

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company	Contact Lisa Hunter	
Address 3401 E. 30th St., Farmington, NM 87402	Telephone No. 505-326-9786	
Facility Name San Juan 28-4 Unit 27A	Facility Type Gas Well	
Surface Owner Federal (USFS)	Mineral Owner Federal	API No. 3003926785 Lease No. NMNM03862

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	19	028N	004W	1060	South	1560	East	Rio Arriba

Latitude **36.64168** Longitude **-107.28739**

NATURE OF RELEASE

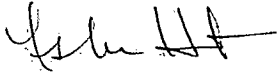
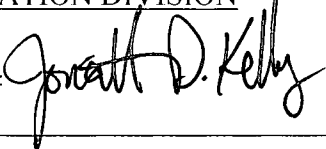
Type of Release Condensate	Volume of Release 13.4 BBLs	Volume Recovered 0 BBLs
Source of Release Production Tank	Date and Hour of Occurrence unknown	Date and Hour of Discovery 3/26/2013 @ 3:30 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? OIL CONS. DIV DIST. 3	
By Whom?	Date and Hour JUL 05 2013	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The Production tank developed a small leak due to corrosion causing the release of 13.4 BBLs Condensate. The release remained within the berm, 0 BBLs were been recovered.

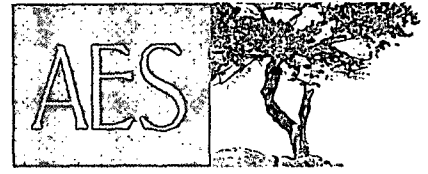
Describe Area Affected and Cleanup Action Taken.* ConocoPhillips Company will replace Production tank and assess the soils to determine further action, if needed. Excavation was 30' x 40' x 23' Deep (Sandstone). 1086 c/yds of soil was transported to IEI Land Farm and 1086 c/yds of clean soil was transported from Aztec Machine, and placed in the excavation site. Analytical results were below the regulatory standards on the walls and excavation terminated at sandstone. Received verbal authorization from NMOCD, BLM and USFS to leave in place and back fill. No further action required. The soil sampling 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: 	OIL CONSERVATION DIVISION	
Printed Name: Lisa Hunter	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date: 8/1/2013	Expiration Date:
E-mail Address: lisa.hunter@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: July 1, 2013	Phone: 505-326-9786	

* Attach Additional Sheets If Necessary

NJK 132133/526



Animas Environmental Services, LLC

www.animasenvironmental.com

June 24, 2013

Lisa Hunter
ConocoPhillips
San Juan Business Unit
Office 214-4
5525 Hwy 64
Farmington, New Mexico 87401

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

Durango, Colorado
970-403-3084

Via electronic mail to:

SJBUE-Team@ConocoPhillips.com

**RE: Initial Release Assessment and Final Excavation Report
San Juan 28-4 #27A
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On February 21, April 23, April 25, and April 29, 2013, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-4 #27A, located in Rio Arriba County, New Mexico. Following a reported release from the onsite below grade tank, AES completed an initial release assessment on February 21, 2013. The final excavation was completed by contractors prior to AES' arrival to the location on April 29, 2013.

1.0 Site Information

1.1 Location

Location - SW¼ SE¼, Section 19, T28N, R4W, Rio Arriba County, New Mexico
Well Head Latitude/Longitude – N36.64183 and W107.28809, respectively
Release Location Latitude/Longitude – N36.64162 and W107.28819, respectively
Land Jurisdiction – U.S. Forest Service
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, February 2013

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a C-144 form dated October 2009 for the San Juan 28-4 #27A reported the depth to groundwater as 130 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 wash is located approximately 800 feet north of the location and drains to Oso Canyon, while another unnamed wash located approximately 800 feet southwest and 800 feet southeast drains to Munoz Canyon. Based on this information, the location was assessed a ranking score of 10 per the NMOCD *Guidelines for Leaks, Spills, and Releases* (1993).

1.3 Assessments

AES was initially contacted by Lisa Hunter of CoP on February 18, 2013, and on February 21, 2013, Heather Woods and Corwin Lameman of AES completed the release assessment field work. The assessment included collection and field screening of 12 soil samples from four soil borings (SB-1 through SB-4). Based on field screening results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On April 23, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-1 through SC-5) of the walls and base of the excavation. The excavation was approximately 53 feet by 43 feet by 15 feet in depth. While on site, AES identified an area of concern near soil sample SC-5 where visible soil contamination was observed and confirmed during field screening. The excavation was extended to a depth of 18 feet, and on April 25, 2013, AES returned to collect soil sample SC-6. Based on field screening and laboratory analytical results, further excavation was recommended. The final depth of the excavation was determined by a competent sandstone layer encountered at 23 feet bgs. Sample SC-7 was collected from the base of the excavation on April 29, 2013. The final excavation was approximately 53 feet by 43 feet by 23 feet in depth. Sample locations and final excavation extents are shown on Figure 4.

2.0 Soil Sampling

A total of 12 soil samples from SB-1 through SB-4 and seven composite samples (SC-1 through SC-7) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and select soil samples were analyzed for total petroleum hydrocarbons (TPH). Six of the soil samples collected during the

assessment (SC-1 through SC-4, SC-6, and SC-7) were also 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 (SC-1 through SC-4, SC-6, and SC-7) 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. Soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B/8260B.

Soil samples SC-6 and SC-7 were also laboratory analyzed for:

- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B.

2.3 Field Screening and Laboratory Analytical Results

On February 21, 2013, initial assessment field screening readings for VOCs via OVM ranged from 4.0 ppm in SB-1 up to 2,492 ppm in SB-3. Field TPH concentrations ranged from less than 20.0 mg/kg in SB-1 to greater than 5,000 mg/kg in SB-3.

On April 23, 2013, excavation field screening results for VOCs via OVM showed concentrations ranging from 259 ppm in SC-2 to 3,360 ppm in SC-5. Field TPH concentrations ranged from 50.6 mg/kg in SC-3 to greater than 2,500 mg/kg in SC-5. On

April 25, 2013, excavation field screening results for VOCs via OVM showed a concentration of 3,045 ppm in SC-6 and a field TPH concentration of 3,040 mg/kg. On April 29, 2013, field screening results for VOCs via OVM showed a concentration of 2,218 ppm and a field TPH concentration greater than 2,680 mg/kg in SC-7. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Screening Reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results
San Juan 28-4 #27A Initial Release Assessment and Final Excavation
February and April 2013

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
<i>NMOCD Action Level*</i>			100	1,000
SB-1	2/21/13	0	4.0	<20.0
SB-2	2/21/13	0	1,561	>2,500
SB-3	2/21/13	0	1,901	NA
		2	1,979	NA
		3.5	2,492	>5,000
SB-4	2/21/13	0	1,463	NA
		2	524	NA
		4	1,930	NA
		6	2,118	NA
		8	2,359	NA
		10	1,540	NA
		12	2,091	>2,500
SC-1	4/23/13	1 to 15	502	967
SC-2	4/23/13	1 to 15	259	158
SC-3	4/23/13	1 to 15	284	50.6
SC-4	4/23/13	1 to 15	540	114
SC-5	4/23/13	15	3,360	>2,500
SC-6	4/25/13	18	3,045	3,040
SC-7	4/29/13	23	2,218	2,680

NA – Not Analyzed

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

In April 2013, laboratory analytical results for SC-1 through SC-4, SC-6, and SC-7 were used to confirm field screening results from excavation activities. Benzene concentrations ranged from less than 0.50 mg/kg in SC-1 through SC-4 and SC-7 up to 0.29 mg/kg in SC-6. BTEX concentrations ranged from 0.25 mg/kg in SC-3 up to 60 mg/kg in SC-6. TPH concentrations (as GRO/DRO) were reported at 2,300 mg/kg (SC-6) and 1,450 mg/kg (SC-7). Results are presented in Table 2 and on Figure 4. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH
San Juan 28-4 #27A Final Excavation
April 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
NMOCD Action Level*			10	50	1,000	
SC-1	4/23/13	1 to 15	<0.50	4.7	NA	NA
SC-2	4/23/13	1 to 15	<0.050	2.1	NA	NA
SC-3	4/23/13	1 to 15	<0.050	0.25	NA	NA
SC-4	4/23/13	1 to 15	<0.50	1.7	NA	NA
SC-6	4/25/13	18	0.29	60	900	1,400
SC-7	4/29/13	23	<0.50	24	350	1,100

NA – Not Analyzed

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

3.0 Conclusions and Recommendations

On February 21, 2013, AES conducted an initial assessment associated with a release from the onsite below grade tank at the San Juan 28-4 #27A. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10. Field screening results above the NMOCD action levels of 100 ppm VOCs and 1,000 mg/kg TPH were reported in SB-2 through SB-4. The highest VOC concentration was 2,492 ppm in SB-3, and the highest TPH concentration was reported as greater than 5,000 mg/kg in SB-3.

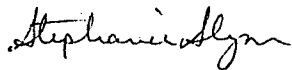
On April 23, April 25, and April 29, 2013, final assessment of the excavation area was completed. Field screening results of the excavation extents showed that VOC concentrations exceeded the NMOC action level of 100 ppm for VOCs in all of the final four walls and the base. Field TPH concentrations above the applicable NMOCD action level of 1,000 mg/kg were reported in base samples SC-5 (>2,500 mg/kg), SC-6 (3,040

mg/kg), and SC-7 (2,680 mg/kg). Laboratory analytical results from April 23, 2013, reported benzene and total BTEX concentrations below NMOCD action levels in all of the final four walls. TPH concentrations as GRO/DRO were reported above the NMOCD action level of 1,000 mg/kg in SC-7, the final base sample, with 1,450 mg/kg. Continued excavation was not possible due to the presence of a competent sandstone layer at 23 feet bgs.

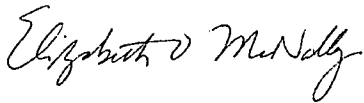
Based on final field screening and laboratory analytical results of the excavation of petroleum contaminated soils at the San Juan 28-4 #27A, benzene, total BTEX, and TPH concentrations were below applicable NMOCD action levels for each of the sidewalls of the excavation. However, the base of the excavation exceeded the applicable NMOCD action level for TPH. On April 30, 2013, Lisa Hunter of CoP received approval to backfill the excavation from Brandon Powell, NMOCD; J.J. Miller, U.S. Forest Service; and Mark Kelly, BLM. On May 1, 2013, the excavation was subsequently backfilled. No further work is recommended at the San Juan 28-4 #27A.

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

Sincerely,



Stephanie A. Lynn, EIT

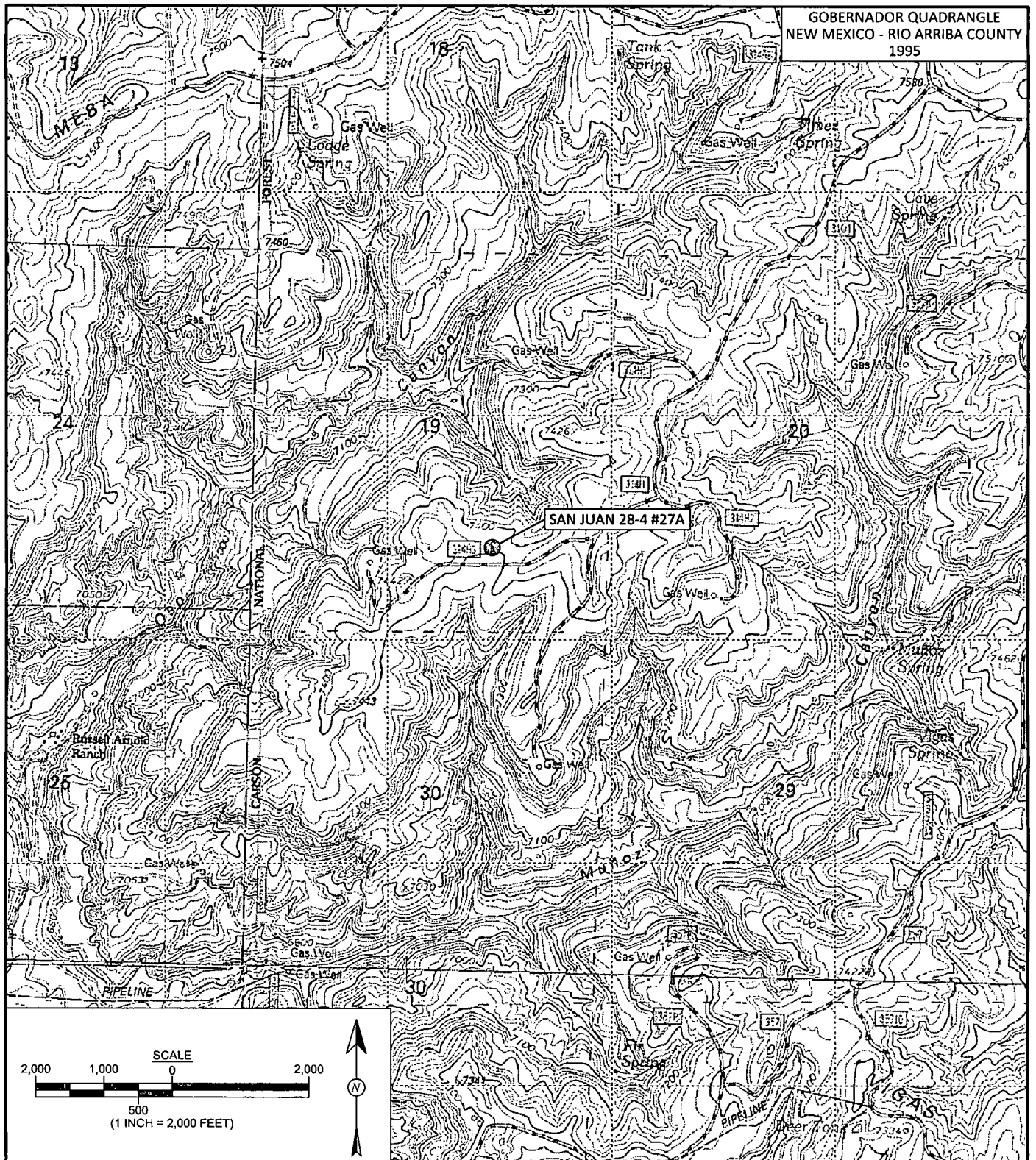


Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map, February 2013
- Figure 3. Initial Assessment Sample Locations and Results, February 2013
- Figure 4. Final Excavation Sample Locations and Results, April 2013
- AES Field Screening Report 022113
- AES Field Screening Report 042313
- AES Field Screening Report 042513
- AES Field Screening Report 042913
- Hall Laboratory Analytical Report 1304948
- Hall Laboratory Analytical Report 1304A79
- Hall Laboratory Analytical Report 1304B57

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Animas Environmental Services, LLC

DRAWN BY:

C. Lameman

DATE DRAWN:

February 22, 2013

REVISIONS BY:

C. Lameman

DATE REVISED:

February 22, 2013

CHECKED BY:

D. Watson

DATE CHECKED:

June 11, 2013

APPROVED BY:

E. McNally

DATE APPROVED:

June 11, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 28-4 #27A
SW¼ SE¼, SECTION 19, T28N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.64183, W107.28809

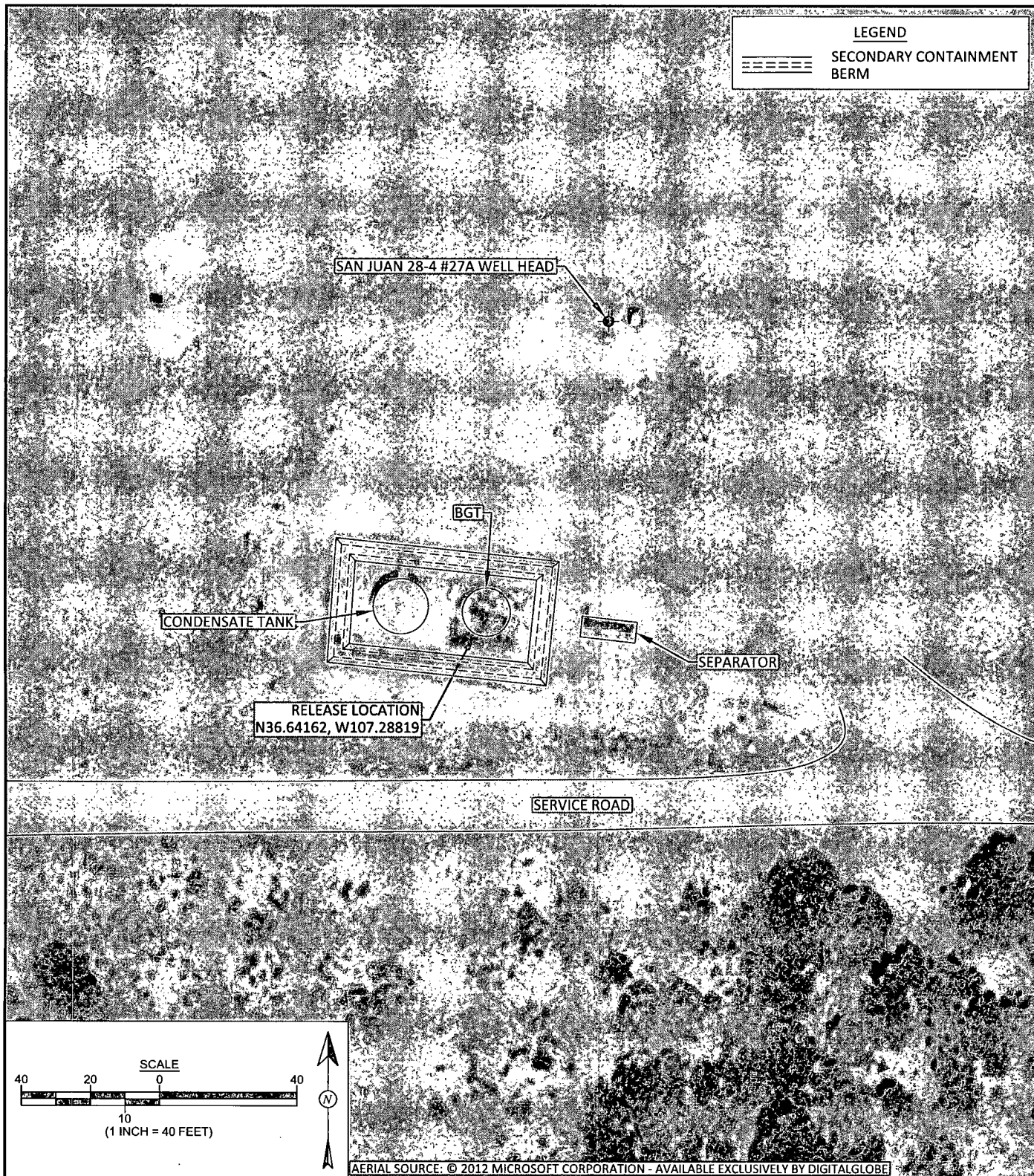


FIGURE 2

AERIAL SITE MAP FEBRUARY 2013

ConocoPhillips
SAN JUAN 28-4 #27A
SW¼ SE¼, SECTION 19, T28N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.64183, W107.28809



Animas Environmental Services, LLC

DRAWN BY:
C. Lameman

DATE DRAWN:
February 22, 2013

REVISIONS BY:
C. Lameman

DATE REVISED:
February 22, 2013

CHECKED BY:
D. Watson

DATE CHECKED:
June 11, 2013

APPROVED BY:
E. McNally

DATE APPROVED:
June 11, 2013

SAN JUAN 28-4 #27A WELL HEAD

Field Screening Results				
Sample ID	Date	Depth (ft)	QVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-1	2/21/13	Surface	4.0	<20.0
SB-2	2/21/13	Surface	1,561	>2,500
SB-3	2/21/13	Surface	1,901	NA
		2	1,979	NA
		3.5	2,492	>5,000
SB-4	2/21/13	Surface	1,463	NA
		2	524	NA
		4	1,930	NA
		6	2,118	NA
		8	2,359	NA
		10	1,540	NA
		12	2,091	>2,500

NA - NOT ANALYZED

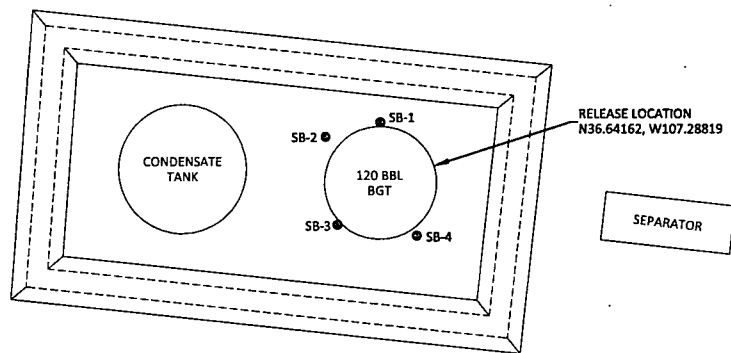


FIGURE 3

INITIAL ASSESSMENT SAMPLE
LOCATIONS AND RESULTS
FEBRUARY 2013
ConocoPhillips
SAN JUAN 28-4 #27A
SW¼ SE¼, SECTION 19, T28N, R4W
RIO ARriba COUNTY, NEW MEXICO
N36.64183, W107.28809

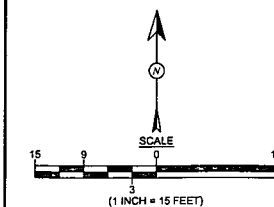


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: February 22, 2013
REVISIONS BY: C. Lameman	DATE REVISED: April 26, 2013
CHECKED BY: D. Watson	DATE CHECKED: June 11, 2013
APPROVED BY: E. McNally	DATE APPROVED: June 11, 2013

LEGEND

- SAMPLE LOCATIONS
- === SECONDARY CONTAINMENT BERM



SAN JUAN 28-4 #27A WELL HEAD

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-1	4/23/13	1 to 15	502	967
SC-2	4/23/13	1 to 15	259	158
SC-3	4/23/13	1 to 15	284	50.6
SC-4	4/23/13	1 to 15	540	114
SC-5	4/23/13	15	3,360	>2,500
SC-6	4/25/13	18	3,045	3,040
SC-7	4/29/13	23	2,218	2,680

ALL SAMPLES WERE 5-POINT COMPOSITES.

Laboratory Analytical Results						
Sample ID	Date	Depth (ft)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			10	50	1,000	
SC-1	4/23/13	1 to 15	<0.50	4.7	NA	NA
SC-2	4/23/13	1 to 15	<0.050	2.1	NA	NA
SC-3	4/23/13	1 to 15	<0.050	0.25	NA	NA
SC-4	4/23/13	1 to 15	<0.50	1.7	NA	NA
SC-6	4/25/13	18	0.29	60	900	1,400
SC-7	4/29/13	23	<0.50	23	350	1,100

SAMPLES WERE ANALYZED PER EPA METHOD 8260B AND/OR 8015B.

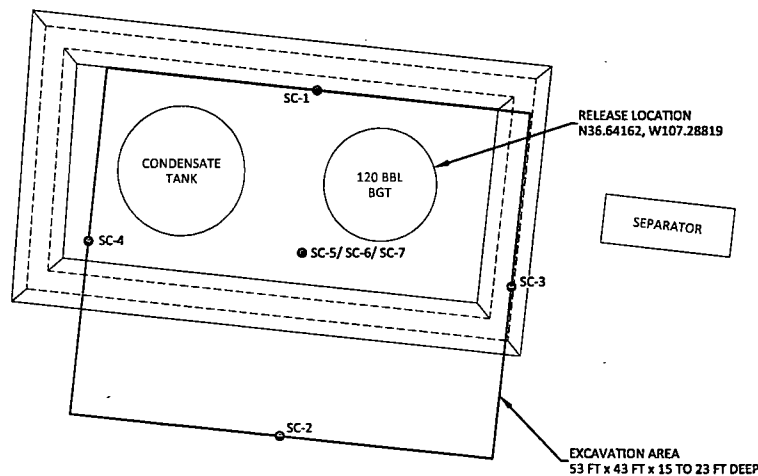


FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
APRIL 2013
 ConocoPhillips
 SAN JUAN 28-4 #27A
 SW¼ SE¼, SECTION 19, T28N, R4W
 RIO ARriba COUNTY, NEW MEXICO
 N36.64183, W107.28809

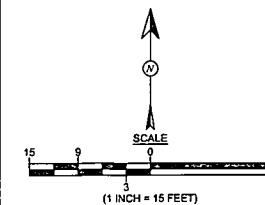


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: April 26, 2013
REVISIONS BY: C. Lameman	DATE REVISED: April 26, 2013
CHECKED BY: D. Watson	DATE CHECKED: June 11, 2013
APPROVED BY: E. McNally	DATE APPROVED: June 11, 2013

LEGEND

- SAMPLE LOCATIONS
- === SECONDARY CONTAINMENT BERM



AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: San Juan 28-4 #27A

Date: 2/21/2013

Matrix: Soil

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

Durango, Colorado
970-403-3084

Sample ID	Collection Date	Time of Sample Collection	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1@surface	2/21/2013	11:40	4.0	15:26	<20.0	20.0	1	HMW
SB-2@surface	2/21/2013	11:45	1,561	15:28	>2,500	20.0	1	HMW
SB-3@surface	2/21/2013	11:49	1,901	Not Analyzed for TPH				
SB-3@ 2'	2/21/2013	11:53	1,979	Not Analyzed for TPH				
SB-3@3.5'	2/21/2013	11:56	2,492	15:31	>5,000	40.0	1	HMW
SB-4@surface	2/21/2013	12:08	1,463	Not Analyzed for TPH				
SB-4@2'	2/21/2013	12:10	524	Not Analyzed for TPH				
SB-4@4'	2/21/2013	12:12	1,930	Not Analyzed for TPH				
SB-4@6'	2/21/2013	12:14	2,118	Not Analyzed for TPH				
SB-4@8'	2/21/2013	12:16	2,359	Not Analyzed for TPH				
SB-4@10'	2/21/2013	12:18	1,540	Not Analyzed for TPH				
SB-4@12'	2/21/2013	12:20	2,091	15:33	>2,500	20.0	1	HMW

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.

Total Petroleum Hydrocarbons - USEPA 418.1

Analysts:

Heather M. Wood

AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-4 #27A

Date: 4/23/2013

Matrix: Soil

Sample ID	Collection Date	Sample Depth (ft)	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	4/23/2013	1 to 15	13:18	North Wall	502	14:26	967	20.0	1	HMW
SC-2	4/23/2013	1 to 15	13:21	South Wall	259	14:28	158	20.0	1	HMW
SC-3	4/23/2013	1 to 15	13:24	East Wall	284	14:30	50.6	20.0	1	HMW
SC-4	4/23/2013	1 to 15	13:27	West Wall	540	14:33	114	20.0	1	HMW
SC-5	4/23/2013	15	13:30	Base	3,360	14:37	>2,500	20.0	1	HMW

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.

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst:

Heather M. Woods

AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-4 #27A

Date: 4/25/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-6	4/25/2013	12:42	Base	3,045	12:59	3,040	200	10	HMW

PQL Practical Quantitation Limit

Total Petroleum Hydrocarbons - USEPA 418.1

NA Not Analyzed

DF Dilution Factor

*Field TPH concentrations recorded may be below PQL.

Analysts:

Heather M. Woods

AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-4 #27A

Date: 4/29/2013

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-7	4/29/2013	14:05	Base	2,218	14:34	2,680	200	10	DAW

PQL Practical Quantitation Limit

Total Petroleum Hydrocarbons - USEPA 418.1

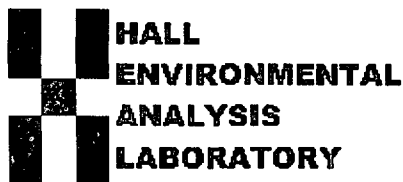
ND Not Detected at the Reporting Limit

NA Not Analyzed

DF Dilution Factor

**Field TPH concentrations recorded may be below PQL.*

Analyst:



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

April 29, 2013

Debbie Watson

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 486-4071

FAX

RE: San Juan 28-4 # 27A

OrderNo.: 1304948

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/24/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1304948

Date Reported: 4/29/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-1**Project:** San Juan 28-4 # 27A**Collection Date:** 4/23/2013 1:10:00 PM**Lab ID:** 1304948-001**Matrix:** MEOH (SOIL)**Received Date:** 4/24/2013 9:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	0.50		mg/Kg	10	4/24/2013 2:34:51 PM
Toluene	ND	0.50		mg/Kg	10	4/24/2013 2:34:51 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/24/2013 2:34:51 PM
Xylenes, Total	4.7	1.0		mg/Kg	10	4/24/2013 2:34:51 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	10	4/24/2013 2:34:51 PM
Surr: 4-Bromofluorobenzene	88.0	70-130		%REC	10	4/24/2013 2:34:51 PM
Surr: Dibromofluoromethane	93.3	70-130		%REC	10	4/24/2013 2:34:51 PM
Surr: Toluene-d8	92.7	70-130		%REC	10	4/24/2013 2:34:51 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-2

Project: San Juan 28-4 # 27A

Collection Date: 4/23/2013 1:21:00 PM

Lab ID: 1304948-002

Matrix: MEOH (SOIL)

Received Date: 4/24/2013 9:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	4/24/2013 3:03:46 PM
Toluene	0.081	0.050		mg/Kg	1	4/24/2013 3:03:46 PM
Ethylbenzene	0.091	0.050		mg/Kg	1	4/24/2013 3:03:46 PM
Xylenes, Total	1.9	0.10		mg/Kg	1	4/24/2013 3:03:46 PM
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%REC	1	4/24/2013 3:03:46 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	4/24/2013 3:03:46 PM
Surr: Dibromofluoromethane	93.0	70-130		%REC	1	4/24/2013 3:03:46 PM
Surr: Toluene-d8	101	70-130		%REC	1	4/24/2013 3:03:46 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

Analytical Report

Lab Order 1304948

Date Reported: 4/29/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental Services**Client Sample ID:** SC-3**Project:** San Juan 28-4 # 27A**Collection Date:** 4/23/2013 1:24:00 PM**Lab ID:** 1304948-003**Matrix:** MEOH (SOIL)**Received Date:** 4/24/2013 9:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	4/24/2013 3:32:18 PM
Toluene	ND	0.050		mg/Kg	1	4/24/2013 3:32:18 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2013 3:32:18 PM
Xylenes, Total	0.25	0.10		mg/Kg	1	4/24/2013 3:32:18 PM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	4/24/2013 3:32:18 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	1	4/24/2013 3:32:18 PM
Surr: Dibromofluoromethane	93.0	70-130		%REC	1	4/24/2013 3:32:18 PM
Surr: Toluene-d8	101	70-130		%REC	1	4/24/2013 3:32:18 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

Analytical ReportLab Order **1304948**Date Reported: **4/29/2013****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Animas Environmental Services**Client Sample ID:** SC-4**Project:** San Juan 28-4 # 27A**Collection Date:** 4/13/2013 1:27:00 PM**Lab ID:** 1304948-004**Matrix:** MEOH (SOIL)**Received Date:** 4/24/2013 9:54:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: RAA
Benzene	ND	0.50		mg/Kg	10	4/24/2013 4:00:53 PM
Toluene	ND	0.50		mg/Kg	10	4/24/2013 4:00:53 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/24/2013 4:00:53 PM
Xylenes, Total	1.7	1.0		mg/Kg	10	4/24/2013 4:00:53 PM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	10	4/24/2013 4:00:53 PM
Surr: 4-Bromofluorobenzene	92.4	70-130		%REC	10	4/24/2013 4:00:53 PM
Surr: Dibromofluoromethane	94.9	70-130		%REC	10	4/24/2013 4:00:53 PM
Surr: Toluene-d8	93.5	70-130		%REC	10	4/24/2013 4:00:53 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#: 1304948

29-Apr-13

Client: Animas Environmental Services

Project: San Juan 28-4 # 27A

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	R10086	RunNo:	10086					
Prep Date:		Analysis Date:	4/24/2013	SeqNo:	287318	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.1	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.1	70	130			
Surr: Toluene-d8	0.46		0.5000		92.3	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	R10086	RunNo:	10086					
Prep Date:		Analysis Date:	4/24/2013	SeqNo:	287319	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	70	130			
Toluene	1.1	0.050	1.000	0	109	80	120			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.3	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.1	70	130			
Surr: Toluene-d8	0.48		0.5000		96.0	70	130			

Sample ID	1304945-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	BatchQC	Batch ID:	R10086	RunNo:	10086					
Prep Date:		Analysis Date:	4/24/2013	SeqNo:	287325	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0.003037	99.4	67.5	124			
Toluene	1.1	0.050	1.000	0	114	55.8	142			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.2	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.4	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		91.6	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID	1304945-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	BatchQC	Batch ID:	R10086	RunNo:	10086					
Prep Date:		Analysis Date:	4/24/2013	SeqNo:	287340	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0.003037	94.8	67.5	124	4.69	20	
Toluene	1.1	0.050	1.000	0	110	55.8	142	3.63	20	
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.5	70	130	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
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#: 1304948

29-Apr-13

Client: Animas Environmental Services

Project: San Juan 28-4 # 27A

Sample ID	1304945-001a	msd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	BatchQC		Batch ID:	R10086	RunNo:	10086				
Prep Date:			Analysis Date:	4/24/2013	SeqNo:	287340	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.2	70	130	0	0	
Surr: Dibromofluoromethane	0.45		0.5000		90.3	70	130	0	0	
Surr: Toluene-d8	0.51		0.5000		102	70	130	0	0	

Qualifiers:

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



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: 1304948

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

4/24/2013 9:54:00 AM

Completed By: Lindsay Mangin

4/24/2013 10:11:42 AM

Reviewed By:

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.0	Good	Yes			

Client: Animas Environmental Services

Mailing Address: 624 E. Comanche
Farmington NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush Same Day

San Juan 20-4 ^{HW} ~~0200~~ #27A

Project Manager:

Debbie Watson

Sampler: SL / HW

On Ice: ☒ Yes ☐ No

Sample Temperature: C

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/23/13	1722	Stephen Flynn	Christopher Wheeler	4/23/13	1722
Date:	Time:	Relinquished by:	Received by:	Date	Time
4/23/13	1740	Christopher Wheeler	Christopher Wheeler	04/21/13	0954

Remarks: Bill to Conoco Phillips

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



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

May 02, 2013

Debbie Watson

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

RE: COP San Juan 28-4 #27A

OrderNo.: 1304A79

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/26/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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.

Analytical Report

Lab Order 1304A79

Date Reported: 5/2/2013

CLIENT: Animas Environmental

Client Sample ID: SC-6

Project: COP San Juan 28-4 #27A

Collection Date: 4/25/2013 12:42:00 PM

Lab ID: 1304A79-001

Matrix: MEOH (SOIL)

Received Date: 4/26/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: GSA
Diesel Range Organics (DRO)	1400	100		mg/Kg	10	4/26/2013 2:04:11 PM
Surr: DNOP	0	63-147	S	%REC	10	4/26/2013 2:04:11 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	900	50		mg/Kg	10	4/26/2013 11:34:23 AM
Surr: BFB	763	80-120	S	%REC	10	4/26/2013 11:34:23 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.29	0.25		mg/Kg	10	4/26/2013 11:34:23 AM
Toluene	0.59	0.50		mg/Kg	10	4/26/2013 11:34:23 AM
Ethylbenzene	4.4	0.50		mg/Kg	10	4/26/2013 11:34:23 AM
Xylenes, Total	55	1.0		mg/Kg	10	4/26/2013 11:34:23 AM
Surr: 4-Bromofluorobenzene	146	80-120	S	%REC	10	4/26/2013 11:34:23 AM

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#: 1304A79

02-May-13

Client: Animas Environmental
Project: COP San Juan 28-4 #27A

Sample ID	MB-7181	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	7181	RunNo:	10141					
Prep Date:	4/26/2013	Analysis Date:	4/26/2013	SeqNo:	289038	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	12		10.00		121	63	147			

Sample ID	LCS-7181	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	7181	RunNo:	10141					
Prep Date:	4/26/2013	Analysis Date:	4/26/2013	SeqNo:	289039	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	47.4	122			
Surr: DNOP	6.2		5.000		124	63	147			

Sample ID	MB-7211	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	7211	RunNo:	10208					
Prep Date:	4/29/2013	Analysis Date:	4/30/2013	SeqNo:	291165	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.8	63	147			

Sample ID	LCS-7211	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	7211	RunNo:	10208					
Prep Date:	4/29/2013	Analysis Date:	4/30/2013	SeqNo:	291166	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.1	63	147			

Sample ID	1304A59-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	7181	RunNo:	10208					
Prep Date:	4/26/2013	Analysis Date:	4/30/2013	SeqNo:	291811	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	10	50.00	11.40	42.9	12.6	148			
Surr: DNOP	3.3		5.000		65.9	63	147			

Sample ID	1304A59-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	7181	RunNo:	10208					
Prep Date:	4/26/2013	Analysis Date:	4/30/2013	SeqNo:	291812	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	10	50.00	11.40	42.9	12.6	148	0.0122	22.5	
Surr: DNOP	3.3		5.000		65.3	63	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304A79

02-May-13

Client: Animas Environmental
Project: COP San Juan 28-4 #27A

Sample ID	MB-7161	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	R10142	RunNo	10142					
Prep Date	4/25/2013	Analysis Date	4/26/2013	SeqNo	289240	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.3	80	120			

Sample ID	LCS-7161	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	R10142	RunNo	10142					
Prep Date	4/25/2013	Analysis Date	4/26/2013	SeqNo	289241	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.8	62.6	136			
Surr: BFB	960		1000		96.3	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304A79

02-May-13

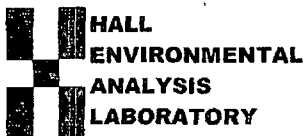
Client: Animas Environmental
Project: COP San Juan 28-4 #27A

Sample ID	MB-7161	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R10142	RunNo:	10142					
Prep Date:	4/25/2013	Analysis Date:	4/26/2013	SeqNo:	289267	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-7161	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R10142	RunNo:	10142					
Prep Date:	4/25/2013	Analysis Date:	4/26/2013	SeqNo:	289268	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	112	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

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



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: 1304A79

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

Completed By: Ashley Gallegos

Reviewed By: ID

04/26/13
4/26/2013 10:00:00 AM

4/26/2013 10:20:27 AM

04/26/2013

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via: ☐

eMail ☐

Phone ☐

Fax ☐

In Person ☐

Regarding:

Client Instructions:


17. Additional remarks:

18. Cooler Information

Cooler No.	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animas Environmental Services</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> <u>Rush Same Day</u>
Mailing Address: <u>624 E. Comanche</u>	Project Name: <u>Cop San Juan 2B-4 #27A</u>	
<u>Farmington, NM 87401</u>	Project #:	
Phone #: <u>505-564-2281</u>	Project Manager:	
email or Fax#:	<u>D. Watson</u>	
QA/QC Package:	Sampler: <u>H. Woods</u>	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	<input type="checkbox"/> On Ice
Accreditation		<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> NELAP	<input type="checkbox"/> Other _____	<input type="checkbox"/> No
<input type="checkbox"/> EDD (Type) _____	Sample Temperature	<u>11/10</u>

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/25/13	1714	Heath M. Wozz	Christine Walter	4/25/13	1714
Date:	Time:	Relinquished by:	Received by:	Date	Time
4/25/13	1750	Christine Walter		04/26/13	1000

Analysis Request

[illegible]

Remarks:	Bill to Conoco Phillips
	1



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

May 02, 2013

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

RE: COP San Juan 28-4 # 27A

OrderNo.: 1304B57

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/30/2013 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1304B57

Date Reported: 5/2/2013

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Animas Environmental**Client Sample ID:** SC-7**Project:** COP San Juan 28-4 # 27A**Collection Date:** 4/29/2013 2:05:00 PM**Lab ID:** 1304B57-001**Matrix:** MEOH (SOIL)**Received Date:** 4/30/2013 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: GSA
Diesel Range Organics (DRO)	1100	100		mg/Kg	10	4/30/2013 2:25:06 PM
Surr: DNOP	176	63-147	S	%REC	10	4/30/2013 2:25:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	350	100		mg/Kg	20	4/30/2013 11:34:16 AM
Surr: BFB	229	80-120	S	%REC	20	4/30/2013 11:34:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		mg/Kg	20	4/30/2013 11:34:16 AM
Toluene	2.4	1.0		mg/Kg	20	4/30/2013 11:34:16 AM
Ethylbenzene	1.3	1.0		mg/Kg	20	4/30/2013 11:34:16 AM
Xylenes, Total	20	2.0		mg/Kg	20	4/30/2013 11:34:16 AM
Surr: 4-Bromofluorobenzene	113	80-120		%REC	20	4/30/2013 11:34:16 AM

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#: 1304B57

02-May-13

Client: Animas Environmental
Project: COP San Juan 28-4 # 27A

Sample ID	MB-7211	SampType	MBLK	TestCode	EPA Method 8015D: Diesel Range Organics					
Client ID	PBS	Batch ID	7211	RunNo	10208					
Prep Date	4/29/2013	Analysis Date	4/30/2013	SeqNo	291165	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	9.6		10.00		95.8	63	147			

Sample ID	LCS-7211	SampType	LCS	TestCode	EPA Method 8015D: Diesel Range Organics					
Client ID	LCSS	Batch ID	7211	RunNo	10208					
Prep Date	4/29/2013	Analysis Date	4/30/2013	SeqNo	291166	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.9	47.4	122			
Surr: DNOP	4.8		5.000		96.1	63	147			

Sample ID	1304B05-001AMS	SampType	MS	TestCode	EPA Method 8015D: Diesel Range Organics					
Client ID	BatchQC	Batch ID	7211	RunNo	10223					
Prep Date	4/29/2013	Analysis Date	4/30/2013	SeqNo	291657	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	74	10	50.40	12.21	123	12.6	148			
Surr: DNOP	7.5		5.040		148	63	147			S

Sample ID	1304B05-001AMSD	SampType	MSD	TestCode	EPA Method 8015D: Diesel Range Organics					
Client ID	BatchQC	Batch ID	7211	RunNo	10223					
Prep Date	4/29/2013	Analysis Date	5/1/2013	SeqNo	291658	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	68	10	50.25	12.21	112	12.6	148	7.96	22.5	
Surr: DNOP	6.8		5.025		135	63	147	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304B57

02-May-13

Client: Animas Environmental
Project: COP San Juan 28-4 # 27A

Sample ID	MB-7205	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R10203	RunNo:	10203					
Prep Date:	4/29/2013	Analysis Date:	4/30/2013	SeqNo:	291428	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.2	80	120			

Sample ID	LCS-7205	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R10203	RunNo:	10203					
Prep Date:	4/29/2013	Analysis Date:	4/30/2013	SeqNo:	291429	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.5	62.6	136			
Surr: BFB	990		1000		99.3	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1304B57

02-May-13

Client: Animas Environmental

Project: COP San Juan 28-4 # 27A

Sample ID	MB-7205	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R10203	RunNo:	10203					
Prep Date:	4/29/2013	Analysis Date:	4/30/2013	SeqNo:	291470	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-7205	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R10203	RunNo:	10203					
Prep Date:	4/29/2013	Analysis Date:	4/30/2013	SeqNo:	291471	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Qualifiers:

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

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1304B57

RcptNo: 1

Received by/date:	<i>[Signature]</i>	<i>02/30/13</i>
Logged By:	Lindsay Mangin	4/30/2013 9:55:00 AM
Completed By:	Lindsay Mangin	4/30/2013 10:01:37 AM
Reviewed By:	<i>IO</i>	<i>04/30/2013</i>

Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

Log In

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

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

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

- Additional remarks:

18. Cooler Information

Cooler No.	Temp.°C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.5	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>Animas Environmental Services</u>		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> <u>Rush Same day</u>	
Mailing Address: <u>624 E Comanche</u>		Project Name:	
<u>Farmington, NM 87401</u>		<u>CoP San Juan 28-4 #27A</u>	
Phone #: <u>(505) 564-2281</u>		Project #:	
email or Fax#: <u>(505) 324-2022</u>		Project Manager:	
QA/QC Package:		<u>Deborah Watson</u>	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sampler: <u>Stephanie Lynn</u>	
Accreditation		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		Sample Temperature: <u>72.5</u>	
<input type="checkbox"/> EDD (Type) _____			

☐ Standard ☒ Rush same day

Col San Juan 28-4 #27A

Project Manager:

Deborah Watson

Sampler: Stephanie Lynn

On Ice: ☒ Yes ☐ No


Sample Temperature: 25

[illegible]

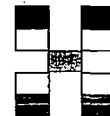
Date:	Time:	Relinquished by:
2/29/13	1650	Stephanie Allyn

Date:	Time:	Relinquished by:
2/29/13	1720	Christine Waelen

Received by: Christine Walters

Received by:	Date	Time
	04/30/13	0955

Remarks: Bill to ConocoPhillips
WO: 955129
Area: 6



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

X	BTEX + MIBK + Toluene s (8021)
	BTEX + MTBE + TPH (Gas only)
X	TPH 8015B (<u>GRO</u> / <u>DRO</u> / MRO)
	TPH (Method 418.1)
	EDB (Method 504.1)
	PAH's (8310 or 8270 SIMS)
	RCRA 8 Metals
	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)
	Air Bubbles (Y or N)

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