

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Denver

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Tel: (303)736-0100

TestAmerica Job ID: 280-79585-1

Client Project/Site: Purg Wellhead DRO and Oil and Grease
Sampling Event: PURG Wellhead+ DRO and Oil and Grease

For:

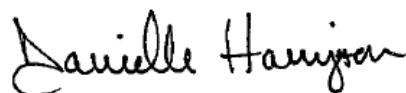
Pioneer Natural Resources USA, Inc.

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Attn: Katie Gillen



Authorized for release by:

2/26/2016 2:07:34 PM

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 2 |
| Definitions | 3 |
| Case Narrative | 4 |
| Detection Summary | 6 |
| Method Summary | 8 |
| Sample Summary | 9 |
| Client Sample Results | 10 |
| Surrogate Summary | 17 |
| Chronicle | 18 |
| Chain of Custody | 20 |

Definitions/Glossary

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Qualifiers

Metals

| Qualifier | Qualifier Description |
|-----------|---|
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |

General Chemistry

| Qualifier | Qualifier Description |
|-----------|--|
| F1 | MS and/or MSD Recovery is outside acceptance limits. |
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

Case Narrative

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Job ID: 280-79585-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Pioneer Natural Resources

Project: PURG WELLHEAD
Report Number: 280-79585-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Receipt

The sample was received on 02/10/2016 with cooler temperatures of 0.5C.

All sample bottles were received in acceptable condition.

GC Volatiles, SW 846 8021B

The Method 8021B MS/MSD performed on sample WET CANYON ABOVE MUD DUCK SW was within control limits.

Please note, due to network issues the whole batch (#313508) has incorrect time stamps. The instrument computer clock is 4 hours and 44 minutes behind the actual time so each injection time indicated in the batch is 4 hours and 44 minutes earlier than when it was actually injected.

Analyst notated that the preserved VOA vials for sample MUD DUCK 21-26-GS was received at a pH of 3, when a pH of <2 is required.

No other anomalies were observed.

GC/MS Semivolatiles, SW 846 8015B

The method 8015B required MS/MSD could not be performed due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analysis data.

No anomalies were observed.

Total Metals, MCAWW 200.7

The accuracy and precision of the Sodium MS/MSD performed on a sample MUD DUCK 21-26-GS could not be reliably evaluated, as the concentrations present in the parent sample were 4 times greater than the matrix spike concentration. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

The Method 200.7 MS/MSD performed on sample MUD DUCK 21-26-GS was outside control limits for Arsenic.

The Method 200.7 MS/MSD performed on sample MUD DUCK 21-26-GS was within control limits for Iron.

No anomalies were observed.

General Chemistry, Various Methods

Case Narrative

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Job ID: 280-79585-1 (Continued)

Laboratory: TestAmerica Denver (Continued)

Due to analytes present above the linear calibration curve or matrix interferences, sample MUD DUCK 21-26-GS was analyzed at a dilution for various analyses. The reporting limits have been adjusted relative to the dilution required.

The Total Sulfide MS/MSDs were performed on samples MUD DUCK 21-26-GS and were outside control limits.

All other MS/MSDs were performed on samples from other clients and/or jobs and were in control.

The Specific Gravity, pH, and Total Dissolved Solids Sample Duplicate was performed on sample MUD DUCK 21-26-GS and WET CANYON ABOVE MUDDUCK SW EPA and was within control limits.

All other Sample Duplicates were performed on samples from other clients and/or jobs and were in control.

No other anomalies were observed.

Detection Summary

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: MUD DUCK 21-26-GS

Lab Sample ID: 280-79585-1

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------------|--------|-----------|-------|------|-----------|---------|---|----------------|-------------------|
| Field pH | 7.98 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 3625 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 12.90 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
| Benzene | 0.83 | | 0.50 | | ug/L | 1 | | 8021B | Total/NA |
| Iron | 1.7 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Boron | 0.80 | | 0.050 | | mg/L | 1 | | 200.7 | Total/NA |
| Calcium | 5.7 | | 0.10 | | mg/L | 1 | | 200.7 | Total/NA |
| Iron | 1.8 | | 0.050 | | mg/L | 1 | | 200.7 | Total/NA |
| Magnesium | 1.6 | | 0.10 | | mg/L | 1 | | 200.7 | Total/NA |
| Manganese | 0.024 | | 0.010 | | mg/L | 1 | | 200.7 | Total/NA |
| Sodium | 880 | | 2.0 | | mg/L | 1 | | 200.7 | Total/NA |
| Bromide | 3.9 | | 0.20 | | mg/L | 1 | | 300.0 | Total/NA |
| Chloride | 530 | | 30 | | mg/L | 10 | | 300.0 | Total/NA |
| Total Alkalinity | 1100 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 1100 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 2100 | | 20 | | mg/L | 1 | | SM 2540C | Total/NA |
| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
| Specific Gravity | 1.0020 | | | | No Unit | 1 | | D1429-03 | Total/NA |
| Specific Conductance | 3200 | | 1.0 | | umhos/cm | 1 | | SM 2510B | Total/NA |
| pH | 8.39 | HF | 0.100 | | SU | 1 | | SM 4500 H+ B | Total/NA |

Client Sample ID: WET CANYON BELOW MUD DUCK SW EPA

Lab Sample ID: 280-79585-2

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------------|--------|-----------|-------|------|-----------|---------|---|----------------|-------------------|
| Field pH | 7.90 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 1413 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 1.72 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
| Iron | 0.26 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total Recoverable |
| Boron | 0.068 | | 0.050 | | mg/L | 1 | | 200.7 | Total/NA |
| Calcium | 54 | | 0.10 | | mg/L | 1 | | 200.7 | Total/NA |
| Iron | 0.26 | | 0.050 | | mg/L | 1 | | 200.7 | Total/NA |
| Magnesium | 20 | | 0.10 | | mg/L | 1 | | 200.7 | Total/NA |
| Manganese | 0.14 | | 0.010 | | mg/L | 1 | | 200.7 | Total/NA |
| Sodium | 280 | | 2.0 | | mg/L | 1 | | 200.7 | Total/NA |
| Bromide | 0.72 | | 0.20 | | mg/L | 1 | | 300.0 | Total/NA |
| Chloride | 110 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 36 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 580 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 560 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Carbonate Alkalinity as CaCO3 | 13 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 830 | | 10 | | mg/L | 1 | | SM 2540C | Total/NA |
| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
| Specific Gravity | 1.0011 | | | | No Unit | 1 | | D1429-03 | Total/NA |
| Specific Conductance | 1200 | | 1.0 | | umhos/cm | 1 | | SM 2510B | Total/NA |
| pH | 6.08 | HF | 0.100 | | SU | 1 | | SM 4500 H+ B | Total/NA |

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Detection Summary

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: WET CANYON ABOVE MUD DUCK SW EPA

Lab Sample ID: 280-79585-3

| Analyte | Result | Qualifier | NONE | NONE | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------------|--------|-----------|-------|------|-----------|---------|---|----------------|-------------|
| Field pH | 7.93 | | | | SU | 1 | | Field Sampling | Total/NA |
| Field Conductivity | 1712 | | | | umhos/cm | 1 | | Field Sampling | Total/NA |
| Field Temperature | 1.95 | | | | Degrees C | 1 | | Field Sampling | Total/NA |
| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
| Iron | 0.25 | | 0.050 | | mg/L | 1 | | 200.7 Rev 4.4 | Total |
| Boron | 0.064 | | 0.050 | | mg/L | 1 | | 200.7 | Recoverable |
| Calcium | 53 | | 0.10 | | mg/L | 1 | | 200.7 | Total/NA |
| Iron | 0.25 | | 0.050 | | mg/L | 1 | | 200.7 | Total/NA |
| Magnesium | 20 | | 0.10 | | mg/L | 1 | | 200.7 | Total/NA |
| Manganese | 0.14 | | 0.010 | | mg/L | 1 | | 200.7 | Total/NA |
| Sodium | 280 | | 2.0 | | mg/L | 1 | | 200.7 | Total/NA |
| Bromide | 0.71 | | 0.20 | | mg/L | 1 | | 300.0 | Total/NA |
| Chloride | 110 | | 3.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 36 | | 5.0 | | mg/L | 1 | | 300.0 | Total/NA |
| Total Alkalinity | 580 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Bicarbonate Alkalinity as CaCO3 | 560 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Carbonate Alkalinity as CaCO3 | 18 | | 5.0 | | mg/L | 1 | | SM 2320B | Total/NA |
| Total Dissolved Solids | 830 | | 10 | | mg/L | 1 | | SM 2540C | Total/NA |
| Total Suspended Solids | 4.0 | | 4.0 | | mg/L | 1 | | SM 2540D | Total/NA |
| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
| Specific Gravity | 1.0008 | | | | No Unit | 1 | | D1429-03 | Total/NA |
| Specific Conductance | 1200 | | 1.0 | | umhos/cm | 1 | | SM 2510B | Total/NA |
| pH | 8.32 | HF | 0.100 | | SU | 1 | | SM 4500 H+ B | Total/NA |

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-79585-4

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

| Method | Method Description | Protocol | Laboratory |
|----------------|------------------------------------|----------|------------|
| 8021B | Volatile Organic Compounds (GC) | SW846 | TAL DEN |
| 8015B | Diesel Range Organics (DRO) (GC) | SW846 | TAL DEN |
| 200.7 | ICP Total Metals by 200.7 | EPA | TAL DEN |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | TAL DEN |
| 1664A | HEM and SGT-HEM | 1664A | TAL DEN |
| 300.0 | Anions by IC | EPA | TAL DEN |
| D1429-03 | Specific Gravity | ASTM | TAL DEN |
| SM 2320B | Alkalinity | SM | TAL DEN |
| SM 2510B | Conductivity, Specific Conductance | SM | TAL DEN |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | TAL DEN |
| SM 2540D | Solids, Total Suspended (TSS) | SM | TAL DEN |
| SM 4500 H+ B | pH | SM | TAL DEN |
| SM 4500 S2 D | Sulfide, Total | SM | TAL DEN |
| Field Sampling | Field Sampling | EPA | TAL DEN |

Protocol References:

1664A = EPA-821-98-002

ASTM = ASTM International

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|----------------------------------|--------|----------------|----------------|
| 280-79585-1 | MUD DUCK 21-26-GS | Water | 02/06/16 13:28 | 02/10/16 09:45 |
| 280-79585-2 | WET CANYON BELOW MUD DUCK SW EPA | Water | 02/06/16 13:54 | 02/10/16 09:45 |
| 280-79585-3 | WET CANYON ABOVE MUD DUCK SW EPA | Water | 02/06/16 14:21 | 02/10/16 09:45 |
| 280-79585-4 | TRIP BLANK | Water | 02/06/16 00:00 | 02/10/16 09:45 |

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: MUD DUCK 21-26-GS

Lab Sample ID: 280-79585-1

Date Collected: 02/06/16 13:28

Matrix: Water

Date Received: 02/10/16 09:45

Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene | 0.83 | | 0.50 | | ug/L | | | 02/15/16 20:51 | 1 |
| Ethylbenzene | ND | | 0.50 | | ug/L | | | 02/15/16 20:51 | 1 |
| Toluene | ND | | 0.50 | | ug/L | | | 02/15/16 20:51 | 1 |
| Xylenes, Total | ND | | 0.50 | | ug/L | | | 02/15/16 20:51 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| a,a,a-Trifluorotoluene | 89 | | 85 - 115 | | | | | 02/15/16 20:51 | 1 |

Method: 8015B - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Diesel Range Organics [C10-C28] | ND | | 0.24 | | mg/L | | 02/12/16 14:39 | 02/19/16 16:56 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| o-Terphenyl | 90 | | 50 - 115 | | | | 02/12/16 14:39 | 02/19/16 16:56 | 1 |

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| Iron | 1.7 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/16/16 21:23 | 1 |

Method: 200.7 - ICP Total Metals by 200.7

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| Arsenic | ND | F1 | 0.050 | | mg/L | | 02/12/16 08:20 | 02/23/16 12:11 | 1 |
| Boron | 0.80 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Calcium | 5.7 | | 0.10 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Chromium | ND | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Copper | ND | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Iron | 1.8 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Potassium | ND | | 5.0 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Magnesium | 1.6 | | 0.10 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Manganese | 0.024 | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Sodium | 880 | | 2.0 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:17 | 1 |
| Selenium | ND | | 0.015 | | mg/L | | 02/12/16 08:20 | 02/23/16 12:11 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|--------|-----------|-------|-----|----------|---|----------------|----------------|---------|
| HEM | ND | | 4.7 | | mg/L | | 02/17/16 15:34 | 02/17/16 20:05 | 1 |
| Bromide | 3.9 | | 0.20 | | mg/L | | | 02/17/16 01:29 | 1 |
| Chloride | 530 | | 30 | | mg/L | | | 02/17/16 01:45 | 10 |
| Sulfate | ND | | 5.0 | | mg/L | | | 02/17/16 01:29 | 1 |
| Total Alkalinity | 1100 | | 5.0 | | mg/L | | | 02/12/16 13:14 | 1 |
| Bicarbonate Alkalinity as CaCO3 | 1100 | | 5.0 | | mg/L | | | 02/12/16 13:14 | 1 |
| Carbonate Alkalinity as CaCO3 | ND | | 5.0 | | mg/L | | | 02/12/16 13:14 | 1 |
| Hydroxide Alkalinity | ND | | 5.0 | | mg/L | | | 02/12/16 13:14 | 1 |
| Total Dissolved Solids | 2100 | | 20 | | mg/L | | | 02/11/16 15:39 | 1 |
| Total Suspended Solids | ND | | 4.0 | | mg/L | | | 02/10/16 18:03 | 1 |
| Sulfide | ND | F1 | 0.050 | | mg/L | | | 02/10/16 15:27 | 1 |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Specific Gravity | 1.0020 | | | | No Unit | | | 02/11/16 19:30 | 1 |
| Specific Conductance | 3200 | | 1.0 | | umhos/cm | | | 02/16/16 18:57 | 1 |
| pH | 8.39 | HF | 0.100 | | SU | | | 02/17/16 19:15 | 1 |

TestAmerica Denver

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: MUD DUCK 21-26-GS

Lab Sample ID: 280-79585-1

Date Collected: 02/06/16 13:28

Matrix: Water

Date Received: 02/10/16 09:45

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|------|------|-----------|---|----------|----------------|---------|
| Field pH | 7.98 | | | | SU | | | 02/06/16 13:28 | 1 |
| Field Conductivity | 3625 | | | | umhos/cm | | | 02/06/16 13:28 | 1 |
| Field Temperature | 12.90 | | | | Degrees C | | | 02/06/16 13:28 | 1 |

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: WET CANYON BELOW MUD DUCK SW EPA

Lab Sample ID: 280-79585-2

Date Collected: 02/06/16 13:54

Matrix: Water

Date Received: 02/10/16 09:45

Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene | ND | | 0.50 | | ug/L | | | 02/15/16 21:21 | 1 |
| Ethylbenzene | ND | | 0.50 | | ug/L | | | 02/15/16 21:21 | 1 |
| Toluene | ND | | 0.50 | | ug/L | | | 02/15/16 21:21 | 1 |
| Xylenes, Total | ND | | 0.50 | | ug/L | | | 02/15/16 21:21 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| a,a,a-Trifluorotoluene | 89 | | 85 - 115 | | | | | 02/15/16 21:21 | 1 |

Method: 8015B - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Diesel Range Organics [C10-C28] | ND | | 0.24 | | mg/L | | 02/12/16 14:39 | 02/19/16 17:26 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| o-Terphenyl | 89 | | 50 - 115 | | | | 02/12/16 14:39 | 02/19/16 17:26 | 1 |

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| Iron | 0.26 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/16/16 21:34 | 1 |

Method: 200.7 - ICP Total Metals by 200.7

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/23/16 12:22 | 1 |
| Boron | 0.068 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Calcium | 54 | | 0.10 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Chromium | ND | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Copper | ND | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Iron | 0.26 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Potassium | ND | | 5.0 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Magnesium | 20 | | 0.10 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Manganese | 0.14 | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Sodium | 280 | | 2.0 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:28 | 1 |
| Selenium | ND | | 0.015 | | mg/L | | 02/12/16 08:20 | 02/23/16 12:22 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|--------|-----------|-------|-----|----------|---|----------------|----------------|---------|
| HEM | ND | | 4.7 | | mg/L | | 02/17/16 15:34 | 02/17/16 20:05 | 1 |
| Bromide | 0.72 | | 0.20 | | mg/L | | | 02/17/16 02:00 | 1 |
| Chloride | 110 | | 3.0 | | mg/L | | | 02/17/16 02:00 | 1 |
| Sulfate | 36 | | 5.0 | | mg/L | | | 02/17/16 02:00 | 1 |
| Total Alkalinity | 580 | | 5.0 | | mg/L | | | 02/11/16 15:18 | 1 |
| Bicarbonate Alkalinity as CaCO3 | 560 | | 5.0 | | mg/L | | | 02/11/16 15:18 | 1 |
| Carbonate Alkalinity as CaCO3 | 13 | | 5.0 | | mg/L | | | 02/11/16 15:18 | 1 |
| Hydroxide Alkalinity | ND | | 5.0 | | mg/L | | | 02/11/16 15:18 | 1 |
| Total Dissolved Solids | 830 | | 10 | | mg/L | | | 02/11/16 15:39 | 1 |
| Total Suspended Solids | ND | | 4.0 | | mg/L | | | 02/10/16 18:03 | 1 |
| Sulfide | ND | | 0.050 | | mg/L | | | 02/10/16 15:27 | 1 |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Specific Gravity | 1.0011 | | | | No Unit | | | 02/11/16 19:30 | 1 |
| Specific Conductance | 1200 | | 1.0 | | umhos/cm | | | 02/16/16 18:57 | 1 |
| pH | 6.08 | HF | 0.100 | | SU | | | 02/10/16 18:11 | 1 |

TestAmerica Denver

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: WET CANYON BELOW MUD DUCK SW EPA

Lab Sample ID: 280-79585-2

Date Collected: 02/06/16 13:54

Matrix: Water

Date Received: 02/10/16 09:45

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|------|------|-----------|---|----------|----------------|---------|
| Field pH | 7.90 | | | | SU | | | 02/06/16 13:54 | 1 |
| Field Conductivity | 1413 | | | | umhos/cm | | | 02/06/16 13:54 | 1 |
| Field Temperature | 1.72 | | | | Degrees C | | | 02/06/16 13:54 | 1 |

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: WET CANYON ABOVE MUD DUCK SW EPA

Lab Sample ID: 280-79585-3

Date Collected: 02/06/16 14:21

Matrix: Water

Date Received: 02/10/16 09:45

Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene | ND | | 0.50 | | ug/L | | | 02/15/16 21:50 | 1 |
| Ethylbenzene | ND | | 0.50 | | ug/L | | | 02/15/16 21:50 | 1 |
| Toluene | ND | | 0.50 | | ug/L | | | 02/15/16 21:50 | 1 |
| Xylenes, Total | ND | | 0.50 | | ug/L | | | 02/15/16 21:50 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| a,a,a-Trifluorotoluene | 88 | | 85 - 115 | | | | | 02/15/16 21:50 | 1 |

Method: 8015B - Diesel Range Organics (DRO) (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|-----------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Diesel Range Organics [C10-C28] | ND | | 0.24 | | mg/L | | 02/12/16 14:39 | 02/19/16 17:55 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| o-Terphenyl | 90 | | 50 - 115 | | | | 02/12/16 14:39 | 02/19/16 17:55 | 1 |

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| Iron | 0.25 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/16/16 21:36 | 1 |

Method: 200.7 - ICP Total Metals by 200.7

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|-------|-----|------|---|----------------|----------------|---------|
| Arsenic | ND | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/23/16 12:24 | 1 |
| Boron | 0.064 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Calcium | 53 | | 0.10 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Chromium | ND | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Copper | ND | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Iron | 0.25 | | 0.050 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Potassium | ND | | 5.0 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Magnesium | 20 | | 0.10 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Manganese | 0.14 | | 0.010 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Sodium | 280 | | 2.0 | | mg/L | | 02/12/16 08:20 | 02/22/16 13:30 | 1 |
| Selenium | ND | | 0.015 | | mg/L | | 02/12/16 08:20 | 02/23/16 12:24 | 1 |

General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------------|--------|-----------|-------|-----|----------|---|----------------|----------------|---------|
| HEM | ND | | 4.7 | | mg/L | | 02/17/16 15:34 | 02/17/16 20:05 | 1 |
| Bromide | 0.71 | | 0.20 | | mg/L | | | 02/17/16 03:02 | 1 |
| Chloride | 110 | | 3.0 | | mg/L | | | 02/17/16 03:02 | 1 |
| Sulfate | 36 | | 5.0 | | mg/L | | | 02/17/16 03:02 | 1 |
| Total Alkalinity | 580 | | 5.0 | | mg/L | | | 02/11/16 15:25 | 1 |
| Bicarbonate Alkalinity as CaCO3 | 560 | | 5.0 | | mg/L | | | 02/11/16 15:25 | 1 |
| Carbonate Alkalinity as CaCO3 | 18 | | 5.0 | | mg/L | | | 02/11/16 15:25 | 1 |
| Hydroxide Alkalinity | ND | | 5.0 | | mg/L | | | 02/11/16 15:25 | 1 |
| Total Dissolved Solids | 830 | | 10 | | mg/L | | | 02/11/16 15:39 | 1 |
| Total Suspended Solids | 4.0 | | 4.0 | | mg/L | | | 02/10/16 18:03 | 1 |
| Sulfide | ND | | 0.050 | | mg/L | | | 02/10/16 15:27 | 1 |
| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
| Specific Gravity | 1.0008 | | | | No Unit | | | 02/11/16 19:30 | 1 |
| Specific Conductance | 1200 | | 1.0 | | umhos/cm | | | 02/16/16 18:57 | 1 |
| pH | 8.32 | HF | 0.100 | | SU | | | 02/17/16 19:25 | 1 |

TestAmerica Denver

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: WET CANYON ABOVE MUD DUCK SW EPA

Lab Sample ID: 280-79585-3

Date Collected: 02/06/16 14:21

Matrix: Water

Date Received: 02/10/16 09:45

Method: Field Sampling - Field Sampling

| Analyte | Result | Qualifier | NONE | NONE | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------|--------|-----------|------|------|-----------|---|----------|----------------|---------|
| Field pH | 7.93 | | | | SU | | | 02/06/16 14:21 | 1 |
| Field Conductivity | 1712 | | | | umhos/cm | | | 02/06/16 14:21 | 1 |
| Field Temperature | 1.95 | | | | Degrees C | | | 02/06/16 14:21 | 1 |

Client Sample Results

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: TRIP BLANK

Date Collected: 02/06/16 00:00

Date Received: 02/10/16 09:45

Lab Sample ID: 280-79585-4

Matrix: Water

Method: 8021B - Volatile Organic Compounds (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene | ND | | 0.50 | | ug/L | | | 02/15/16 23:19 | 1 |
| Ethylbenzene | ND | | 0.50 | | ug/L | | | 02/15/16 23:19 | 1 |
| Toluene | ND | | 0.50 | | ug/L | | | 02/15/16 23:19 | 1 |
| Xylenes, Total | ND | | 0.50 | | ug/L | | | 02/15/16 23:19 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| a,a,a-Trifluorotoluene | 88 | | 85 - 115 | | | | | 02/15/16 23:19 | 1 |

Surrogate Summary

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Water

Prep Type: Total/NA

| Percent Surrogate Recovery (Acceptance Limits) | | |
|--|------------------------|------------------|
| Lab Sample ID | Client Sample ID | TFT1 (85-115) |
| 280-79585-1 | MUD DUCK 21-26-GS | 89 |
| 280-79585-2 | WET CANYON BELOW MUD | 89 |
| 280-79585-3 | DUCK SW EPA | 88 |
| | WET CANYON ABOVE MUD | |
| 280-79585-3 MS | DUCK SW EPA | 90 |
| | WET CANYON ABOVE MUD | |
| 280-79585-3 MSD | DUCK SW EPA | 90 |
| | WET CANYON ABOVE MUD | |
| 280-79585-4 | TRIP BLANK | 88 |
| LCS 280-313508/7 | Lab Control Sample | 90 |
| LCSD 280-313508/8 | Lab Control Sample Dup | 91 |
| MB 280-313508/6 | Method Blank | 89 |

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

| Percent Surrogate Recovery (Acceptance Limits) | | |
|--|------------------------|-------------------|
| Lab Sample ID | Client Sample ID | OTPH1 (50-115) |
| 280-79585-1 | MUD DUCK 21-26-GS | 90 |
| 280-79585-2 | WET CANYON BELOW MUD | 89 |
| 280-79585-3 | DUCK SW EPA | 90 |
| | WET CANYON ABOVE MUD | |
| LCS 280-313372/2-A | DUCK SW EPA | 90 |
| | Lab Control Sample | |
| LCSD 280-313372/3-A | Lab Control Sample Dup | 87 |
| MB 280-313372/1-A | Method Blank | 95 |

Surrogate Legend

OTPH = o-Terphenyl

Lab Chronicle

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

Client Sample ID: MUD DUCK 21-26-GS

Date Collected: 02/06/16 13:28

Date Received: 02/10/16 09:45

Lab Sample ID: 280-79585-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 313508 | 02/15/16 20:51 | TEM | TAL DEN |
| Total/NA | Prep | 3510C | | | 1048.9 mL | 1 mL | 313372 | 02/12/16 14:39 | KI | TAL DEN |
| Total/NA | Analysis | 8015B | | 1 | 1048.9 mL | 1 mL | 314090 | 02/19/16 16:56 | TEM | TAL DEN |
| Total/NA | Prep | 200.7 | | | 50 mL | 50 mL | 313260 | 02/12/16 08:20 | TEB | TAL DEN |
| Total/NA | Analysis | 200.7 | | 1 | 50 mL | 50 mL | 314472 | 02/22/16 13:17 | CRR | TAL DEN |
| Total/NA | Prep | 200.7 | | | 50 mL | 50 mL | 313260 | 02/12/16 08:20 | TEB | TAL DEN |
| Total/NA | Analysis | 200.7 | | 1 | 50 mL | 50 mL | 314649 | 02/23/16 12:11 | CRR | TAL DEN |
| Total Recoverable | Prep | 200.7 | | | 50 mL | 50 mL | 313248 | 02/12/16 08:20 | TEB | TAL DEN |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 50 mL | 50 mL | 313698 | 02/16/16 21:23 | CMK | TAL DEN |
| Total/NA | Prep | 1664A | | | 1057 mL | 1000 mL | 313799 | 02/17/16 15:34 | ARF | TAL DEN |
| Total/NA | Analysis | 1664A | | 1 | 1057 mL | 1000 mL | 313840 | 02/17/16 20:05 | ARF | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 313552 | 02/17/16 01:29 | AFB | TAL DEN |
| Total/NA | Analysis | 300.0 | | 10 | 5 mL | 5 mL | 313552 | 02/17/16 01:45 | AFB | TAL DEN |
| Total/NA | Analysis | D1429-03 | | 1 | | | 313687 | 02/11/16 19:30 | MAS | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 313470 | 02/12/16 13:14 | NAS | TAL DEN |
| Total/NA | Analysis | SM 2510B | | 1 | | 25 mL | 313681 | 02/16/16 18:57 | RSM | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 50 mL | 100 mL | 313282 | 02/11/16 15:39 | RSM | TAL DEN |
| Total/NA | Analysis | SM 2540D | | 1 | 250 mL | 250 mL | 313223 | 02/10/16 18:03 | SVC | TAL DEN |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 313875 | 02/17/16 19:15 | MAS | TAL DEN |
| Total/NA | Analysis | SM 4500 S2 D | | 1 | 10 mL | 10 mL | 313207 | 02/10/16 15:27 | WTW | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 313304 | 02/06/16 13:28 | UP | TAL DEN |

Client Sample ID: WET CANYON BELOW MUD DUCK SW EPA

Date Collected: 02/06/16 13:54

Date Received: 02/10/16 09:45

Lab Sample ID: 280-79585-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|---------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 313508 | 02/15/16 21:21 | TEM | TAL DEN |
| Total/NA | Prep | 3510C | | | 1052 mL | 1 mL | 313372 | 02/12/16 14:39 | KI | TAL DEN |
| Total/NA | Analysis | 8015B | | 1 | 1052 mL | 1 mL | 314090 | 02/19/16 17:26 | TEM | TAL DEN |
| Total/NA | Prep | 200.7 | | | 50 mL | 50 mL | 313260 | 02/12/16 08:20 | TEB | TAL DEN |
| Total/NA | Analysis | 200.7 | | 1 | 50 mL | 50 mL | 314472 | 02/22/16 13:28 | CRR | TAL DEN |
| Total/NA | Prep | 200.7 | | | 50 mL | 50 mL | 313260 | 02/12/16 08:20 | TEB | TAL DEN |
| Total/NA | Analysis | 200.7 | | 1 | 50 mL | 50 mL | 314649 | 02/23/16 12:22 | CRR | TAL DEN |
| Total Recoverable | Prep | 200.7 | | | 50 mL | 50 mL | 313248 | 02/12/16 08:20 | TEB | TAL DEN |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 50 mL | 50 mL | 313698 | 02/16/16 21:34 | CMK | TAL DEN |
| Total/NA | Prep | 1664A | | | 1063 mL | 1000 mL | 313799 | 02/17/16 15:34 | ARF | TAL DEN |
| Total/NA | Analysis | 1664A | | 1 | 1063 mL | 1000 mL | 313840 | 02/17/16 20:05 | ARF | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 313552 | 02/17/16 02:00 | AFB | TAL DEN |
| Total/NA | Analysis | D1429-03 | | 1 | | | 313687 | 02/11/16 19:30 | MAS | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 313316 | 02/11/16 15:18 | NAS | TAL DEN |
| Total/NA | Analysis | SM 2510B | | 1 | | 25 mL | 313681 | 02/16/16 18:57 | RSM | TAL DEN |

TestAmerica Denver

Lab Chronicle

Client: Pioneer Natural Resources USA, Inc.
Project/Site: Purg Wellhead DRO and Oil and Grease

TestAmerica Job ID: 280-79585-1

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|----------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 313282 | 02/11/16 15:39 | RSM | TAL DEN |
| Total/NA | Analysis | SM 2540D | | 1 | 250 mL | 250 mL | 313223 | 02/10/16 18:03 | SVC | TAL DEN |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 313231 | 02/10/16 18:11 | MAS | TAL DEN |
| Total/NA | Analysis | SM 4500 S2 D | | 1 | 10 mL | 10 mL | 313207 | 02/10/16 15:27 | WTW | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 313304 | 02/06/16 13:54 | UP | TAL DEN |

Client Sample ID: WET CANYON ABOVE MUD DUCK SW EPA

Lab Sample ID: 280-79585-3

Date Collected: 02/06/16 14:21

Matrix: Water

Date Received: 02/10/16 09:45

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|----------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 313508 | 02/15/16 21:50 | TEM | TAL DEN |
| Total/NA | Prep | 3510C | | | 1055.7 mL | 1 mL | 313372 | 02/12/16 14:39 | KI | TAL DEN |
| Total/NA | Analysis | 8015B | | 1 | 1055.7 mL | 1 mL | 314090 | 02/19/16 17:55 | TEM | TAL DEN |
| Total/NA | Prep | 200.7 | | | 50 mL | 50 mL | 313260 | 02/12/16 08:20 | TEB | TAL DEN |
| Total/NA | Analysis | 200.7 | | 1 | 50 mL | 50 mL | 314472 | 02/22/16 13:30 | CRR | TAL DEN |
| Total/NA | Prep | 200.7 | | | 50 mL | 50 mL | 313260 | 02/12/16 08:20 | TEB | TAL DEN |
| Total/NA | Analysis | 200.7 | | 1 | 50 mL | 50 mL | 314649 | 02/23/16 12:24 | CRR | TAL DEN |
| Total Recoverable | Prep | 200.7 | | | 50 mL | 50 mL | 313248 | 02/12/16 08:20 | TEB | TAL DEN |
| Total Recoverable | Analysis | 200.7 Rev 4.4 | | 1 | 50 mL | 50 mL | 313698 | 02/16/16 21:36 | CMK | TAL DEN |
| Total/NA | Prep | 1664A | | | 1060 mL | 1000 mL | 313799 | 02/17/16 15:34 | ARF | TAL DEN |
| Total/NA | Analysis | 1664A | | 1 | 1060 mL | 1000 mL | 313840 | 02/17/16 20:05 | ARF | TAL DEN |
| Total/NA | Analysis | 300.0 | | 1 | 5 mL | 5 mL | 313552 | 02/17/16 03:02 | AFB | TAL DEN |
| Total/NA | Analysis | D1429-03 | | 1 | | | 313687 | 02/11/16 19:30 | MAS | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 313316 | 02/11/16 15:25 | NAS | TAL DEN |
| Total/NA | Analysis | SM 2510B | | 1 | | 25 mL | 313681 | 02/16/16 18:57 | RSM | TAL DEN |
| Total/NA | Analysis | SM 2540C | | 1 | 100 mL | 100 mL | 313282 | 02/11/16 15:39 | RSM | TAL DEN |
| Total/NA | Analysis | SM 2540D | | 1 | 250 mL | 250 mL | 313223 | 02/10/16 18:03 | SVC | TAL DEN |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 313875 | 02/17/16 19:25 | MAS | TAL DEN |
| Total/NA | Analysis | SM 4500 S2 D | | 1 | 10 mL | 10 mL | 313207 | 02/10/16 15:27 | WTW | TAL DEN |
| Total/NA | Analysis | Field Sampling | | 1 | | | 313304 | 02/06/16 14:21 | UP | TAL DEN |

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-79585-4

Date Collected: 02/06/16 00:00

Matrix: Water

Date Received: 02/10/16 09:45

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 313508 | 02/15/16 23:19 | TEM | TAL DEN |

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TestAmerica Denver

TestAmerica Denver

4955 Yarrow Street
Avada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody

280-79585 Chain of Custody



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information

Client Contact:

Bill Ward

Company:

Northwest Corporation

Address:

950 South Cherry Street Suite 800

City:

Denver

State, Zip:

CO, 80246

Phone:

PO #:

WO #:

Email:

ward@northwestcorp.com

Project Name:

Pioneer Natural Resources

Site:

SSOW#

Colorado

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Email:

ward@northwestcorp.com

Project Name:

Pioneer Natural Resources

Site:

SSOW#

Colorado

Due Date Requested:

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Project Name:

Pioneer Natural Resources

Site:

SSOW#

Colorado

Due Date Requested:

TAT Requested (days):

PO #:

WO #:

Email:

ward@northwestcorp.com

Project Name:

Pioneer Natural Resources

Site:

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