

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

For State Use Only:  
Registration # NM3-001

Form C-137 EZ  
Revised August 3, 2009

Submit 1 Copy to Santa Fe Office

**REGISTRATION/ FINAL CLOSURE REPORT FOR SMALL LANDFARM**

Section 7 of 19.15.36 NMAC defines a small landfarm as a centralized landfarm of two acres or less that has a total capacity of 2000 cubic yards or less in a single lift of eight inches or less, remains active for a maximum of three years from the date of its registration and that receives only petroleum hydrocarbon-contaminated soils (excluding drill cuttings) that are exempt or non-hazardous waste. The operator shall operate only one active small landfarm per governmental section at any time.

**GENERAL INFORMATION**

- 1.  Small Landfarm Registration  Small Landfarm Final Closure Report\*  
(\*Must be submitted within three years from the registration date)
- 2. Operator: ConocoPhillips Company  
Address: 3401 E. 30<sup>th</sup> St. Farmington, NM 87401  
Contact Person: Shelly Cook-Cowden Phone: 505-324-5140
- 3. Location:           /4           /4 Section 18 Township 28N Range 7W

**REGISTRATION**

- 1. As operator, are you the surface estate owner of the proposed site?  Yes  No If no, please attach a certification statement that demonstrates a written agreement is established with the surface estate owner authorizing the use of the site for the proposed small landfarm.
- 2. Will the proposed small landfarm comply with the siting requirements of Subsections A and B of 19.15.36.13 NMAC?  
 Yes  No
  - A. Depth to ground water.
    - No small landfarm shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.
  - B. No surface waste management facility shall be located:
    - within 200 feet of a watercourse, lakebed, sinkhole or playa lake;
    - within an existing wellhead protection area or 100-year floodplain;
    - within, or within 500 feet of, a wetland;
    - within the area overlying a subsurface mine;
    - within 500 feet from the nearest permanent residence, school, hospital, institution or church in existence at the time of initial application; or
    - within an unstable area, unless the operator demonstrates that engineering measures have been incorporated into the surface waste management facility design to ensure that the surface waste management facility's integrity will not be compromised.
- 3. Attach a plat and topographic map showing the small landfarm's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the small landfarm site; watercourses; fresh water sources, including wells and springs; oil and gas wells or other production facilities; and inhabited buildings within one mile of the site's perimeter.  
Based on the information provided with this submittal, registration of a small landfarm can only be granted if the operator complies with the following understandings and conditions:

- The operator shall operate only one active small landfarm per governmental section at any time. No small landfarm shall be located more than one mile from the operator's nearest oil or gas well or other production facility.
- The operator shall accept only exempt or non-hazardous wastes consisting of soils (excluding drill cuttings) generated as a result of accidental releases from production operations, that are predominantly contaminated by petroleum hydrocarbons, do not contain free liquids, would pass the paint filter test and where testing shows chloride concentrations are 500 mg/kg or below.
  - The operator shall berm the landfarm to prevent rainwater run-on and run-off.
  - The operator shall post a sign at the site readable from a distance of 50 feet and listing the operator's name; small landfarm registration number; location by unit letter, section, township and range; expiration date; and an emergency contact telephone number.
- The operator shall spread and disk contaminated soils in a single eight inch or less lift within 72 hours of receipt. The operator shall conduct treatment zone monitoring to ensure that the TPH concentration, as determined by EPA SW-846 method 8015M or EPA method 418.1 or other EPA method approved by the division, does not exceed 2500 mg/kg; and that the chloride

concentration, as determined by EPA method 300.1, does not exceed 500 mg/kg. The operator shall treat soils by disking at least once a month and by watering and adding bioremediation enhancing materials when needed.

The operator shall maintain records reflecting the generator, the location of origin, the volume and type of oil field waste, the date of acceptance and the hauling company for each load of oil field waste received. The division shall post on its website each small landfarm's location, operator and registration date. In addition, the operator shall maintain records of the small landfarm's remediation activities in a form readily accessible for division inspection. The operator shall maintain all records for five years following the small landfarm's closure.

The operator shall submit a final closure report on a form C-137 EZ, together with photographs of the closed site, to the environmental bureau in the division's Santa Fe office.

CERTIFICATION

I hereby certify that the information submitted with this registration is true, accurate and complete to the best of my knowledge and belief and agree to the understandings and conditions of this registration.

Name: Shelly Cook-Cowden Title: Environmental Technician

Signature: Shelly Cook-Cowden Date: August 10, 2009

E-mail Address: Shelly.g.cook-cowden@ConocoPhillips.com

OCD REGISTRATION: [X] Approved. Date: 8/13/09 [ ] Denied. Date: \_\_\_\_\_

Comments: \_\_\_\_\_

OCD Representative Signature: [Signature]

Title: Environmental Engineer OCD Registration Number: NM3-001

FINAL CLOSURE REPORT

Were the landfarmed soils able to achieve the closure performance standards, listed below, within three years from the registration date? [X] Yes [ ] No (Please provide laboratory analytical results)

- benzene, as determined by EPA SW-846 method 8021 B or 8260B, shall not exceed 0.2 mg/kg;
Total BTEX, as determined by EPA SW-846 method 8021 B or 8260B, shall not exceed 50 mg/kg;
TPH, as determined by EPA SW-846 method 418.1 or other EPA method approved by the division, shall not exceed 2500 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, shall not exceed 500 mg/kg; and
chlorides, as determined by EPA method 300.1, shall not exceed 500 mg/kg.

If yes, were the additional closure requirements listed below satisfied? [X] Yes [ ] No (Please provide photos)

- The operator shall re-vegetate soils remediated to the closure performance standards if left in place in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC.
If the operator returns remediated soils to the original site, or with division permission, recycles them, re-vegetate the cell filled in with native soil to the standards in Paragraph (6) of Subsection A of 19.15.36.18 NMAC;
The operator shall remove berms on the small landfarm and buildings, fences, roads and equipment; and
The operator shall clean up the site and collect one vadose zone soil sample from three to five feet below the middle of the treatment zone, or in an area where liquids may have collected due to rainfall events; the vadose zone soil sample shall be collected and analyzed using the methods specified above for TPH, BTEX and chlorides.

If no, were the landfarmed soils that have not or cannot be remediated to the closure performance standards within three years removed to a division-approved surface waste management facility, and the cell filled in with native soil to the standards in Paragraph (6) of Subsection A of 19.15.36.18 NMAC and re-vegetated? [ ] Yes [ ] No (Please provide photos)

CERTIFICATION

I hereby certify that the information submitted with this final closure report is true, accurate and complete to the best of my knowledge and belief.

Name: Shelly G. Cook-Cowden Title: Environmental Coordinator

Signature: [Signature] Date: 8-16-12

E-mail Address: Shelly.g.cook-cowden@conocophillips.com

OCD CLOSURE REVIEW: [X] Closure Approved. Date: September 1, 2012 [ ] Closure Denied. Date: \_\_\_\_\_

Comments: \_\_\_\_\_

OCD Representative Signature: [Signature]

Title: Environmental Specialist OCD Registration Number: NM3-001



Animas Environmental Services, LLC

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

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

Durango, Colorado  
970-403-3274

August 20, 2012

Shelly Cook-Cowden  
ConocoPhillips  
3401 East 30<sup>th</sup> Street, Office #490  
Farmington, NM 87402

**RE: Landfarm Closure Report  
San Juan 28-7 #199G  
Rio Arriba County, New Mexico**

Dear Ms. Cook-Cowden:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the closure of a small landfarm at ConocoPhillips (CoP) San Juan 28-7 #199G, located in Rio Arriba County, New Mexico.

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## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 28-7 #199G

Legal Description - NE¼ SW¼, Section 18, T28N, R7W, Rio Arriba County, New Mexico

Landfarm Latitude/Longitude - N36.66063 and W107.61574, respectively

Land Jurisdiction - Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, July 2012

### 1.2 Landfarm Sampling

AES was initially contacted by Shelly Cook-Cowden, CoP representative, on July 10, 2012, and the same day, Tom Long of AES mobilized to the location.

AES personnel collected six soil samples from the landfarm. Four samples were collected from within the treatment zone, one sample was composited from the four treatment zone samples, and one sample was collected from the vadose zone per New Mexico Administrative Code (NMAC) 19.15.36.16E.

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## 2.0 Soil Sampling

On July 10 and August 17, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-4, and Vadose Zone) and one 4-point composite soil sample (Treatment Zone) from the landfarm for field screening and laboratory analysis. Soil samples S-1 through S-4 were collected from approximately 0.3 foot below ground surface (bgs) of the landfarm within the treatment zone for field screening of volatile organic compounds (VOCs). Soil sample Treatment Zone, a 4-point composite of S-1 through S-4, was submitted for laboratory analysis. Soil sample Vadose Zone was collected from the northwest corner of the landfarm, the lowest point within the landfarm, approximately 0.75 feet bgs and was submitted for laboratory analysis. AES was unable to collect a vadose zone sample from 3 feet to 5 feet bgs due to hard sandstone at 0.75 to 1 foot bgs across the location. Soil sample locations are included on Figure 3.

### 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.

### 2.2 Laboratory Analyses

The soil samples (Treatment Zone and Vadose Zone) 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. The samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. The soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;
- TPH per USEPA Method 418.1;
- Chloride per USEPA Method 300.0.

Shelly Cook-Cowden  
 SJ 28-7 #199G Landfarm Closure Report  
 August 20, 2012  
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### 2.3 Field and Laboratory Analytical Results

Field screening for VOCs via OVM showed readings ranging from 1.2 ppm in vadose zone sample up to 2.9 ppm in S-3. Field screening results are summarized in Table 1.

Table 1. Soil Field Screening VOCs  
 SJ 28-7 #199G Landfarm Closure, July 2012

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Depth below BGT (ft)</b>	<b>VOCs OVM Reading (ppm)</b>
S-1	07/10/12	0.3	1.5
S-2	07/10/12	0.3	1.8
S-3	07/10/12	0.3	2.9
S-4	07/10/12	0.3	2.3
Treatment Zone	07/10/12	0.3	2.3
Vadose Zone	07/10/12	0.75	1.2

Laboratory analytical results showed that the benzene and total BTEX concentrations in both samples were less than 0.050 mg/kg and 0.25 mg/kg, respectively. Total TPH concentrations were reported below the NMOCD action level of 2,500 mg/kg in both the treatment zone and vadose zone samples. Concentrations of TPH as GRO/DRO were reported at less than 5.0 mg/kg GRO and 51 mg/kg DRO in the treatment zone sample, while the vadose zone sample had GRO/DRO concentrations reported below laboratory detection limits. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg in both samples. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results,  
 SJ 28-7 #199G Landfarm Closure, July 2012

<b>Sample ID</b>	<b>Date Sampled</b>	<b>Depth (ft)</b>	<b>Benzene (mg/kg)</b>	<b>BTEX (mg/kg)</b>	<b>TPH-418.1* (mg/kg)</b>	<b>TPH-GRO (mg/kg)</b>	<b>TPH-DRO (mg/kg)</b>	<b>Chlorides (mg/kg)</b>
<b>NMOCD Action Level (NMAC 19.15.36.16E)</b>			<b>0.2</b>	<b>50</b>	<b>2,500</b>	<b>500</b>		<b>250</b>
Treatment Zone	07/10/12	0.3	<0.050	<0.25	290	<5.0	51	<30
Vadose Zone	07/10/12	0.75	<0.050	<0.25	<20	<5.0	<10	<30

\*Samples analyzed for TPH-418.1 were collected on August 17, 2012.

Shelly Cook-Cowden  
SJ 28-7 #199G Landfarm Closure Report  
August 20, 2012  
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### 3.0 Reclamation Activities

ConocoPhillips removed berms, reshaped the landfarm, and spread topsoil at the location during August 2012. The site was reclaimed/reseeded to BLM specifications which included spreading approximately 14.63 pounds of Badlands seed mix on Monday, August 6, 2012. A photo log documenting completed reclamation at the site is attached.

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### 4.0 Summary

NMOCD closure requirements for small landfarms are specified in NMAC 19.15.36.16E, and site activities were conducted following these procedures. Site activities included confirmation soil sampling and landfarm reclamation.

Analytical results reported benzene concentrations in the treatment and vadose zone samples below the laboratory detection limit of 0.050 mg/kg, and total BTEX concentrations were reported below the NMOCD action level of 50 mg/kg. Total TPH-418.1 was reported below the NMOCD threshold of 2,500 mg/kg in both samples. TPH as GRO/DRO was reported below the NMOCD action level of 500 mg/kg in both the treatment and vadose zone samples. Chloride concentrations for both samples were below the NMOCD action level of 250 mg/kg.

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

Sincerely,



Deborah Watson, Geologist  
Project Manager



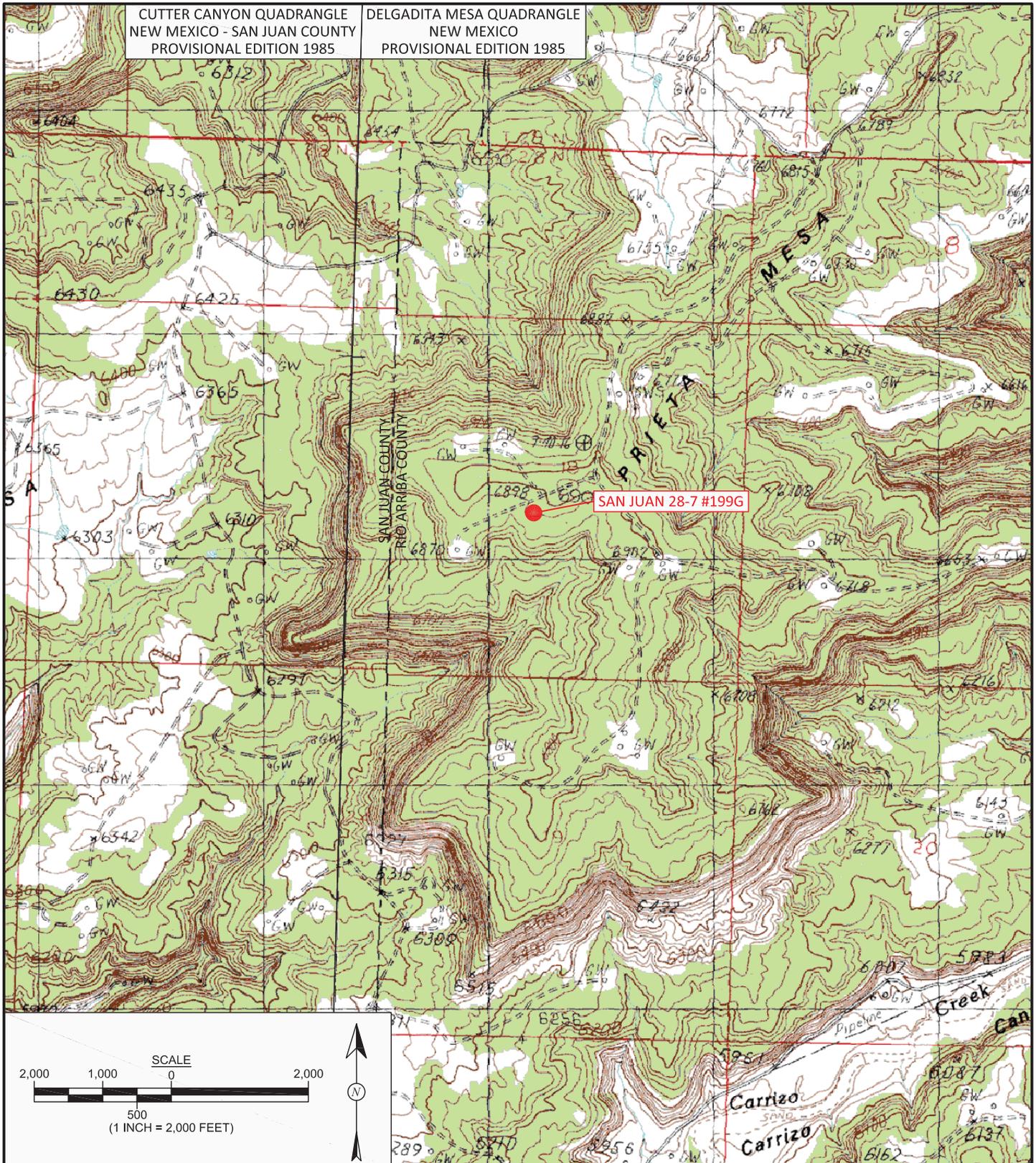
Elizabeth McNally, P.E.

Shelly Cook-Cowden  
SJ 28-7 #199G Landfarm Closure Report  
August 20, 2012  
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Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, July 2012
- Figure 3. Sample Locations and Results, July and August 2012
- Hall Analytical Report 1207377
- Hall Analytical Report 1208800
- Photo Log, August 2012

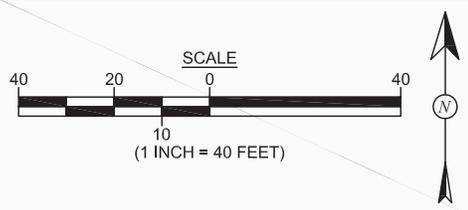
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<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 12, 2012
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 12, 2012
<b>CHECKED BY:</b> T. Ross	<b>DATE CHECKED:</b> July 12, 2012
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 12, 2012

**FIGURE 1**

**TOPOGRAPHIC SITE LOCATION MAP**  
ConocoPhillips  
SAN JUAN 28-7 #199G  
RIO ARRIBA COUNTY, NEW MEXICO  
NE¼ SW¼, SECTION 18, T28N, R7W  
N36.66063, W107.61574



AERIAL SOURCE: (c) 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE

	<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 12, 2012	<h2 style="text-align: center;">FIGURE 2</h2> <p style="text-align: center;"><b>AERIAL SITE MAP JULY 2012</b> ConocoPhillips SAN JUAN 28-7 #199G RIO ARRIBA COUNTY, NEW MEXICO NE¼, SW¼, SECTION 18, T28N, R7W N36.66063, W107.61574</p>
	<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 12, 2012	
	<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> July 12, 2012	
	<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 12, 2012	

**FIGURE 3**

**SAMPLE LOCATIONS AND RESULTS  
JULY AND AUGUST 2012**

ConocoPhillips  
SAN JUAN 28-7 #199G  
RIO ARRIBA COUNTY, NEW MEXICO  
NE¼, SW¼, SECTION 18, T28N, R7W  
N36.66063, W107.61574



**DRAWN BY:** C. Lamean  
**DATE DRAWN:** July 12, 2012

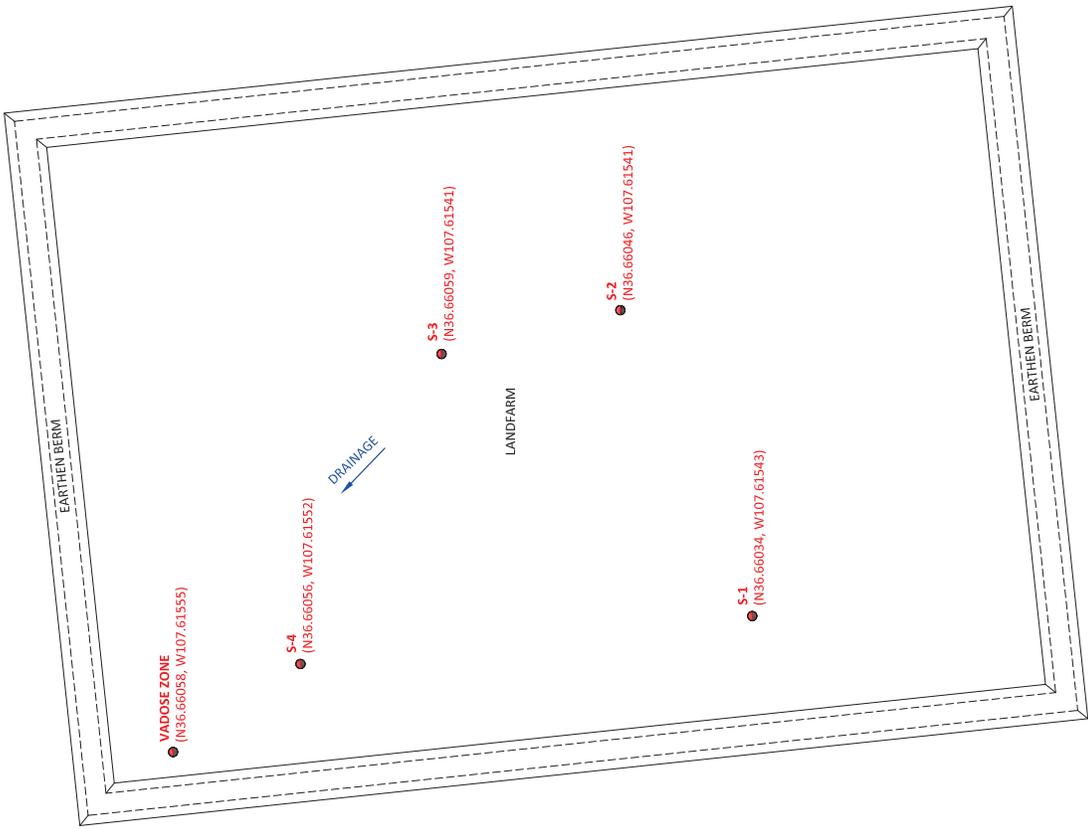
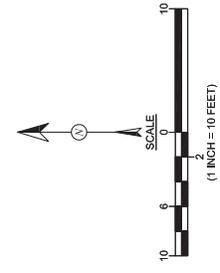
**REVISIONS BY:** C. Lamean  
**DATE REVISED:** August 20, 2012

**CHECKED BY:** D. Watson  
**DATE CHECKED:** August 20, 2012

**APPROVED BY:** E. McNally  
**DATE APPROVED:** August 20, 2012

**LEGEND**

● SAMPLE LOCATIONS  
(JULY 2012 AND AUGUST 2012)



**Field Screening Results**

Sample ID	Date	Depth (ft)	OVM- PID (ppm)
S-1	7/10/12	0.3	1.5
S-2	7/10/12	0.3	1.8
S-3	7/10/12	0.3	2.9
S-4	7/10/12	0.3	2.3
TREATMENT ZONE	7/10/12	0.3	2.3
VADOSE ZONE	7/10/12	0.75	1.2

TREATMENT ZONE IS A COMPOSITE SAMPLE OF S-1 THROUGH S-4.

**Laboratory Analytical Results**

Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH- 418.1* (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
NMOC ACTION LEVEL			10	50	2,500	500		250
TREATMENT ZONE	7/10/12	0.3	<0.050	<0.25	290	<5.0	51	<30
VADOSE ZONE	7/10/12	0.75	<0.050	<0.25	<20	<5.0	<10	<30

ALL SAMPLES ANALYZED PER EPA METHOD 8260B; 418.1, 8015B AND 300.0.  
\*SAMPLES ANALYZED FOR TPH-418.1 WERE COLLECTED ON AUGUST 17, 2012



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)

August 10, 2012

Ross Kennemer

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 486-1776

FAX (505) 324-2022

RE: COP SJ 287 # 199G

OrderNo.: 1207377

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/11/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 17, 2012.

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.

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

**Analytical Report**

Lab Order 1207377

Date Reported: 8/10/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Treatment Zone Composite at 4"

**Project:** COP SJ 287 # 199G

**Collection Date:** 7/10/2012 1:00:00 PM

**Lab ID:** 1207377-001

**Matrix:** MEOH (SOIL)

**Received Date:** 7/11/2012 9:42:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>SCC</b>
Diesel Range Organics (DRO)	51	10		mg/Kg	1	7/11/2012 11:12:20 AM
Motor Oil Range Organics (MRO)	88	50		mg/Kg	1	7/11/2012 11:12:20 AM
Surr: DNOP	108	77.6-140		%REC	1	7/11/2012 11:12:20 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Chloride	ND	30		mg/Kg	20	7/11/2012 12:01:46 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.050		mg/Kg	1	7/11/2012 12:46:35 PM
Toluene	ND	0.050		mg/Kg	1	7/11/2012 12:46:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/11/2012 12:46:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/11/2012 12:46:35 PM
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	7/11/2012 12:46:35 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	1	7/11/2012 12:46:35 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	7/11/2012 12:46:35 PM
Surr: Toluene-d8	96.6	70-130		%REC	1	7/11/2012 12:46:35 PM
<b>EPA METHOD 8015B MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/11/2012 12:46:35 PM
Surr: BFB	98.3	70-130		%REC	1	7/11/2012 12:46:35 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 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  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

**Analytical Report**

Lab Order 1207377

Date Reported: 8/10/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Vadose Zone at 0.75'

**Project:** COP SJ 287 # 199G

**Collection Date:** 7/10/2012 1:35:00 PM

**Lab ID:** 1207377-002

**Matrix:** MEOH (SOIL)

**Received Date:** 7/11/2012 9:42:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>SCC</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/11/2012 11:34:08 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/11/2012 11:34:08 AM
Surr: DNOP	103	77.6-140		%REC	1	7/11/2012 11:34:08 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Chloride	ND	30		mg/Kg	20	7/11/2012 12:38:59 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	0.050		mg/Kg	1	7/11/2012 1:14:55 PM
Toluene	ND	0.050		mg/Kg	1	7/11/2012 1:14:55 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/11/2012 1:14:55 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/11/2012 1:14:55 PM
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%REC	1	7/11/2012 1:14:55 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	7/11/2012 1:14:55 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	7/11/2012 1:14:55 PM
Surr: Toluene-d8	98.4	70-130		%REC	1	7/11/2012 1:14:55 PM
<b>EPA METHOD 8015B MOD: GASOLINE RANGE</b>						Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/11/2012 1:14:55 PM
Surr: BFB	101	70-130		%REC	1	7/11/2012 1:14:55 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 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  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207377

10-Aug-12

**Client:** Animas Environmental Services

**Project:** COP SJ 287 # 199G

Sample ID	<b>MB-2772</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>2772</b>	RunNo:	<b>3969</b>					
Prep Date:	<b>7/11/2012</b>	Analysis Date:	<b>7/11/2012</b>	SeqNo:	<b>113433</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	<b>LCS-2772</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>2772</b>	RunNo:	<b>3969</b>					
Prep Date:	<b>7/11/2012</b>	Analysis Date:	<b>7/11/2012</b>	SeqNo:	<b>113434</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.2	90	110			

Sample ID	<b>1207185-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>2772</b>	RunNo:	<b>3969</b>					
Prep Date:	<b>7/11/2012</b>	Analysis Date:	<b>7/11/2012</b>	SeqNo:	<b>113436</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	1.5	15.00	3.614	89.2	64.4	117			

Sample ID	<b>1207185-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>2772</b>	RunNo:	<b>3969</b>					
Prep Date:	<b>7/11/2012</b>	Analysis Date:	<b>7/11/2012</b>	SeqNo:	<b>113437</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	1.5	15.00	3.614	89.3	64.4	117	0.0795	20	

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207377

10-Aug-12

**Client:** Animas Environmental Services  
**Project:** COP SJ 287 # 199G

Sample ID <b>MB-2765</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>2765</b>		RunNo: <b>3951</b>							
Prep Date: <b>7/10/2012</b>	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>112802</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								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		112	77.6	140			

Sample ID <b>LCS-2765</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>2765</b>		RunNo: <b>3951</b>							
Prep Date: <b>7/10/2012</b>	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>112803</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.1	52.6	130			
Surr: DNOP	4.9		5.000		97.8	77.6	140			

Sample ID <b>1207377-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>							
Client ID: <b>Treatment Zone Co</b>	Batch ID: <b>2765</b>		RunNo: <b>3951</b>							
Prep Date: <b>7/10/2012</b>	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>113661</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.9	49.41	50.90	7.46	57.2	146			S
Surr: DNOP	5.1		4.941		103	77.6	140			

Sample ID <b>1207377-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>							
Client ID: <b>Treatment Zone Co</b>	Batch ID: <b>2765</b>		RunNo: <b>3951</b>							
Prep Date: <b>7/10/2012</b>	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>113662</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	49.85	50.90	4.06	57.2	146	3.10	24.5	S
Surr: DNOP	5.1		4.985		102	77.6	140	0	0	

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207377

10-Aug-12

**Client:** Animas Environmental Services  
**Project:** COP SJ 287 # 199G

Sample ID <b>5ml-rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114425</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: 1,2-Dichloroethane-d4	0.46		0.5000		92.9	70	130			
Surr: 4-Bromofluorobenzene	0.56		0.5000		111	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114426</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.0	70.7	123			
Toluene	0.92	0.050	1.000	0	91.7	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.2	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.48		0.5000		96.8	70	130			

Sample ID <b>1207376-001a ms</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114427</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.7574	0	88.3	81.3	119			
Toluene	0.70	0.050	0.7574	0.007400	91.1	75	121			
Surr: 1,2-Dichloroethane-d4	0.36		0.3787		94.7	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.3787		104	70	130			
Surr: Dibromofluoromethane	0.39		0.3787		103	70	130			
Surr: Toluene-d8	0.37		0.3787		97.4	70	130			

Sample ID <b>1207376-001a msd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114428</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.050	0.7574	0	86.3	81.3	119	2.32	15.7	
Toluene	0.66	0.050	0.7574	0.007400	85.6	75	121	6.19	16.2	
Surr: 1,2-Dichloroethane-d4	0.36		0.3787		94.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.40		0.3787		105	70	130	0	0	

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207377

10-Aug-12

**Client:** Animas Environmental Services

**Project:** COP SJ 287 # 199G

Sample ID	<b>1207376-001a msd</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R3971</b>	RunNo:	<b>3971</b>					
Prep Date:		Analysis Date:	<b>7/11/2012</b>	SeqNo:	<b>114428</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.38		0.3787		101	70	130	0	0	
Surr: Toluene-d8	0.35		0.3787		92.8	70	130	0	0	

**Qualifiers:**

- |  |  |
|--|--|
| *X 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               |
| R RPD outside accepted recovery limits       | RL Reporting Detection Limit                         |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207377

10-Aug-12

**Client:** Animas Environmental Services

**Project:** COP SJ 287 # 199G

Sample ID <b>5ml-rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114418</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	560		500.0		111	70	130			

Sample ID <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114420</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.3	85	115			
Surr: BFB	520		500.0		104	70	130			

Sample ID <b>1207377-001A MS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>Treatment Zone Co</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114421</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	18.61	2.493	90.6	70	130			
Surr: BFB	360		372.2		97.9	70	130			

Sample ID <b>1207377-001A MSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>Treatment Zone Co</b>	Batch ID: <b>R3971</b>		RunNo: <b>3971</b>							
Prep Date:	Analysis Date: <b>7/11/2012</b>		SeqNo: <b>114422</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	18.61	2.493	90.7	70	130	0.154	20	
Surr: BFB	350		372.2		95.0	70	130	0	0	

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD 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
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4101
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1207377
Received by/date: [Signature] 07/11/12
Logged By: Lindsay Mangin 7/11/2012 9:42:00 AM [Signature]
Completed By: Lindsay Mangin 7/11/2012 9:55:01 AM [Signature]
Reviewed By: [Signature] 07/11/12

Chain of Custody

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

Log In

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

Person Notified:
By Whom:
Regarding:
Client Instructions:
Date:
Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person

18. Additional remarks:

19. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.0, Good, Yes, , ,

# Chain-of-Custody Record

Client: Armas Env Services

Mailing Address: 624 E. Converse

Farmington NM

Phone #: 505 841-2981

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

SJ 28-7 #1996

Project #:

Project Manager:

Ross Kenner

Sampler: Theres Lang

On Ice  Yes  No

Sample Temperature: 0

Container Type and #

Preservative Type

HEAL No

170157

-001

-002

Sample Request ID

Matrix

Date Time

17012 1300

Soil

1335

↓

SOIL TREATMENT

SOIL COMPOSTING

VIADUCT ZONE

at D.P.S.

07/12/12

Relinquished by:

Time: 1756

Relinquished by:

Time: 1728

Received by:

Date: 7/10/12

Time: 1728

Received by:

Date: 07/11/12

Time: 0942

Remarks: Bill To Cop

Ordered by Shelly Coats

w/o 904675 TAMI PASS CALLED ON 7/12/12

Area 23 TO CHANGE THE SAMPLE

Supervisor: Gary Nelson REQUEST ID'S: -

User: GARRCO

## Analysis Request

<input checked="" type="checkbox"/>	BTEX + MTBE + TMR's (8024)	
<input checked="" type="checkbox"/>	BTEX + MTBE + TPH (Gas only)	
<input checked="" type="checkbox"/>	TPH Method 8015B (Gas/Diesel)	
<input checked="" type="checkbox"/>	TPH (Method 418.1)	
<input checked="" type="checkbox"/>	EDB (Method 504.1)	
<input checked="" type="checkbox"/>	8310 (PNA or PAH)	
<input checked="" type="checkbox"/>	RCRA 8 Metals	
<input checked="" type="checkbox"/>	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	
<input checked="" type="checkbox"/>	8081 Pesticides / 8082 PCB's	
<input checked="" type="checkbox"/>	8260B (VOA)	
<input checked="" type="checkbox"/>	8270 (Semi-VOA)	<u>Chlorides</u>
<input type="checkbox"/>	Air Bubbles (Y or N)	



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)

August 20, 2012

Debbie Watson

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

RE: COP SJ 28-7 #199G

OrderNo.: 1208800

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/18/2012 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

**Analytical Report**

Lab Order 1208800

Date Reported: 8/20/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Treatment Zone

**Project:** COP SJ 28-7 #199G

**Collection Date:** 8/17/2012 10:00:00 AM

**Lab ID:** 1208800-001

**Matrix:** SOIL

**Received Date:** 8/18/2012 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 418.1: TPH</b>						Analyst: <b>JMP</b>
Petroleum Hydrocarbons, TR	290	20		mg/Kg	1	8/18/2012 12:00:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 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  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

**Analytical Report**

Lab Order 1208800

Date Reported: 8/20/2012

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** Vadose Zone

**Project:** COP SJ 28-7 #199G

**Collection Date:** 8/17/2012 10:12:00 AM

**Lab ID:** 1208800-002

**Matrix:** SOIL

**Received Date:** 8/18/2012 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 418.1: TPH</b>						Analyst: <b>JMP</b>
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/18/2012 12:00:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 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  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1208800

20-Aug-12

**Client:** Animas Environmental Services

**Project:** COP SJ 28-7 #199G

Sample ID	<b>MB-3390</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 418.1: TPH</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>3390</b>	RunNo:	<b>4947</b>					
Prep Date:	<b>8/17/2012</b>	Analysis Date:	<b>8/18/2012</b>	SeqNo:	<b>139934</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	<b>LCS-3390</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 418.1: TPH</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>3390</b>	RunNo:	<b>4947</b>					
Prep Date:	<b>8/17/2012</b>	Analysis Date:	<b>8/18/2012</b>	SeqNo:	<b>139935</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	101	80	120			

Sample ID	<b>LCSD-3390</b>	SampType:	<b>LCSD</b>	TestCode:	<b>EPA Method 418.1: TPH</b>					
Client ID:	<b>LCSS02</b>	Batch ID:	<b>3390</b>	RunNo:	<b>4947</b>					
Prep Date:	<b>8/17/2012</b>	Analysis Date:	<b>8/18/2012</b>	SeqNo:	<b>139936</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	105	80	120	3.46	20	

**Qualifiers:**

- |  |  |
|--|--|
| *X 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               |
| R RPD outside accepted recovery limits       | RL Reporting Detection Limit                         |



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1208800
Received by/date: AT 08/18/12
Logged By: Anne Thorne 8/18/2012 10:30:00 AM
Completed By: Anne Thorne 8/18/2012
Reviewed By: AT 08/18/12

Chain of Custody

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

Log In

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

Person Notified:
By Whom:
Regarding:
Client Instructions:
Date:
Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person

18. Additional remarks:

19. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.7, Good, Yes, , ,



Photo #1	
ConocoPhillips	
San Juan 28-7 #199G	
Provided by: ConocoPhillips August 7, 2012	
Description: Location Sign	

Photo #2	
ConocoPhillips	
San Juan 28-7 #199G	
Provided by: ConocoPhillips August 7, 2012	
Description: View of landfarm following closure activities.	

Photo #2	
ConocoPhillips	
San Juan 28-7 #199G	
Provided by: ConocoPhillips August 7, 2012	
Description: View of landfarm following closure activities.	

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 292676

**CONDITIONS**

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 292676
	Action Type: [C-137] Small Landfarm Final Closure (C-137EZB)

**CONDITIONS**

Created By	Condition	Condition Date
bjones	OCD approved the closure on September. 1, 2012. The OCD closure approval is attached.	12/8/2023