

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company <b>ConocoPhillips Company</b>	Contact <b>Crystal Tafoya</b>
Address <b>3401 East 30<sup>th</sup> St, Farmington, NM</b>	Telephone No. <b>(505) 326-9837</b>
Facility Name: <b>San Juan 30-5 Unit 207A</b>	Facility Type: <b>Gas Well</b>
Surface Owner <b>BLM</b>	Mineral Owner <b>BLM (SF-078994)</b>
API No. <b>30-039-27473</b>	

**LOCATION OF RELEASE**

Unit Letter <b>E</b>	Section <b>18</b>	Township <b>30N</b>	Range <b>5W</b>	Feet from the <b>1400</b>	North/South Line <b>North</b>	Feet from the <b>1000</b>	East/West Line <b>West</b>	County <b>Rio Arriba</b>
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Latitude 36.81477 Longitude 107.40379

**NATURE OF RELEASE**

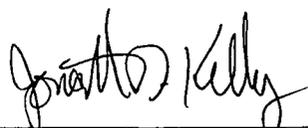
Type of Release <b>Produced Fluids</b>	Volume of Release <b>Unknown</b>	Volume Recovered <b>None</b>
Source of Release <b>Below Grade Tank</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>October 22, 2012</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>RCVD JAN 25 '13</b>	
By Whom?	Date and Hour	<b>OIL CONSERV. DIV.</b>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>DIST. 3</b>	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
**Below Grade Tank Closure Activities**

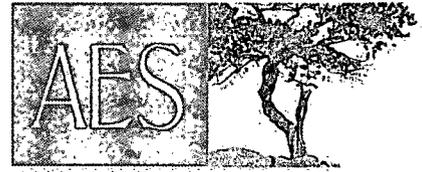
Describe Area Affected and Cleanup Action Taken.\*  
**The regulatory standard for closure at this site was determined to be 100 ppm. A sample was taken and then transported to the lab and analytical results for TPH, BTEX and Chlorides were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release; therefore no further action is required. The final report is attached for review.**

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Crystal Tafoya</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>1/29/2013</b>	Expiration Date:
E-mail Address: <b>crystal.tafoya@conocophillips.com</b>	Conditions of Approval: <b>C-144 Closure permit needed for BGT closure</b>	Attached <input type="checkbox"/>
Date: <b>1/24/2013</b> Phone: <b>(505) 326-9837</b>		

\* Attach Additional Sheets If Necessary

**NJ21302954281**



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

December 14, 2012

Crystal Tafoya  
ConocoPhillips  
San Juan Business Unit  
Office 214-5  
5525 Hwy 64  
Farmington, New Mexico 87401

**RE: Below Grade Tank Closure Report  
San Juan 30-5 #207A  
Rio Arriba County, New Mexico**

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) San Juan 30-5 #207A, located in Rio Arriba County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

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## 1.0 Site Information

### 1.1 Location

Site Name – San Juan 30-5 #207A

Legal Description - SW¼ NW¼, Section 18, T30N, R5W, Rio Arriba County, New Mexico

Well Latitude/Longitude - N36.81604 and W107.40439, respectively

BGT Latitude/Longitude - N36.81578 and W107.40469, respectively

Land Jurisdiction - Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map, October 2012

### 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a C-144 form dated March 2005 reported the depth to groundwater between 50 and 100 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research

Center online mapping tool (<http://ford.nmt.edu/react/project.html>) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs. An unnamed ephemeral wash is located approximately 100 feet south-southwest of the location. Based on this information, the location was assessed a ranking score of 20.

### **1.3 BGT Closure Assessment**

AES was initially contacted by Bruce Yazzie, CoP representative, on October 22, 2012, and on October 24, 2012, Heather Woods and Zach Trujillo of AES mobilized to the location. AES personnel collected six soil samples from below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

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## **2.0 Soil Sampling**

On October 24, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). Soil sample SC-1 was field screened for chloride and was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

### **2.1 Field Screening**

#### **2.1.1 Volatile Organic Compounds**

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

#### **2.1.2 Total Petroleum Hydrocarbons**

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

### 2.1.3 Chlorides

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

## 2.2 Laboratory Analyses

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

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

## 2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM ranged from 1.5 ppm in S-2 up to 6.3 ppm in S-4. Field TPH concentrations ranged from less than 20.0 mg/kg in S-2 up to 102 mg/kg in S-3. The field chloride concentration in SC-1 was 40 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results  
 San Juan 30-5 #207A BGT Closure, October 2012

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Depth below BGT (ft)</i>	<i>VOCs OVM Reading (ppm)</i>	<i>Field TPH (mg/kg)</i>	<i>Field Chlorides (mg/kg)</i>
<b>NMOCD Action Level (NMAC 19.15.17.13E)</b>			<b>--</b>	<b>100</b>	<b>250</b>
S-1	10/24/12	0.5	3.2	61.4	NA
S-2	10/24/12	0.5	1.5	<20.0	NA
S-3	10/24/12	0.5	2.3	<b>102</b>	NA
S-4	10/24/12	0.5	6.3	23.8	NA
S-5	10/24/12	0.5	4.6	25.1	NA
SC-1	10/24/12	0.5	NA	NA	40

NA - not analyzed

Laboratory analytical results reported benzene and total BTEX concentrations in SC-1 as less than 0.050 mg/kg and less than 0.25 mg/kg, respectively. TPH concentrations were reported as less than 5.0 mg/kg GRO and less than 9.7 mg/kg DRO. The laboratory chloride concentration was reported below the laboratory detection limit of 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results  
San Juan 30-5 #207A BGT Closure, October 2012

Sample ID	Date Sampled	Depth (ft)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Chlorides (mg/kg)
<b>NMOCD Action Level (NMAC 19.15.17.13E)</b>			<b>0.2</b>	<b>50</b>	<b>100</b>		<b>250</b>
SC-1	10/24/2012	0.5	<0.050	<0.25	<5.0	<9.7	<30

### 3.0 Conclusions and Recommendations

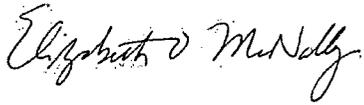
NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Benzene and total BTEX concentrations in SC-1 were below the NMOCD action levels of 0.2 mg/kg and 50 mg/kg, respectively. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in one sample, S-3, with 102 mg/kg. However, laboratory analytical results for TPH as GRO/DRO in SC-1 were reported below the NMOCD action level of 100 mg/kg. The chloride concentration in SC-1 was also below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended.

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

Sincerely,



Kelsey Christiansen  
Environmental Scientist



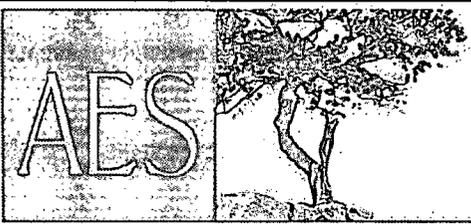
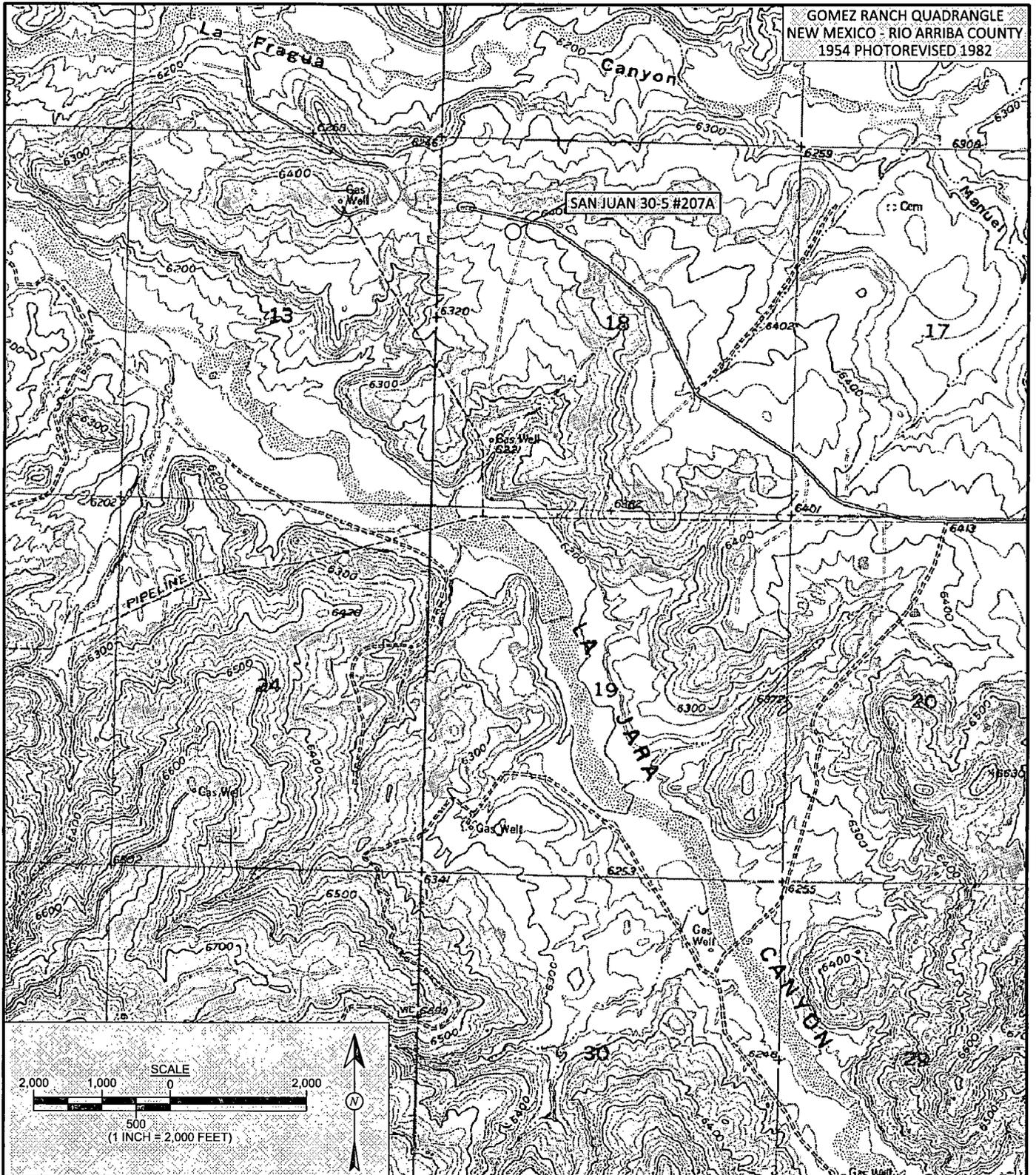
Elizabeth McNally, P.E.

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, October 2012
- AES Field Screening Report 102412
- Hall Analytical Report 1210B45

R:\Animas 2000\Dropbox\December 2012\ConocoPhillips\SJ 30-5 #207A\SJ 30-5 #207A BGT Closure Report 121412.docx

GOMEZ RANCH QUADRANGLE  
 NEW MEXICO - RIO ARriba COUNTY  
 1954 PHOTOREVISED 1982



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> October 24, 2012
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 24, 2012
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> October 24, 2012
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 24, 2012

**FIGURE 1**  
**TOPOGRAPHIC SITE LOCATION MAP**  
 ConocoPhillips  
 SAN JUAN 30-5 #207A  
 RIO ARriba COUNTY, NEW MEXICO  
 SW¼ NW¼, SECTION 18, T30N, R5W  
 N36.81604, W107.40439

**LEGEND**

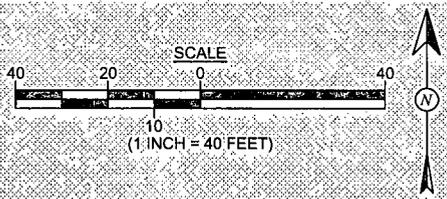
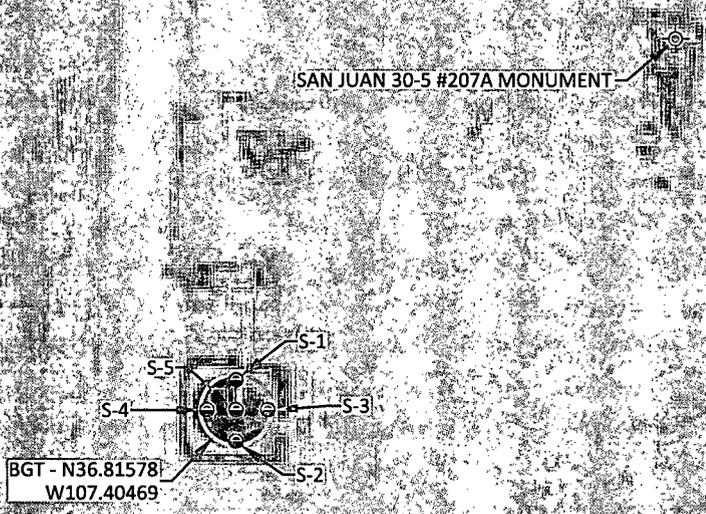
● SAMPLE LOCATIONS

Field Screening Results				
Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
<b>NMOC ACTION LEVEL</b>		-	100	250
S-1	10/24/12	3.2	61.4	NA
S-2	10/24/12	1.5	<20.0	NA
S-3	10/24/12	2.3	102	NA
S-4	10/24/12	6.3	23.8	NA
S-5	10/24/12	4.6	25.1	NA
SC-1	10/24/12	NA	NA	40

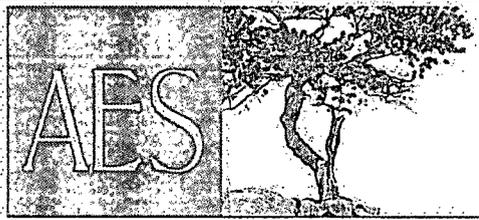
SC-1 IS A 5-POINT COMPOSITE SAMPLE OF S-1 THROUGH S-5. NA - NOT ANALYZED

Laboratory Analytical Results						
Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
<b>NMOC ACTION LEVEL:</b>		0.2	50	100		250
SC-1	10/24/12	<0.050	<0.25	<5.0	<9.7	<30

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



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



Animas Environmental Services, LLC

<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> October 29, 2012
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> October 29, 2012
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> October 29, 2012
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> October 29, 2012

**FIGURE 2**

**AERIAL SITE MAP**  
**BELOW GRADE TANK CLOSURE**  
**OCTOBER 2012**  
 ConocoPhillips  
 SAN JUAN 30-5 #207A  
 RIO ARRIBA COUNTY, NEW MEXICO  
 SW¼ NW¼, SECTION 18, T30N, R5W  
 N36.81604, W107.40439

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado  
970-403-3274

Client: ConocoPhillips

Project Location: SJ 30-5 #207A

Date: 10/24/2012

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	10/24/2012	12:15	North	3.2	NA	12:52	61.4	20.0	1	HMW
S-2	10/24/2012	12:17	South	1.5	NA	12:55	<20.0	20.0	1	HMW
S-3	10/24/2012	12:19	East	2.3	NA	12:58	102	20.0	1	HMW
S-4	10/24/2012	12:21	West	6.3	NA	13:01	23.8	20.0	1	HMW
S-5	10/24/2012	12:23	Center	4.6	NA	13:03	25.1	20.0	1	HMW
SC-1	10/24/2012	12:25	Composite	NA	40	Not Analyzed for TPH				

PQL Practical Quantitation Limit

ND Not Detected at the Reporting Limit

NA Not Analyzed

DF Dilution Factor

\*Field TPH concentrations recorded may be below PQL.

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with Silver Nitrate

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

*Heather M. Woods*



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)

October 31, 2012

Debbie Watson

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

RE: COP San Juan 30-5 #207A

OrderNo.: 1210B45

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/25/2012 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 over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Animas Environmental Services

**Client Sample ID:** SC-1

**Project:** COP San Juan 30-5 #207A

**Collection Date:** 10/24/2012 12:25:00 PM

**Lab ID:** 1210B45-001

**Matrix:** MEOH (SOIL)

**Received Date:** 10/25/2012 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>JMP</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/25/2012 11:34:20 AM
Surr: DNOP	102	77.6-140		%REC	1	10/25/2012 11:34:20 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 11:12:05 PM
Surr: BFB	96.2	84-116		%REC	1	10/25/2012 11:12:05 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	10/25/2012 11:12:05 PM
Toluene	ND	0.050		mg/Kg	1	10/25/2012 11:12:05 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2012 11:12:05 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/25/2012 11:12:05 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	10/25/2012 11:12:05 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>SRM</b>
Chloride	ND	30		mg/Kg	20	10/25/2012 12:22:04 PM

**Qualifiers:**

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210B45

31-Oct-12

**Client:** Animas Environmental Services  
**Project:** COP San Juan 30-5 #207A

Sample ID	<b>MB-4526</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>4526</b>	RunNo:	<b>6496</b>					
Prep Date:	<b>10/25/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187004</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-4526</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>4526</b>	RunNo:	<b>6496</b>					
Prep Date:	<b>10/25/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187005</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.7	90	110			

Sample ID	<b>1210A01-002AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>4526</b>	RunNo:	<b>6496</b>					
Prep Date:	<b>10/25/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187036</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	7.5	15.00	7.197	83.2	64.4	117			

Sample ID	<b>1210A01-002AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>4526</b>	RunNo:	<b>6496</b>					
Prep Date:	<b>10/25/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187037</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	20	7.5	15.00	7.197	85.9	64.4	117	2.04	20	

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210B45

31-Oct-12

Client: Animas Environmental Services

Project: COP San Juan 30-5 #207A

Sample ID	MB-4517	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	4517	RunNo:	6441					
Prep Date:	10/24/2012	Analysis Date:	10/25/2012	SeqNo:	186402	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		101	77.6	140			

Sample ID	LCS-4517	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	4517	RunNo:	6441					
Prep Date:	10/24/2012	Analysis Date:	10/25/2012	SeqNo:	186419	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	52.6	130			
Surr: DNOP	4.5		5.000		90.8	77.6	140			

Sample ID	1210A51-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	4517	RunNo:	6441					
Prep Date:	10/24/2012	Analysis Date:	10/25/2012	SeqNo:	186977	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.8	49.02	0	81.6	57.2	146			
Surr: DNOP	4.4		4.902		90.3	77.6	140			

Sample ID	1210A51-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	4517	RunNo:	6441					
Prep Date:	10/24/2012	Analysis Date:	10/25/2012	SeqNo:	186978	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.70	0	85.9	57.2	146	6.54	24.5	
Surr: DNOP	4.5		4.970		91.1	77.6	140	0	0	

### Qualifiers:

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

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

**QC SUMMARY REPORT**  
**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1210B45  
 31-Oct-12

**Client:** Animas Environmental Services  
**Project:** COP San Juan 30-5 #207A

Sample ID <b>MB-4474</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>4474</b>		RunNo: <b>6487</b>							
Prep Date: <b>10/23/2012</b>	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187625</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	950		1000		95.0	84	116			

Sample ID <b>LCS-4474</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>4474</b>		RunNo: <b>6487</b>							
Prep Date: <b>10/23/2012</b>	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187626</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	74	117			
Surr: BFB	1000		1000		100	84	116			

Sample ID <b>1210A08-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>4474</b>		RunNo: <b>6487</b>							
Prep Date: <b>10/23/2012</b>	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187638</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.34	11.22	90.8	70	130			
Surr: BFB	1100		973.7		117	84	116			S

Sample ID <b>1210A08-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015B: Gasoline Range</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>4474</b>		RunNo: <b>6487</b>							
Prep Date: <b>10/23/2012</b>	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187639</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.39	11.22	89.9	70	130	0.479	22.1	
Surr: BFB	1100		975.6		115	84	116	0	0	

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1210B45

31-Oct-12

**Client:** Animas Environmental Services  
**Project:** COP San Juan 30-5 #207A

Sample ID	<b>MB-4474</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>4474</b>	RunNo:	<b>6487</b>					
Prep Date:	<b>10/23/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187651</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	<b>LCS-4474</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>4474</b>	RunNo:	<b>6487</b>					
Prep Date:	<b>10/23/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187652</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	76.3	117			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	77	116			
Xylenes, Total	3.2	0.10	3.000	0	106	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	<b>1210A21-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>4474</b>	RunNo:	<b>6487</b>					
Prep Date:	<b>10/23/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187719</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.048	0.9653	0	97.3	67.2	113			
Toluene	0.96	0.048	0.9653	0	99.1	62.1	116			
Ethylbenzene	0.97	0.048	0.9653	0	101	67.9	127			
Xylenes, Total	2.9	0.097	2.896	0	101	60.6	134			
Surr: 4-Bromofluorobenzene	1.0		0.9653		106	80	120			

Sample ID	<b>1210A21-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>4474</b>	RunNo:	<b>6487</b>					
Prep Date:	<b>10/23/2012</b>	Analysis Date:	<b>10/25/2012</b>	SeqNo:	<b>187720</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.048	0.9653	0	102	67.2	113	5.00	14.3	
Toluene	1.0	0.048	0.9653	0	104	62.1	116	5.16	15.9	
Ethylbenzene	1.0	0.048	0.9653	0	108	67.9	127	6.85	14.4	
Xylenes, Total	3.1	0.097	2.896	0	109	60.6	134	7.20	12.6	
Surr: 4-Bromofluorobenzene	1.0		0.9653		106	80	120	0	0	

**Qualifiers:**

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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: **1210B45**

Received by/date: *[Signature]* **10/25/12**  
 Logged By: **Ashley Gallegos** **10/25/2012 10:05:00 AM** *[Signature]*  
 Completed By: **Ashley Gallegos** **10/25/2012 10:26:44 AM** *[Signature]*  
 Reviewed By: *[Signature]* **10/25/12**

**Chain of Custody**

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

**Log In**

- 4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
- 5. Was an attempt made to cool the samples? Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 7. Sample(s) in proper container(s)? Yes  No
- 8. Sufficient sample volume for indicated test(s)? Yes  No
- 9. Are samples (except VOA and ONG) properly preserved? Yes  No
- 10. Was preservative added to bottles? Yes  No  NA
- 11. VOA vials have zero headspace? Yes  No  No VOA Vials
- 12. Were any sample containers received broken? Yes  No
- 13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No  # of preserved bottles checked for pH:
- 14. Are matrices correctly identified on Chain of Custody? Yes  No  (<2 or >12 unless noted)
- 15. Is it clear what analyses were requested? Yes  No  Adjusted?
- 16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No  Checked by:

**Special Handling (if applicable)**

- 17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

18. Additional remarks:

**19. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	1.0	Good	Yes			

