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

\* Attach Additional Sheets If Necessary

# State of New Mexico Energy Minerals and Natural Resources

Revised August 8, 2011

Form C-141

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

**Release Notification and Corrective Action** 

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

|                      |                            |                            |             | <u>::</u>                                |               | OPERA'  | ГOR                 |           | ☐ Initial Report ☐ Final Re |                              |            |           |  |  |  |
|----------------------|----------------------------|----------------------------|-------------|--|---------------|---|---------------------|-----------|-----------------------------|------------------------------|------------|-----------|--|--|--|
|                      |                            | onoco Burli<br>f ConocoPhi | _           | esources, a Who                          | olly          | Contact Li  | sa Hunter           |           | ·                           |                              |            |           |  |  |  |
|                      |                            | th St, Farmin              |             |  | -             | Telephone No.(505) 326-9786                                     |                     |           |                             |                              |            |           |  |  |  |
|                      |                            | uan 30-6 Ur                |             |  |               | Facility Type: Natural Gas                                      |                     |           |                             |                              |            |           |  |  |  |
| Surface Ow           | ner Fode                   | ral                        |             | Mineral                                  | wnor          | r Federal API No.3003924926                                     |                     |           |                             |                              |            |           |  |  |  |
| Surface Ow           | ner rede                   | 1 41                       |             | Willicial O                              | WIICI         | rederat   | <del></del>         |           | AFI No.                     | 30039249                     | 20         |           |  |  |  |
|                      |                            |                            | <del></del> |  |               | OF RE   | LEASE               |           |                             |                              |            | ·         |  |  |  |
| Unit Letter K        | Section 24                 | Township 30N               | Range 06VV  | Feet from the 2310                       |               | South Line South  | Feet from the 1465  | East/\    | West Line<br>West <b>OL</b> | County<br><b>(XO)/MS:rib</b> | iV D       | IST 9     |  |  |  |
|                      |                            |                            |             | Latitude <u>36</u>                       | .79693        | Longitud  | e <u>-107.41767</u> |           |                             |                              |            |           |  |  |  |
|                      |                            |                            |             | NAT                                      | URE           | OF REL  | EASE                |           |                             | MAY 2 9                      | 2014       | }         |  |  |  |
| Type of Relearea)    | ase Stand                  | ing Rain Wat               | ter (with   | chlorides in berm                        |               |   | Release .2333       | BBLs      | Volume Re                   | ecovered                     | 0 BI       | BLs       |  |  |  |
|                      | lease Rai                  | nwater soake               | d bermed    | breached                                 | _             | Date and I  | lour of Occurren    | ce        | Date and I-                 |                              | covery     |           |  |  |  |
| Was Immedia          | ate Notice (               | Given?                     |             |  |               | If YES, To  | Whom?               |           | October 2                   | 4, 4013                      | -          |           |  |  |  |
|                      |                            | $\boxtimes$                | Yes [       | ] No 🗌 Not Re                            | quired        |   | Kelly, NMOCD        |           |                             |                              |            |           |  |  |  |
| By Whom? Lisa Hunter |                            |                            |             |  |               | Date and h  | eham, BLM (left     | voice n   | nessage)                    |                              |            |           |  |  |  |
| 2                    |                            |                            |             |  |               | 10/24/13 @  | 9:04 a.m.           |           |                             |                              |            |           |  |  |  |
| Was a Water          | Was a Watercourse Reached? |                            |             |  |               | 10/24/13 @ 9:15 a.m.  If YES, Volume Impacting the Watercourse. |                     |           |                             |                              |            |           |  |  |  |
| Yes ⊠ No             |                            |                            |             |  |               | II TES, V   | online impacting    | me wan    | ercourse.                   |                              |            |           |  |  |  |
| If a Watercou        | ırse was Im                | pacted, Descr              | ibe Fully.  | *  |               | - <del>-</del> -  |                     | <u></u> - |                             |                              |            |           |  |  |  |
|                      |                            | em and Remed               |             |  | CC I . a.v.4  | ing Paidan  |                     |           | 1 h h l .                   | J                            |            |           |  |  |  |
|                      |                            |                            |             | to have traveled o<br>des had traveled ( |               |   |                     |           |                             |                              |            |           |  |  |  |
| pipeline rele        | ase. Repor                 | ts of standing             | g water (a  | ittributed to rain<br>and environmen     | water) v      | within the b  | erm during the l    |           |                             |                              |            |           |  |  |  |
|                      |                            |                            |             |  |               |   |                     |           |                             |                              |            |           |  |  |  |
|                      |                            | and Cleanup A              |             |  | م ممام        | :6  | A 664- A            |           |                             |                              | : <u>:</u> |           |  |  |  |
|                      |                            |                            |             | a path forward for<br>dards set forth in |               |   |                     |           |                             |                              |            |           |  |  |  |
|                      |                            |                            |             | than Kelly, NMO                          |               |   |                     |           |                             |                              |            |           |  |  |  |
| I hereby certi       | fy that the                | information gi             | ven above   | is true and compl                        | ete to th     | ne best of my   | knowledge and i     | ındersta  | nd that pursu               | ant to NM                    | OCD ri     | ıles and  |  |  |  |
| regulations al       | loperators                 | are required to            | o report ai | nd/or file certain re                    | lease no      | otifications a  | nd perform corre    | ctive act | ions for relea              | ases which                   | may en     | ıdanger   |  |  |  |
| public health        | or the envi                | ronment. The               | acceptant   | ce of a C-141 repo                       | rt by the     | NMOCD m   | arked as "Final R   | Report" o | loes not relie              | ve the oper                  | ator of    | liability |  |  |  |
|                      |                            |                            |             | otance of a C-141 r                      |               |   |                     |           |                             |                              |            |           |  |  |  |
| federal, state,      | or local lav               | ws and/or regu             | lations.    |  | <del></del> 1 |   | 011 ~ ~ ~           |           | m                           |                              |            |           |  |  |  |
|                      | . <i>ă</i> .               | N 1 T                      |             |  |               |   | <u>OIL CON</u>      | SERV      | 'ATION I                    | <u> DIVISIÇ</u>              | 4          |           |  |  |  |
|                      | YN                         | m Ht                       |             |  | 3             |   |                     |           |                             |                              | 1          | 6/        |  |  |  |
| Signature:           |                            |                            |             |  |               | Approved by   | Environmental S     | Specialis | t: / jour                   |                              | / /        |           |  |  |  |
| Printed Name         | : Lisa Hu                  | nter                       |             |  |               |   |                     |           | <u> </u>                    | <i>7</i> )                   | 1          |           |  |  |  |
| Title: Field I       | Environme                  | ntal Specialis             | it          | ·  |               | Approval Da   | 10: le/12/14        |           | <i>ل</i><br>Expiration D    | piration Date:               |            |           |  |  |  |
| E-mail Addre         | ess: Lisa.Hu               | inter@cop.cor              | n           |  |               | Conditions o  | f Approval:         |           |                             | Attached                     |            |           |  |  |  |
| Date: May 2'         | 7 2014                     | Phone:                     | (505) 326   | 5-9786                                   |               |   |                     |           | ,                           | , macheu                     | <u> </u>   |           |  |  |  |



Animas Environmental Services, LLC

OIL CONS. DIV DIST, 3

MAY 29 2014

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3084

February 7, 2014

Lisa Hunter
ConocoPhillips
San Juan Business Unit
Office 214-04
5525 Hwy 64
Farmington, New Mexico 87401

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

**RE:** Release Assessment Report

San Juan 30-6 #489

**Rio Arriba County, New Mexico** 

KIO AITIDA COUNT

Dear Ms. Hunter:

On October 29, 2013, Animas Environmental Services, LLC (AES) completed a release assessment at the ConocoPhillips (CoP) San Juan 30-6 #489, located in Rio Arriba County, New Mexico. Rain water from within the containment berm broke through the berm and flowed off location.

### 1.0 Site Information

## 1.1 Location

Location – NE¼ SW¼, Section 24, T30N, R6W, Rio Arriba County, New Mexico Well Head Latitude/Longitude – N36.79718 and W107.41813, respectively Release Location Latitude/Longitude – N36.79722 and W107.41770, respectively Land Jurisdiction – Bureau of Land Management

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, October 2013

## 1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 10 based on the following factors:

- Depth to Groundwater: A cathodic protection report form dated August 1991 reported the depth to groundwater at 150 feet below ground surface (bgs). (0 points)
- Wellhead Protection Area: The release location is not within a wellhead protection area. (0 points)
- Distance to Surface Water Body: An unnamed ephemeral wash which drains northeast to the wash in La Jara Canyon is approximately 945 feet southeast of the location. (10 points)

## 1.3 Assessment

AES was initially contacted by Lisa Hunter of CoP on October 21, 2013, and on October 29, 2013, Deborah Watson and Jesse Christopherson of AES completed the release assessment field work. The assessment included collection and field screening of 26 soil samples from 16 soil borings (8 onsite and 8 offsite) within the release area. Two samples, SC-1 and SC-2, were composited from surface samples collected from SB-2 through SB-8 and OS-1 through OS-8, respectively. Sample locations are shown on Figure 3.

# 2.0 Soil Sampling

A total of 26 soil samples from 16 borings (SB-1 through SB-8 and OS-1 through OS-8) and 2 composite samples (SC-1 and SC-2) were collected during the assessments. Selected samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). The two composite samples (SC-1 and SC-2) were submitted for confirmation laboratory analysis.

## 2.1 Field Screening

### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted 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

Field TPH samples were analyzed 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.

# 2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Samples SC-1 and SC-2 were laboratory analyzed for:

Chlorides per U.S. Environmental Protection Agency (USEPA) Method 300.0.

# 2.3 Field Screening and Laboratory Analytical Results

On October 29, 2013, release assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm up to 0.8 ppm in SB-8. All field TPH concentrations were reported at less than 20.0 mg/kg. Results are included below in Table 1 and on Figure 3. The AES Field Screening Report is attached.

Table 1. Field Screening VOCs and TPH Results
San Juan 30-6 #489 Release Assessment, October 2013

|           | _               | Sample            | VOCs             | Field          |
|-----------|-----------------|-------------------|------------------|----------------|
| Sample ID | Date<br>Sampled | Depth<br>(ft bgs) | via OVM<br>(ppm) | TPH<br>(mg/kg) |
|           | CD Action Lev   |                   | 100              | 1,000          |
|           |                 | Surface           | 0.0              | <20.0          |
| SB-1      | 10/29/13 -      | 2                 | 0.0              | <20.0          |
| CD 2      | 10/20/12        | Surface           | 0.0              | NA             |
| SB-2      | 10/29/13 -      | 2                 | 0.0              | <20.0          |
| CD 3      | 10/29/13 -      | Surface           | 0.0              | <20.0          |
| SB-3      | 10/29/13 -      | 2                 | NA               | NA             |
| SB-4      | 10/29/13 -      | Surface           | 0.3              | NA             |
| 30-4      | 10/29/13        | 1.4               | NA               | NA             |
| SB-5      | 10/29/13 -      | Surface           | 0.0              | NA             |
| 30-3      | 10/23/13        | 2                 | 0.0              | NA             |
| SB-6      | 10/29/13 -      | Surface           | 0.0              | <20.0          |
| 36-0      | 10/25/13        | 0.67              | NA               | NA             |
| CD 7      | 10/29/13 -      | Surface           | 0.0              | NA NA          |
| SB-7      | 10/29/15        | 2                 | NA               | NA             |
| SB-8      | 10/29/13        | Surface           | 0.8              | <20.0          |

| Sample ID | Date<br>Sampled | Sample<br>Depth<br>(ft bgs) | VOCs<br>via OVM<br>(ppm) | Field<br>TPH<br>(mg/kg) |
|-----------|-----------------|-----------------------------|--------------------------|-------------------------|
| NMO       | CD Action Lev   | el*                         | 100                      | 1,000                   |
|           |                 | 2                           | NA                       | NA                      |
| OS-1      | 10/29/13        | 0 to 0.5                    | 0.0                      | <20.0                   |
| OS-2      | 10/29/13        | 0 to 0.5                    | NA                       | NA                      |
| OS-3      | 10/29/13        | 0 to 0.5                    | 0.0                      | <20.0                   |
| OS-4      | 10/29/13        | 0 to 0.5                    | 0.0                      | <20.0                   |
| OS-5      | 10/29/13        | 0 to 0.5                    | NA                       | NA                      |
| OS-6      | 10/29/13        | 0 to 0.5                    | NA                       | NA                      |
| OS-7      | 10/29/13        | 0 to 0.5                    | 0.2                      | NA                      |
| OS-8      | 10/29/13        | 0 to 0.5                    | NA                       | NA                      |

NA - not analyzed

Laboratory analyses for SC-1 and SC-2 reported chloride concentrations of 240 mg/kg and 450 mg/kg, respectively. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Chlorides San Juan 30-6 #489 Release Assessment, October 2013

|           | Date          | Sample<br>Depth | Chlorides |
|-----------|---------------|-----------------|-----------|
| Sample ID | Sampled       | (ft bgs)        | (mg/kg)   |
| NMOCD.    | Action Level* |                 | NE        |
| SC-1      | 10/29/13      | surface         | 240       |
| SC-2      | 10/29/13      | 0 to 0.5        | 450       |
|           |               |                 |           |

NE - not established

## 3.0 Conclusions and Recommendations

On October 29, 2013, AES conducted a release assessment at the San Juan 30-6 #489. The release resulted when rain water within the containment berm broke through the berm and traveled offsite. Action levels for releases are determined by the NMOCD

<sup>\*</sup>Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)

<sup>\*</sup>Action level determined by the NMOCD ranking score per NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993)

ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10.

Release assessment field screening results were below the NMOCD action level of 100 ppm VOCs and 1,000 mg/kg TPH in all samples. The highest VOC concentration was reported in SB-8 with 0.8 ppm, and each sample field screened for TPH reported concentrations of less than 20.0 mg/kg. Laboratory analyses for SC-1 and SC-2 were collected in addition to field screening results. Chloride concentrations were measured at 240 mg/kg in SC-1 and 450 mg/kg in SC-2.

Based on final field screening and laboratory analytical results of the release assessment at the San Juan 30-6 #489, VOC and TPH concentrations were reported below applicable NMOCD action levels.

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** 

Elystet V MiNdly

David & Reue

Elizabeth McNally, PE

### Attachments:

Figure 1. Topographic Site Location Map

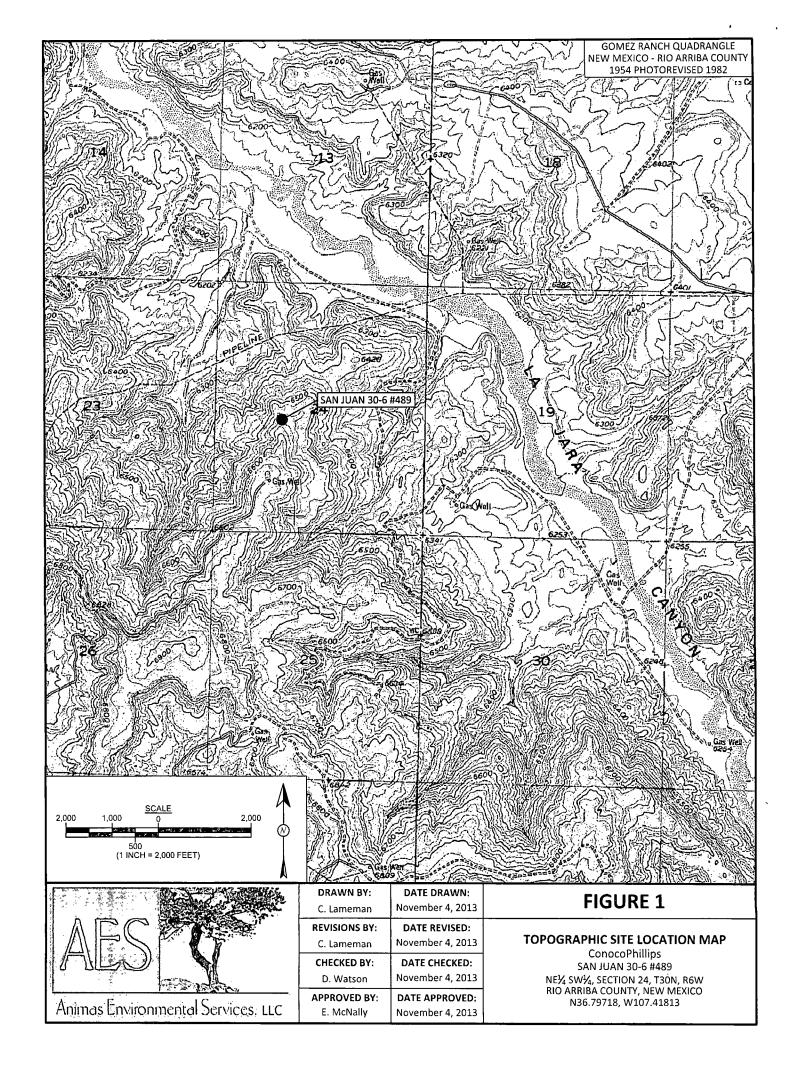
Figure 2. Aerial Site Map, October 2013

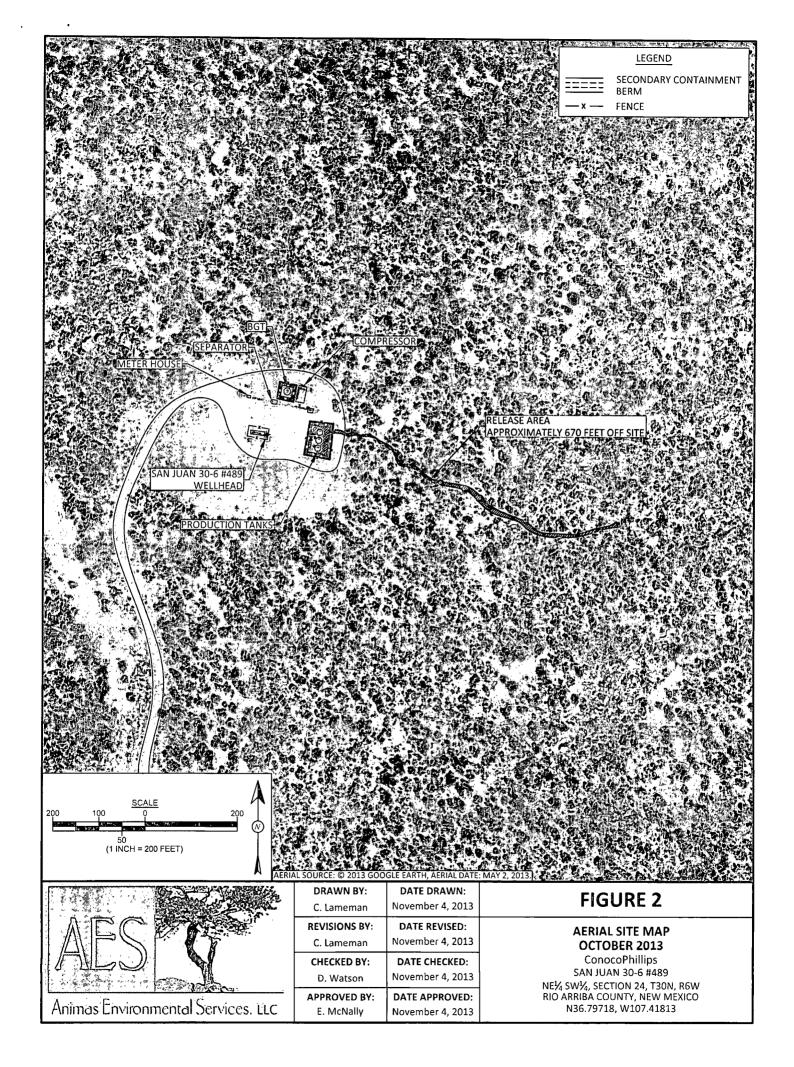
Figure 3. Release Assessment Sample Locations and Results, October 2013

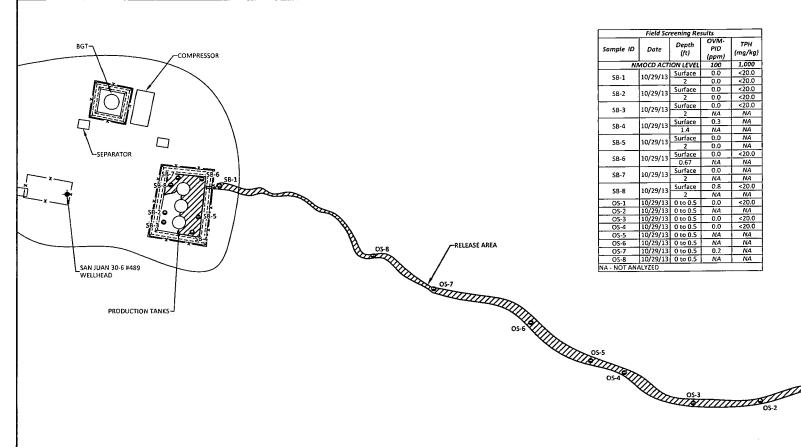
AES Field Screening Report 102913

Hall Laboratory Analytical Report 1310D98

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\ConocoPhillips\SJ 30-6 #489\San Juan 30-6 #489 Release Assessment Report 020714.docx







| ι         | ts          |               |                      |
|-----------|-------------|---------------|----------------------|
| Sample ID | Date        | Depth<br>(ft) | Chlorides<br>(mg/kg) |
| Sample ID | CD ACTION L | EVEL          | NE                   |
| SC-1      | 10/29/13    | Surface       | 240                  |
| SC-2      | 10/29/13    | 0 to 0.5      | 450                  |

SC-1 WAS A COMPOSITE SAMPLE OF SB-2 THROUGH SB-8 AT THE SURFACE. SC-2 WAS A COMPOSITE SAMPLE OF OS-1 THROUGH O'S-8. ALL SAMPLES WERE ANALYZED PER EPA METHOD 300.0. NE - NOT ESTABLISHED

## FIGURE 3

#### RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS OCTOBER 2013

ConocoPhillips SAN JUAN 30-6 #489 NE½ SW½, SECTION 24, T30N, R6W RIO ARRIBA COUNTY, NEW MEXICO N36.79718, W107.41813



#### Animas Environmental Services, LLC

| DATE DRAWN:<br>November 4, 2013    |
|------------------------------------|
| DATE REVISED:<br>February 3, 2014  |
| DATE CHECKED:<br>February 3, 2014  |
| DATE APPROVED:<br>February 3, 2014 |
|                                    |

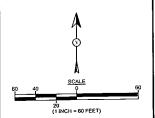
#### LEGEND

SAMPLE LOCATIONS

===== SE

SECONDARY CONTAINMENT BERM

--- x -- FENCE



# **AES Field Screening Report**

AES V

Animas Environmental Services, u.c.

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3084

Client: ConocoPhillips

Project Location: San Juan 30-6 #489

Date: 10/29/2013

Matrix: Soil

| Sample ID      | Collection<br>Date | Collection<br>Time | OVM<br>(ppm) | Field TPH*<br>(mg/kg) | Field TPH<br>Analysis<br>Time | TPH PQL<br>(mg/kg) | DF            | TPH<br>Analysts<br>Initials           |  |  |  |  |  |  |
|----------------|--------------------|--------------------|--------------|-----------------------|-------------------------------|--------------------|---------------|---------------------------------------|--|--|--|--|--|--|
| SB-1 @ surface | 10/29/2013         | 11:50              | 0.0          | 17.8                  | 13:42                         | 20.0               | 1             | DAW                                   |  |  |  |  |  |  |
| SB-1 @ 2'      | 10/29/2013         | 11:52              | 0.0          | 7.0                   | 13:45                         | 20.0               | 1_            | DAW                                   |  |  |  |  |  |  |
| SB-2 @ surface | 10/29/2013         | 12:30              | 0.0          | Not Analyzed for TPH  |                               |                    |               |                                       |  |  |  |  |  |  |
| SB-2 @ 2'      | 10/29/2013         | 12:33              | 0.0          | 11.1                  | 13:48                         | 20.0               | 1             | DAW                                   |  |  |  |  |  |  |
| SB-3 @ surface | 10/29/2013         | 12:35              | 0.0          | 12.4                  | 13:50                         | 20.0               | 1             | DAW                                   |  |  |  |  |  |  |
| SB-3 @ 2'      | 10/29/2013         | 12:40              | NA           |                       | Not                           | Analyzed for T     | PH            |                                       |  |  |  |  |  |  |
| SB-4 @ surface | 10/29/2013         | 12:45              | 0.3          |                       | Not                           | Analyzed for T     | <br>РН        |                                       |  |  |  |  |  |  |
| SB-4 @ 1.4'    | 10/29/2013         | 12:50              | NA           |                       | Not .                         | Analyzed for T     | —————<br>РН   |                                       |  |  |  |  |  |  |
| SB-5 @ surface | 10/29/2013         | 12:55              | 0.0          |                       | Not .                         | Analyzed for T     | PH            | · · · · · · · · · · · · · · · · · · · |  |  |  |  |  |  |
| SB-5 @ 2'      | 10/29/2013         | 13:00              | 0.0          |                       | Not .                         | Analyzed for T     | PH            |                                       |  |  |  |  |  |  |
| SB-6 @ surface | 10/29/2013         | 13:05              | 0.0          | 17.8                  | 13:55                         | 20.0               | 1             | DAW                                   |  |  |  |  |  |  |
| SB-6 @ 8"      | 10/29/2013         | 13:08              | NA           |                       | Not                           | Analyzed for T     | <u></u><br>РН |                                       |  |  |  |  |  |  |
| SB-7 @ surface | 10/29/2013         | 13:10              | 0.0          |                       | Not                           | Analyzed for T     | РН            |                                       |  |  |  |  |  |  |

| Sample ID SB-7 @ 2' | Collection Date 10/29/2013 | Collection<br>Time<br>13:15 | OVM<br>(ppm) | Field TPH*<br>(mg/kg) | Field TPH<br>Analysis<br>Time | TPH PQL<br>(mg/kg)<br>Analyzed for T | DF_ | TPH<br>Analysts<br>Initials |  |  |  |  |  |
|---------------------|----------------------------|-----------------------------|--------------|-----------------------|-------------------------------|--------------------------------------|-----|-----------------------------|--|--|--|--|--|
| SB-8 @ surface      | 10/29/2013                 | 13:18                       | 0.8          | 9.72                  | 14:00                         | 20.0                                 | 1   | DAW                         |  |  |  |  |  |
| SB-8 @ 2'           | 10/29/2013                 | 13:20                       | NA           | Not Analyzed for TPH  |                               |                                      |     |                             |  |  |  |  |  |
| OS-1                | 10/29/2013                 | 11:15                       | 0.0          | 9.72                  | 12:10                         | 20.0                                 | 1   | DAW                         |  |  |  |  |  |
| OS-2                | 10/29/2013                 | 11:20                       | NA           |                       | Not .                         | Analyzed for T                       | PH  |                             |  |  |  |  |  |
| OS-3                | 10/29/2013                 | 11:23                       | 0.0          | 4.34                  | 12:12                         | 20.0                                 | 1   | DAW                         |  |  |  |  |  |
| OS-4                | 10/29/2013                 | 11:25                       | 0.0          | 4.34                  | 12:15                         | 20.0                                 | 11  | DAW                         |  |  |  |  |  |
| OS-5                | 10/29/2013                 | 11:30                       | NA           | Not Analyzed for TPH  |                               |                                      |     |                             |  |  |  |  |  |
| OS-6                | 10/29/2013                 | 11:35                       | NA           |                       | Not .                         | Analyzed for T                       | РН  |                             |  |  |  |  |  |
| OS-7                | 10/29/2013                 | 11:38                       | 0.2          |                       | Not ,                         | Analyzed for T                       | РН  |                             |  |  |  |  |  |
| OS-8                | 10/29/2013                 | 11:40                       | NA           |                       | Not .                         | Analyzed for T                       | РН  |                             |  |  |  |  |  |

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.

Analyst:

Debrah Water

Page 2

Report Finalized: 10/29/13



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

November 06, 2013

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

FAX

RE: CoP San Juan 30-6 #489 OrderNo.: 1310D98

### Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/30/2013 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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 1310D98

Date Reported: 11/6/2013

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental

CoP San Juan 30-6 #489

Lab ID: 1310D98-001

Project:

Client Sample ID: SC-1 (w/in berm@sur)

Collection Date: 10/29/2013 2:20:00 PM

Received Date: 10/30/2013 9:44:00 AM

| Analyses                 | Result | RL Qu | al Units | DF | Date Analyzed      | Batch           |
|--------------------------|--------|-------|----------|----|--------------------|-----------------|
| EPA METHOD 300.0: ANIONS |        |       |          |    | Anal               | yst: <b>JRR</b> |
| Chloride                 | 240    | 7.5   | mg/Kg    | 5  | 10/31/2013 1:33:08 | PM 10107        |

Matrix: SOIL

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

### 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

Page 1 of 3

- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# **Analytical Report**

## Lab Order 1310D98

Date Reported: 11/6/2013

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental

CoP San Juan 30-6 #489

Client Sample ID: SC-2 (offsite@sur)

Collection Date: 10/29/2013 2:25:00 PM

Lab ID: 1310D98-002

Project:

Matrix: SOIL

Received Date: 10/30/2013 9:44:00 AM

| Analyses                 | Result | RL Qua | Units | DF Date Analyzed       | Batch             |
|--------------------------|--------|--------|-------|------------------------|-------------------|
| EPA METHOD 300.0: ANIONS |        |        |       | Ana                    | ilyst: <b>JRR</b> |
| Chloride                 | 450    | 30     | mg/Kg | 20 11/4/2013 2:38:06 F | PM 10107          |

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

### 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

Page 2 of 3

- Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1310D98

06-Nov-13

Client: Project: Animas Environmental CoP San Juan 30-6 #489

Sample ID MB-10107

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 10107

RunNo: 14470

Prep Date: 10/30/2013

Analysis Date: 10/30/2013

SeqNo: 415718

Units: mg/Kg

Analyte

Result PQL ND 1.5

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit**  Qual

Chloride

Sample ID LCS-10107

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID:

LCSS

RunNo: 14470

Prep Date:

10/30/2013

Batch ID: 10107 Analysis Date: 10/30/2013

PQL

SeqNo: 415719

Units: mg/Kg HighLimit

%RPD

**RPDLimit** 

Qual

Analyte

15.00

0

94.0

Chloride

14

1.5

SPK value SPK Ref Val

%REC

90

LowLimit

110

Qualifiers:

Value exceeds Maximum Contaminant Level.

Value above quantitation range Е

Analyte detected below quantitation limits

RSD is greater than RSDlimit

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

Sample pH greater than 2 for VOA and TOC only.

RLReporting Detection Limit Page 3 of 3



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

# Sample Log-In Check List

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com Client Name: **Animas Environmental** Work Order Number: 1310D98 RcptNo: 1 Received by/date: Logged By: Michelle Garcia 10/30/2013 9:44:00 AM Completed By: Michelle Garcia 10/30/2013 10:12:22 AM Reviewed By: Chain of Custody 1 Custody seals intact on sample bottles? Yes 🗌 No  $\square$ Not Present No 🗆 2. Is Chain of Custody complete? Yes 🗹 Not Present 3. How was the sample delivered? Courier Log In NA 🗆 No 🗆 Yes 🗹 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C No 🗌 NA 🗌 No 🗌 6. Sample(s) in proper container(s)? Yes 🗸 No 🗆 7. Sufficient sample volume for indicated test(s)? Yes 🗹 No 🗆 V 8. Are samples (except VOA and ONG) properly preserved? Yes No 🗹 Yes 🔲 NA 🗆 9. Was preservative added to bottles? No 🗌 No VOA Viais 🗹 10.VOA vials have zero headspace? Yes No 🗹 11. Were any sample containers received broken? Yes # of preserved bottles checked Yes 🗹 No 🗆 for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 🗆 13. Are matrices correctly identified on Chain of Custody? No 🗆 14. Is it clear what analyses were requested? Yes V No 🔲 Checked by: Yes 🔽 15. Were all holding times able to be met? (if no, notify customer for authorization.) Special Handling (if applicable) Yes 🗌 No 🗆 NA 🗹 16. Was client notified of all discrepancies with this order? Person Notified: Date: By Whom: 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 Good

|             | Chain-of-Custody Record |  |  | Turn-Around                                       | Tum-Around Time:        |                                  |  |                |                             | L                  | IA                 |                  | F             | NV  | / T E           | 20          | NI              | ИF                | NT        | ΑI |   |
|-------------|-------------------------|--|--|---|-------------------------|----------------------------------|--|----------------|-----------------------------|--------------------|--------------------|------------------|---------------|---|-----------------|-------------|-----------------|-------------------|-----------|----|---|
| Client:     | Anm                     | us 5m  | lir on mental                            | X Standard  |                         |                                  | ] [  | - down         |                             |                    |                    |                  |               |   |                 |             |                 |                   | TO        |    | 7   |
|             |                         | Ville  |  | Project Name                                      |                         | _                                |  |                | 2.00                        | ,                  | www                | v.hai            | lenv          | rironi  | ment            | tal.co      | om              |                   |           |    |   |
| Mailing     | Address                 | 624  | E Comanche                               | CoP Son   | Juan 3                  | 0-6#489                          | 4901 Hawkins NE - Albuquerque, NM 87109                              |                |                             |                    |                    |                  |               |   |                 |             |                 |                   |           |    |   |
|             |                         |  | n 87401                                  | Project #:  |                         |                                  | Tel. 505-345-3975 Fax 505-345-4107 -Analysis Request                 |                |                             |                    |                    |                  |               |   |                 |             |                 |                   |           |    |   |
|             |                         | 564  |  |   |                         |                                  |  |                |                             |                    |                    | Α                | naly          | /sis  | Req             | ueś         |                 | 3 <del>4</del> 4  |           |    | in the second   |
| email o     |                         |  |  | Project Mana                                      | ger:                    |                                  |  | nly)           | ဂ္ဂါ                        |                    | Ì                  |                  |               | ( <del>*</del> 0  |                 |             |                 |                   |           | 1  |   |
| QA/QC I     | Package:<br>dard        |  | ☐ Level 4 (Full Validation)              | D. Watson   |                         |                                  | TMB's (8021)   | TPH (Gas only) | 30 / MI                     |                    |                    | SIMS)            |               | PO4,S   | PCB's           |             |                 |                   |           |    |   |
| Accredi     |                         | ☐ Othe   | er                                       | Sampler: D Watson Onice & Serves: D No.           |                         |                                  | + TMB'   | + TPH          | % / DF                      | 18.1)              | 04.1)              | 3270             |               | 3,NO <sub>2</sub>   | 3 / 8082        |             | (A)             | . g               |           |    | or N  |
| □ EDD       | (Type)                  |  |  | Sample Tem  | derature <b>de la c</b> | Ing a second                     | BE   | <b>BE</b>      | 9                           | 0 4                | Z<br>Z             | o                | tals          | N.  | ides            | (4)         | Ş               | ξ                 |           |    | ح   |
| Date        | Time                    | Matrix   | Sample Request ID                        | Container<br>Type and #                           | Preservative<br>Type    | HEALING                          | BTEX + MTBE  | BTEX + MTBE +  | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8 | RCRA 8 Metals | Anions (F,CI,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> ) | 8081 Pesticides | 8260B (VOA) | 8270 (Semi-VOA) | 300 o chlor       |           |    | Air Bubbles (Y or N)  |
| -29-13      | 1420                    | Son  | SC-1 (berm@sur)                          | 1-40z   |                         | -001                             |  |                |                             |                    |                    |                  |               |   |                 |             |                 | X                 |           |    |   |
| 0-29-13     |                         | Soil   | SC-2 (offsite (Sur)                      | 1-402   |                         | -002                             |  |                |                             |                    |                    |                  |               |   |                 |             |                 | X                 |           |    |   |
|             | , i                     |  |  |   |                         |                                  |  |                |                             | -                  |                    |                  |               |   |                 |             |                 |                   |           |    |   |
|             |                         |  |  |   |                         |                                  |  |                |                             |                    |                    |                  |               |   | :               |             |                 |                   | $\bot$    |    |   |
|             |                         |  |  |   |                         |                                  |  | OI             | - C0                        | NS                 | DIV                | DI               | 3T.           | 3   |                 |             |                 |                   |           |    | $oldsymbol{ol}}}}}}}}}}}}}}}$ |
|             |                         |  |  |   |                         | ·<br>                            |  |                | 1                           | Y \$               |                    |                  |               |   |                 |             |                 |                   |           |    |   |
|             |                         |  |  |   |                         |                                  |  |                |                             |                    | ڵ                  | .017             |               |   |                 |             |                 |                   | $\bot$    |    |   |
|             |                         | <u></u>  |  | :   |                         |                                  |  |                |                             | [                  |                    |                  |               |   | :               |             |                 | $\dashv$          |           |    | _   |
|             |                         |  |  |   |                         |                                  |  |                |                             |                    | _                  | _                |               |   |                 |             |                 | $\longrightarrow$ |           |    | <u> </u>  |
|             |                         | ļ <u>.</u>   |  |   |                         |                                  |  |                |                             | _                  | _                  | _                | -             |   |                 |             |                 | $\square$         |           |    | ╀   |
| <del></del> |                         |  |  |   |                         |                                  |  |                |                             | $\dashv$           | _                  |                  |               |   |                 |             |                 | $\dashv$          | +         |    | ╀   |
| Date:       | Time:                   | Relinguish   | ed by:                                   | Received by:                                      | :                       | Date Time                        | Ren  | nark (         |                             |                    |                    |                  |               | 90.00   |                 |             |                 |                   |           | Щ  | 上   |
| 29/13       | 1717<br>Time:           | Relinquished by:  Relinquished by:  Relinquished by: |  | Mitte Walter 10/29/13 1717 Received by: Date Time |                         |                                  | Remarks: Bruto ConocoPhillips Wo: Area: 8 Reque sted by: Lisa Hunter |                |                             |                    |                    |                  |               |   |                 |             |                 |                   |           |    |   |
| hg 13       | 1740                    | Most   | to Wolle                                 | Mill  | Ca                      | 10/30/13 0944                    | ,use   | v · K          | (GA1                        |                    |                    |                  |               |   |                 |             |                 |                   |           |    |   |
| , tt        | necessary,              | samples subr   | mitted to Hall Environmental may be subc | ontracted to other ac                             | credited Jaboratorie    | s. This serves as notice of this | possib   | oility. A      | Any sul                     | b-contr            | acted              | data v           | will be       | dearl   | y nota          | ted on      | the ar          | natytica          | I report. |    |   |