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 **ConocoPhillips Company**	Contact **Lisa Hunter**
Address **3401 East 30th Street, Farmington, NM**	Telephone No. **505-326-9786**
Facility Name **San Juan 28-7 244M**	Facility Type **Gas Well**

Surface Owner **BLM**	Mineral Owner **BLM**	API No. **3003926873**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	**7**	**27N**	**7W**	**850'**	**North**	**965'**	**West**	**Rio Arriba**

Latitude__36.5932___ Longitude__-107.62078___

NATURE OF RELEASE

Type of Release **Produced Water** **Condensate**	Volume of Release **Produced Water 36.74 BBLs** **Condensate 5.01 BBLs**	Volume Recovered **0 BBL** **0 BBL**
Source of Release **Production Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **03-06-2013; 9:00 AM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Brandon Powell - NMOCD** **Mark Kelly – BLM FFO**	
By Whom? **Lisa Hunter**	Date and Hour **NMOCD – 03-06-2013 @ 1:51 PM** **BLM FFO - 03-06-2013 @ 1:51 PM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

OIL CONS. DIV DIST. 3
JUL 05 2013

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 36.74 BBLs of Produced Water and 5.01 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. **Analytical results were below the regulatory standards – 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 Approved by Environmental Specialist:
Printed Name: **Lisa Hunter**	
Title: **Field Environmental Specialist**	Approval Date: 8/1/2013 Expiration Date:
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval: Attached ☐
Date: **July 1, 2013** Phone: **505-326-9786**	

* Attach Additional Sheets If Necessary

nJK1321341913

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

June 24, 2013

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

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

RE: Release Assessment Report
San Juan 28-7 #244M
Rio Arriba County, New Mexico

Dear Ms. Hunter:

On March 11, 2013, Animas Environmental Services, LLC (AES) completed a release assessment at the ConocoPhillips (CoP) San Juan 28-7 #244M, located in Rio Arriba County, New Mexico. The release was reported to consist of produced water and condensate which leaked from a 400 barrels (bbl) production tank. The release remained within a bermed secondary containment area on the location.

1.0 Site Information

1.1 Location

Location - NW¼ NW¼, Section 7, T27N, R7W, Rio Arriba County, New Mexico
Well Head Latitude/Longitude - N36.59338 and W107.62112, respectively
Release Location Latitude/Longitude – N36.59352 and W107.62133 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 no depth to groundwater information could be located for the San Juan 28-7 #244M or nearby wells. 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 below ground surface (bgs), based on the elevation differential to the nearest surface water. An unnamed wash is located approximately 775 feet southeast of the location and drains to Smith 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 Release Assessment

AES was initially contacted by Lisa Hunter of CoP on March 6, 2013, and on March 11, 2013, Heather Woods and Kelsey Christiansen of AES completed the release assessment field work. The assessment included collection and field screening of 14 soil samples from 9 soil borings (SB-1 through SB-9). Sample locations are shown on Figure 3.

2.0 Soil Sampling

A total of 14 soil samples were collected from 9 soil borings (SB-1 through SB-9) during the assessment. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Additionally, samples SB-1 through SB-3, SB-8, and SB-9 were composited into sample SC-1, and samples SB-4 through SB-7 were composited into SC-2, which were submitted for 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 8260B;
- TPH for gasoline range organics (GRO) per USEPA Method 8015M and diesel range organics (DRO) per USEPA Method 8015B; and
- Chloride per USEPA Method 300.0.

2.3 *Field Screening and Laboratory Analytical Results*

Assessment field screening readings for VOCs via OVM ranged from 5.6 ppm in SB-7 up to 29.4 ppm in SB-2. In each of the samples selected for field screening of TPH, concentrations were reported as less than 20.0 mg/kg. Results are included below in Table 1 and on Figure 3. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs and TPH Results
San Juan 28-7 #244M Release Assessment, March 2013

Sample ID	***Date Sampled***	***Sample Depth (ft bgs)***	***VOCs via OVM (ppm)***	***Field TPH (mg/kg)***
*NMOCD Action Level**			*100*	*1,000*
SB-1	3/11/13	Surface	13.2	NA
		1	16.2	<20.0
SB-2	3/11/13	Surface	29.4	NA
		1	17.5	<20.0
SB-3	3/11/13	Surface	25.7	<20.0
SB-4	3/11/13	Surface	19.4	NA
		1	21.1	<20.0
SB-5	3/11/13	Surface-1	10.1	NA
SB-6	3/11/13	Surface	8.6	NA
SB-7	3/11/13	Surface	5.6	<20.0
SB-8	3/11/13	Surface	8.6	NA
		1	8.8	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
*NMOCD Action Level**			*100*	*1,000*
SB-9	3/11/13	Surface	19.3	NA
		1	23.0	<20.0

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

Laboratory analytical results for SC-1 and SC-2 were used to confirm field screening results from the assessment. Benzene concentrations were reported below the laboratory detection limit of 0.046 mg/kg and 0.049 mg/kg in SC-1 and SC-2, respectively. Total BTEX concentrations were 0.064 mg/kg in SC-1 and 0.82 mg/kg in SC-2. TPH concentrations (as GRO/DRO) were reported below laboratory detection limits of 14.5 mg/kg (SC-1) and 15 mg/kg (SC-2). Chloride concentrations were reported at 470 mg/kg in SC-1 and 790 mg/kg in SC-2. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chloride
San Juan 28-7 #244M Release Assessment, March 2013

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	Chlorides (mg/kg)
NMOCD Action Level*			***10***	***50***	***1,000****		*--*
SC-1	3/11/13	Surface	<0.046	0.064	<4.6	<9.9	470
SC-2	3/11/13	Surface	<0.049	0.82	<4.9	<10	790

*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 11, 2013, AES conducted an assessment of a produced water and condensate release from the production tank at the San Juan 28-7 #244M. 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 of 10. Field screening showed concentrations below the NMOCD action levels of 100 ppm VOCs and 1,000 mg/kg TPH in each of the soil borings (SB-1 through SB-9). The highest VOC concentration was 29.4 ppm in SB-2, and TPH concentrations were less than 20.0 mg/kg in each screened sample. Laboratory analytical results showed that benzene, total

BTEX, and TPH concentrations were below the applicable NMOCD action levels in SC-1 and SC-2. Chloride concentrations were reported as 470 mg/kg in SC-1 and 790 mg/kg in SC-2.

Based on field screening and laboratory analytical results for the produced water and condensate release at the San Juan 28-7 #244M, benzene, total BTEX, VOCs, and TPH concentrations were below applicable NMOCD action levels. No further work is recommended.

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

Sincerely,

Landrea R. Cupps

Landrea Cupps
Environmental Scientist

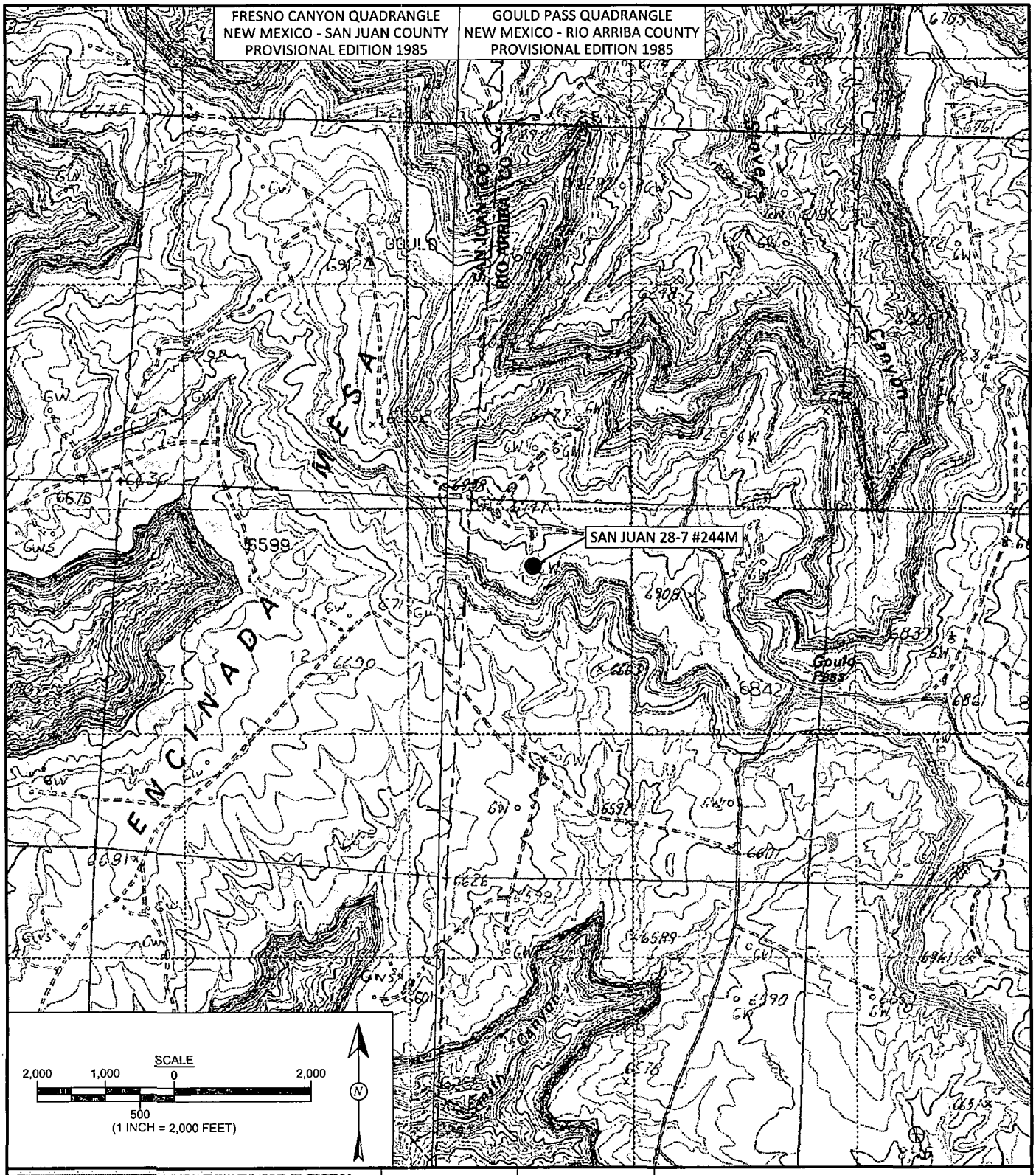
Elizabeth McNally

Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, March 2013
Figure 3. Release Assessment Sample Locations and Results, March 2013
AES Field Screening Report 031113
Hall Laboratory Analytical Report 1303458

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 28-7 #244M\CoP San Juan 28-7 #244M Release Assessment Report 062413.docx

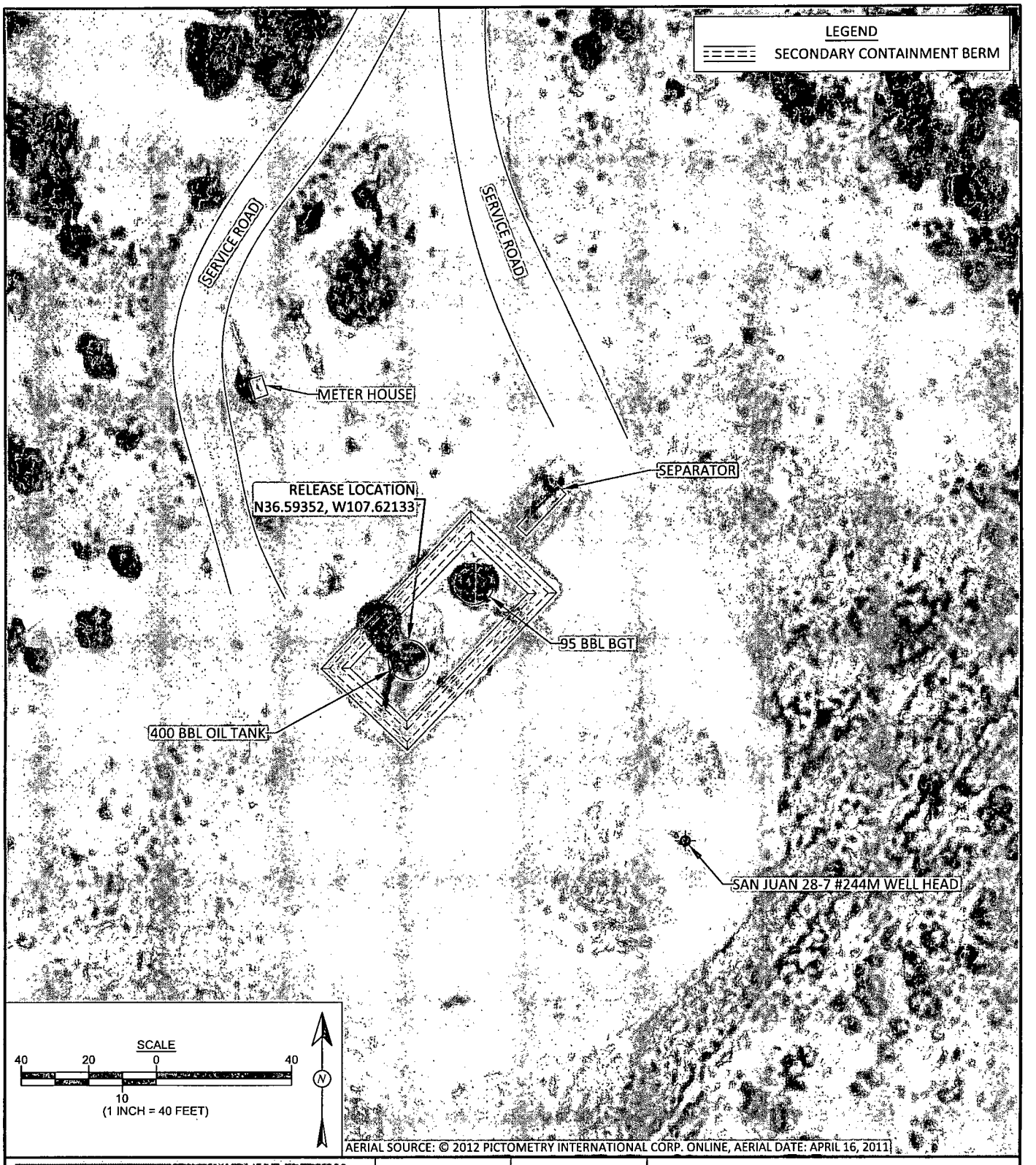


Animas Environmental Services, LLC	**DRAWN BY:** C. Lameman	**DATE DRAWN:** March 11, 2013
	REVISIONS BY: C. Lameman	**DATE REVISED:** March 11, 2013
	CHECKED BY: D. Watson	**DATE CHECKED:** June 17, 2013
	APPROVED BY: E. McNally	**DATE APPROVED:** June 17, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 28-7 #244M
NW¼ NW¼, SECTION 7, T27N, R7W
RIO ARRIBA COUNTY, NEW MEXICO
N36.59338, W107.62112

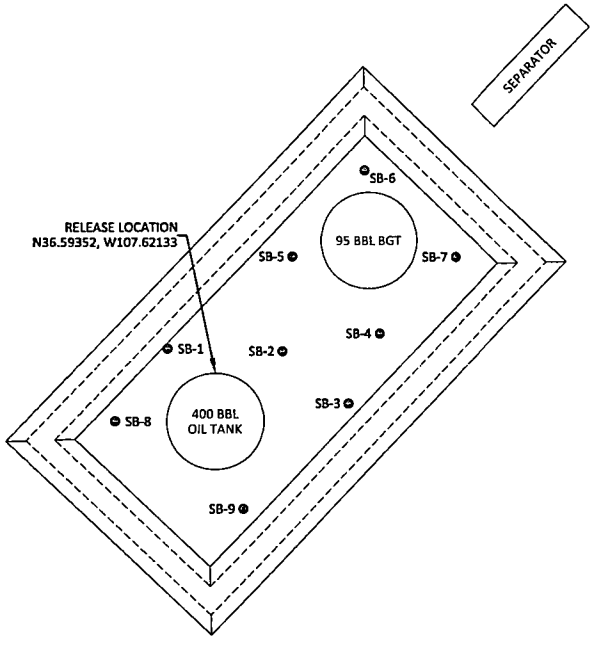


Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** March 11, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** March 11, 2013
CHECKED BY: D. Watson	**DATE CHECKED:** June 17, 2013
APPROVED BY: E. McNally	**DATE APPROVED:** June 17, 2013

FIGURE 2

AERIAL SITE MAP
MARCH 2013
ConocoPhillips
SAN JUAN 28-7 #244M
NW¼ NW¼, SECTION 7, T27N, R7W
RIO ARRIBA COUNTY, NEW MEXICO
N36.59338, W107.62112



Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-1	3/11/13	Surface	13.2	NA
		1	16.2	<20.0
SB-2	3/11/13	Surface	29.4	NA
		1	17.5	<20.0
SB-3	3/11/13	Surface	25.7	<20.0
SB-4	3/11/13	Surface	19.4	NA
		1	21.1	<20.0
SB-5	3/11/13	Surface	10.1	NA
SB-6	3/11/13	Surface	8.6	NA
SB-7	3/11/13	Surface	5.6	<20.0
SB-8	3/11/13	Surface	8.6	NA
		1	8.8	NA
SB-9	3/11/13	Surface	19.3	NA
		1	23.0	<20.0
NA - NOT ANALYZED				

Laboratory Analytical Results						
Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		10	50	1,000		250
SC-1	3/11/13	<0.046	0.064	<4.6	<9.9	470
SC-2	3/11/13	<0.049	0.82	<4.9	<10	790
SC-1 WAS A COMPOSITE OF SB-1 THROUGH SB-3, SB-8, AND SB-9. SC-2 WAS A COMPOSITE OF SB-4 THROUGH SB-7. ALL SAMPLES WERE ANALYZED PER EPA METHOD 8260B, 8015B/M, AND 300.0.						

SAN JUAN 28-7 #244M WELL HEAD

FIGURE 3

RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS
MARCH 2013
ConocoPhillips
SAN JUAN 28-7 #244M
NW¼ NW¼, SECTION 7, T27N, R7W
RIO ARRIBA COUNTY, NEW MEXICO
N36.59338, W107.62112

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

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 28-7 #244M

Date: 3/11/2013

Matrix: Soil

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	3/11/2013	10:50	13.2	*Not analyzed for field TPH*				
SB-1 @ 1'	3/11/2013	10:53	16.2	12:13	<20.0	20.0	1	HMW
SB-2 @ Surface	3/11/2013	10:54	29.4	*Not analyzed for field TPH*				
SB-2 @ 1'	3/11/2013	10:56	17.5	12:17	<20.0	20.0	1	HMW
SB-3 @ Surface	3/11/2013	10:59	25.7	12:21	<20.0	20.0	1	HMW
SB-4 @ Surface	3/11/2013	11:10	19.4	*Not analyzed for field TPH*				
SB-4 @ 1'	3/11/2013	11:15	21.1	12:25	<20.0	20.0	1	HMW
SB-5 @ Surface-1'	3/11/2013	11:24	10.1	*Not analyzed for field TPH*				
SB-6 @ Surface	3/11/2013	11:30	8.6	*Not analyzed for field TPH*				
SB-7 @ Surface	3/11/2013	11:40	5.6	12:29	<20.0	20.0	1	HMW
SB-8 @ Surface	3/11/2013	11:46	8.6	*Not analyzed for field TPH*				
SB-8 @ 1'	3/11/2013	11:49	8.8	*Not analyzed for field TPH*				
SB-9 @ Surface	3/11/2013	11:53	19.3	*Not analyzed for field TPH*				
SB-9 @ 1'	3/11/2013	11:55	23.0	12:35	<20.0	20.0	1	HMW

PQL	Practical Quantitation Limit	Total Petroleum Hydrocarbons - USEPA 418.1
ND	Not Detected at the Reporting Limit	*Field TPH concentrations recorded may be below PQL.*
NA	Not Analyzed	
DF	Dilution Factor	Analyst: Heather M. Woods

Report Finalized: 03/11/13

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 20, 2013

Debbie Watson

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

RE: CoP San Juan 28-7 #244M OrderNo.: 1303458

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/12/2013 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 **1303458**
Date Reported: **3/20/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Project: CoP San Juan 28-7 #244M
Lab ID: 1303458-001 **Matrix:** SOIL

Client Sample ID: SC-1
Collection Date: 3/11/2013 1:01:00 PM
Received Date: 3/12/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/15/2013 5:09:51 PM
Surr: DNOP	116	72.4-120		%REC	1	3/15/2013 5:09:51 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	470	30		mg/Kg	20	3/13/2013 10:58:40 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.046		mg/Kg	1	3/15/2013 4:16:25 AM
Toluene	0.064	0.046		mg/Kg	1	3/15/2013 4:16:25 AM
Ethylbenzene	ND	0.046		mg/Kg	1	3/15/2013 4:16:25 AM
Xylenes, Total	ND	0.092		mg/Kg	1	3/15/2013 4:16:25 AM
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	1	3/15/2013 4:16:25 AM
Surr: 4-Bromofluorobenzene	86.0	70-130		%REC	1	3/15/2013 4:16:25 AM
Surr: Dibromofluoromethane	95.1	70-130		%REC	1	3/15/2013 4:16:25 AM
Surr: Toluene-d8	98.4	70-130		%REC	1	3/15/2013 4:16:25 AM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	3/15/2013 4:16:25 AM
Surr: BFB	86.0	70-130		%REC	1	3/15/2013 4:16:25 AM

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
Client Sample ID: SC-2
Project: CoP San Juan 28-7 #244M
Collection Date: 3/11/2013 1:03:00 PM
Lab ID: 1303458-002 **Matrix:** SOIL **Received Date:** 3/12/2013 9:53:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/15/2013 6:19:19 PM
Surr: DNOP	115	72.4-120		%REC	1	3/15/2013 6:19:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Chloride	790	30		mg/Kg	20	3/13/2013 11:48:20 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.049		mg/Kg	1	3/15/2013 2:05:00 PM
Toluene	0.22	0.049		mg/Kg	1	3/15/2013 2:05:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	3/15/2013 2:05:00 PM
Xylenes, Total	0.60	0.097		mg/Kg	1	3/15/2013 2:05:00 PM
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%REC	1	3/15/2013 2:05:00 PM
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	1	3/15/2013 2:05:00 PM
Surr: Dibromofluoromethane	94.7	70-130		%REC	1	3/15/2013 2:05:00 PM
Surr: Toluene-d8	101	70-130		%REC	1	3/15/2013 2:05:00 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	3/15/2013 2:05:00 PM
Surr: BFB	88.9	70-130		%REC	1	3/15/2013 2:05:00 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#: **1303458**

20-Mar-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #244M

Sample ID **MB-6462**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **6462**	RunNo: **9161**
Prep Date: **3/13/2013**	Analysis Date: **3/13/2013**	SeqNo: **260578** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-6462**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **6462**	RunNo: **9161**
Prep Date: **3/13/2013**	Analysis Date: **3/13/2013**	SeqNo: **260579** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.3	90	110			

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#: **1303458**

20-Mar-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #244M

Sample ID **MB-6468**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6468**	RunNo: **9198**
Prep Date: **3/13/2013**	Analysis Date: **3/15/2013**	SeqNo: **262109** 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		111	72.4	120			

Sample ID **LCS-6468**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6468**	RunNo: **9198**
Prep Date: **3/13/2013**	Analysis Date: **3/15/2013**	SeqNo: **262110** 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	98.5	47.4	122			
Surr: DNOP	5.7		5.000		114	72.4	120			

Sample ID **1303458-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **6468**	RunNo: **9198**
Prep Date: **3/13/2013**	Analysis Date: **3/15/2013**	SeqNo: **262127** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.9	49.60	0	101	12.6	148			
Surr: DNOP	5.6		4.960		113	72.4	120			

Sample ID **1303458-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **6468**	RunNo: **9198**
Prep Date: **3/13/2013**	Analysis Date: **3/15/2013**	SeqNo: **262128** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	49.80	0	102	12.6	148	1.22	22.5	
Surr: DNOP	5.7		4.980		114	72.4	120	0	0	

Sample ID **MB-6483**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6483**	RunNo: **9209**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262137** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		117	72.4	120			

Sample ID **LCS-6483**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6483**	RunNo: **9209**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262138** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		106	72.4	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#: **1303458**

20-Mar-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #244M

Sample ID **1303540-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6483**	RunNo: **9209**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262167** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.4		4.864		111	72.4	120			

Sample ID **1303540-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6483**	RunNo: **9209**
Prep Date: **3/14/2013**	Analysis Date: **3/16/2013**	SeqNo: **262168** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		4.883		106	72.4	120	0	0	

Sample ID **1303600-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6506**	RunNo: **9198**
Prep Date: **3/15/2013**	Analysis Date: **3/16/2013**	SeqNo: **262931** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		4.965		113	72.4	120			

Sample ID **1303600-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6506**	RunNo: **9198**
Prep Date: **3/15/2013**	Analysis Date: **3/16/2013**	SeqNo: **262932** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.4		4.776		113	72.4	120	0	0	

Sample ID **MB-6506**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **6506**	RunNo: **9198**
Prep Date: **3/15/2013**	Analysis Date: **3/16/2013**	SeqNo: **262996** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	72.4	120			

Sample ID **LCS-6506**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **6506**	RunNo: **9198**
Prep Date: **3/15/2013**	Analysis Date: **3/16/2013**	SeqNo: **262997** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		109	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#: **1303458**

20-Mar-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #244M

Sample ID **1303477-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6504**	RunNo: **9209**
Prep Date: **3/15/2013**	Analysis Date: **3/17/2013**	SeqNo: **263266** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		4.845		109	72.4	120			

Sample ID **1303477-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **6504**	RunNo: **9209**
Prep Date: **3/15/2013**	Analysis Date: **3/17/2013**	SeqNo: **263267** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		110	72.4	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1303458**

20-Mar-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #244M

Sample ID **mb-6438**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261864** 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	0.43		0.5000		86.3	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.3	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID **lcs-6438**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261865** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.3	70	130			
Toluene	1.0	0.050	1.000	0	101	80	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.7	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.4	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.2	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

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#: **1303458**

20-Mar-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #244M

Sample ID **mb-6438**	SampType: **MBLK**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261843** 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	450		500.0		90.3	70	130			

Sample ID **LCS-6438**	SampType: **LCS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/14/2013**	SeqNo: **261844** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.9	74.6	137			
Surr: BFB	440		500.0		87.2	70	130			

Sample ID **1303408-005AMS**	SampType: **MS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/15/2013**	SeqNo: **261857** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.13	1.017	90.7	50.3	148			
Surr: BFB	420		482.6		86.3	70	130			

Sample ID **1303408-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **6438**	RunNo: **9181**
Prep Date: **3/12/2013**	Analysis Date: **3/15/2013**	SeqNo: **261858** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.15	1.017	89.5	50.3	148	1.22	20	
Surr: BFB	420		483.1		86.6	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

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: 1303458

Received by/date: AG 03/12/13

Logged By: **Michelle Garcia** 3/12/2013 9:53:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 3/12/2013 11:37:24 AM Michelle Garcia

Reviewed By: 03/12/13

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: CoP San Juan 28-7 #244M

Project #:

Project Manager: D. Watson

Sampler: H. Woods

On Ice: ☒ Yes ☐ No

Sample Temperature: 0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1303458	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	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) 300.0	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
3/11/13	1301	Soil	SC-1	4 oz Jar	—	-001	X		X					X								
3/11/13	1303	Soil	SC-2	4 oz Jar	—	-002	X		X					X								

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/11/13	1636	Heather M. Woods	Christie Walker	3/11/13	1636
3/11/13	1730	Christie Walker		03/12/13	0953

Remarks: Bill to ConocoPhillips

WO: 9480026 Ordered by: Lisa Hunter

Supervisor: Garry Nelson

Area: 23

User ID: MKSPENC

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.