |           |      |
| <i>Surr: 2-Fluorobiphenyl</i>                                    | <i>0.07071</i>                | <i>0.0050</i>         | <i>0.06</i> | <i>0</i>                                | <i>118</i>  | <i>60 - 135</i> |                |             |           |      |
| <b>LCS</b>   | Sample ID: <b>LCS-202177</b>  | Units: <b>mg/L</b>    |             | Analysis Date: <b>24-Oct-2023 16:25</b> |             |                 |                |             |           |      |
| Client ID:   | Run ID: <b>FID-16_450061</b>  | SeqNo: <b>7632268</b> |             | PrepDate: <b>18-Oct-2023</b>            |             | DF: <b>1</b>    |                |             |           |      |
| Analyte  | Result                        | PQL                   | SPK Val     | SPK Ref Value                           | %REC        | Control Limit   | RPD Ref Value  | %RPD        | RPD Limit | Qual |
| TPH (Diesel Range)   | 0.462                         | 0.050                 | 0.6         | 0                                       | 77.0        | 70 - 130        |                |             |           |      |
| <i>Surr: 2-Fluorobiphenyl</i>                                    | <i>0.06196</i>                | <i>0.0050</i>         | <i>0.06</i> | <i>0</i>                                | <i>103</i>  | <i>60 - 135</i> |                |             |           |      |
| <b>LCSD</b>  | Sample ID: <b>LCSD-202177</b> | Units: <b>mg/L</b>    |             | Analysis Date: <b>24-Oct-2023 16:55</b> |             |                 |                |             |           |      |
| Client ID:   | Run ID: <b>FID-16_450061</b>  | SeqNo: <b>7632269</b> |             | PrepDate: <b>18-Oct-2023</b>            |             | DF: <b>1</b>    |                |             |           |      |
| Analyte  | Result                        | PQL                   | SPK Val     | SPK Ref Value                           | %REC        | Control Limit   | RPD Ref Value  | %RPD        | RPD Limit | Qual |
| TPH (Diesel Range)   | 0.4947                        | 0.050                 | 0.6         | 0                                       | 82.4        | 70 - 130        | 0.462          | 6.82        | 20        |      |
| <i>Surr: 2-Fluorobiphenyl</i>                                    | <i>0.0591</i>                 | <i>0.0050</i>         | <i>0.06</i> | <i>0</i>                                | <i>98.5</i> | <i>60 - 135</i> | <i>0.06196</i> | <i>4.72</i> | <i>20</i> |      |
| The following samples were analyzed in this batch: HS23101051-01 |                               |                       |             |   |             |                 |                |             |           |      |



**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R449897 ( 0 ) |                               | Instrument: FID-4     |         | Method: DISSOLVED GASES BY RSK-175      |      |               |               |      |                |
|-------------------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| <b>MBLK</b>             | Sample ID: <b>MBLK-231020</b> | Units: <b>ug/L</b>    |         | Analysis Date: <b>20-Oct-2023 11:18</b> |      |               |               |      |                |
| Client ID:              | Run ID: <b>FID-4_449897</b>   | SeqNo: <b>7628518</b> |         | PrepDate:                               |      | DF: <b>1</b>  |               |      |                |
| 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                  |         |   |      |               |               |      |                |

| <b>LCS</b> | Sample ID: <b>LCS-231020</b> | Units: <b>ug/L</b>    |         | Analysis Date: <b>20-Oct-2023 11:35</b> |      |               |               |      |                |
|------------|------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: <b>FID-4_449897</b>  | SeqNo: <b>7628519</b> |         | PrepDate:                               |      | DF: <b>1</b>  |               |      |                |
| Analyte    | Result                       | PQL                   | SPK Val | SPK Ref Value                           | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Ethane     | 17.65                        | 1.00                  | 18.04   | 0                                       | 97.8 | 75 - 125      |               |      |                |
| Methane    | 7.75                         | 0.500                 | 9.647   | 0                                       | 80.3 | 75 - 125      |               |      |                |
| Propane    | 25.79                        | 1.00                  | 26.46   | 0                                       | 97.5 | 75 - 125      |               |      |                |

| <b>LCSD</b> | Sample ID: <b>LCSD-231020</b> | Units: <b>ug/L</b>    |         | Analysis Date: <b>20-Oct-2023 11:52</b> |      |               |               |      |                |
|-------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| Client ID:  | Run ID: <b>FID-4_449897</b>   | SeqNo: <b>7628520</b> |         | PrepDate:                               |      | DF: <b>1</b>  |               |      |                |
| Analyte     | Result                        | PQL                   | SPK Val | SPK Ref Value                           | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Ethane      | 17.33                         | 1.00                  | 18.04   | 0                                       | 96.0 | 75 - 125      | 17.65         | 1.85 | 30             |
| Methane     | 7.526                         | 0.500                 | 9.647   | 0                                       | 78.0 | 75 - 125      | 7.75          | 2.93 | 30             |
| Propane     | 25.16                         | 1.00                  | 26.46   | 0                                       | 95.1 | 75 - 125      | 25.79         | 2.47 | 30             |

The following samples were analyzed in this batch: HS23101051-01

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R449494 ( 0 )    |                        | Instrument: FID-20 |                | Method: GASOLINE RANGE ORGANICS BY SW8015C |           |               |               |      |           |      |
|----------------------------|------------------------|--------------------|----------------|--|-----------|---------------|---------------|------|-----------|------|
| <b>MBLK</b>                | Sample ID: MBLK-231017 | Units: mg/L        |                | Analysis Date: 18-Oct-2023 01:01           |           |               |               |      |           |      |
| Client ID:                 | Run ID: FID-20_449494  |                    | SeqNo: 7618442 |  | 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 | 0.118                  | 0.00500            | 0.1            | 0  | 118       | 70 - 121      |               |      |           |      |
| <b>LCS</b>                 | Sample ID: LCS-231017  | Units: mg/L        |                | Analysis Date: 18-Oct-2023 00:34           |           |               |               |      |           |      |
| Client ID:                 | Run ID: FID-20_449494  |                    | SeqNo: 7618440 |  | PrepDate: |               | DF: 1         |      |           |      |
| Analyte                    | Result                 | PQL                | SPK Val        | SPK Ref Value                              | %REC      | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Gasoline Range Organics    | 0.8988                 | 0.0500             | 1              | 0  | 89.9      | 76 - 124      |               |      |           |      |
| Surr: 4-Bromofluorobenzene | 0.1189                 | 0.00500            | 0.1            | 0  | 119       | 52 - 138      |               |      |           |      |
| <b>LCSD</b>                | Sample ID: LCSD-231017 | Units: mg/L        |                | Analysis Date: 18-Oct-2023 00:47           |           |               |               |      |           |      |
| Client ID:                 | Run ID: FID-20_449494  |                    | SeqNo: 7618441 |  | PrepDate: |               | DF: 1         |      |           |      |
| Analyte                    | Result                 | PQL                | SPK Val        | SPK Ref Value                              | %REC      | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Gasoline Range Organics    | 1.076                  | 0.0500             | 1              | 0  | 108       | 76 - 124      | 0.8988        | 17.9 | 20        |      |
| Surr: 4-Bromofluorobenzene | 0.1154                 | 0.00500            | 0.1            | 0  | 115       | 52 - 138      | 0.1189        | 2.97 | 20        |      |

The following samples were analyzed in this batch: HS23101051-01

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: 202611 ( 0 ) |                               | Instrument: ICPMS06   |         | Method: TOTAL METALS BY E200.8, REV 5.4, 1994 |      |               |               |      |                |
|------------------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| <b>MBLK</b>            | Sample ID: <b>MBLK-202611</b> | Units: <b>ug/L</b>    |         | Analysis Date: <b>26-Oct-2023 22:16</b>       |      |               |               |      |                |
| Client ID:             | Run ID: <b>ICPMS06_450161</b> | SeqNo: <b>7636982</b> |         | PrepDate: <b>26-Oct-2023</b>                  |      | DF: <b>1</b>  |               |      |                |
| 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                   |         |   |      |               |               |      |                |

| <b>LCS</b> | Sample ID: <b>LCS-202611</b>  | Units: <b>ug/L</b>    |         | Analysis Date: <b>26-Oct-2023 22:18</b> |      |               |               |      |                |
|------------|-------------------------------|-----------------------|---------|---|------|---------------|---------------|------|----------------|
| Client ID: | Run ID: <b>ICPMS06_450161</b> | SeqNo: <b>7636983</b> |         | PrepDate: <b>26-Oct-2023</b>            |      | DF: <b>1</b>  |               |      |                |
| Analyte    | Result                        | PQL                   | SPK Val | SPK Ref Value                           | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium    | 5021                          | 500                   | 5000    | 0                                       | 100  | 85 - 115      |               |      |                |
| Magnesium  | 5028                          | 500                   | 5000    | 0                                       | 101  | 85 - 115      |               |      |                |
| Potassium  | 4952                          | 500                   | 5000    | 0                                       | 99.0 | 85 - 115      |               |      |                |
| Sodium     | 4846                          | 200                   | 5000    | 0                                       | 96.9 | 85 - 115      |               |      |                |

| <b>MS</b>  | Sample ID: <b>HS23101019-01MS</b> | Units: <b>ug/L</b>    |         | Analysis Date: <b>26-Oct-2023 22:27</b> |       |               |               |      |                |
|------------|-----------------------------------|-----------------------|---------|---|-------|---------------|---------------|------|----------------|
| Client ID: | Run ID: <b>ICPMS06_450161</b>     | SeqNo: <b>7636988</b> |         | PrepDate: <b>26-Oct-2023</b>            |       | DF: <b>1</b>  |               |      |                |
| Analyte    | Result                            | PQL                   | SPK Val | SPK Ref Value                           | %REC  | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium    | 170000                            | 500                   | 5000    | 174900                                  | -97.7 | 70 - 130      |               |      | SO             |
| Magnesium  | 20390                             | 500                   | 5000    | 16180                                   | 84.1  | 70 - 130      |               |      |                |
| Potassium  | 9295                              | 500                   | 5000    | 4546                                    | 95.0  | 70 - 130      |               |      |                |
| Sodium     | 86360                             | 200                   | 5000    | 84850                                   | 30.1  | 70 - 130      |               |      | SO             |

| <b>MS</b>  | Sample ID: <b>HS23101018-01MS</b> | Units: <b>ug/L</b>    |         | Analysis Date: <b>26-Oct-2023 22:22</b> |       |               |               |      |                |
|------------|-----------------------------------|-----------------------|---------|---|-------|---------------|---------------|------|----------------|
| Client ID: | Run ID: <b>ICPMS06_450161</b>     | SeqNo: <b>7636985</b> |         | PrepDate: <b>26-Oct-2023</b>            |       | DF: <b>1</b>  |               |      |                |
| Analyte    | Result                            | PQL                   | SPK Val | SPK Ref Value                           | %REC  | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Calcium    | 137300                            | 500                   | 5000    | 141300                                  | -81.3 | 70 - 130      |               |      | SO             |
| Magnesium  | 15260                             | 500                   | 5000    | 11290                                   | 79.4  | 70 - 130      |               |      |                |
| Potassium  | 11760                             | 500                   | 5000    | 7508                                    | 85.0  | 70 - 130      |               |      |                |
| Sodium     | 81420                             | 200                   | 5000    | 83120                                   | -34.1 | 70 - 130      |               |      | SO             |

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: 202611 ( 0 ) |                             | Instrument: ICPMS06 |         | Method: TOTAL METALS BY E200.8, REV 5.4, 1994 |      |               |               |      |           |      |
|------------------------|-----------------------------|---------------------|---------|---|------|---------------|---------------|------|-----------|------|
| <b>MSD</b>             | Sample ID: HS23101019-01MSD | Units: ug/L         |         | Analysis Date: 26-Oct-2023 22:29              |      |               |               |      |           |      |
| Client ID:             | Run ID: ICPMS06_450161      | SeqNo: 7636989      |         | PrepDate: 26-Oct-2023                         |      | DF: 1         |               |      |           |      |
| Analyte                | Result                      | PQL                 | SPK Val | SPK Ref Value                                 | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium                | 179900                      | 500                 | 5000    | 174900  | 99.6 | 70 - 130      | 170000        | 5.64 | 20        | O    |
| Magnesium              | 21280                       | 500                 | 5000    | 16180   | 102  | 70 - 130      | 20390         | 4.27 | 20        |      |
| Potassium              | 9764                        | 500                 | 5000    | 4546  | 104  | 70 - 130      | 9295          | 4.92 | 20        |      |
| Sodium                 | 89680                       | 200                 | 5000    | 84850   | 96.5 | 70 - 130      | 86360         | 3.77 | 20        | O    |

| <b>MSD</b> | Sample ID: HS23101018-01MSD | Units: ug/L    |         | Analysis Date: 26-Oct-2023 22:24 |       |               |               |      |           |      |
|------------|-----------------------------|----------------|---------|----------------------------------|-------|---------------|---------------|------|-----------|------|
| Client ID: | Run ID: ICPMS06_450161      | SeqNo: 7636986 |         | PrepDate: 26-Oct-2023            |       | DF: 1         |               |      |           |      |
| Analyte    | Result                      | PQL            | SPK Val | SPK Ref Value                    | %REC  | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium    | 140700                      | 500            | 5000    | 141300                           | -13.2 | 70 - 130      | 137300        | 2.45 | 20        | SO   |
| Magnesium  | 15610                       | 500            | 5000    | 11290                            | 86.2  | 70 - 130      | 15260         | 2.2  | 20        |      |
| Potassium  | 12010                       | 500            | 5000    | 7508                             | 90.1  | 70 - 130      | 11760         | 2.14 | 20        |      |
| Sodium     | 84980                       | 200            | 5000    | 83120                            | 37.1  | 70 - 130      | 81420         | 4.28 | 20        | SO   |

The following samples were analyzed in this batch: HS23101051-01

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R450004 ( 0 )     |                         | Instrument: VOA11 |         | Method: LOW LEVEL VOLATILES BY SW8260C |      |               |               |      |                |
|-----------------------------|-------------------------|-------------------|---------|--|------|---------------|---------------|------|----------------|
| <b>MBLK</b>                 | Sample ID: VBLKW-231024 | Units: ug/L       |         | Analysis Date: 24-Oct-2023 19:22       |      |               |               |      |                |
| Client ID:                  | Run ID: VOA11_450004    | SeqNo: 7631046    |         | 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 | 48.97                   | 1.0               | 50      | 0                                      | 97.9 | 70 - 123      |               |      |                |
| Surr: 4-Bromofluorobenzene  | 46.12                   | 1.0               | 50      | 0                                      | 92.2 | 77 - 113      |               |      |                |
| Surr: Dibromofluoromethane  | 50.94                   | 1.0               | 50      | 0                                      | 102  | 73 - 126      |               |      |                |
| Surr: Toluene-d8            | 51.06                   | 1.0               | 50      | 0                                      | 102  | 81 - 120      |               |      |                |

| <b>LCS</b>                  | Sample ID: VLCSW-231024 | Units: ug/L    |         | Analysis Date: 24-Oct-2023 18:40 |      |               |               |      |                |
|-----------------------------|-------------------------|----------------|---------|----------------------------------|------|---------------|---------------|------|----------------|
| Client ID:                  | Run ID: VOA11_450004    | SeqNo: 7631045 |         | PrepDate:                        |      | DF: 1         |               |      |                |
| Analyte                     | Result                  | PQL            | SPK Val | SPK Ref Value                    | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Benzene                     | 18.35                   | 1.0            | 20      | 0                                | 91.8 | 74 - 120      |               |      |                |
| Ethylbenzene                | 18.54                   | 1.0            | 20      | 0                                | 92.7 | 77 - 117      |               |      |                |
| m,p-Xylene                  | 36.74                   | 2.0            | 40      | 0                                | 91.8 | 77 - 122      |               |      |                |
| o-Xylene                    | 18.07                   | 1.0            | 20      | 0                                | 90.4 | 75 - 119      |               |      |                |
| Toluene                     | 18.19                   | 1.0            | 20      | 0                                | 91.0 | 77 - 118      |               |      |                |
| Xylenes, Total              | 54.81                   | 3.0            | 60      | 0                                | 91.4 | 75 - 122      |               |      |                |
| Surr: 1,2-Dichloroethane-d4 | 46.93                   | 1.0            | 50      | 0                                | 93.9 | 70 - 123      |               |      |                |
| Surr: 4-Bromofluorobenzene  | 49.53                   | 1.0            | 50      | 0                                | 99.1 | 77 - 113      |               |      |                |
| Surr: Dibromofluoromethane  | 49.2                    | 1.0            | 50      | 0                                | 98.4 | 73 - 126      |               |      |                |
| Surr: Toluene-d8            | 51.2                    | 1.0            | 50      | 0                                | 102  | 81 - 120      |               |      |                |

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

**Batch ID:** R450004 ( 0 )      **Instrument:** VOA11      **Method:** LOW LEVEL VOLATILES BY SW8260C

| <b>MS</b>                   |        | Sample ID: <b>HS23101419-25MS</b> |         | Units: <b>ug/L</b>    |      | Analysis Date: <b>24-Oct-2023 20:25</b> |               |                 |                |
|-----------------------------|--------|-----------------------------------|---------|-----------------------|------|---|---------------|-----------------|----------------|
| Client ID:                  |        | Run ID: <b>VOA11_450004</b>       |         | SeqNo: <b>7631049</b> |      | PrepDate:                               |               | DF: <b>1000</b> |                |
| Analyte                     | Result | PQL                               | SPK Val | SPK Ref Value         | %REC | Control Limit                           | RPD Ref Value | RPD %RPD        | RPD Limit Qual |
| Benzene                     | 24180  | 1000                              | 20000   | 6503                  | 88.4 | 70 - 127                                |               |                 |                |
| Ethylbenzene                | 18340  | 1000                              | 20000   | 1068                  | 86.4 | 70 - 124                                |               |                 |                |
| m,p-Xylene                  | 39580  | 2000                              | 40000   | 4495                  | 87.7 | 70 - 130                                |               |                 |                |
| o-Xylene                    | 19460  | 1000                              | 20000   | 2166                  | 86.5 | 70 - 124                                |               |                 |                |
| Toluene                     | 41130  | 1000                              | 20000   | 22530                 | 93.0 | 70 - 123                                |               |                 |                |
| Xylenes, Total              | 59040  | 3000                              | 60000   | 6661                  | 87.3 | 70 - 130                                |               |                 |                |
| Surr: 1,2-Dichloroethane-d4 | 48910  | 1000                              | 50000   | 0                     | 97.8 | 70 - 126                                |               |                 |                |
| Surr: 4-Bromofluorobenzene  | 49710  | 1000                              | 50000   | 0                     | 99.4 | 77 - 113                                |               |                 |                |
| Surr: Dibromofluoromethane  | 50860  | 1000                              | 50000   | 0                     | 102  | 77 - 123                                |               |                 |                |
| Surr: Toluene-d8            | 50870  | 1000                              | 50000   | 0                     | 102  | 82 - 127                                |               |                 |                |

| <b>MSD</b>                  |        | Sample ID: <b>HS23101419-25MSD</b> |         | Units: <b>ug/L</b>    |      | Analysis Date: <b>24-Oct-2023 20:46</b> |               |                 |                |
|-----------------------------|--------|------------------------------------|---------|-----------------------|------|---|---------------|-----------------|----------------|
| Client ID:                  |        | Run ID: <b>VOA11_450004</b>        |         | SeqNo: <b>7631050</b> |      | PrepDate:                               |               | DF: <b>1000</b> |                |
| Analyte                     | Result | PQL                                | SPK Val | SPK Ref Value         | %REC | Control Limit                           | RPD Ref Value | RPD %RPD        | RPD Limit Qual |
| Benzene                     | 25020  | 1000                               | 20000   | 6503                  | 92.6 | 70 - 127                                | 24180         | 3.41            | 20             |
| Ethylbenzene                | 19220  | 1000                               | 20000   | 1068                  | 90.7 | 70 - 124                                | 18340         | 4.65            | 20             |
| m,p-Xylene                  | 40240  | 2000                               | 40000   | 4495                  | 89.4 | 70 - 130                                | 39580         | 1.66            | 20             |
| o-Xylene                    | 20210  | 1000                               | 20000   | 2166                  | 90.2 | 70 - 124                                | 19460         | 3.8             | 20             |
| Toluene                     | 42760  | 1000                               | 20000   | 22530                 | 101  | 70 - 123                                | 41130         | 3.9             | 20             |
| Xylenes, Total              | 60460  | 3000                               | 60000   | 6661                  | 89.7 | 70 - 130                                | 59040         | 2.37            | 20             |
| Surr: 1,2-Dichloroethane-d4 | 48440  | 1000                               | 50000   | 0                     | 96.9 | 70 - 126                                | 48910         | 0.971           | 20             |
| Surr: 4-Bromofluorobenzene  | 48870  | 1000                               | 50000   | 0                     | 97.7 | 77 - 113                                | 49710         | 1.71            | 20             |
| Surr: Dibromofluoromethane  | 50210  | 1000                               | 50000   | 0                     | 100  | 77 - 123                                | 50860         | 1.29            | 20             |
| Surr: Toluene-d8            | 50660  | 1000                               | 50000   | 0                     | 101  | 82 - 127                                | 50870         | 0.419           | 20             |

The following samples were analyzed in this batch: HS23101051-01

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R449689 ( 0 )                      |                           | Instrument: Balance1 |         | Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011 |      |               |               |      |           |      |
|--|---------------------------|----------------------|---------|--|------|---------------|---------------|------|-----------|------|
| MBLK   | Sample ID: WMBLK-10192023 | Units: mg/L          |         | Analysis Date: 19-Oct-2023 12:00               |      |               |               |      |           |      |
| Client ID:                                   | Run ID: Balance1_449689   | SeqNo: 7623454       |         | 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-10192023 | Units: mg/L    |         | Analysis Date: 19-Oct-2023 12:00 |      |               |               |      |           |      |
| Client ID:                                   | Run ID: Balance1_449689  | SeqNo: 7623453 |         | 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) |                          | 1076           | 10.0    | 1000                             | 0    | 108           | 85 - 115      |      |           |      |

|  |                             |                |         |                                  |      |               |               |      |           |      |
|--|-----------------------------|----------------|---------|----------------------------------|------|---------------|---------------|------|-----------|------|
| DUP  | Sample ID: HS23101158-01DUP | Units: mg/L    |         | Analysis Date: 19-Oct-2023 12:00 |      |               |               |      |           |      |
| Client ID:                                   | Run ID: Balance1_449689     | SeqNo: 7623444 |         | 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) |                             | 988            | 10.0    |                                  |      |               | 988           | 0    | 20        |      |

|  |                             |                |         |                                  |      |               |               |       |           |      |
|--|-----------------------------|----------------|---------|----------------------------------|------|---------------|---------------|-------|-----------|------|
| DUP  | Sample ID: HS23100983-04DUP | Units: mg/L    |         | Analysis Date: 19-Oct-2023 12:00 |      |               |               |       |           |      |
| Client ID:                                   | Run ID: Balance1_449689     | SeqNo: 7623437 |         | 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) |                             | 1180           | 10.0    |                                  |      |               | 1184          | 0.338 | 20        |      |

|  |  |               |
|--|--|---------------|
| The following samples were analyzed in this batch: |  | HS23101051-01 |
|--|--|---------------|

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R450209 ( 0 ) |                              | Instrument: ICS-Integrion |                | Method: ANIONS BY E300.0, REV 2.1, 1993 |           |               |               |      |                |
|-------------------------|------------------------------|---------------------------|----------------|---|-----------|---------------|---------------|------|----------------|
| <b>MBLK</b>             | Sample ID: MBLK              | Units: mg/L               |                | Analysis Date: 26-Oct-2023 10:53        |           |               |               |      |                |
| Client ID:              | Run ID: ICS-Integrion_450209 |                           | SeqNo: 7636286 |   | 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                     |                |   |           |               |               |      |                |

| <b>LCS</b> | Sample ID: LCS               | Units: mg/L |                | Analysis Date: 26-Oct-2023 11:04 |           |               |               |      |                |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICS-Integrion_450209 |             | SeqNo: 7636287 |                                  | PrepDate: |               | DF: 1         |      |                |
| Analyte    | Result                       | PQL         | SPK Val        | SPK Ref Value                    | %REC      | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride   | 20.62                        | 0.500       | 20             | 0                                | 103       | 90 - 110      |               |      |                |
| Sulfate    | 19.25                        | 0.500       | 20             | 0                                | 96.2      | 90 - 110      |               |      |                |

| <b>MS</b>  | Sample ID: HS23101380-02MS   | Units: mg/L |                | Analysis Date: 26-Oct-2023 14:15 |           |               |               |      |                |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICS-Integrion_450209 |             | SeqNo: 7636314 |                                  | PrepDate: |               | DF: 1         |      |                |
| Analyte    | Result                       | PQL         | SPK Val        | SPK Ref Value                    | %REC      | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride   | 118.4                        | 0.500       | 10             | 112                              | 63.3      | 80 - 120      |               |      | SEO            |
| Sulfate    | 333.3                        | 0.500       | 10             | 332.3                            | 9.26      | 80 - 120      |               |      | SEO            |

| <b>MS</b>  | Sample ID: HS23101380-01MS   | Units: mg/L |                | Analysis Date: 26-Oct-2023 13:57 |           |               |               |      |                |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|------|----------------|
| Client ID: | Run ID: ICS-Integrion_450209 |             | SeqNo: 7636311 |                                  | PrepDate: |               | DF: 1         |      |                |
| Analyte    | Result                       | PQL         | SPK Val        | SPK Ref Value                    | %REC      | Control Limit | RPD Ref Value | %RPD | RPD Limit Qual |
| Chloride   | 60.62                        | 0.500       | 10             | 51.65                            | 89.8      | 80 - 120      |               |      | O              |
| Sulfate    | 275                          | 0.500       | 10             | 270.9                            | 40.6      | 80 - 120      |               |      | SEO            |

| <b>MSD</b> | Sample ID: HS23101380-02MSD  | Units: mg/L |                | Analysis Date: 26-Oct-2023 14:21 |           |               |               |        |                |
|------------|------------------------------|-------------|----------------|----------------------------------|-----------|---------------|---------------|--------|----------------|
| Client ID: | Run ID: ICS-Integrion_450209 |             | SeqNo: 7636315 |                                  | PrepDate: |               | DF: 1         |        |                |
| Analyte    | Result                       | PQL         | SPK Val        | SPK Ref Value                    | %REC      | Control Limit | RPD Ref Value | %RPD   | RPD Limit Qual |
| Chloride   | 118.4                        | 0.500       | 10             | 112                              | 64.1      | 80 - 120      | 118.4         | 0.0693 | 20 SEO         |
| Sulfate    | 333.9                        | 0.500       | 10             | 332.3                            | 15.7      | 80 - 120      | 333.3         | 0.193  | 20 SEO         |



**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R450209 ( 0 ) |        | Instrument: ICS-Integrion           |         | Method: ANIONS BY E300.0, REV 2.1, 1993 |      |   |               |              |           |      |
|-------------------------|--------|-------------------------------------|---------|---|------|---|---------------|--------------|-----------|------|
| <b>MSD</b>              |        | Sample ID: <b>HS23101380-01MSD</b>  |         | Units: <b>mg/L</b>                      |      | Analysis Date: <b>26-Oct-2023 14:03</b> |               |              |           |      |
| Client ID:              |        | Run ID: <b>ICS-Integrion_450209</b> |         | SeqNo: <b>7636312</b>                   |      | PrepDate:                               |               | DF: <b>1</b> |           |      |
| Analyte                 | Result | PQL                                 | SPK Val | SPK Ref Value                           | %REC | Control Limit                           | RPD Ref Value | %RPD         | RPD Limit | Qual |
| Chloride                | 60.68  | 0.500                               | 10      | 51.65                                   | 90.4 | 80 - 120                                | 60.62         | 0.0956       | 20        | O    |
| Sulfate                 | 275.3  | 0.500                               | 10      | 270.9                                   | 44.2 | 80 - 120                                | 275           | 0.131        | 20        | SEO  |

The following samples were analyzed in this batch: HS23101051-01

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QC BATCH REPORT**

| Batch ID: R450230 ( 0 )            |                          | Instrument: Skalar 03 |         | Method: ALKALINITY BY -2011      |      |               |               |      |                |
|------------------------------------|--------------------------|-----------------------|---------|----------------------------------|------|---------------|---------------|------|----------------|
| <b>MBLK</b>                        | Sample ID: MBLK-10252023 | Units: mg/L           |         | Analysis Date: 26-Oct-2023 17:50 |      |               |               |      |                |
| Client ID:                         | Run ID: Skalar 03_450230 | SeqNo: 7637166        |         | 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                  |         |                                  |      |               |               |      |                |

|                                  |                          |                |         |                                  |      |               |               |      |                |
|----------------------------------|--------------------------|----------------|---------|----------------------------------|------|---------------|---------------|------|----------------|
| <b>LCS</b>                       | Sample ID: LCS-10252023  | Units: mg/L    |         | Analysis Date: 26-Oct-2023 17:56 |      |               |               |      |                |
| Client ID:                       | Run ID: Skalar 03_450230 | SeqNo: 7637167 |         | 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) | 931.4                    | 5.00           | 1000    | 0                                | 93.1 | 85 - 115      |               |      |                |
| Alkalinity, Total (As CaCO3)     | 941.4                    | 5.00           | 1000    | 0                                | 94.1 | 85 - 115      |               |      |                |

|                                  |                          |                |         |                                  |      |               |               |       |                |
|----------------------------------|--------------------------|----------------|---------|----------------------------------|------|---------------|---------------|-------|----------------|
| <b>LCSD</b>                      | Sample ID: LCSD-10252023 | Units: mg/L    |         | Analysis Date: 26-Oct-2023 18:02 |      |               |               |       |                |
| Client ID:                       | Run ID: Skalar 03_450230 | SeqNo: 7637168 |         | 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) | 936.4                    | 5.00           | 1000    | 0                                | 93.6 | 85 - 115      | 931.4         | 0.535 | 20             |
| Alkalinity, Total (As CaCO3)     | 946.5                    | 5.00           | 1000    | 0                                | 94.6 | 85 - 115      | 941.4         | 0.54  | 20             |

|                                    |                             |                |         |                                  |      |               |               |       |                |
|------------------------------------|-----------------------------|----------------|---------|----------------------------------|------|---------------|---------------|-------|----------------|
| <b>DUP</b>                         | Sample ID: HS23100907-12DUP | Units: mg/L    |         | Analysis Date: 26-Oct-2023 19:16 |      |               |               |       |                |
| Client ID:                         | Run ID: Skalar 03_450230    | SeqNo: 7637180 |         | 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) | 1946                        | 5.00           |         |                                  |      |               | 1941          | 0.237 | 20             |
| Alkalinity, Carbonate (As CaCO3)   | ND                          | 5.00           |         |                                  |      |               | 0             | 0     | 20             |
| Alkalinity, Total (As CaCO3)       | 1946                        | 5.00           |         |                                  |      |               | 1941          | 0.237 | 20             |

The following samples were analyzed in this batch: HS23101051-01

**Client:** PDC Energy  
**Project:** City of Greeley 1-30  
**WorkOrder:** HS23101051

**QUALIFIERS,  
ACRONYMS, UNITS**

| <b>Qualifier</b> | <b>Description</b>  |
|------------------|---|
| *                | 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                               |

| <b>Acronym</b> | <b>Description</b>                  |
|----------------|-------------------------------------|
| 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        |

| <b>Unit Reported</b> | <b>Description</b>   |
|----------------------|----------------------|
| mg/L                 | Milligrams per Liter |

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**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

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| 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           | T104704231-23-31  | 30-Apr-2024 |
| Utah            | TX026932023-14    | 31-Jul-2024 |

## Sample Receipt Checklist

Work Order ID: HS23101051

Date/Time Received: 17-Oct-2023 08:00

Client Name: PDC Energy 80203

Received by: Nelson D. Dusara

Completed By: /S/ Corey Grandits

17-Oct-2023 10:05

Reviewed by: /S/ Tyler Monroe

17-Oct-2023 14:11

eSignature

Date/Time

eSignature

Date/Time

Matrices: WCarrier 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):

2.2UC/2.1C

IR31

Cooler(s)/Kit(s):

50336

Date/Time sample(s) sent to storage:

10/17/23

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:

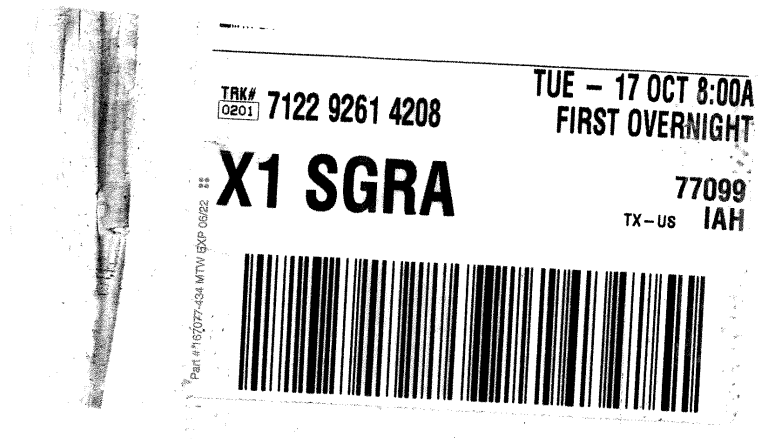
Contacted By:

Regarding:

Comments:

Corrective Action:





17/10/23