# 1306419

### GC/MS Volatiles:
The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The samples were also analyzed for Gasoline Range Organics (GRO).

All acceptance criteria were met.

### Dissolved Gasses:
The samples were prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

All acceptance criteria were met.

### DRO:
The samples were analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

### BART:
The Biological Activity Reaction Test was completed with the Iron-Related Bacteria, Sulfate-Reducing Bacteria, and Slime-Forming Bacteria kit manufactured by Hach Company. The analysis was performed following the manufacturer provided instructions. If the target analyte is not detected (absent), then the sample will be reported with “ND” in the result field and a “U” flag. If the target analyte is detected (present), then the sample will be reported with a “1” for a result without a flag.

### Metals:
The samples were analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.

The samples were to be analyzed for dissolved metals. The samples were filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than two prior to analysis.

All acceptance criteria were met.

**Inorganics:**
The samples were analyzed following MCAWW, EMSL, Standard Method procedures for the current revisions of the following SOPs and methods:

| Analyte | Method | SOP # |
|---|---|---|
| Alkalinity | SM2320B | 1106 |
| Bicarbonate | SM2320B | 1106 |
| Carbonate | SM2320B | 1106 |
| pH | SM4500-$H^+$ B | 1126 |
| Total phosphorus | 365.2 | 1119 |
| Specific conductance | SM2510B | 1128 |
| TDS | SM2540C | 1101 |
| Bromide | 300.0 Revision 2.1 | 1113 |
| Chloride | 300.0 Revision 2.1 | 1113 |
| Fluoride | 300.0 Revision 2.1 | 1113 |
| Nitrate as N | 300.0 Revision 2.1 | 1113 |
| Nitrite as N | 300.0 Revision 2.1 | 1113 |
| Sulfate | 300.0 Revision 2.1 | 1113 |

The samples were prepared and analyzed within the established hold time for each analysis with the exception of nitrate as N and nitrite as N. Due to a power outage that occurred on the evening of 06/28/13 that disrupted laboratory operations the samples were analyzed on 06/29/13, out of hold. (See NCR #13940).

All remaining acceptance criteria were met.

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

**OrderNum:** 1306419
**Client Name:** Western Water and Land, Inc.
**Client Project Name:** WPX Baseline Water Quality
**Client Project Number:** RU 11-7
**Client PO Number:**

| Client Sample Number | Lab Sample Number | COC Number | Matrix | Date Collected | Time Collected |
|---|---|---|---|---|---|
| RU-11-7-Yellow Jacket Spg | 1306419-1 | | WATER | 27-Jun-13 | 10:00 |
| RU-11-7-Beaver Creek | 1306419-2 | | WATER | 27-Jun-13 | 11:00 |
| Trip Blank | 1306419-3 | | WATER | 27-Jun-13 | |

# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

WORKORDER # 1306419

PAGE 1 of 1

DISPOSAL By Lab or Return to Client

| | | | |
|---|---|---|---|
| PROJECT NAME | WPX BWQ | SAMPLER | Shelby Goodwin |
| FACILITY NAME | ~~30000.01.14~~ RU11-7 | PROJECT NO. | RU 11-7 30000.01.14 |
| FACILITY ID (API) | | EDD FORMAT | Contact Bruce Smith |
| COMPANY NAME | Western Water + Land | PURCHASE ORDER | |
| SEND REPORT TO | Bruce Smith | BILL TO COMPANY | WPX Energy |
| ADDRESS | 743 Horizon Ct Suite 320 | INVOICE ATTN TO | Brandon Danforth |
| CITY / STATE / ZIP | Grand Jct., CO 81506 | ADDRESS | 1058 County Rd. 215 |
| PHONE | 970-242-0170 | CITY / STATE / ZIP | Parachute, CO 81635 |
| FAX | | PHONE | 970-263-2792 |
| E-MAIL | bsmith@westernwater andlandcom | FAX | |
| | | E-MAIL | |

DATE 6-27-13

TURNAROUND Standard

| Lab ID | Field ID | Matrix | Sample Date | Sample Time | # Bottles | Pres. | QC | NO3 | BAT-T | BTEX | 4H20 | Dissolved Gases MEP | DRO | Dissolved Metals (Lab Filter) | Anions, Alk, tds, | pH, cond | Total Phosphorus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | RU-11-7-Yellow jacket Spg. | W | 6-27-13 | 1000 | 15 | 1,3 | IV | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ |
| (2) | RU-11-7-beaver creek | W | 6-27-13 | 1100 | 15 | 1,3 | IV | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ |
| (3) TB | | | | | | | | | | | | | | | | | |

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: dissolved metals need to be laboratory filtered

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

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

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|---|---|---|---|---|
| RELINQUISHED BY | S. Goodwin | Shelby Goodwin | 6-27-13 | 1700 |
| RECEIVED BY | Lauren Schmitz | Lauren Schmitz | 6/28/13 | 1055 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

**ALS Environmental - Fort Collins**
**CONDITION OF SAMPLE UPON RECEIPT FORM**

Client: Western Water  Workorder No: 1306419

Project Manager: ARW  Initials: LAS  Date: 6/28/13

| | | | |
|---|---|---|---|
| 1. Does this project require any special handling in addition to standard ALS procedures? | | YES | (NO) |
| 2. Are custody seals on shipping containers intact? | NONE | (YES) | NO |
| 3. Are Custody seals on sample containers intact? | (NONE) | YES | NO |
| 4. Is there a COC (Chain-of-Custody) present or other representative documents? | | (YES) | NO |
| 5. Are the COC and bottle labels complete and legible? | | (YES) | NO * |
| 6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.) | | (YES) | NO |
| 7. Were airbills / shipping documents present and/or removable? | DROP OFF | (YES) | NO |
| 8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles) | N/A | (YES) | NO |
| 9. Are all aqueous non-preserved samples pH 4-9? | N/A | (YES) | NO |
| 10. Is there sufficient sample for the requested analyses? | | (YES) | NO |
| 11. Were all samples placed in the proper containers for the requested analyses? | | (YES) | NO |
| 12. Are all samples within holding times for the requested analyses? | | (YES) | NO |
| 13. Were all sample containers received intact? (not broken or leaking, etc.) | | (YES) | NO |
| 14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea | N/A | (YES) | NO |
| 15. Do any water samples contain sediment? Amount<br>Amount of sediment: ____ dusting ____ moderate ____ heavy | N/A | YES | (NO) |
| 16. Were the samples shipped on ice? | | (YES) | NO |
| 17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: (#2) #4 | RAD ONLY | (YES) | NO |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cooler #: | 1 | | | | | | | |
| Temperature (°C): | 4.4 | | | | | | | |
| No. of custody seals on cooler: | 2 | | | | | | | |
| DOT Survey/ Acceptance Information — External µR/hr reading: | 11 | | | | | | | |
| Background µR/hr reading: | 10 | | | | | | | |

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? **YES / NO / NA** (If no, see Form 008.)

**Additional Information:** PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

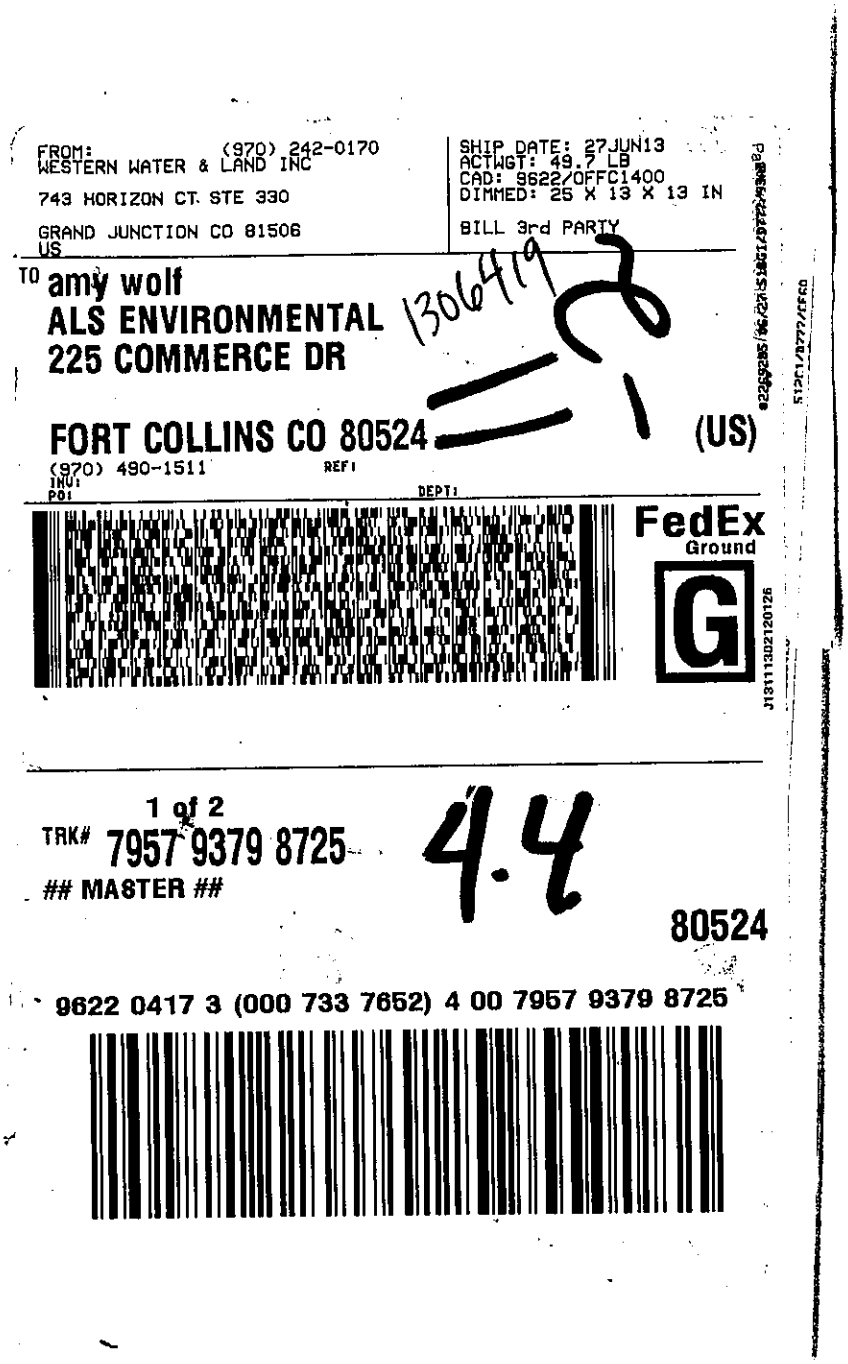
(*) Trip Blank not listed on client COC. Added as sample 1306419-3

If applicable, was the client contacted? YES / NO / (NA) Contact: _____ Date/Time: _____

**Project Manager Signature / Date:** [signature] 6/29/13

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

Form 201r24.xls (06/04/2012)



FROM: (970) 242-0170
WESTERN WATER & LAND INC
743 HORIZON CT STE 330
GRAND JUNCTION CO 81506
US

SHIP DATE: 27JUN13
ACTWGT: 49.7 LB
CAD: 9622/OFFC1400
DIMMED: 25 X 13 X 13 IN
BILL 3rd PARTY

TO amy wolf
ALS ENVIRONMENTAL
225 COMMERCE DR
FORT COLLINS CO 80524 (US)
(970) 490-1511 REF:
INV:
PO:
DEPT:

1306419

FedEx Ground

1 of 2
TRK# 7957 9379 8725
## MASTER ##

4.4

80524

9622 0417 3 (000 733 7652) 4 00 7957 9379 8725

**Client:** Western Water and Land, Inc. **Date:** *02-Aug-13*
**Project:** RU 11-7 WPX Baseline Water Quality **Work Order:** 1306419
**Sample ID:** RU-11-7-Yellow Jacket Spg **Lab ID:** 1306419-1
**Legal Location:** **Matrix:** WATER
**Collection Date:** 6/27/2013 10:00 **Percent Moisture:**

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| **ALKALINITY AS CALCIUM CARBONATE** | | | **SM2320B** | | Prep Date: **7/2/2013** | PrepBy: **AJD** |
| **BICARBONATE AS CaCO3** | **330** | | **20** | **MG/L** | 1 | 7/2/2013 |
| CARBONATE AS CaCO3 | ND | | 20 | MG/L | 1 | 7/2/2013 |
| **TOTAL ALKALINITY AS CaCO3** | **330** | | **20** | **MG/L** | 1 | 7/2/2013 |
| **BIOLOGICAL ACTIVITY REACTION TEST** | | | **BART** | | Prep Date: **7/2/2013** | PrepBy: **BAS** |
| **IRON RELATED BACTERIA** | **1** | | | **NU** | 1 | 7/10/2013 |
| **SLIME FORMING BACTERIA** | **1** | | | **NU** | 1 | 7/10/2013 |
| **SULFATE REDUCING BACTERIA** | **1** | | | **NU** | 1 | 7/10/2013 |
| **DIESEL RANGE ORGANICS** | | | **SW8015M** | | Prep Date: **7/2/2013** | PrepBy: **JAC** |
| Diesel Range Organics | ND | | 0.5 | MG/L | 1 | 7/3/2013 22:08 |
| *Surr: O-TERPHENYL* | *76* | | *51-97* | *%REC* | 1 | 7/3/2013 22:08 |
| **DISSOLVED GASSES** | | | **RSK175** | | Prep Date: **7/1/2013** | PrepBy: **JFN** |
| **METHANE** | **93** | | **1** | **UG/L** | 1 | 7/1/2013 12:36 |
| ETHANE | ND | | 2 | UG/L | 1 | 7/1/2013 12:36 |
| PROPANE | ND | | 1 | UG/L | 1 | 7/1/2013 12:36 |
| **GC/MS VOLATILES** | | | **SW8260_25** | | Prep Date: **7/2/2013** | PrepBy: **SDW** |
| BENZENE | ND | | 1 | UG/L | 1 | 7/2/2013 16:59 |
| **TOLUENE** | **0.41** | J | **1** | **UG/L** | 1 | 7/2/2013 16:59 |
| ETHYLBENZENE | ND | | 1 | UG/L | 1 | 7/2/2013 16:59 |
| M+P-XYLENE | ND | | 1 | UG/L | 1 | 7/2/2013 16:59 |
| O-XYLENE | ND | | 1 | UG/L | 1 | 7/2/2013 16:59 |
| GASOLINE RANGE ORGANICS | ND | | 100 | UG/L | 1 | 7/2/2013 16:59 |
| *Surr: DIBROMOFLUOROMETHANE* | *103* | | *84-118* | *%REC* | 1 | 7/2/2013 16:59 |
| *Surr: TOLUENE-D8* | *99* | | *85-115* | *%REC* | 1 | 7/2/2013 16:59 |
| *Surr: 4-BROMOFLUOROBENZENE* | *97* | | *85-115* | *%REC* | 1 | 7/2/2013 16:59 |
| **ION CHROMATOGRAPHY** | | | **EPA300.0** | | Prep Date: **6/28/2013** | PrepBy: **AJD** |
| **BROMIDE** | **0.22** | | **0.2** | **MG/L** | 1 | 6/30/2013 04:14 |
| **CHLORIDE** | **9.1** | | **1** | **MG/L** | 5 | 7/3/2013 17:16 |
| **FLUORIDE** | **0.33** | | **0.1** | **MG/L** | 1 | 6/30/2013 04:14 |
| **NITRATE AS N** | **0.21** | | **0.2** | **MG/L** | 1 | 6/30/2013 04:14 |
| NITRITE AS N | ND | | 0.1 | MG/L | 1 | 6/30/2013 04:14 |
| **SULFATE** | **170** | | **5** | **MG/L** | 5 | 6/30/2013 04:56 |
| **METALS BY 200.8** | | | **EPA200.8** | | Prep Date: **7/9/2013** | PrepBy: **BAS** |
| BORON | ND | | 50 | UG/L | 10 | 7/10/2013 12:17 |
| **BARIUM** | **120** | | **1** | **UG/L** | 10 | 7/10/2013 12:17 |
| **CALCIUM** | **94000** | | **1000** | **UG/L** | 10 | 7/10/2013 12:17 |
| **IRON** | **180** | | **100** | **UG/L** | 10 | 7/10/2013 12:17 |
| **POTASSIUM** | **2400** | | **1000** | **UG/L** | 10 | 7/10/2013 12:17 |
| **MAGNESIUM** | **17000** | | **100** | **UG/L** | 10 | 7/10/2013 12:17 |
| **MANGANESE** | **770** | | **2** | **UG/L** | 10 | 7/10/2013 12:17 |
| **SODIUM** | **14000** | | **1000** | **UG/L** | 10 | 7/10/2013 12:17 |

| | | | |
|---|---|---|---|
| **Client:** | Western Water and Land, Inc. | **Date:** | *02-Aug-13* |
| **Project:** | RU 11-7 WPX Baseline Water Quality | **Work Order:** | 1306419 |
| **Sample ID:** | RU-11-7-Yellow Jacket Spg | **Lab ID:** | 1306419-1 |
| **Legal Location:** | | **Matrix:** | WATER |
| **Collection Date:** | 6/27/2013 10:00 | **Percent Moisture:** | |

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| SELENIUM | ND | | 1 | UG/L | 10 | 7/10/2013 12:17 |
| **STRONTIUM** | **450** | | **1** | **UG/L** | 10 | 7/10/2013 12:17 |
| **PH** | | | **SM4500-H** | | Prep Date: **7/1/2013** | PrepBy: **AJD** |
| **PH** | **7.42** | | **0.1** | **pH** | 1 | 7/1/2013 |
| **SPECIFIC CONDUCTANCE IN WATER** | | | **SM2510B** | | Prep Date: **7/1/2013** | PrepBy: **AJD** |
| **SPECIFIC CONDUCTIVITY** | **640** | | **1** | **umhos/cm** | 1 | 7/1/2013 |
| **TOTAL DISSOLVED SOLIDS** | | | **SM2540C** | | Prep Date: **7/2/2013** | PrepBy: **AJD** |
| **TOTAL DISSOLVED SOLIDS** | **340** | | **20** | **MG/L** | 1 | 7/3/2013 |
| **TOTAL PHOSPHORUS AS P** | | | **EPA365.2** | | Prep Date: **7/5/2013** | PrepBy: **TWK** |
| **TOTAL PHOSPHORUS** | **0.25** | | **0.05** | **MG/L** | 1 | 7/5/2013 |

| | | | |
|---|---|---|---|
| **Client:** | Western Water and Land, Inc. | **Date:** | *02-Aug-13* |
| **Project:** | RU 11-7 WPX Baseline Water Quality | **Work Order:** | 1306419 |
| **Sample ID:** | RU-11-7-Beaver Creek | **Lab ID:** | 1306419-2 |
| **Legal Location:** | | **Matrix:** | WATER |
| **Collection Date:** | 6/27/2013 11:00 | **Percent Moisture:** | |

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| **ALKALINITY AS CALCIUM CARBONATE** | | | **SM2320B** | | Prep Date: **7/2/2013** | PrepBy: **AJD** |
| **BICARBONATE AS CaCO3** | **120** | | **20** | **MG/L** | 1 | 7/2/2013 |
| CARBONATE AS CaCO3 | ND | | 20 | MG/L | 1 | 7/2/2013 |
| **TOTAL ALKALINITY AS CaCO3** | **120** | | **20** | **MG/L** | 1 | 7/2/2013 |
| **BIOLOGICAL ACTIVITY REACTION TEST** | | | **BART** | | Prep Date: **7/2/2013** | PrepBy: **BAS** |
| **IRON RELATED BACTERIA** | **1** | | | **NU** | 1 | 7/10/2013 |
| SLIME FORMING BACTERIA | ND | | | NU | 1 | 7/10/2013 |
| **SULFATE REDUCING BACTERIA** | **1** | | | **NU** | 1 | 7/10/2013 |
| **DIESEL RANGE ORGANICS** | | | **SW8015M** | | Prep Date: **7/2/2013** | PrepBy: **JAC** |
| Diesel Range Organics | ND | | 0.5 | MG/L | 1 | 7/3/2013 22:39 |
| *Surr: O-TERPHENYL* | *76* | | *51-97* | *%REC* | 1 | 7/3/2013 22:39 |
| **DISSOLVED GASSES** | | | **RSK175** | | Prep Date: **7/1/2013** | PrepBy: **JFN** |
| METHANE | ND | | 1 | UG/L | 1 | 7/1/2013 12:39 |
| ETHANE | ND | | 2 | UG/L | 1 | 7/1/2013 12:39 |
| PROPANE | ND | | 1 | UG/L | 1 | 7/1/2013 12:39 |
| **GC/MS VOLATILES** | | | **SW8260_25** | | Prep Date: **7/2/2013** | PrepBy: **SDW** |
| BENZENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:23 |
| TOLUENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:23 |
| ETHYLBENZENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:23 |
| M+P-XYLENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:23 |
| O-XYLENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:23 |
| GASOLINE RANGE ORGANICS | ND | | 100 | UG/L | 1 | 7/2/2013 17:23 |
| *Surr: DIBROMOFLUOROMETHANE* | *101* | | *84-118* | *%REC* | 1 | 7/2/2013 17:23 |
| *Surr: TOLUENE-D8* | *101* | | *85-115* | *%REC* | 1 | 7/2/2013 17:23 |
| *Surr: 4-BROMOFLUOROBENZENE* | *99* | | *85-115* | *%REC* | 1 | 7/2/2013 17:23 |
| **ION CHROMATOGRAPHY** | | | **EPA300.0** | | Prep Date: **6/28/2013** | PrepBy: **AJD** |
| BROMIDE | ND | | 0.2 | MG/L | 1 | 6/30/2013 04:28 |
| **CHLORIDE** | **0.8** | | **0.2** | **MG/L** | 1 | 7/3/2013 17:30 |
| **FLUORIDE** | **0.16** | | **0.1** | **MG/L** | 1 | 6/30/2013 04:28 |
| **NITRATE AS N** | **0.23** | | **0.2** | **MG/L** | 1 | 6/30/2013 04:28 |
| NITRITE AS N | ND | | 0.1 | MG/L | 1 | 6/30/2013 04:28 |
| **SULFATE** | **12** | | **1** | **MG/L** | 1 | 6/30/2013 04:28 |
| **METALS BY 200.8** | | | **EPA200.8** | | Prep Date: **7/9/2013** | PrepBy: **BAS** |
| BORON | ND | | 50 | UG/L | 10 | 7/10/2013 12:20 |
| **BARIUM** | **37** | | **1** | **UG/L** | 10 | 7/10/2013 12:20 |
| **CALCIUM** | **31000** | | **1000** | **UG/L** | 10 | 7/10/2013 12:20 |
| IRON | ND | | 100 | UG/L | 10 | 7/10/2013 12:20 |
| POTASSIUM | ND | | 1000 | UG/L | 10 | 7/10/2013 12:20 |
| **MAGNESIUM** | **5600** | | **100** | **UG/L** | 10 | 7/10/2013 12:20 |
| MANGANESE | ND | | 2 | UG/L | 10 | 7/10/2013 12:20 |
| **SODIUM** | **11000** | | **1000** | **UG/L** | 10 | 7/10/2013 12:20 |

| | | | |
|---|---|---|---|
| **Client:** | Western Water and Land, Inc. | **Date:** | *02-Aug-13* |
| **Project:** | RU 11-7 WPX Baseline Water Quality | **Work Order:** | 1306419 |
| **Sample ID:** | RU-11-7-Beaver Creek | **Lab ID:** | 1306419-2 |
| **Legal Location:** | | **Matrix:** | WATER |
| **Collection Date:** | 6/27/2013 11:00 | **Percent Moisture:** | |

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| SELENIUM | ND | | 1 | UG/L | 10 | 7/10/2013 12:20 |
| **STRONTIUM** | **190** | | **1** | **UG/L** | 10 | 7/10/2013 12:20 |
| **PH** | | | **SM4500-H** | | Prep Date: **7/1/2013** | PrepBy: **AJD** |
| **PH** | **8.37** | | **0.1** | **pH** | 1 | 7/1/2013 |
| **SPECIFIC CONDUCTANCE IN WATER** | | | **SM2510B** | | Prep Date: **7/1/2013** | PrepBy: **AJD** |
| **SPECIFIC CONDUCTIVITY** | **247** | | **1** | **umhos/cm** | 1 | 7/1/2013 |
| **TOTAL DISSOLVED SOLIDS** | | | **SM2540C** | | Prep Date: **7/2/2013** | PrepBy: **AJD** |
| **TOTAL DISSOLVED SOLIDS** | **150** | | **20** | **MG/L** | 1 | 7/3/2013 |
| **TOTAL PHOSPHORUS AS P** | | | **EPA365.2** | | Prep Date: **7/5/2013** | PrepBy: **TWK** |
| TOTAL PHOSPHORUS | ND | | 0.05 | MG/L | 1 | 7/5/2013 |

| | | | |
|---|---|---|---|
| **Client:** | Western Water and Land, Inc. | **Date:** | *02-Aug-13* |
| **Project:** | RU 11-7 WPX Baseline Water Quality | **Work Order:** | 1306419 |
| **Sample ID:** | Trip Blank | **Lab ID:** | 1306419-3 |
| **Legal Location:** | | **Matrix:** | WATER |
| **Collection Date:** | 6/27/2013 | **Percent Moisture:** | |

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|
| **GC/MS VOLATILES** | | | **SW8260_25** | | Prep Date: **7/2/2013** | PrepBy: **SDW** |
| BENZENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:46 |
| TOLUENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:46 |
| ETHYLBENZENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:46 |
| M+P-XYLENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:46 |
| O-XYLENE | ND | | 1 | UG/L | 1 | 7/2/2013 17:46 |
| GASOLINE RANGE ORGANICS | ND | | 100 | UG/L | 1 | 7/2/2013 17:46 |
| *Surr: DIBROMOFLUOROMETHANE* | *104* | | *84-118* | *%REC* | 1 | 7/2/2013 17:46 |
| *Surr: TOLUENE-D8* | *102* | | *85-115* | *%REC* | 1 | 7/2/2013 17:46 |
| *Surr: 4-BROMOFLUOROBENZENE* | *99* | | *85-115* | *%REC* | 1 | 7/2/2013 17:46 |

| | | | |
|---|---|---|---|
| **Client:** | Western Water and Land, Inc. | **Date:** | *02-Aug-13* |
| **Project:** | RU 11-7 WPX Baseline Water Quality | **Work Order:** | 1306419 |
| **Sample ID:** | Trip Blank | **Lab ID:** | 1306419-3 |
| **Legal Location:** | | **Matrix:** | WATER |
| **Collection Date:** | 6/27/2013 | **Percent Moisture:** | |

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|

## Explanation of Qualifiers

**Radiochemistry:**

U or ND - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

W - DER is greater than Warning Limit of 1.42

* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

G - Sample density differs by more than 15% of LCS density.

D - DER is greater than Control Limit

M - Requested MDC not met.

LT - Result is less than requested MDC but greater than achieved MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

L - LCS Recovery below lower control limit.

H - LCS Recovery above upper control limit.

P - LCS, Matrix Spike Recovery within control limits.

N - Matrix Spike Recovery outside control limits

NC - Not Calculated for duplicate results less than 5 times MDC

B - Analyte concentration greater than MDC.

B3 - Analyte concentration greater than MDC but less than Requested MDC.

**Inorganics:**

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

* - Duplicate analysis (relative percent difference) not within control limits.

**Organics:**

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

**Diesel Range Organics:**

| | | | |
|---|---|---|---|
| **Client:** | Western Water and Land, Inc. | **Date:** | *02-Aug-13* |
| **Project:** | RU 11-7 WPX Baseline Water Quality | **Work Order:** | 1306419 |
| **Sample ID:** | Trip Blank | **Lab ID:** | 1306419-3 |
| **Legal Location:** | | **Matrix:** | WATER |
| **Collection Date:** | 6/27/2013 | **Percent Moisture:** | |

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|---|---|---|---|---|---|---|

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

Batch ID: **HC130701-9-1** Instrument ID **MEE-1** Method: **RSK175**

**DUP** Sample ID: **1306419-2** Units: **UG/L** Analysis Date: **7/1/2013 12:44**

Client ID: **RU-11-7-Beaver Creek** Run ID: **HC130701-9A** Prep Date: **7/1/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| METHANE | ND | 1 | | | | | 1 | | 25 | |
| ETHANE | ND | 2 | | | | | 2 | | 25 | |
| PROPANE | ND | 1 | | | | | 1 | | 25 | |

**LCS** Sample ID: **HC130701-9** Units: **UG/L** Analysis Date: **7/1/2013 12:00**

Client ID: Run ID: **HC130701-9A** Prep Date: **7/1/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| METHANE | 129 | 1 | 142 | | 91 | 80-120 | | | 25 | |
| ETHANE | 247 | 2 | 267 | | 93 | 80-120 | | | 25 | |
| PROPANE | 356 | 1 | 391 | | 91 | 80-120 | | | 25 | |

**LCSD** Sample ID: **HC130701-9** Units: **UG/L** Analysis Date: **7/1/2013 12:54**

Client ID: Run ID: **HC130701-9A** Prep Date: **7/1/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| METHANE | 143 | 1 | 142 | | 101 | 80-120 | 129 | 10 | 25 | |
| ETHANE | 272 | 2 | 267 | | 102 | 80-120 | 247 | 10 | 25 | |
| PROPANE | 392 | 1 | 391 | | 100 | 80-120 | 356 | 9 | 25 | |

**MB** Sample ID: **HC130701-9** Units: **UG/L** Analysis Date: **7/1/2013 12:04**

Client ID: Run ID: **HC130701-9A** Prep Date: **7/1/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| METHANE | ND | 1 | | | | | | | | |
| ETHANE | ND | 2 | | | | | | | | |
| PROPANE | ND | 1 | | | | | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **EX130702-1-1** Instrument ID **FUELS-1** Method: **SW8015M**

**LCS** Sample ID: **EX130702-1** Units: **MG/L** Analysis Date: **7/3/2013 20:35**

Client ID: Run ID: **HCD130703-3A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 10.4 | 0.5 | 10 | | 104 | 36-150 | | | 20 | |
| Surr: O-TERPHENYL | 1.14 | | 1.25 | | 91 | 51-97 | | | | |

**LCSD** Sample ID: **EX130702-1** Units: **MG/L** Analysis Date: **7/3/2013 21:06**

Client ID: Run ID: **HCD130703-3A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 10.5 | 0.5 | 10 | | 105 | 36-150 | 10.4 | 1 | 20 | |
| Surr: O-TERPHENYL | 1.17 | | 1.25 | | 94 | 51-97 | | 2 | | |

**MB** Sample ID: **EX130702-1** Units: **MG/L** Analysis Date: **7/3/2013 20:04**

Client ID: Run ID: **HCD130703-3A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | ND | 0.5 | | | | | | | | |
| Surr: O-TERPHENYL | 0.898 | | 1.25 | | 72 | 51-97 | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **IP130709-1-2** Instrument ID **ICPMS2** Method: **EPA200.8**

**LCS** Sample ID: **FM130708-1** Units: **UG/L** Analysis Date: **7/10/2013 12:30**

Client ID: Run ID: **IM130710-10A2** Prep Date: **7/9/2013** DF: **10**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| BARIUM | 95.9 | 1 | 100 | | 96 | 85-115 | | | 20 | |
| BORON | 857 | 50 | 1000 | | 86 | 85-115 | | | 20 | |
| CALCIUM | 9140 | 1000 | 10000 | | 91 | 85-115 | | | 20 | |
| IRON | 5080 | 100 | 5000 | | 102 | 85-115 | | | 20 | |
| MAGNESIUM | 9180 | 100 | 10000 | | 92 | 85-115 | | | 20 | |
| MANGANESE | 192 | 2 | 200 | | 96 | 85-115 | | | 20 | |
| POTASSIUM | 5340 | 1000 | 5000 | | 107 | 85-115 | | | 20 | |
| SELENIUM | 99.5 | 1 | 100 | | 99 | 85-115 | | | 20 | |
| SODIUM | 10200 | 1000 | 10000 | | 102 | 85-115 | | | 20 | |
| STRONTIUM | 93.9 | 1 | 100 | | 94 | 85-115 | | | 20 | |

**MB** Sample ID: **F130708-1** Units: **UG/L** Analysis Date: **7/10/2013 12:14**

Client ID: Run ID: **IM130710-10A2** Prep Date: **7/9/2013** DF: **10**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| BARIUM | ND | 1 | | | | | | | | |
| BORON | ND | 50 | | | | | | | | |
| CALCIUM | ND | 1000 | | | | | | | | |
| IRON | ND | 100 | | | | | | | | |
| MAGNESIUM | ND | 100 | | | | | | | | |
| MANGANESE | ND | 2 | | | | | | | | |
| POTASSIUM | ND | 1000 | | | | | | | | |
| SELENIUM | ND | 1 | | | | | | | | |
| SODIUM | ND | 1000 | | | | | | | | |
| STRONTIUM | ND | 1 | | | | | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **VL130702-4-1** Instrument ID **HPV1** Method: **SW8260_25**

**LCS** Sample ID: **VL130702-4** Units: **UG/L** Analysis Date: **7/2/2013 12:43**
Client ID: Run ID: **VL130702-4A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.8 | 1 | 10 | | 108 | 83-117 | | | 20 | |
| TOLUENE | 10.7 | 1 | 10 | | 107 | 82-113 | | | 20 | |
| ETHYLBENZENE | 10.7 | 1 | 10 | | 107 | 81-113 | | | 20 | |
| M+P-XYLENE | 22.5 | 1 | 20 | | 113 | 82-115 | | | 20 | |
| O-XYLENE | 11.1 | 1 | 10 | | 111 | 81-115 | | | 20 | |
| GASOLINE RANGE ORGANICS | 504 | 100 | 500 | | 100.72 | 80-120 | | | 20 | |
| Surr: DIBROMOFLUOROMETHA | 25.5 | | 25 | | 102 | 84-118 | | | | |
| Surr: TOLUENE-D8 | 25 | | 25 | | 100 | 85-115 | | | | |
| Surr: 4-BROMOFLUOROBENZE | 25.1 | | 25 | | 101 | 85-115 | | | | |

**LCSD** Sample ID: **VL130702-4** Units: **UG/L** Analysis Date: **7/2/2013 13:06**
Client ID: Run ID: **VL130702-4A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| BENZENE | 10.4 | 1 | 10 | | 104 | 83-117 | 10.8 | 4 | 20 | |
| TOLUENE | 10.5 | 1 | 10 | | 105 | 82-113 | 10.7 | 1 | 20 | |
| ETHYLBENZENE | 10.4 | 1 | 10 | | 104 | 81-113 | 10.7 | 3 | 20 | |
| M+P-XYLENE | 21.5 | 1 | 20 | | 108 | 82-115 | 22.5 | 5 | 20 | |
| O-XYLENE | 10.5 | 1 | 10 | | 105 | 81-115 | 11.1 | 6 | 20 | |
| GASOLINE RANGE ORGANICS | 499 | 100 | 500 | | 99.956 | 80-120 | 504 | | 20 | |
| Surr: DIBROMOFLUOROMETHA | 25.7 | | 25 | | 103 | 84-118 | | 1 | | |
| Surr: TOLUENE-D8 | 25 | | 25 | | 100 | 85-115 | | 0 | | |
| Surr: 4-BROMOFLUOROBENZE | 25.5 | | 25 | | 102 | 85-115 | | 1 | | |

**MB** Sample ID: **VL130702-4** Units: **UG/L** Analysis Date: **7/2/2013 13:30**
Client ID: Run ID: **VL130702-4A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| BENZENE | ND | 1 | | | | | | | | |
| TOLUENE | ND | 1 | | | | | | | | |
| ETHYLBENZENE | ND | 1 | | | | | | | | |
| M+P-XYLENE | ND | 1 | | | | | | | | |
| O-XYLENE | ND | 1 | | | | | | | | |
| GASOLINE RANGE ORGANICS | ND | 100 | | | | | | | | |
| Surr: DIBROMOFLUOROMETHA | 25.3 | | 25 | | 101 | 84-118 | | | | |
| Surr: TOLUENE-D8 | 25.4 | | 25 | | 101 | 85-115 | | | | |
| Surr: 4-BROMOFLUOROBENZE | 24.2 | | 25 | | 97 | 85-115 | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2 1306419-3

# QC BATCH REPORT

Batch ID: **ak130702-1-1** Instrument ID **NONE** Method: **SM2320B**

**LCS** Sample ID: **ak130702-1** Units: **MG/L** Analysis Date: **7/2/2013**
Client ID: Run ID: **ak130702-1a** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL ALKALINITY AS CaCO3 | 98.7 | 5 | 100 | | 99 | 85-115 | | | 15 | |

**MB** Sample ID: **ak130702-1** Units: **MG/L** Analysis Date: **7/2/2013**
Client ID: Run ID: **ak130702-1a** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| BICARBONATE AS CaCO3 | ND | 5 | | | | | | | | |
| CARBONATE AS CaCO3 | ND | 5 | | | | | | | | |
| TOTAL ALKALINITY AS CaCO3 | ND | 5 | | | | | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **IC130628-1-1** Instrument ID **IC** Method: **EPA300.0**

**LCS** Sample ID: **IC130628-1** Units: **MG/L** Analysis Date: **6/28/2013 14:29**

Client ID: Run ID: **IC130628-1A1** Prep Date: **6/28/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| FLUORIDE | 2.03 | 0.1 | 2 | | 102 | 90-110 | | | 15 | |
| CHLORIDE | 5.21 | 0.2 | 5 | | 104 | 90-110 | | | 15 | |
| NITRITE AS N | 2.03 | 0.1 | 2 | | 102 | 90-110 | | | 15 | |
| BROMIDE | 5.43 | 0.2 | 5 | | 109 | 90-110 | | | 15 | |
| NITRATE AS N | 5.31 | 0.2 | 5 | | 106 | 90-110 | | | 15 | |
| SULFATE | 20 | 1 | 20 | | 100 | 90-110 | | | 15 | |

**MB** Sample ID: **IC130628-1** Units: **MG/L** Analysis Date: **6/28/2013 14:43**

Client ID: Run ID: **IC130628-1A1** Prep Date: **6/28/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| FLUORIDE | ND | 0.1 | | | | | | | | |
| CHLORIDE | ND | 0.2 | | | | | | | | |
| NITRITE AS N | ND | 0.1 | | | | | | | | |
| BROMIDE | ND | 0.2 | | | | | | | | |
| NITRATE AS N | ND | 0.2 | | | | | | | | |
| SULFATE | ND | 1 | | | | | | | | |

**The following samples were analyzed in this batch:**

# QC BATCH REPORT

Batch ID: **ph130701-1-1** Instrument ID **pH-1** Method: **SM4500-H**

**DUP** Sample ID: **1306419-1** Units: **pH** Analysis Date: **7/1/2013**

Client ID: **RU-11-7-Yellow Jacket Spg** Run ID: **pH130701-1A** Prep Date: **7/1/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| PH | 7.43 | 0.1 | | | | | 7.42 | | 0.2 | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **SC130701-1-1** Instrument ID **pH-1** Method: **SM2510B**

**DUP** Sample ID: **1306419-1** Units: **umhos/cm** Analysis Date: **7/1/2013**

Client ID: **RU-11-7-Yellow Jacket Spg** Run ID: **SC130701-1A** Prep Date: **7/1/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| SPECIFIC CONDUCTIVITY | 639 | 1 | | | | | 640 | 0 | 10 | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **TD130702-1-1** Instrument ID **Balance** Method: **SM2540C**

**LCS** Sample ID: **TD130702-1** Units: **MG/L** Analysis Date: **7/3/2013**
Client ID: Run ID: **TD130703-1A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL DISSOLVED SOLIDS | 390 | 20 | 400 | | 98 | 85-115 | | | 5 | |

**MB** Sample ID: **TD130702-1** Units: **MG/L** Analysis Date: **7/3/2013**
Client ID: Run ID: **TD130703-1A** Prep Date: **7/2/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL DISSOLVED SOLIDS | ND | 20 | | | | | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

# QC BATCH REPORT

Batch ID: **TP130705-1-1** Instrument ID **Spec** Method: **EPA365.2**

**LCS** Sample ID: **TP130705-1** Units: **MG/L** Analysis Date: **7/5/2013**
Client ID: Run ID: **TP130705-1A** Prep Date: **7/5/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL PHOSPHORUS | 0.523 | 0.05 | 0.5 | | 105 | 80-120 | | | 20 | |

**MB** Sample ID: **TP130705-1** Units: **MG/L** Analysis Date: **7/5/2013**
Client ID: Run ID: **TP130705-1A** Prep Date: **7/5/2013** DF: **1**

| Analyte | Result | ReportLimit | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL PHOSPHORUS | ND | 0.05 | | | | | | | | |

**The following samples were analyzed in this batch:** 1306419-1 1306419-2

**NCR #:** 13940

# CONTROLLED
## NON-CONFORMANCE REPORT

## Non-Conformance

**Initiated By:** Joel F. Nolte on 7/1/2013

**Event Type:** Method Requirements Not Met -- HTV

**Event Explanation:** Due to a power outage that occurred after work hours on the evening of Friday 6/28/13, and disrupted all laboratory operations, the following work orders were analyzed on 6/29/13 (out of hold time) for method EPA300:

1306400, 401, 403, 419, and 420 (out of HT for NO2 & NO3).

1306410 and 411 (out of HT for NO3).

All other anions in these work orders were analyzed within hold time.(jfn)

**Action To Prevent Reccurence:** Not Applicable

## Corrective Action

**Corrective Action:** Document in Narrative
**Department Manager Approval:** Roy French
**Approval Date:** 7/3/2013
**Corrective Action Comments:**

**Workorders Affected**

| Workorder -- Procedure | | Approved By | Approval Date |
|---|---|---|---|
| 1306400 -- EPA300.0 | Brian Dodek was contacted on 7/2/2013 | Amy R. Wolf | 7/2/2013 |
| 1306419 -- EPA300.0<br>1306420 -- EPA300.0 | Bruce Smith was contacted on 7/2/2013 | Amy R. Wolf | 7/2/2013 |
| 1306401 -- EPA300.0<br>1306403 -- EPA300.0 | Rochelle Carlisle was contacted on 7/2/2013 | Amy R. Wolf | 7/2/2013 |
| 1306410 -- EPA300.0<br>1306411 -- EPA300.0 | Tracy Breinholt was contacted on 7/1/2013 | Julie Ellingson | 7/2/2013 |

## There Are No Associated Batches



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*A Campbell Brothers Limited Company*

**NCR #:** 13940

# CONTROLLED

## NON-CONFORMANCE REPORT

### NCR Approval

**Project Manager Approval:**

JME on 7/2/2013

**Department Manager Approval:** Roy French on 7/3/2013

**QA Manager Approval:** Bob DiRienzo on 7/14/2013



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