District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

# Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

| | |
|---|---|
| Name of Company **Burlington Resources Oil & Gas Company** | Contact **Crystal Tafoya** |
| Address 3401 East 30th St, Farmington, NM | Telephone No.(505) 326-9837 |
| Facility Name: **San Juan 32-9 Unit 201** | Facility Type: **Gas Well** |

| | | |
|---|---|---|
| Surface Owner **State** | Mineral Owner **State (E-3150-11)** | API No.**3004527595** |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| **H** | **2** | **31N** | **9W** | **2275** | **North** | **885** | **East** | **San Juan** |

**Latitude 36.92764 Longitude -107.74327**

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release **Produced Water** | Volume of Release **Unknown** | Volume Recovered **Unknown** |
| Source of Release **Below Grade Tank** | Date and Hour of Occurrence **Unknown** | Date and Hour of Discovery **October 25, 2013** |
| Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required | If YES, To Whom? | |
| By Whom? | Date and Hour | |
| Was a Watercourse Reached? ☐ Yes ☒ No | If YES, Volume Impacting the Watercourse. | |

If a Watercourse was Impacted, Describe Fully.*
**N/A**

Describe Cause of Problem and Remedial Action Taken.*
**Below-Grade Tank Closure activies with samples taken resulting in constituents exceeded standards outlined by 19.15.17.13 NMAC.**

Describe Area Affected and Cleanup Action Taken.*
**NMOCD action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills and Releases and the release was assigned a ranking score of 10. Samples were collected and analytical results are below applicable NMOCD action levels. No further work will be performed. The final report is attached for review.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

RECEIVED
FEB 28 2015
NMOCD
DISTRICT III

OIL CONSERVATION DIVISION

Signature: Crystal L. Tafoya

Approved by Environmental Specialist:

Printed Name: **Crystal Tafoya**

Title: **Field Environmental Specialist**

Approval Date: 4/30/15 Expiration Date:

E-mail Address: crystal.tafoya@conocophillips.com

Conditions of Approval: Attached ☐

Date: 2/25/2015 Phone: (505) 326-9837

* Attach Additional Sheets If Necessary

# NCS1512041396

17

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

November 25, 2013

Crystal Tafoya
ConocoPhillips
San Juan Business Unit
Office 214-05
5525 Hwy 64
Farmington, New Mexico 87401

*Via electronic mail to: SJBUE-Team@ConocoPhillips.com*

**RE: Below Grade Tank Closure Report**
**San Juan 32-9 #201**
**San Juan County, New Mexico**

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) San Juan 32-9 #201, located in San Juan County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

## 1.0 Site Information

### *1.1 Location*

Site Name – San Juan 32-9 #201
Legal Description – SE¼ NE¼, Section 2, T31N, R9W, San Juan County, New Mexico
Well Latitude/Longitude – N36.92808 and W107.74379, respectively
BGT Latitude/Longitude – N36.92829 and W107.74387, respectively
Land Jurisdiction – State of New Mexico
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2013

### *1.2 NMOCD Ranking*

In accordance with the New Mexico Oil Conservation Division (NMOCD) *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), the location was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** A Cathodic Well Report dated December 1990 reported moisture at 60 and 140 feet below ground surface (bgs), but no water sample. (0 points)
- **Wellhead Protection Area:** The tank location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The wash in Rawhide Canyon is located approximately 730 feet west of the location. (10 points)

### *1.3 BGT Closure Assessment*

AES was initially contacted by Jess Henson, CoP representative, on October 24, 2013, and on October 25, 2013, Jesse Christopherson of AES mobilized to the location. AES personnel collected six soil samples from below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

## 2.0 Soil Sampling

On October 25, 2013, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). Soil sample SC-1 was field screened for VOCs and chloride and was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

### *2.1 Field Screening*

#### 2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

#### 2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for TPH per USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

### 2.1.3 Chlorides

Soil sample SC-1 was field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

## *2.2 Laboratory Analyses*

The composite soil sample SC-1 collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D; and
- Chloride per USEPA Method 300.0.

## *2.3 Field and Laboratory Analytical Results*

Field screening readings for VOCs via OVM ranged from 0.7 ppm in S-2 and S-4 up to 1.1 ppm in S-1. Field TPH concentrations ranged from 49.8 mg/kg in S-3 up to 2,290 mg/kg in S-5. The field chloride concentration in SC-1 was 60 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results
San Juan 32-9 #201 BGT Closure, October 2013

| *Sample ID* | *Date Sampled* | *Depth below BGT (ft)* | *VOCs OVM Reading (ppm)* | *Field TPH (mg/kg)* | *Field Chlorides (mg/kg)* |
|---|---|---|---|---|---|
| ***NMOCD Action Level (NMAC 19.15.17.13E)*** | | | *--* | ***100*** | ***250*** |
| S-1 | 10/25/13 | 0.5 | 1.1 | **153** | NA |
| S-2 | 10/25/13 | 0.5 | 0.7 | **909** | NA |
| S-3 | 10/25/13 | 0.5 | 1.0 | 49.8 | NA |
| S-4 | 10/25/13 | 0.5 | 0.7 | **714** | NA |
| S-5 | 10/25/13 | 0.5 | 0.8 | **2,290** | NA |
| SC-1 | 10/25/13 | 0.5 | 0.9 | NA | 60 |

NA - Not Analyzed

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 as less than 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations as GRO and DRO were reported at less than 5.0 mg/kg and less than 10.0 mg/kg, respectively. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results
San Juan 32-9 #201 BGT Closure, October 2013

| *Sample ID* | *Date Sampled* | *Depth (ft)* | *Benzene (mg/kg)* | *Total BTEX (mg/kg)* | *TPH-GRO (mg/kg)* | *TPH-DRO (mg/kg)* | *Chlorides (mg/kg)* |
|---|---|---|---|---|---|---|---|
| ***NMOCD Action Level (NMAC 19.15.17.13E)*** | | | ***0.2*** | ***50*** | ***100*** | | ***250*** |
| SC-1 | 10/25/13 | 0.5 | <0.050 | <0.25 | <5.0 | <10.0 | <30 |

## 3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in four samples, with the highest concentration reported in S-5 with 2,290 mg/kg. However, laboratory analytical results for TPH (as GRO/DRO) in SC-1 were reported below the NMOCD action level of 100 mg/kg. Benzene and total BTEX concentrations in SC-1 were also below the NMOCD action levels of 0.2 mg/kg and 50 mg/kg, respectively. Chloride concentrations in SC-1 were below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended at San Juan 32-9 #201.

If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Sincerely,

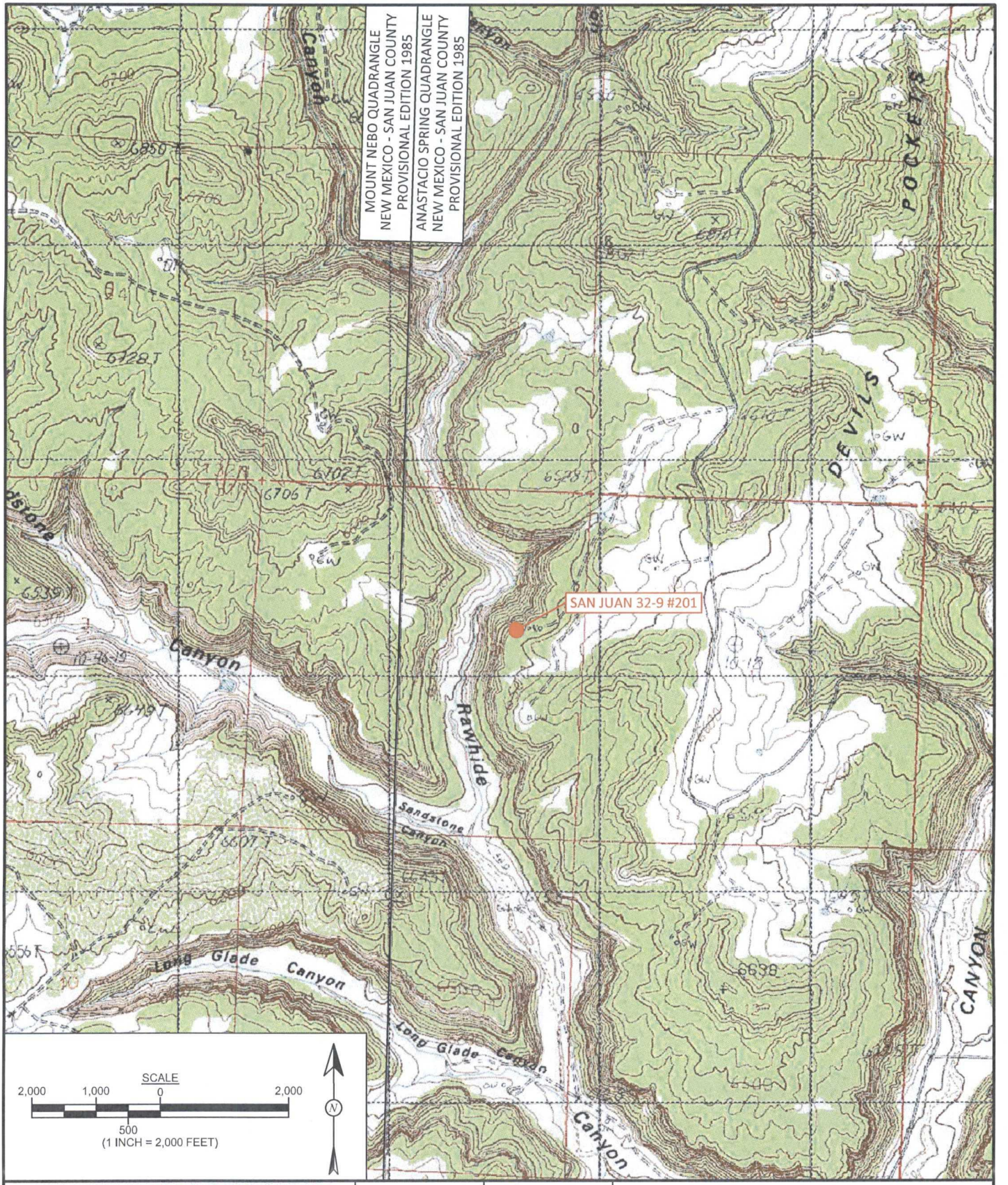
David J. Reese
Environmental Scientist

Elizabeth McNally, P.E.

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2013
AES Field Screening Report 102513
Hall Analytical Report 1310C62

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 32-9 #201\San Juan 32-9 #201 BGT Closure Report 112513.docx

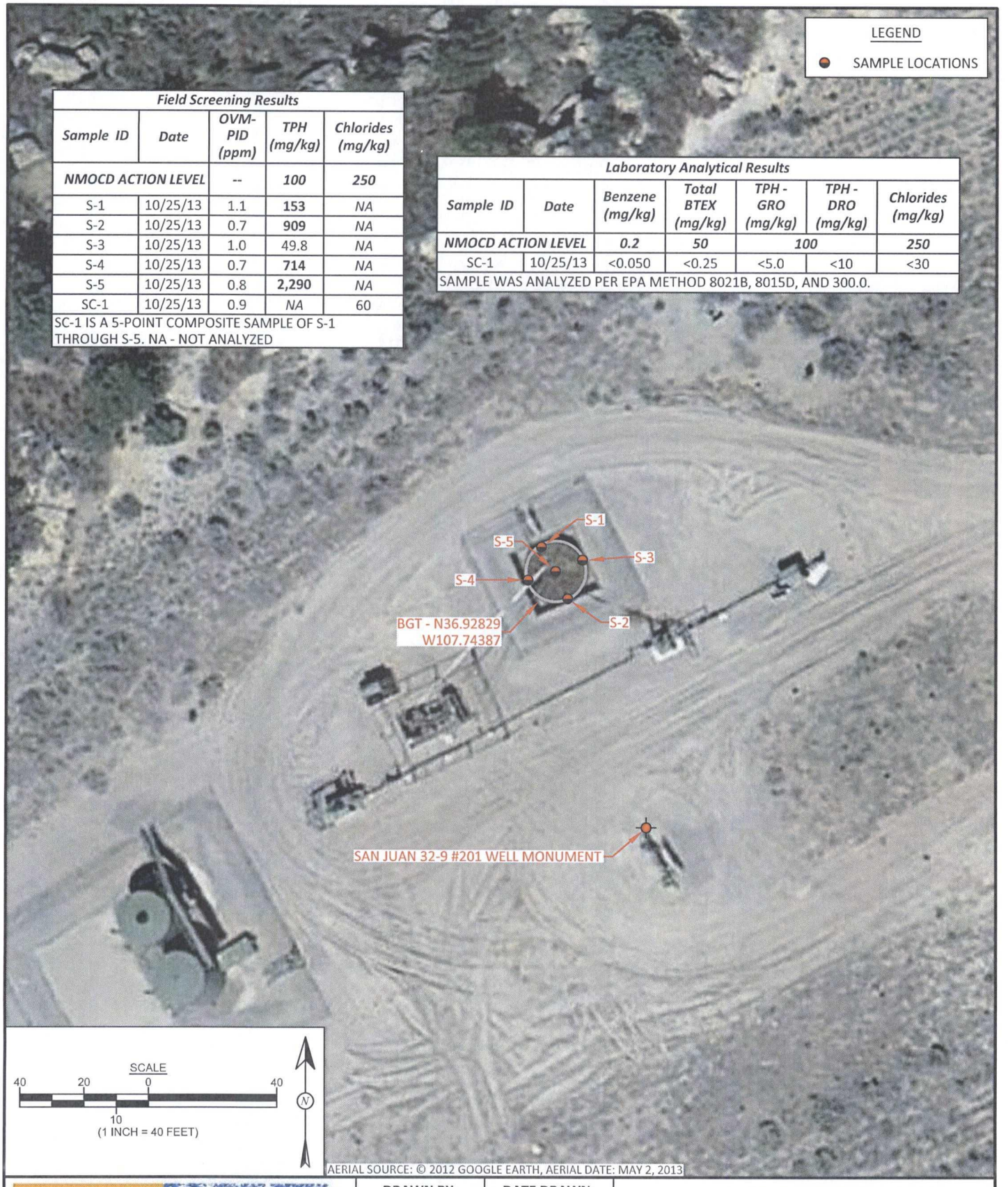



| | |
|---|---|
| **DRAWN BY:** S. Glasses | **DATE DRAWN:** October 30, 2013 |
| **REVISIONS BY:** C. Lameman | **DATE REVISED:** October 30, 2013 |
| **CHECKED BY:** D. Watson | **DATE CHECKED:** October 30, 2013 |
| **APPROVED BY:** E. McNally | **DATE APPROVED:** October 30, 2013 |

Animas Environmental Services, LLC

# FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**
ConocoPhillips
SAN JUAN 32-9 #201
SE¼ NE¼, SECTION 2, T31N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.92808, W107.74379




**Field Screening Results**

| Sample ID | Date | OVM-PID (ppm) | TPH (mg/kg) | Chlorides (mg/kg) |
|---|---|---|---|---|
| NMOCD ACTION LEVEL | | -- | 100 | 250 |
| S-1 | 10/25/13 | 1.1 | **153** | NA |
| S-2 | 10/25/13 | 0.7 | **909** | NA |
| S-3 | 10/25/13 | 1.0 | 49.8 | NA |
| S-4 | 10/25/13 | 0.7 | **714** | NA |
| S-5 | 10/25/13 | 0.8 | **2,290** | NA |
| SC-1 | 10/25/13 | 0.9 | NA | 60 |

SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. NA - NOT ANALYZED

**Laboratory Analytical Results**

| Sample ID | Date | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH - GRO (mg/kg) | TPH - DRO (mg/kg) | Chlorides (mg/kg) |
|---|---|---|---|---|---|---|
| NMOCD ACTION LEVEL | | 0.2 | 50 | 100 | | 250 |
| SC-1 | 10/25/13 | <0.050 | <0.25 | <5.0 | <10 | <30 |

SAMPLE WAS ANALYZED PER EPA METHOD 8021B, 8015D, AND 300.0.

Animas Environmental Services, LLC

| | |
|---|---|
| DRAWN BY: S. Glasses | DATE DRAWN: October 30, 2013 |
| REVISIONS BY: C. Lameman | DATE REVISED: October 30, 2013 |
| CHECKED BY: D. Watson | DATE CHECKED: October 30, 2013 |
| APPROVED BY: E. McNally | DATE APPROVED: October 30, 2013 |

# FIGURE 2

**AERIAL SITE MAP**
**BELOW GRADE TANK CLOSURE**
**OCTOBER 2013**
ConocoPhillips
SAN JUAN 32-9 #201
SE¼ NE¼, SECTION 2, T31N, R9W
SAN JUAN COUNTY, NEW MEXICO
N36.92808, W107.74379

# AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 32-9 #201

Date: 10/25/2013

Matrix: Soil

| Sample ID | Collection Date | Time of Sample Collection | Sample Location | OVM (ppm) | Field Chloride (mg/kg) | Field TPH Analysis Time | Field TPH* (mg/kg) | TPH PQL (mg/kg) | DF | TPH Analysts Initials |
|---|---|---|---|---|---|---|---|---|---|---|
| S-1 | 10/25/2013 | 9:50 | North | 1.1 | NA | 14:28 | 153 | 20.0 | 1 | CL |
| S-2 | 10/25/2013 | 9:55 | South | 0.7 | NA | 14:33 | 909 | 20.0 | 1 | CL |
| S-3 | 10/25/2013 | 10:00 | East | 1.0 | NA | 14:36 | 49.8 | 20.0 | 1 | CL |
| S-4 | 10/25/2013 | 10:05 | West | 0.7 | NA | 14:39 | 714 | 20.0 | 1 | CL |
| S-5 | 10/25/2013 | 10:10 | Center | 0.8 | NA | 14:41 | 2,290** | 20.0 | 1 | CL |
| SC-1 | 10/25/2013 | 10:15 | Composite | 0.9 | 60 | *Not Analyzed for TPH.* | | | | |

DF Dilution Factor
NA Not Analyzed
ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit
**Field TPH concentrations recorded may be below PQL.*
*** Sample analyzed on October 26, 2013.*

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with Silver Nitrate
Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:


Report Finalized: 10/26/13

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

October 29, 2013

Debbie Watson
Animas Environmental
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-4071
FAX

RE: CoP San Juan 32-9 #201 OrderNo.: 1310C62

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/26/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **1310C62**
Date Reported: **10/29/2013**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental
**Project:** CoP San Juan 32-9 #201
**Lab ID:** 1310C62-001 **Matrix:** SOIL

**Client Sample ID:** SC-1
**Collection Date:** 10/25/2013 10:15:00 AM
**Received Date:** 10/26/2013 10:20:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 10/28/2013 12:30:03 PM | 10040 |
| Surr: DNOP | 111 | 66-131 | | %REC | 1 | 10/28/2013 12:30:03 PM | 10040 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **NSB** | |
| Gasoline Range Organics (GRO) | ND | 5.0 | | mg/Kg | 1 | 10/28/2013 10:29:33 AM | R14380 |
| Surr: BFB | 90.9 | 74.5-129 | | %REC | 1 | 10/28/2013 10:29:33 AM | R14380 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** | |
| Benzene | ND | 0.050 | | mg/Kg | 1 | 10/28/2013 10:29:33 AM | R14380 |
| Toluene | ND | 0.050 | | mg/Kg | 1 | 10/28/2013 10:29:33 AM | R14380 |
| Ethylbenzene | ND | 0.050 | | mg/Kg | 1 | 10/28/2013 10:29:33 AM | R14380 |
| Xylenes, Total | ND | 0.10 | | mg/Kg | 1 | 10/28/2013 10:29:33 AM | R14380 |
| Surr: 4-Bromofluorobenzene | 98.2 | 80-120 | | %REC | 1 | 10/28/2013 10:29:33 AM | R14380 |
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JRR** | |
| Chloride | ND | 30 | | mg/Kg | 20 | 10/28/2013 12:55:06 PM | 10046 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2 for VOA and TOC only. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C62**

*29-Oct-13*

**Client:** Animas Environmental

**Project:** CoP San Juan 32-9 #201

| Sample ID | **MB-10046** | SampType: **MBLK** | | | TestCode: **EPA Method 300.0: Anions** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **PBS** | Batch ID: **10046** | | | RunNo: **14404** | | | | | |
| Prep Date: | **10/28/2013** | Analysis Date: **10/28/2013** | | | SeqNo: **413725** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID | **LCS-10046** | SampType: **LCS** | | | TestCode: **EPA Method 300.0: Anions** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS** | Batch ID: **10046** | | | RunNo: **14404** | | | | | |
| Prep Date: | **10/28/2013** | Analysis Date: **10/28/2013** | | | SeqNo: **413726** | | Units: **mg/Kg** | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 95.3 | 90 | 110 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C62**

*29-Oct-13*

**Client:** Animas Environmental

**Project:** CoP San Juan 32-9 #201

| Sample ID **MB-10040** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **10040** | RunNo: **14373** |
| Prep Date: **10/28/2013** | Analysis Date: **10/28/2013** | SeqNo: **412964** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Surr: DNOP | 10 | | 10.00 | | 104 | 66 | 131 | | | |

| Sample ID **LCS-10040** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **10040** | RunNo: **14373** |
| Prep Date: **10/28/2013** | Analysis Date: **10/28/2013** | SeqNo: **412965** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 50 | 10 | 50.00 | 0 | 99.3 | 77.1 | 128 | | | |
| Surr: DNOP | 5.1 | | 5.000 | | 103 | 66 | 131 | | | |

| Sample ID **1310C62-001AMS** | SampType: **MS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **SC-1** | Batch ID: **10040** | RunNo: **14373** |
| Prep Date: **10/28/2013** | Analysis Date: **10/29/2013** | SeqNo: **413791** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 55 | 10 | 50.10 | 0 | 109 | 61.3 | 138 | | | |
| Surr: DNOP | 5.0 | | 5.010 | | 99.0 | 66 | 131 | | | |

| Sample ID **1310C62-001AMSD** | SampType: **MSD** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **SC-1** | Batch ID: **10040** | RunNo: **14373** |
| Prep Date: **10/28/2013** | Analysis Date: **10/29/2013** | SeqNo: **413792** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 54 | 10 | 50.25 | 0 | 108 | 61.3 | 138 | 0.807 | 20 | |
| Surr: DNOP | 5.2 | | 5.025 | | 104 | 66 | 131 | 0 | 0 | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C62**

*29-Oct-13*

**Client:** Animas Environmental

**Project:** CoP San Juan 32-9 #201

| Sample ID **5ML RB** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **R14380** | RunNo: **14380** |
| Prep Date: | Analysis Date: **10/28/2013** | SeqNo: **413598** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 930 | | 1000 | | 93.0 | 74.5 | 129 | | | |

| Sample ID **2.5UG GRO LCS** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **R14380** | RunNo: **14380** |
| Prep Date: | Analysis Date: **10/28/2013** | SeqNo: **413601** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 26 | 5.0 | 25.00 | 0 | 104 | 74.5 | 126 | | | |
| Surr: BFB | 990 | | 1000 | | 99.4 | 74.5 | 129 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1310C62**

*29-Oct-13*

**Client:** Animas Environmental

**Project:** CoP San Juan 32-9 #201

| Sample ID **5ML RB** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **R14380** | RunNo: **14380** |
| Prep Date: | Analysis Date: **10/28/2013** | SeqNo: **413623** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | 0.050 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 101 | 80 | 120 | | | |

| Sample ID **100NG BTEX LCS** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **R14380** | RunNo: **14380** |
| Prep Date: | Analysis Date: **10/28/2013** | SeqNo: **413787** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.99 | 0.050 | 1.000 | 0 | 99.1 | 80 | 120 | | | |
| Toluene | 1.0 | 0.050 | 1.000 | 0 | 101 | 80 | 120 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 102 | 80 | 120 | | | |
| Xylenes, Total | 3.1 | 0.10 | 3.000 | 0 | 104 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 106 | 80 | 120 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

# Sample Log-In Check List

Client Name: Animas Environmental  Work Order Number: 1310C62  RcptNo: 1

Received by/date: AF 10/26/13

Logged By: Anne Thorne  10/26/2013 10:20:00 AM  Anne Thorne

Completed By: Anne Thorne  10/28/2013  Anne Thorne

Reviewed By: AF 10/28/13

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| 2. Is Chain of Custody complete? | Yes ☑ | No ☐ | Not Present ☐ |
| 3. How was the sample delivered? | Courier | | |

## Log In

| | | | |
|---|---|---|---|
| 4. Was an attempt made to cool the samples? | Yes ☑ | No ☐ | NA ☐ |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes ☑ | No ☐ | NA ☐ |
| 6. Sample(s) in proper container(s)? | Yes ☑ | No ☐ | |
| 7. Sufficient sample volume for indicated test(s)? | Yes ☑ | No ☐ | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes ☑ | No ☐ | |
| 9. Was preservative added to bottles? | Yes ☐ | No ☑ | NA ☐ |
| 10. VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA Vials ☑ |
| 11. Were any sample containers received broken? | Yes ☐ | No ☑ | |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ☑ | No ☐ | |
| 13. Are matrices correctly identified on Chain of Custody? | Yes ☑ | No ☐ | |
| 14. Is it clear what analyses were requested? | Yes ☑ | No ☐ | |
| 15. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ☑ | No ☐ | |

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 3.3 | Good | Yes | | | |

# Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E Comanche
Farmington NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
CoP San Juan 32-9 #201

Project #:

Project Manager:
D. Watson

Sampler: JC

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.3


**HALL ENVIRONMENTAL ANALYSIS LABORATORY**
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107


| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 1310612 |
|---|---|---|---|---|---|---|
| 10-25-13 | 1015 | Soil | SC-1 | MeOH Kit 4oz jar | MeOH non | 001 |

Analysis Request

| BTEX + ~~MTBE~~ + ~~TMB's~~ (8021) | BTEX + MTBE + TPH (Gas only) | TPH 8015B (GRO / DRO / ~~MRO~~) | TPH (Method 418.1)* jms 10/29 | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions ($F,Cl,NO_3,NO_2,PO_4,SO_4$) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | 300.0 Chlorides | | | | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | | X | | | | | | | | | X | | | | |

| Date: | Time: | Relinquished by: | Received by: | Date | Time |
|---|---|---|---|---|---|
| 10-25-13 | 1721 | | Christine Walker | 10/25/13 | 1721 |
| 10/25/13 | 1742 | Christine Walker | | 10/26/13 | 1020 |

Remarks: Bill to ConocoPhillips
WO: 10350850
Act Code:
Super: Dale Gallegos
User: Benale
Ordered by: Jess Henson

* Per Debbie Watson, Remove MRO. jms 10/29

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.