

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 <b>Burlington Resources Oil &amp; Gas Company</b> | Contact <b>Crystal Tafoya</b>        |
| Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>       | Telephone No. <b>(505) 326-9837</b>  |
| Facility Name: <b>Lloyd B 600</b>                                 | Facility Type: <b>Gas Well</b>       |
| Surface Owner <b>BLM</b>  | Mineral Owner <b>BLM (SF-078161)</b> |
| API No. <b>30-045-27181</b>                                       |                                      |

**LOCATION OF RELEASE**

| Unit Letter | Section  | Township   | Range      | Feet from the | North/South Line | Feet from the | East/West Line | County          |
|-------------|----------|------------|------------|---------------|------------------|---------------|----------------|-----------------|
| <b>L</b>    | <b>1</b> | <b>29N</b> | <b>11W</b> | <b>1450</b>   | <b>South</b>     | <b>1085</b>   | <b>West</b>    | <b>San Juan</b> |

Latitude 36.75131 Longitude 107.9477

**NATURE OF RELEASE**

|  |   |   |
|--|---|---|
| Type of Release <b>Produced Water</b>  | Volume of Release <b>5 bbls</b>               | Volume Recovered <b>None</b>                              |
| Source of Release <b>Produced Water Tank</b>   | Date and Hour of Occurrence<br><b>Unknown</b> | Date and Hour of Discovery<br><b>1/21/2013 at 10:00am</b> |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom?                              |   |
| By Whom?   | Date and Hour                                 |   |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume Impacting the Watercourse.     |   |

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

**RCVD APR 2 '13  
OIL CONS. DIV.  
DIST. 3**

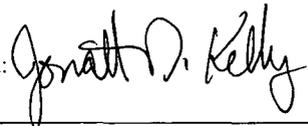
Describe Cause of Problem and Remedial Action Taken.\*

**Approximately 5bbls of produced water overflowed from the Produced Water Tank. No amount was recovered. The release did not leave the location and is contained within the berm. The well is currently shut-in.**

Describe Area Affected and Cleanup Action Taken.\*

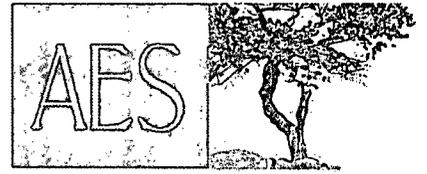
**NMOCD action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills, and Releases and the release was assigned a ranking score of 20. Samples were collected and analytical results are below applicable NMOCD action levels. No further work will be performed. The final report is attached 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.

|  |   |                                   |
|--|---|-----------------------------------|
| Signature:  | <b>OIL CONSERVATION DIVISION</b>  |                                   |
| Printed Name: <b>Crystal Tafoya</b>  | Approved by Environmental Specialist:  |                                   |
| Title: <b>Field Environmental Specialist</b>   | Approval Date: <b>4/4/2013</b>  | Expiration Date:                  |
| E-mail Address: <b>crystal.tafoya@conocophillips.com</b>                                       | Conditions of Approval:   | Attached <input type="checkbox"/> |
| Date: <b>4/1/2013</b> Phone: <b>(505) 326-9837</b>   |   |                                   |

\* Attach Additional Sheets If Necessary

*njk 1309442661*



Animas Environmental Services, LLC

[www.animasenvironmental.com](http://www.animasenvironmental.com)

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

March 27, 2013

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

**RE: Produced Water Release Report  
Lloyd B 600  
San Juan County, New Mexico**

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with a five barrel (BBL) produced water release at the ConocoPhillips (CoP) Lloyd B 600, located in San Juan County, New Mexico.

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## 1.0 Site Information

### 1.1 Location

Site Name – Lloyd B 600

Legal Description – NW¼ SW¼, Section 1, T29N, R11W, San Juan County, New Mexico

Well Latitude/Longitude – N36.75147 and W107.94816, respectively

Release Latitude/Longitude – N36.75120 and W107.94822, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, January 2013

### 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Protection Report dated May 1991 for the Lloyd B 600 reported the depth to groundwater as 80 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (<http://ford.nmt.edu/react/project.html>) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. A small unnamed wash was located approximately 250 feet north of the location, eventually discharging to the wash in East Fork Bloomfield Canyon. Based on this information, the location was assessed a ranking score of 20 per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

### *1.3 Produced Water Release Assessment*

AES was initially contacted by Crystal Tafoya, CoP representative, on January 22, 2013, and on January 24, 2013, Deborah Watson and Corwin Lameman of AES traveled to the location. AES personnel collected one 5-point composite soil sample from the area surrounding the produced water tank for laboratory analysis.

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## *2.0 Soil Sampling*

On January 24, 2013, AES personnel collected one 5-point composite soil sample within the release area around the produced water tank. Soil sample SC-1 was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

### *2.1 Laboratory Analyses*

The composite soil sample 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; and
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B.

### *2.2 Laboratory Analytical Results*

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 as below the laboratory detection limits of 0.047 mg/kg and 0.24 mg/kg, respectively. TPH concentrations were reported as less than 4.7 mg/kg GRO and at 11 mg/kg DRO. Laboratory analytical results are summarized in Table 1 and included on Figure 2. The laboratory analytical report is attached.

Table 1. Soil Laboratory Analytical Results  
Lloyd B 600 Produced Water Release, January 2013

| Sample ID                 | Date Sampled | Depth (ft) | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH-GRO (mg/kg) | TPH-DRO (mg/kg) |
|---------------------------|--------------|------------|-----------------|--------------------|-----------------|-----------------|
| <b>NMOCD Action Level</b> |              |            | <b>10</b>       | <b>50</b>          | <b>100*</b>     |                 |
| SC-1                      | 01/24/13     | 0.25       | <0.047          | <0.24              | <4.7            | 11              |

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993).

### 3.0 Conclusions and Recommendations

NMOCD action levels for releases are specified in NMOCD's *Guidelines for Leaks, Spills, and Releases* (August 1993), and the release was assigned a ranking score of 20. Benzene and total BTEX concentrations in SC-1 were reported below NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. Additionally, the TPH concentration as GRO/DRO was reported below the NMOCD action level of 100 mg/kg.

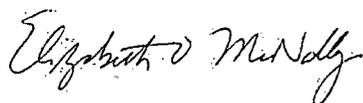
Based on laboratory analytical results of produced water contaminated soils at the Lloyd B 600, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels. No further work is recommended.

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

Sincerely,



Landrea Cupps  
Environmental Scientist

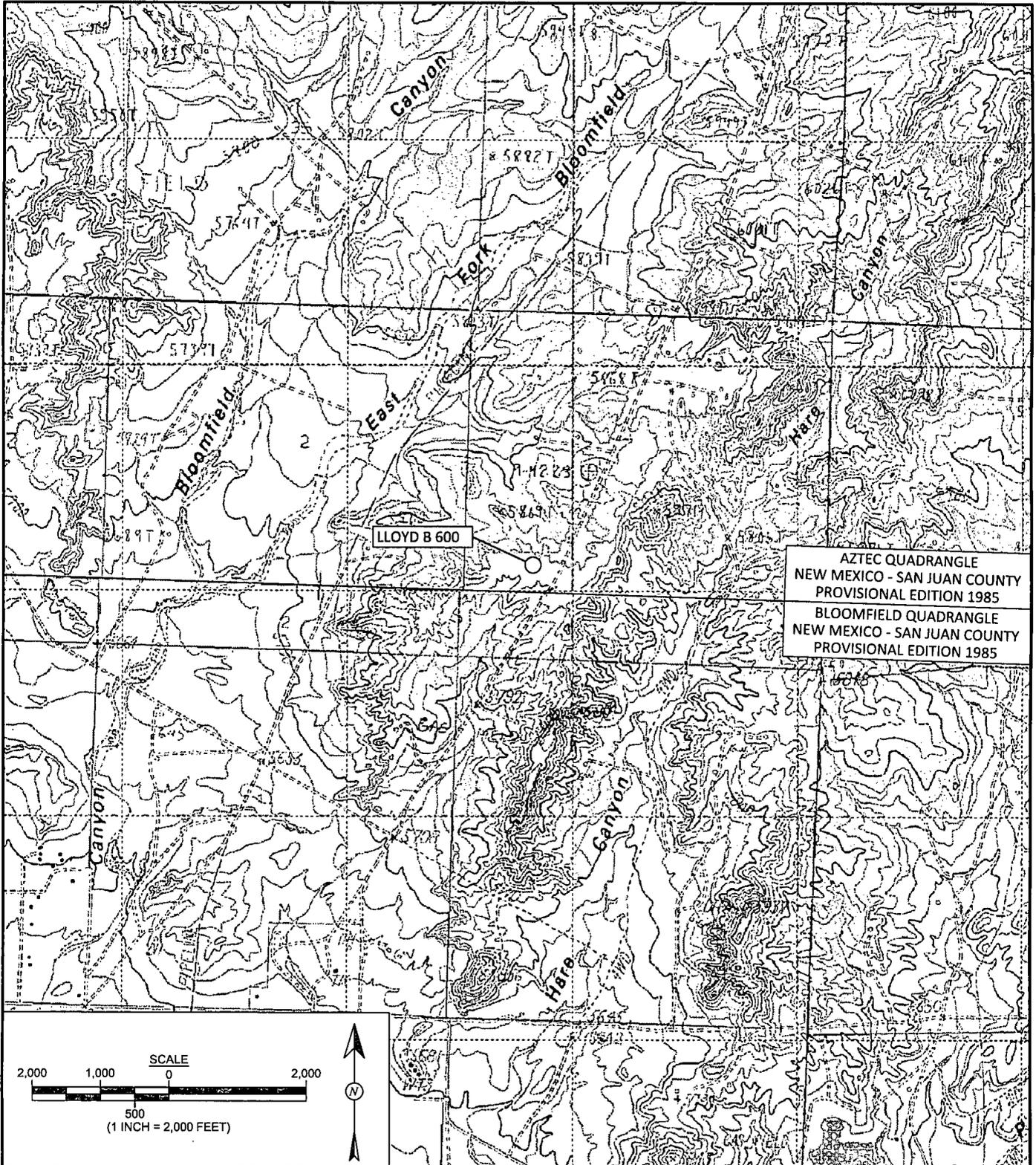


Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, January 2013
- Hall Analytical Report 1301875

C:\Dropbox\2013 Projects\ConocoPhillips\Lloyd B 600\Lloyd B 600 Produced Water Release Report  
032713.docx



Animas Environmental Services, LLC

|                                    |  |
|------------------------------------|--|
| <b>DRAWN BY:</b><br>C. Lameman     | <b>DATE DRAWN:</b><br>February 11, 2013    |
| <b>REVISIONS BY:</b><br>C. Lameman | <b>DATE REVISED:</b><br>February 11, 2013  |
| <b>CHECKED BY:</b><br>D. Watson    | <b>DATE CHECKED:</b><br>February 11, 2013  |
| <b>APPROVED BY:</b><br>E. McNally  | <b>DATE APPROVED:</b><br>February 11, 2013 |

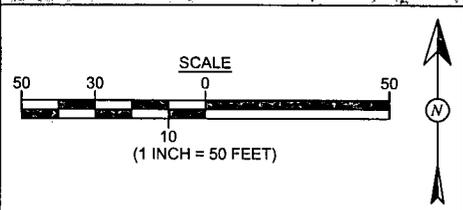
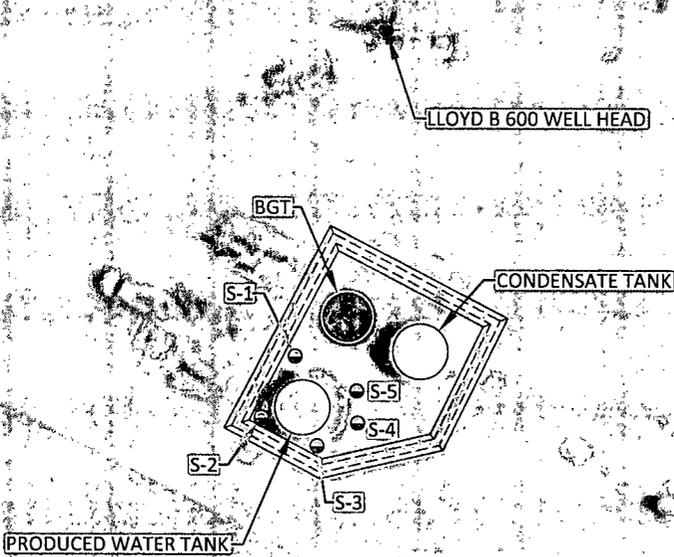
**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
 ConocoPhillips  
 LLOYD B 600  
 NW¼ SW¼, SECTION 1, T29N, R11W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.75147, W107.94816

**LEGEND**  
 ● SAMPLE LOCATIONS

| Laboratory Analytical Results |         |                 |                    |                   |                   |
|-------------------------------|---------|-----------------|--------------------|-------------------|-------------------|
| Sample ID                     | Date    | Benzene (mg/kg) | Total BTEX (mg/kg) | TPH - GRO (mg/kg) | TPH - DRO (mg/kg) |
| <b>NMOCD ACTION LEVEL</b>     |         | <b>10</b>       | <b>50</b>          | <b>100</b>        |                   |
| SC-1                          | 1/24/13 | <0.047          | <0.24              | <4.7              | 11                |

SC-1 WAS A 5-POINT COMPOSITE OF S-1 THROUGH S-5.  
 SAMPLE WAS ANALYZED PER EPA METHOD 8021B AND 8015B.



AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE

The logo for Animas Environmental Services, LLC (AES) features the letters "AES" in a large, stylized font next to a detailed illustration of a tree. Below the logo, the text "Animas Environmental Services, LLC" is written in a smaller font.

|                                    |  |
|------------------------------------|--|
| <b>DRAWN BY:</b><br>C. Lameman     | <b>DATE DRAWN:</b><br>February 11, 2013    |
| <b>REVISIONS BY:</b><br>C. Lameman | <b>DATE REVISED:</b><br>February 11, 2013  |
| <b>CHECKED BY:</b><br>D. Watson    | <b>DATE CHECKED:</b><br>February 11, 2013  |
| <b>APPROVED BY:</b><br>E. McNally  | <b>DATE APPROVED:</b><br>February 11, 2013 |

**FIGURE 2**  
**AERIAL SITE MAP**  
**JANUARY 2013**  
 ConocoPhillips  
 LLOYD B 600  
 NW¼ SW¼, SECTION 1, T29N, R11W  
 SAN JUAN COUNTY, NEW MEXICO  
 N36.75147, W107.94816



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

February 15, 2013

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

RE: COP Lloyd B 600

OrderNo.: 1301875

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/25/2013 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](http://www.hallenvironmental.com) or the state specific web sites. 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. 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.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Animas Environmental Services

Client Sample ID: SC-1

Project: COP Lloyd B 600

Collection Date: 1/24/2013 1:45:00 PM

Lab ID: 1301875-001

Matrix: SOIL

Received Date: 1/25/2013 10:00:00 AM

| Analyses                                       | Result | RL       | Qual | Units | DF | Date Analyzed        |
|--|--------|----------|------|-------|----|----------------------|
| <b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b> |        |          |      |       |    | Analyst: <b>MMD</b>  |
| Diesel Range Organics (DRO)                    | 11     | 9.7      |      | mg/Kg | 1  | 1/31/2013 1:44:13 PM |
| Surr: DNOP                                     | 102    | 72.4-120 |      | %REC  | 1  | 1/31/2013 1:44:13 PM |
| <b>EPA METHOD 8015B: GASOLINE RANGE</b>        |        |          |      |       |    | Analyst: <b>NSB</b>  |
| Gasoline Range Organics (GRO)                  | ND     | 4.7      |      | mg/Kg | 1  | 1/28/2013 3:32:16 PM |
| Surr: BFB                                      | 97.6   | 84-116   |      | %REC  | 1  | 1/28/2013 3:32:16 PM |
| <b>EPA METHOD 8021B: VOLATILES</b>             |        |          |      |       |    | Analyst: <b>NSB</b>  |
| Benzene  | ND     | 0.047    |      | mg/Kg | 1  | 1/28/2013 3:32:16 PM |
| Toluene  | ND     | 0.047    |      | mg/Kg | 1  | 1/28/2013 3:32:16 PM |
| Ethylbenzene                                   | ND     | 0.047    |      | mg/Kg | 1  | 1/28/2013 3:32:16 PM |
| Xylenes, Total                                 | ND     | 0.095    |      | mg/Kg | 1  | 1/28/2013 3:32:16 PM |
| Surr: 4-Bromofluorobenzene                     | 106    | 80-120   |      | %REC  | 1  | 1/28/2013 3:32:16 PM |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits.
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1301875

15-Feb-13

**Client:** Animas Environmental Services  
**Project:** COP Lloyd B 600

| Sample ID <b>MB-5902</b>    | SampType: <b>MBLK</b>           |     | TestCode: <b>EPA Method 8015B: Diesel Range Organics</b> |             |                     |          |           |      |          |      |
|-----------------------------|---------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: <b>PBS</b>       | Batch ID: <b>5902</b>           |     | RunNo: <b>8358</b>                                       |             |                     |          |           |      |          |      |
| Prep Date: <b>1/30/2013</b> | Analysis Date: <b>1/31/2013</b> |     | SeqNo: <b>241455</b>                                     |             | Units: <b>mg/Kg</b> |          |           |      |          |      |
| Analyte                     | Result                          | PQL | SPK value  | SPK Ref Val | %REC                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND                              | 10  |  |             |                     |          |           |      |          |      |
| Surr: DNOP                  | 9.9                             |     | 10.00  |             | 99.1                | 72.4     | 120       |      |          |      |

| Sample ID <b>LCS-5902</b>   | SampType: <b>LCS</b>            |     | TestCode: <b>EPA Method 8015B: Diesel Range Organics</b> |             |                     |          |           |      |          |      |
|-----------------------------|---------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: <b>LCSS</b>      | Batch ID: <b>5902</b>           |     | RunNo: <b>8358</b>                                       |             |                     |          |           |      |          |      |
| Prep Date: <b>1/30/2013</b> | Analysis Date: <b>1/31/2013</b> |     | SeqNo: <b>241456</b>                                     |             | Units: <b>mg/Kg</b> |          |           |      |          |      |
| Analyte                     | Result                          | PQL | SPK value  | SPK Ref Val | %REC                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 48                              | 10  | 50.00  | 0           | 96.1                | 47.4     | 122       |      |          |      |
| Surr: DNOP                  | 4.9                             |     | 5.000  |             | 98.1                | 72.4     | 120       |      |          |      |

| Sample ID <b>1301798-001AMS</b> | SampType: <b>MS</b>             |     | TestCode: <b>EPA Method 8015B: Diesel Range Organics</b> |             |                     |          |           |      |          |      |
|---------------------------------|---------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: <b>BatchQC</b>       | Batch ID: <b>5902</b>           |     | RunNo: <b>8358</b>                                       |             |                     |          |           |      |          |      |
| Prep Date: <b>1/30/2013</b>     | Analysis Date: <b>1/31/2013</b> |     | SeqNo: <b>241458</b>                                     |             | Units: <b>mg/Kg</b> |          |           |      |          |      |
| Analyte                         | Result                          | PQL | SPK value  | SPK Ref Val | %REC                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)     | 42                              | 9.7 | 48.50  | 0           | 86.9                | 12.6     | 148       |      |          |      |
| Surr: DNOP                      | 4.2                             |     | 4.850  |             | 86.3                | 72.4     | 120       |      |          |      |

| Sample ID <b>1301798-001AMSD</b> | SampType: <b>MSD</b>            |     | TestCode: <b>EPA Method 8015B: Diesel Range Organics</b> |             |                     |          |           |      |          |      |
|----------------------------------|---------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: <b>BatchQC</b>        | Batch ID: <b>5902</b>           |     | RunNo: <b>8358</b>                                       |             |                     |          |           |      |          |      |
| Prep Date: <b>1/30/2013</b>      | Analysis Date: <b>1/31/2013</b> |     | SeqNo: <b>241462</b>                                     |             | Units: <b>mg/Kg</b> |          |           |      |          |      |
| Analyte                          | Result                          | PQL | SPK value  | SPK Ref Val | %REC                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)      | 48                              | 10  | 50.97  | 0           | 93.9                | 12.6     | 148       | 12.6 | 22.5     |      |
| Surr: DNOP                       | 4.9                             |     | 5.097  |             | 95.6                | 72.4     | 120       | 0    | 0        |      |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1301875

15-Feb-13

Client: Animas Environmental Services

Project: COP Lloyd B 600

|                               |                  |                |                  |             |   |          |              |      |          |      |
|-------------------------------|------------------|----------------|------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>MB-5845</b>   | SampType:      | <b>MBLK</b>      | TestCode:   | <b>EPA Method 8015B: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>PBS</b>       | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                             |          |              |      |          |      |
| Prep Date:                    | <b>1/25/2013</b> | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239872</b>                           | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result           | PQL            | SPK value        | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND               | 5.0            |                  |             |   |          |              |      |          |      |
| Surr: BFB                     | 960              |                | 1000             |             | 96.0                                    | 84       | 116          |      |          |      |

|                               |                  |                |                  |             |   |          |              |      |          |      |
|-------------------------------|------------------|----------------|------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>LCS-5845</b>  | SampType:      | <b>LCS</b>       | TestCode:   | <b>EPA Method 8015B: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>LCSS</b>      | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                             |          |              |      |          |      |
| Prep Date:                    | <b>1/25/2013</b> | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239873</b>                           | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result           | PQL            | SPK value        | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 23               | 5.0            | 25.00            | 0           | 92.0                                    | 74       | 117          |      |          |      |
| Surr: BFB                     | 980              |                | 1000             |             | 98.1                                    | 84       | 116          |      |          |      |

|                               |                       |                |                  |             |   |          |              |      |          |      |
|-------------------------------|-----------------------|----------------|------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>1301798-001AMS</b> | SampType:      | <b>MS</b>        | TestCode:   | <b>EPA Method 8015B: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>BatchQC</b>        | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                             |          |              |      |          |      |
| Prep Date:                    | <b>1/25/2013</b>      | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239875</b>                           | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result                | PQL            | SPK value        | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 22                    | 5.0            | 24.93            | 0           | 90.0                                    | 70       | 130          |      |          |      |
| Surr: BFB                     | 1100                  |                | 997.0            |             | 108                                     | 84       | 116          |      |          |      |

|                               |                        |                |                  |             |   |          |              |      |          |      |
|-------------------------------|------------------------|----------------|------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>1301798-001AMSD</b> | SampType:      | <b>MSD</b>       | TestCode:   | <b>EPA Method 8015B: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>BatchQC</b>         | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                             |          |              |      |          |      |
| Prep Date:                    | <b>1/25/2013</b>       | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239876</b>                           | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result                 | PQL            | SPK value        | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 21                     | 5.0            | 24.93            | 0           | 86.2                                    | 70       | 130          | 4.27 | 22.1     |      |
| Surr: BFB                     | 1100                   |                | 997.0            |             | 107                                     | 84       | 116          | 0    | 0        |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1301875

15-Feb-13

**Client:** Animas Environmental Services

**Project:** COP Lloyd B 600

| Sample ID                  | <b>MB-5845</b>   | SampType:      | <b>MBLK</b>      | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |      |          |      |
|----------------------------|------------------|----------------|------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID:                 | <b>PBS</b>       | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                        |          |              |      |          |      |
| Prep Date:                 | <b>1/25/2013</b> | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239889</b>                      | Units:   | <b>mg/Kg</b> |      |          |      |
| 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 | 1.1              |                | 1.000            |             | 106                                | 80       | 120          |      |          |      |

| Sample ID                  | <b>LCS-5845</b>  | SampType:      | <b>LCS</b>       | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |      |          |      |
|----------------------------|------------------|----------------|------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID:                 | <b>LCSS</b>      | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                        |          |              |      |          |      |
| Prep Date:                 | <b>1/25/2013</b> | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239890</b>                      | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result           | PQL            | SPK value        | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                    | 1.0              | 0.050          | 1.000            | 0           | 101                                | 80       | 120          |      |          |      |
| Toluene                    | 1.0              | 0.050          | 1.000            | 0           | 102                                | 80       | 120          |      |          |      |
| Ethylbenzene               | 1.0              | 0.050          | 1.000            | 0           | 103                                | 80       | 120          |      |          |      |
| Xylenes, Total             | 3.1              | 0.10           | 3.000            | 0           | 102                                | 80       | 120          |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.1              |                | 1.000            |             | 110                                | 80       | 120          |      |          |      |

| Sample ID                  | <b>1301798-001A MS</b> | SampType:      | <b>MS</b>        | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |      |          |      |
|----------------------------|------------------------|----------------|------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID:                 | <b>BatchQC</b>         | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                        |          |              |      |          |      |
| Prep Date:                 | <b>1/25/2013</b>       | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239892</b>                      | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result                 | PQL            | SPK value        | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                    | 0.95                   | 0.050          | 0.9950           | 0           | 95.9                               | 67.2     | 113          |      |          |      |
| Toluene                    | 0.97                   | 0.050          | 0.9950           | 0           | 97.1                               | 62.1     | 116          |      |          |      |
| Ethylbenzene               | 0.99                   | 0.050          | 0.9950           | 0           | 100                                | 67.9     | 127          |      |          |      |
| Xylenes, Total             | 2.9                    | 0.10           | 2.985            | 0           | 98.6                               | 60.6     | 134          |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.1                    |                | 0.9950           |             | 114                                | 80       | 120          |      |          |      |

| Sample ID                  | <b>1301798-001A MSD</b> | SampType:      | <b>MSD</b>       | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |        |          |      |
|----------------------------|-------------------------|----------------|------------------|-------------|------------------------------------|----------|--------------|--------|----------|------|
| Client ID:                 | <b>BatchQC</b>          | Batch ID:      | <b>5845</b>      | RunNo:      | <b>8306</b>                        |          |              |        |          |      |
| Prep Date:                 | <b>1/25/2013</b>        | Analysis Date: | <b>1/28/2013</b> | SeqNo:      | <b>239893</b>                      | Units:   | <b>mg/Kg</b> |        |          |      |
| Analyte                    | Result                  | PQL            | SPK value        | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD   | RPDLimit | Qual |
| Benzene                    | 0.95                    | 0.050          | 0.9970           | 0           | 95.5                               | 67.2     | 113          | 0.293  | 14.3     |      |
| Toluene                    | 0.97                    | 0.050          | 0.9970           | 0           | 96.9                               | 62.1     | 116          | 0.0353 | 15.9     |      |
| Ethylbenzene               | 0.99                    | 0.050          | 0.9970           | 0           | 99.5                               | 67.9     | 127          | 0.338  | 14.4     |      |
| Xylenes, Total             | 3.0                     | 0.10           | 2.991            | 0           | 99.6                               | 60.6     | 134          | 1.14   | 12.6     |      |
| Surr: 4-Bromofluorobenzene | 1.1                     |                | 0.9970           |             | 112                                | 80       | 120          | 0      | 0        |      |

**Qualifiers:**

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

**Sample Log-In Check List**

Client Name: Animas Environmental Work Order Number: 1301875  
 Received by/date: AG 01/25/13  
 Logged By: Anne Thorne 1/25/2013 10:00:00 AM Anne Thorne  
 Completed By: Anne Thorne 1/25/2013 Anne Thorne  
 Reviewed By: [Signature] 01/25/13

**Chain of Custody**

1. Were seals intact? Yes  No  Not Present
2. Is Chain of Custody complete? Yes  No  Not Present
3. How was the sample delivered? Courier

**Log In**

4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples (except VOA and ONG) properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No  NA
11. VOA vials have zero headspace? Yes  No  No VOA Vials
12. Were any sample containers received broken? Yes  No
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No
14. Are matrices correctly identified on Chain of Custody? Yes  No
15. Is it clear what analyses were requested? Yes  No
16. 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)**

17. 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: \_\_\_\_\_

18. Additional remarks:

**19. Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.0     | Good      | Yes         |         |           |           |

