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 East 30th Street, Farmington, NM 87402**	Telephone No. **505-326-9786**
Facility Name **San Juan 27-4 Unit 27**	Facility Type **Gas Well**

Surface Owner **BLM**	Mineral Owner **BLM**	API No. **3003906792**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	**33**	**27N**	**4W**	**1090'**	**South**	**1990'**	**West**	**Rio Arriba**

Latitude__36.52565_____ Longitude__-107.25784___

NATURE OF RELEASE

Type of Release **Produced Water Condensate**	Volume of Release **Produced Water 10.02 BBL Condensate 11.67 BBL**	Volume Recovered **0 BBL 0 BBL**
Source of Release **Production Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **03-08-2013; 8:45 AM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? ***Brandon Powell - NMOCD*** **Mark Kelly – BLM FFO** **J.J. Miller – USFS**	RCVD JUN 6 '13 OIL CONS. DIV.
By Whom? Crystal Tafoya	Date and Hour **NMOCD – 03-08-2013 @ 12:16 PM** **BLM FFO - 03-08-2013 @ 12:15 PM** **USFS - 03-08-2013 @ 12:16 PM**	DIST. 3
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

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

Describe Cause of Problem and Remedial Action Taken.*
Production tank developed a leak due to corrosion causing the release of 10.02 BBLs of Produced Water and 11.67 BBLs of Condensate. Zero BBLs were recovered.

Describe Area Affected and Cleanup Action Taken.*
ConocoPhillips will replace the tank and assess the soils to determine further action, if needed. **Excavation was 30' x 30' x 3' Deep. 120 c/yds of soil was transported to TNT Land Farm and 120 c/yds of clean soil was transported from TNT, and placed in the excavation site. Excavation terminated at sandstone, NMOCD and USFS approved to leave in place and backfill on May 7, 2013 – 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: 9/24/2013	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval:	Attached ☐

nJK1326742910

34

Date: **June 4, 2013** Phone: **505-326-9786**		

* Attach Additional Sheets If Necessary

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3084

June 3, 2013

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

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

Dear Ms. Hunter:

On March 12 and May 6, 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 27-4 #27, located in Rio Arriba County, New Mexico. The release consisted of approximately 11.7 barrels (bbls) hydrocarbon and 10 bbls produced water from an onsite production tank. The final excavation was completed by contractors prior to AES' arrival to the location on May 6, 2013.

1.0 Site Information

1.1 Location

Location - SE¼ SW¼, Section 33, T27N, R4W, Rio Arriba County, New Mexico
Well Head Latitude/Longitude - N36.52589 and W107.25871, respectively
Release Location Latitude/Longitude – N36.52579 and W107.25829, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. *Topographic Site Location Map*
Figure 2. Aerial Site Map, March 2013

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Protection Report dated April 1996 for the San Juan 27-4 #27 reported the depth to groundwater as 110 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 130 feet east of the location and drains to Jaramillo Canyon. Based on this information, the location was assessed a ranking score of 20 per the NMOCD *Guidelines for Leaks, Spills, and Releases* (1993).

1.3 Assessments

AES was initially contacted by Crystal Tafoya of CoP on March 11, 2013, and on March 12, 2013, Kelsey Christiansen and Corwin Lameman of AES completed the release assessment field work. The assessment included collection and field screening soil of 26 soil samples from 12 soil borings (SB-1 through SB-12). Based on the field screening and laboratory analytical results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On May 6, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collecting five confirmation soil samples (SC-1 through SC-5) of the walls and base of the excavation. The final excavation was approximately 845 square-feet by 4 to 5 feet in depth. Note that the base of the excavation was terminated on competent sandstone. Sample locations and final excavation extents are shown on Figure 4.

2.0 Soil Sampling

A total of 26 soil samples were collected from 12 soil borings (SB-1 through SB-12) during the initial assessment. Additionally, five 5-point composite soil samples (SC-1 through SC-5) were collected during the final excavation clearance sampling. All soil samples were field screened for volatile organic compounds (VOCs) and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Two of the soil samples collected during the initial assessment (SB-2 and SB-8) and one composite sample (SC-5) collected during the excavation were submitted for confirmation laboratory analysis.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

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

2.1.2 Total Petroleum Hydrocarbons

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

2.2 Laboratory Analyses

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

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

2.3 Field Screening and Laboratory Analytical Results

On March 12, 2013, initial assessment field screening readings for VOCs via OVM ranged from 0.0 ppm in 11 samples up to 3,224 ppm in SB-7. Field TPH concentrations ranged from less than 20.0 mg/kg in four samples up to greater than 5,000 mg/kg in four samples.

On May 6, 2013, final excavation field screening results for VOCs via OVM showed concentrations ranging from 1.6 ppm in SC-3 to 285 ppm in SC-5. Field TPH concentrations ranged from less than 20.0 mg/kg in SC-1 up to 185 mg/kg in SC-5. 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 27-4 #27 Initial Release Assessment and Final Excavation
March and May 2013

Sample ID	*Date Sampled*	*Sample Depth (ft bgs)*	*VOCs via OVM (ppm)*	*Field TPH (mg/kg)*
*NMOCD Action Level**			*100*	*100*
SB-1	3/12/13	Surface	**1,423**	NA
		1	**1,730**	NA
		1.5	**1,747**	**>5,000**
SB-2	3/12/13	Surface	**203**	NA
		2	**1,639**	NA
		4	**1,575**	NA
		5	**1,335**	**>5,000**
SB-3	3/12/13	0.5	31.4	23.9
		0.75	0.0	NA
SB-4	3/12/13	1	16.9	<20.0
		5	1.2	NA
SB-5	3/12/13	0.5	0.0	<20.0
SB-6	3/12/13	0.5	0.0	<20.0
		1	0.0	NA
SB-7	3/12/13	Surface	**3,224**	NA
		0.5	**2,204**	NA
		1	**1,831**	**>5,000**
SB-8	3/12/13	Surface	**2,177**	NA
		0.5	**2,246**	**>5,000**
SB-9	3/12/13	Surface	0.0	NA
		1.25	0.0	<20.0
SB-10	3/12/13	Surface	0.0	NA
		0.5	0.0	NA
SB-11	3/12/13	0.5	0.0	NA
SB-12	3/12/13	0.5	0.0	NA
		2	0.0	NA
SC-1	5/6/13	1 to 4	3.7	<20.0

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
*NMOCD Action Level**			*100*	*100*
SC-2	5/6/13	1 to 4	1.9	25.7
SC-3	5/6/13	1 to 4	1.6	29.7
SC-4	5/6/13	1 to 4	18.9	45.8
SC-5	5/6/13	4 to 5	**285**	**185**

NA – not analyzed
*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for SB-2 and SB-8 were used to confirm field screening results from the initial assessment. Benzene concentrations were reported below the laboratory detection limits in each sample. Total BTEX concentrations were reported at 312 mg/kg in SB-2 and 131 mg/kg in SB-8. TPH concentrations (as GRO/DRO) were reported at 4,480 mg/kg in SB-2 and 2,590 mg/kg in SB-2.

Laboratory analytical results for SC-5 were used to confirm field screening results during excavation activities. The benzene concentration was reported below the laboratory detection limit of 0.050 mg/kg and total BTEX was reported at 1.2 mg/kg. TPH as GRO/DRO was reported at 172 mg/kg. Results are presented in Table 2 and on Figure 3. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH
San Juan 27-4 #27 Initial Release Assessment and Final Excavation
March and May 2013

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
NMOCD Action Level*			***10***	***50***	***100***	
SB-2	3/12/13	5	<0.047	**312**	**3,500**	**980**
SB-8	3/12/13	0.5	<0.048	**131**	**1,600**	**990**
SC-5	5/6/13	4 to 5	<0.050	1.2	**42**	**130**

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

3.0 Conclusions and Recommendations

On March 12, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a release from a production tank at the San Juan 27-4 #27. 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 ranking score of 20. Field screening results above the NMOCD action level of 100 ppm VOCs were reported in SB-1, SB-2, SB-7, and SB-8, with the highest VOC concentration reported in SB-7 with 3,224 ppm. Field screening TPH results above the NMOCD action level of 100 mg/kg were reported in SB-1, SB-2, SB-7, and SB-8, with concentrations exceeding 5,000 mg/kg.

Laboratory analytical results from March 12, 2013, reported benzene concentrations below the NMOCD action level of 10 mg/kg in each of the samples. Total BTEX concentrations exceeded NMOCD action levels of 50 mg/kg in SB-2 (312 mg/kg) and SB-8 (131 mg/kg). TPH concentrations as GRO/DRO were also reported above the NMOCD action level of 100 mg/kg in SB-2 (4,480 mg/kg) and SB-8 (2,590 mg/kg).

On May 6, 2013, a final assessment of the excavation area was completed. Field screening results of the excavation extents showed that VOC and TPH concentrations were below applicable NMOCD action levels for all of the final four walls of the excavation. However, field screening results for the base (SC-5) of the excavation showed VOC and TPH concentrations above applicable NMOCD action levels. Laboratory analytical results for SC-5 (taken from the base of the excavation, which was terminated at sandstone) showed that the total BTEX concentration was reported below the NMOCD action level of 50 mg/kg. However, TPH as GRO/DRO exceeded the NMOCD action level of 100 mg/kg with 172 mg/kg.

Based on the final field screening results of the excavation of petroleum contaminated soils at the San Juan 27-4 #27, VOC and TPH concentrations were below applicable NMOCD action levels for the final four walls of the excavation. However, the base of the excavation (sandstone) exceeded the applicable NMOCD action level for TPH. CoP received verbal approval to backfill the final excavation from Brandon Powell of the NMOCD on May 7, 2013. No further work is recommended for the San Juan 27-4 #27.

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

Sincerely,

Heather M. Woods

Heather M. Woods
Staff Geologist

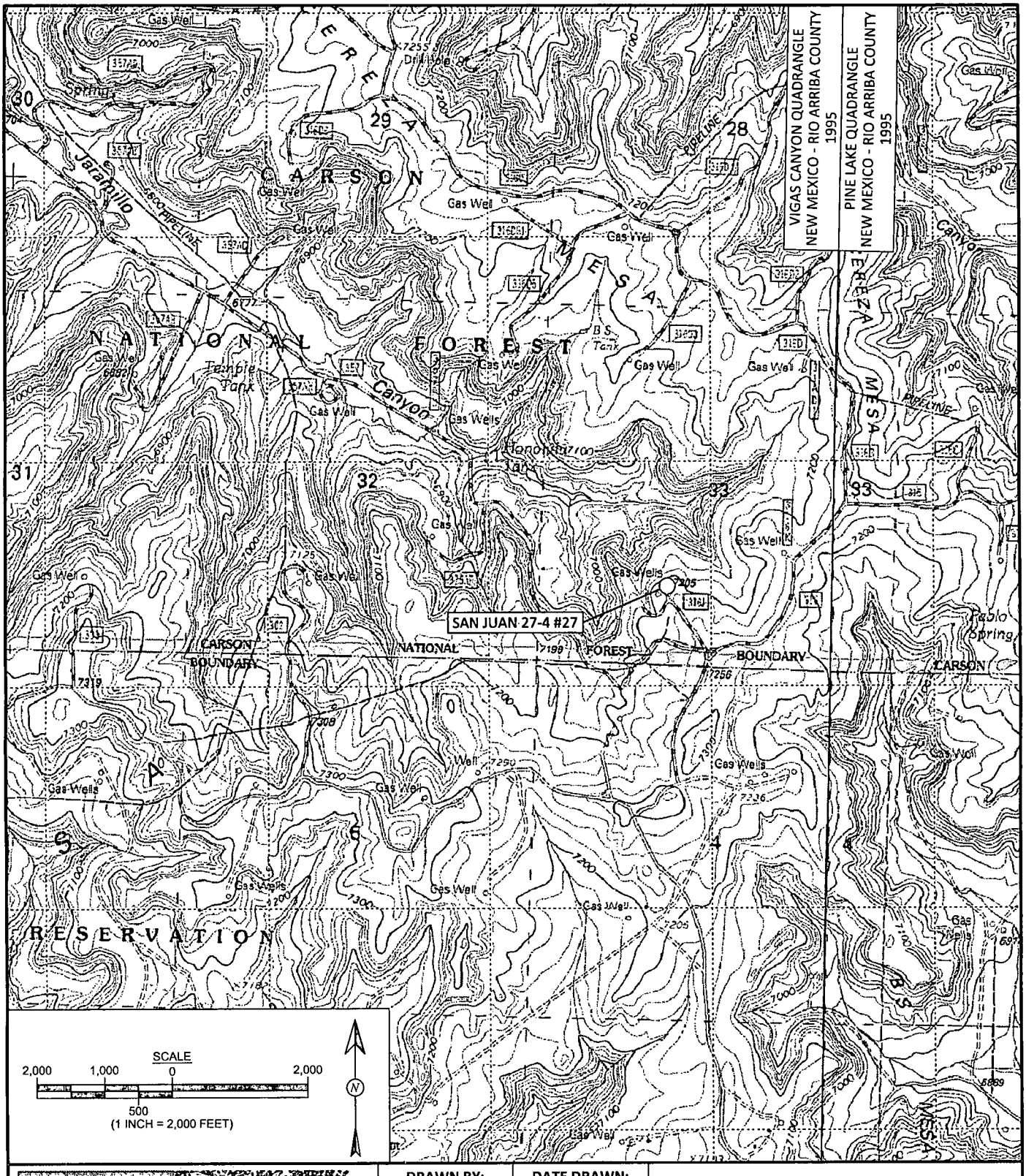
Elizabeth McNally

Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, March 2013
Figure 3. Initial Assessment Sample Locations and Results, March 2013
Figure 4. Final Excavation Sample Locations and Results, May 2013
AES Field Screening Report 031213
AES Field Screening Report 050613
Hall Laboratory Analytical Reports 1303592 and 1305211

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 27-4 #27\SJ 27-4 #27 Release and Final Excavation Report 060313.docx



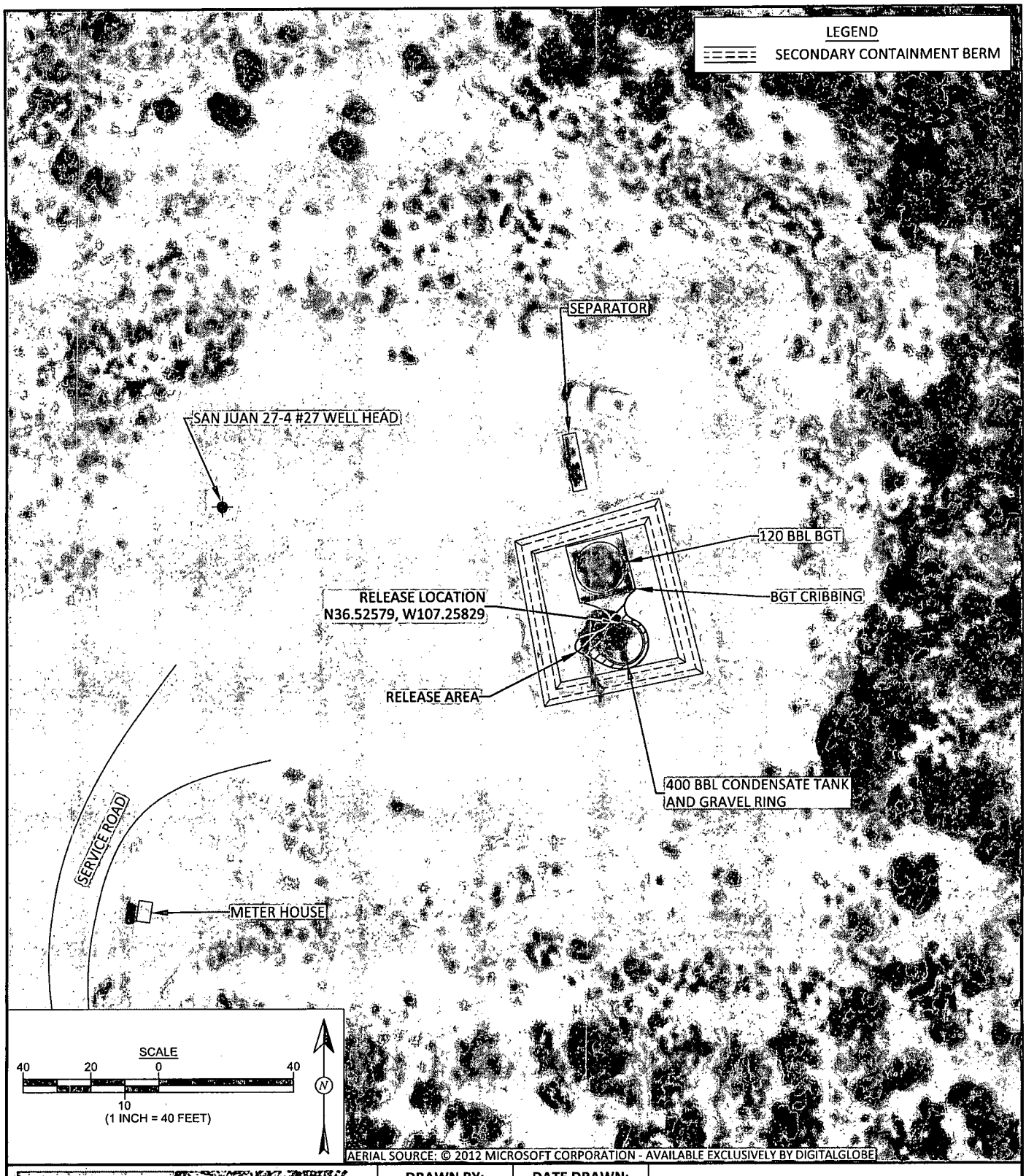
DRAWN BY: C. Lameman	DATE DRAWN: March 13, 2013
REVISIONS BY: C. Lameman	DATE REVISED: March 13, 2013
CHECKED BY: D. Watson	DATE CHECKED: March 13, 2013
APPROVED BY: E. McNally	DATE APPROVED: March 13, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 27-4 #27
SE¼ SW¼, SECTION 33, T27N, R4W
RIO ARRIBA COUNTY, NEW MEXICO
N36.52589, W107.25871

AES
Animas Environmental Services, LLC



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** March 13, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** March 13, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** March 13, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** March 13, 2013

FIGURE 2

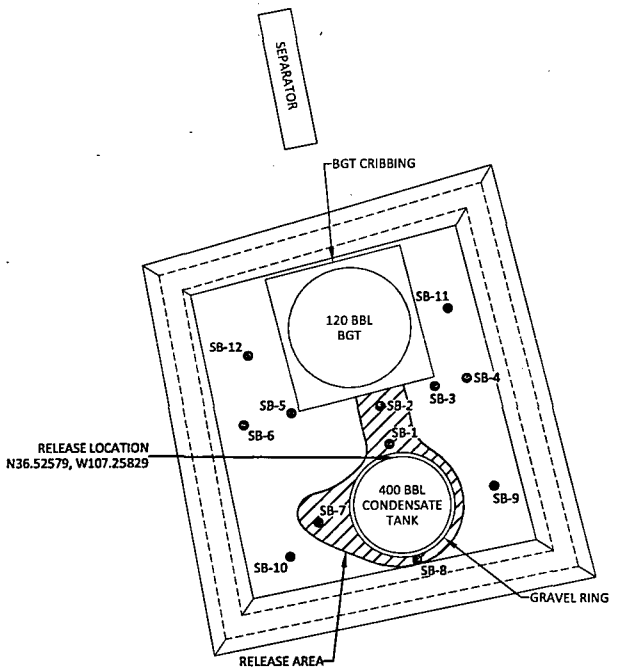
AERIAL SITE MAP
MARCH 2013
ConocoPhillips
SAN JUAN 27-4 #27
SE¼ SW¼, SECTION 33, T27N, R4W
RIO ARRIBA COUNTY, NEW MEXICO
N36.52589, W107.25871

FIGURE 3

INITIAL ASSESSMENT
SAMPLE LOCATIONS AND RESULTS
MARCH 2013
ConocoPhillips
SAN JUAN 27-4 #27
SE¼ SW¼, SECTION 33, T27N, R4W
RIO ARRIBA COUNTY, NEW MEXICO
N36.52589, W107.25871

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	March 13, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	March 13, 2013
CHECKED BY:	**DATE CHECKED:**
D. Watson	March 13, 2013
APPROVED BY:	**DATE APPROVED:**
E. McNally	March 13, 2013



LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

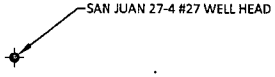
SCALE
15 9 0 15
3
(1 INCH = 15 FEET)

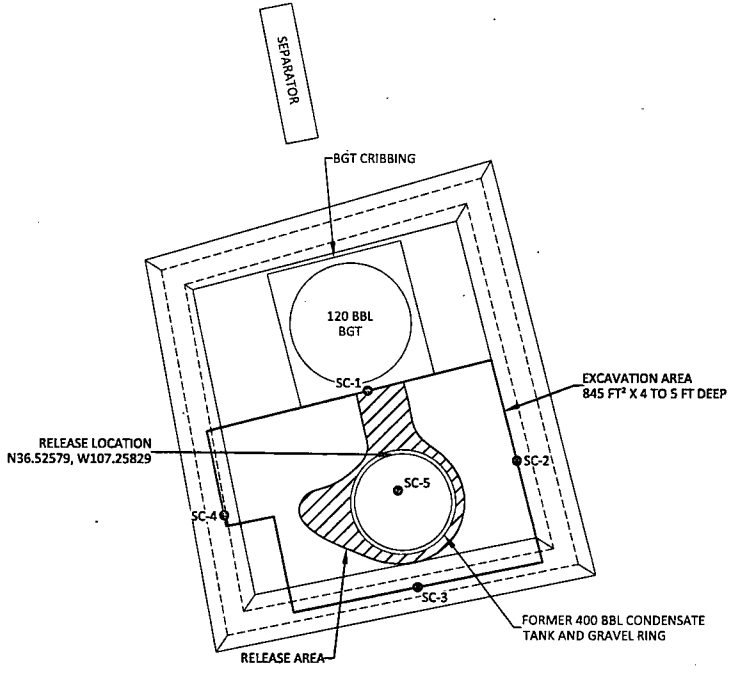
Field Screening Results				
Sample ID	**Date**	**Depth (ft)**	**OVM-PID (ppm)**	**TPH (mg/kg)**
NMOCD ACTION LEVEL			*100*	*100*
SB-1	3/12/13	Surface	**1,423**	*NA*
		1	**1,730**	*NA*
		1.5	**1,747**	**>5,000**
SB-2	3/12/13	Surface	**203**	*NA*
		2	**1,639**	*NA*
		4	**1,575**	*NA*
		5	**1,335**	**>5,000**
SB-3	3/12/13	0.5	31.4	23.9
		0.75	0.0	*NA*
SB-4	3/12/13	1	16.9	<20.0
		5	1.2	*NA*
SB-5	3/12/13	0.5	0.0	<20.0
SB-6	3/12/13	0.5	0.0	<20.0
		1	0.0	*NA*
SB-7	3/12/13	Surface	**3,224**	*NA*
		0.5	**2,204**	*NA*
		1	**1,831**	**>5,000**
SB-8	3/12/13	Surface	**2,177**	*NA*
		0.5	**2,246**	**>5,000**
SB-9	3/12/13	Surface	0.0	*NA*
		1.25	0.0	<20.0
SB-10	3/12/13	Surface	0.0	*NA*
		0.5	0.0	*NA*
SB-11	3/12/13	0.5	0.0	*NA*
SB-12	3/12/13	0.5	0.0	*NA*
		2	0.0	*NA*
NA - NOT ANALYZED				

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*	
SB-2	3/12/13	5	<0.047	**312**	**3,500**	**980**
SB-8	3/12/13	0.5	<0.048	**131**	**1,600**	**990**
ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015B.						

FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
MAY 2013
ConocoPhillips
SAN JUAN 27-4 #27
SE¼ SW¼, SECTION 33, T27N, R4W
RIO ARRIBA COUNTY, NEW MEXICO
N36.52589, W107.25871





SERVICE ROAD

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	100
SC-1	5/6/13	1 to 4	3.7	<20.0
SC-2	5/6/13	1 to 4	1.9	25.7
SC-3	5/6/13	1 to 4	1.6	29.7
SC-4	5/6/13	1 to 4	18.9	45.8
SC-5	5/6/13	4 to 5	**285**	**185**
ALL SAMPLES WERE 5-POINT COMPOSITE SAMPLES.				

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	100	
SC-5	5/6/13	4 to 5	<0.050	1.2	**42**	**130**
SAMPLE WAS ANALYZED PER EPA METHOD 8021B AND 8015B.						

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** May 7, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** May 7, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** May 7, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** May 7, 2013

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

N

SCALE
15 9 0 15
3
(1 INCH = 15 FEET)

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 27-4 #27

Date: 3/12/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ Surface	3/12/2013	10:40	1,423	*Not Analyzed for TPH*				
SB-1 @ 1'	3/12/2013	10:43	1,730	*Not Analyzed for TPH*				
SB-1 @ 1.5'	3/12/2013	10:46	1,747	13:18	>5,000	40.0	1	CL
SB-2 @ Surface	3/12/2013	10:50	203	*Not Analyzed for TPH*				
SB-2 @ 2'	3/12/2013	10:55	1,639	*Not Analyzed for TPH*				
SB-2 @ 4'	3/12/2013	10:57	1,575	*Not Analyzed for TPH*				
SB-2 @ 5'	3/12/2013	11:00	1,335	13:22	>5,000	40.0	1	CL
SB-3 @ 0.5'	3/12/2013	11:01	31.4	12:25	23.9	20.0	1	CL
SB-3 @ 0.75'	3/12/2013	11:02	0.0	*Not Analyzed for TPH*				
SB-4 @ 1'	3/12/2013	11:07	16.9	12:29	<20.0	20.0	1	CL
SB-4 @ 5'	3/12/2013	11:13	1.2	*Not Analyzed for TPH*				
SB-5 @ 0.5'	3/12/2013	11:20	0.0	12:32	<20.0	20.0	1	CL
SB-6 @ 0.5'	3/12/2013	11:24	0.0	12:35	<20.0	20.0	1	CL
SB-6 @ 1'	3/12/2013	11:29	0.0	*Not Analyzed for TPH*				
SB-7 @ Surface	3/12/2013	11:35	3,224	*Not Analyzed for TPH*				
SB-7 @ 0.5'	3/12/2013	11:38	2,204	*Not Analyzed for TPH*				
SB-7 @ 1'	3/12/2013	11:42	1,831	14:05	>5,000	40.0	1	CL
SB-8 @ Surface	3/12/2013	11:48	2,177	*Not Analyzed for TPH*				
SB-8 @ 0.5'	3/12/2013	11:57	2,246	14:08	>5,000	40.0	1	CL
SB-9 @ Surface	3/12/2013	12:01	0.0	*Not Analyzed for TPH*				
SB-9 @ 1.25'	3/12/2013	12:10	0.0	13:56	<20.0	20.0	1	CL
SB-10 @ Surface	3/12/2013	12:14	0.0	*Not Analyzed for TPH*				

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-10 @ 0.5'	3/12/2013	12:17	0.0	*Not Analyzed for TPH*				
SB-11 @ 0.5'	3/12/2013	12:21	0.0	*Not Analyzed for TPH*				
SB-12 @ 0.5'	3/12/2013	12:28	0.0	*Not Analyzed for TPH*				
SB-12 @ 2'	3/12/2013	12:35	0.0	*Not Analyzed for TPH*				

Total Petroleum Hydrocarbons - USEPA 418.1

PQL	Practical Quantitation Limit
ND	Not Detected at the Reporting Limit
DF	Dilution Factor
NA	Not Analyzed

Analyst:

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 27-4 #27

Date: 5/6/2013

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-1	5/6/2013	10:08	North Wall	3.7	10:46	<20.0	20.0	1	HMW
SC-2	5/6/2013	10:10	East Wall	1.9	10:51	25.7	20.0	1	HMW
SC-3	5/6/2013	10:12	South Wall	1.6	10:48	29.7	20.0	1	HMW
SC-4	5/6/2013	10:14	West Wall	18.9	10:53	45.8	20.0	1	HMW
SC-5	5/6/2013	10:16	Base	285	10:55	185	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

Report Finalized: 05/06/13

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 22, 2013

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

RE: COP San Juan 27-4 #27 OrderNo.: 1303592

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/14/2013 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 **1303592**
Date Reported: **3/22/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: COP San Juan 27-4 #27
Lab ID: 1303592-001 **Matrix:** SOIL

Client Sample ID: SB-2@5'
Collection Date: 3/12/2013 11:00:00 AM
Received Date: 3/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	980	10		mg/Kg	1	3/21/2013 10:56:37 AM
Surr: DNOP	127	72.4-120	S	%REC	1	3/21/2013 10:56:37 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	3500	470		mg/Kg	100	3/18/2013 4:25:01 PM
Surr: BFB	190	84-116	S	%REC	100	3/18/2013 4:25:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.047		mg/Kg	1	3/17/2013 5:40:02 AM
Toluene	49	4.7		mg/Kg	100	3/18/2013 4:25:01 PM
Ethylbenzene	23	4.7		mg/Kg	100	3/18/2013 4:25:01 PM
Xylenes, Total	240	9.4		mg/Kg	100	3/18/2013 4:25:01 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	100	3/18/2013 4:25:01 PM

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, Inc.

CLIENT: Animas Environmental Services
Project: COP San Juan 27-4 #27
Lab ID: 1303592-002 **Matrix:** SOIL

Client Sample ID: SB-8@0.5
Collection Date: 3/12/2013 11:51:00 AM
Received Date: 3/14/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	990	10		mg/Kg	1	3/21/2013 11:23:48 AM
Surr: DNOP	132	72.4-120	S	%REC	1	3/21/2013 11:23:48 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1600	240		mg/Kg	50	3/18/2013 4:53:39 PM
Surr: BFB	203	84-116	S	%REC	50	3/18/2013 4:53:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	3/17/2013 6:10:14 AM
Toluene	11	2.4		mg/Kg	50	3/18/2013 4:53:39 PM
Ethylbenzene	9.8	2.4		mg/Kg	50	3/18/2013 4:53:39 PM
Xylenes, Total	110	4.8		mg/Kg	50	3/18/2013 4:53:39 PM
Surr: 4-Bromofluorobenzene	109	80-120		%REC	50	3/18/2013 4:53:39 PM

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#: **1303592**

22-Mar-13

Client: Animas Environmental Services

Project: COP San Juan 27-4 #27

Sample ID **MB-6574**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6574**	RunNo: **9285**
Prep Date: **3/20/2013**	Analysis Date: **3/20/2013**	SeqNo: **264882** 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	11		10.00		113	72.4	120			

Sample ID **LCS-6574**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6574**	RunNo: **9285**
Prep Date: **3/20/2013**	Analysis Date: **3/20/2013**	SeqNo: **264883** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.4	47.4	122			
Surr: DNOP	5.3		5.000		106	72.4	120			

Sample ID **MB-6604**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6604**	RunNo: **9311**
Prep Date: **3/21/2013**	Analysis Date: **3/21/2013**	SeqNo: **265889** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		122	72.4	120			S

Sample ID **LCS-6604**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6604**	RunNo: **9311**
Prep Date: **3/21/2013**	Analysis Date: **3/21/2013**	SeqNo: **265890** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		101	72.4	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#: **1303592**

22-Mar-13

Client: Animas Environmental Services

Project: COP San Juan 27-4 #27

Sample ID **MB-6486**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262878** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Sample ID **LCS-6486**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262879** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **1303551-021AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262882** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		0.9434		103	80	120			

Sample ID **1303551-021AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262883** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		0.9425		102	80	120	0	0	

Sample ID **MB-6496**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **6496**	RunNo: **9235**
Prep Date: **3/15/2013**	Analysis Date: **3/17/2013**	SeqNo: **262892** 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	0.99		1.000		98.8	80	120			

Sample ID **LCS-6496**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **6496**	RunNo: **9235**
Prep Date: **3/15/2013**	Analysis Date: **3/17/2013**	SeqNo: **262893** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.4	80	120			
Toluene	0.95	0.050	1.000	0	94.7	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#: **1303592**

22-Mar-13

Client: Animas Environmental Services

Project: COP San Juan 27-4 #27

Sample ID **MB-6486**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262753** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.0	84	116			

Sample ID **LCS-6486**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262755** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		93.5	84	116			

Sample ID **1303551-022AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262759** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		959.7		96.3	84	116			

Sample ID **1303551-022AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6486**	RunNo: **9235**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262760** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		960.6		95.1	84	116	0	0	

Sample ID **MB-6496**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **6496**	RunNo: **9235**
Prep Date: **3/15/2013**	Analysis Date: **3/17/2013**	SeqNo: **262840** 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		91.7	84	116			

Sample ID **LCS-6496**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **6496**	RunNo: **9235**
Prep Date: **3/15/2013**	Analysis Date: **3/17/2013**	SeqNo: **262848** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	62.6	136			
Surr: BFB	950		1000		95.2	84	116			

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#: **1303592**

22-Mar-13

Client: Animas Environmental Services

Project: COP San Juan 27-4 #27

Sample ID **LCS-6496** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **6496** RunNo: **9235**

Prep Date: **3/15/2013** Analysis Date: **3/17/2013** SeqNo: **262893** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	0.96	0.050	1.000	0	95.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **1303582-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **6496** RunNo: **9235**

Prep Date: **3/15/2013** Analysis Date: **3/17/2013** SeqNo: **262895** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.048	0.9542	0	84.5	67.2	113			
Toluene	0.84	0.048	0.9542	0	88.3	62.1	116			
Ethylbenzene	0.86	0.048	0.9542	0	89.8	67.9	127			
Xylenes, Total	2.7	0.095	2.863	0	94.4	60.6	134			
Surr: 4-Bromofluorobenzene	0.96		0.9542		101	80	120			

Sample ID **1303582-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **6496** RunNo: **9235**

Prep Date: **3/15/2013** Analysis Date: **3/17/2013** SeqNo: **262896** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.048	0.9579	0	92.7	67.2	113	9.61	14.3	
Toluene	0.92	0.048	0.9579	0	96.4	62.1	116	9.19	15.9	
Ethylbenzene	0.93	0.048	0.9579	0	97.5	67.9	127	8.64	14.4	
Xylenes, Total	2.9	0.096	2.874	0	103	60.6	134	8.71	12.6	
Surr: 4-Bromofluorobenzene	0.97		0.9579		101	80	120	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

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

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1303592

Received by/date: MG 03/14/13

Logged By: Lindsay Mangin 3/14/2013 10:00:00 AM

Completed By: Lindsay Mangin 3/15/2013 9:10:41 AM

Reviewed By: 03/15/13

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

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)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Cof San Juan 27-4 #27

Project #:

Project Manager: D. Watson

Sampler: KC / CL

On Ice: ☒ Yes ☐ No

Sample Temperature: 4°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1303592	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel) Org/DRO	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	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)
3-12-13	1100	Soil	SB-2 @ 5'	4oz jar glass	—	-001	X		X												
3-12-13	1151	Soil	SB-8 @ 0.5	↓	—	-002	X		X												

Date:	Time:	Relinquished by:	Received by:	Date	Time
~~3/13/13~~ 3/13/13	1719			3/13/12	1719
Date:	Time:	Relinquished by:	Received by:	Date	Time
3/13/13	1748			03/14/13	10:00

Remarks: Bill to ConocoPhillips
NO:
Activity:
Supervisor: Freddy Proctor
Ordered by: Crystal Tafoya
Area: 25
User: MK SPENC

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

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

May 08, 2013

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

RE: CoP San Juan 27-4 #27 OrderNo.: 1305211

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/7/2013 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 **1305211**
Date Reported: **5/8/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP San Juan 27-4 #27
Lab ID: 1305211-001
Matrix: MEOH (SOIL)
Client Sample ID: SC-5
Collection Date: 5/6/2013 10:16:00 AM
Received Date: 5/7/2013 9:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **GSA**
Diesel Range Organics (DRO)	130	10		mg/Kg	1	5/7/2013 11:54:41 AM
Surr: DNOP	101	63-147		%REC	1	5/7/2013 11:54:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	42	5.0		mg/Kg	1	5/7/2013 12:29:02 PM
Surr: BFB	404	80-120	S	%REC	1	5/7/2013 12:29:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	5/7/2013 12:29:02 PM
Toluene	ND	0.050		mg/Kg	1	5/7/2013 12:29:02 PM
Ethylbenzene	0.098	0.050		mg/Kg	1	5/7/2013 12:29:02 PM
Xylenes, Total	1.1	0.10		mg/Kg	1	5/7/2013 12:29:02 PM
Surr: 4-Bromofluorobenzene	117	80-120		%REC	1	5/7/2013 12:29:02 PM

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#: **1305211**

08-May-13

Client: Animas Environmental

Project: CoP San Juan 27-4 #27

Sample ID: **MB-7278**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **7278**	RunNo: **10338**
Prep Date: **5/3/2013**	Analysis Date: **5/6/2013**	SeqNo: **294806** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.2	63	147			

Sample ID: **MB-7280**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **7280**	RunNo: **10338**
Prep Date: **5/3/2013**	Analysis Date: **5/6/2013**	SeqNo: **294807** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.3	63	147			

Sample ID: **LCS-7278**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **7278**	RunNo: **10338**
Prep Date: **5/3/2013**	Analysis Date: **5/6/2013**	SeqNo: **294808** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.4		5.000		107	63	147			

Sample ID: **LCS-7280**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **7280**	RunNo: **10338**
Prep Date: **5/3/2013**	Analysis Date: **5/6/2013**	SeqNo: **294809** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.6	63	147			

Sample ID: **1305072-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **7278**	RunNo: **10338**
Prep Date: **5/3/2013**	Analysis Date: **5/6/2013**	SeqNo: **294868** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		4.965		85.3	63	147			

Sample ID: **1305072-012AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **7280**	RunNo: **10338**
Prep Date: **5/3/2013**	Analysis Date: **5/7/2013**	SeqNo: **294869** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.005		78.2	63	147			

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#: **1305211**

08-May-13

Client: Animas Environmental

Project: CoP San Juan 27-4 #27

Sample ID: **1305072-004AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **BatchQC** Batch ID: **7278** RunNo: **10338**

Prep Date: **5/3/2013** Analysis Date: **5/6/2013** SeqNo: **294870** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.015		92.8	63	147	0	0	

Sample ID: **1305072-012AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **BatchQC** Batch ID: **7280** RunNo: **10338**

Prep Date: **5/3/2013** Analysis Date: **5/7/2013** SeqNo: **294871** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		4.995		78.4	63	147	0	0	

Sample ID: **MB-7322** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **7322** RunNo: **10338**

Prep Date: **5/7/2013** Analysis Date: **5/7/2013** SeqNo: **295223** 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	11		10.00		109	63	147			

Sample ID: **LCS-7322** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **7322** RunNo: **10338**

Prep Date: **5/7/2013** Analysis Date: **5/7/2013** SeqNo: **295225** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	111	47.4	122			
Surr: DNOP	5.4		5.000		107	63	147			

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#: **1305211**

08-May-13

Client: Animas Environmental

Project: CoP San Juan 27-4 #27

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R10444**	RunNo: **10444**
Prep Date:	Analysis Date: **5/7/2013**	SeqNo: **295711** 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	960		1000		96.4	80	120			

Sample ID: **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R10444**	RunNo: **10444**
Prep Date:	Analysis Date: **5/7/2013**	SeqNo: **295712** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	62.6	136			
Surr: BFB	1100		1000		109	80	120			

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#: **1305211**

08-May-13

Client: Animas Environmental

Project: CoP San Juan 27-4 #27

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R10444**	RunNo: **10444**
Prep Date:	Analysis Date: **5/7/2013**	SeqNo: **295716** 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		103	80	120			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R10444**	RunNo: **10444**
Prep Date:	Analysis Date: **5/7/2013**	SeqNo: **295717** 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	108	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	109	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

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

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

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1305211 RcptNo: 1

Received by/date: MG 05/07/13
Logged By: Michelle Garcia 5/7/2013 9:45:00 AM Michelle Garcia
Completed By: Michelle Garcia 5/7/2013 10:08:48 AM Michelle Garcia
Reviewed By: 05/07/13

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° 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 ✓	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	Adjusted?
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	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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

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)

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
CoP San Juan 27-4 #27

Project #:

Project Manager:
D. Watson

Sampler: H. Woods

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1305211	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / 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)
5/6/13	1016	Soil	SC-5	MeOH Kit 1-4oz	MeOH	-001	X		X													

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/6/13	1749	Heather M. Woods	Chat Watt	5/6/13	1749
Date:	Time:	Relinquished by:	Received by:	Date	Time
5/6/13	1866	Chat Watt	Michelle Garcia	05/07/13	0945

Remarks: Bill to ConocoPhillips

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.

FORM 42 Rev 03/12

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

NOTICE OF NOTIFICATION

OGCC RECEPTION

Receive Date: 05/31/2013

Document Number: 400427133

Entity Information

OGCC Operator Number: 26580 Contact Person: Dollie Busse

Company Name: BURLINGTON RESOURCES OIL & GAS LP Phone: (505) 324-6104

Address: PO BOX 4289 Fax: ( )

City: FARMINGTON State: NM Zip: 87499 Email: dollie.l.busse@cop.com

API #: 05 - 067 - 05043 - 00 Facility ID: Location ID:

Facility Name: UTE 1

Sec: 15 Twp: 32N Range: 11W QtrQtr: SESW Lat: 37.013410 Long: -108.032780

BRADENHEAD TEST – 48-hour Notice

Test Date: 06/06/2013 Time: 09:00 (HH:MM)

This form must be signed by an authorized agent of the entity making assertion.

I certify under penalty of perjury that this report has been examined by me and to the best of my knowledge is true, correct and complete.

Print Name: Dollie L. Busse Email: dollie.l.busse@cop.com

Signature: Title: Staff Regulatory Tech Date: 05/31/2013