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

State of New Mexico
Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3
FEB 24 2016

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **Burlington Resources, a Wholly Owned Subsidiary of ConocoPhillips Company**	Contact **Lisa Hunter**
Address **3401 East 30th St, Farmington, NM**	Telephone No. **(505) 258-1607**
Facility Name: **San Juan 27-4 Com 137**	Facility Type: **Gas Well**

Surface Owner **Federal**	Mineral Owner **Federal**	API No. **3003922376**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	**34**	**27N**	**04W**	**800**	**North**	**1120**	**East**	**Rio Arriba**

Latitude 36.53469 Longitude -107.23341

NATURE OF RELEASE

Type of Release **Hydrocarbon**	Volume of Release **Unknown**	Volume Recovered **None**
Source of Release **Below Grade Tank (BGT) Closure**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **10-22-12**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? **N/A**	
By Whom? **N/A**	Date and Hour **N/A**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **N/A**	

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

Describe Cause of Problem and Remedial Action Taken.*
Below-Grade Tank Closure activities with samples taken resulting in constituents exceeded standards outlined by 19.15.17.13 NMAC.

Describe Area Affected and Cleanup Action Taken.*
NMOCD action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills and Releases and the release was assigned a ranking score of 10. Samples were collected and analytical results are below applicable NMOCD action levels. No further work will be performed. The final report is attached for review.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: **Lisa Hunter**	Approved by Environmental Specialist:
Title: **Field Environmental Specialist**	Approval Date: 3/8/16 Expiration Date:
E-mail Address: **Lisa.Hunter@cop.com**	Conditions of Approval: Attached ☐
Date: **February 11, 2016** Phone: **(505) 258-1607**	

* Attach Additional Sheets If Necessary #1OCS160683794

17

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

February 11, 2013

Ashley Maxwell
ConocoPhillips
San Juan Business Unit
Office 216-2
5525 Hwy 64
Farmington, New Mexico 87401

RE: Below Grade Tank Closure Report
San Juan 27-4 Com #137
Rio Arriba County, New Mexico

Dear Ms. Maxwell:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) San Juan 27-4 Com #137, located in Rio Arriba County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

1.0 Site Information

1.1 Location

Site Name – San Juan 27-4 Com #137
Legal Description - NE¼ NE¼, Section 34, T27N, R4W, Rio Arriba County, New Mexico
Well Latitude/Longitude - N36.53483 and W107.23351, respectively
BGT Latitude/Longitude - N36.53469 and W107.23341, respectively
Land Jurisdiction - Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and no ranking information was located. 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). The wash in Ciruelas Canyon is located approximately 800 feet north of the location. Based on this information, the location was assessed a ranking score of 10.

1.3 BGT Closure Assessment

AES was initially contacted by Bruce Yazzie, CoP representative, on October 22, 2012, and on October 23, 2012, Heather Woods and Zachary Trujillo of AES met with a CoP representative at the location. AES personnel collected six soil samples from the below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

2.0 Soil Sampling

On October 23, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbon (TPH). Soil sample SC-1 was field screened for chloride and was submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

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

2.1.2 Total Petroleum Hydrocarbons

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

2.1.3 Chlorides

Soil samples were field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

2.2 Laboratory Analyses

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

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

2.3 Field and Laboratory Analytical Results

Field screening readings for VOCs via OVM ranged from 8.4 ppm in S-3 up to 18.0 ppm in S-5. Field TPH concentrations ranged from 84.3 mg/kg in S-5 up to 236 mg/kg in S-4. The field chloride concentration in SC-1 was 40 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results
San Juan 27-4 Com #137 BGT Closure, October 2012

Sample ID	Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chlorides (mg/kg)
NMOCD Action Level (NMAC 19.15.17.13E)			--	***100***	***250***
S-1	10/23/12	0.5	12.4	**174**	NA
S-2	10/23/12	0.5	9.8	**105**	NA
S-3	10/23/12	0.5	8.4	**112**	NA
S-4	10/23/12	0.5	15.3	**236**	NA
S-5	10/23/12	0.5	18.0	84.3	NA
SC-1	10/23/12	0.5	NA	NA	40

NA - not analyzed

Laboratory analytical results reported the benzene concentration in SC-1 as less than 0.050 mg/kg and the total BTEX concentration as 0.11 mg/kg. TPH concentrations were reported at 49 mg/kg GRO and less than 9.9 mg/kg DRO. The laboratory chloride concentration was 56 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results
San Juan 27-4 Com #137 BGT Closure, October 2012

Sample ID	*Date Sampled*	*Depth (ft)*	*Benzene (mg/kg)*	*BTEX (mg/kg)*	*TPH-GRO (mg/kg)*	*TPH-DRO (mg/kg)*	*Chlorides (mg/kg)*
NMOCD Action Level (NMAC 19.15.17.13E)			***0.2***	***50***	***100***		***250***
SC-1	10/23/12	0.5	<0.050	0.11	49	<9.9	56

3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in four samples, S-1 (174 mg/kg), S-2 (105 mg/kg), S-3 (112mg/kg), and S-4 (236 mg/kg). However, laboratory analytical results for TPH (as GRO/DRO) in SC-1 were reported below the NMOCD action level of 100 mg/kg. Benzene and total BTEX concentrations in SC-1 were below the NMOCD action level of 0.2 mg/kg and 50 mg/kg, respectively. Chloride concentrations in SC-1 were also below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended for the BGT closure at the San Juan 27-4 Com #137.

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

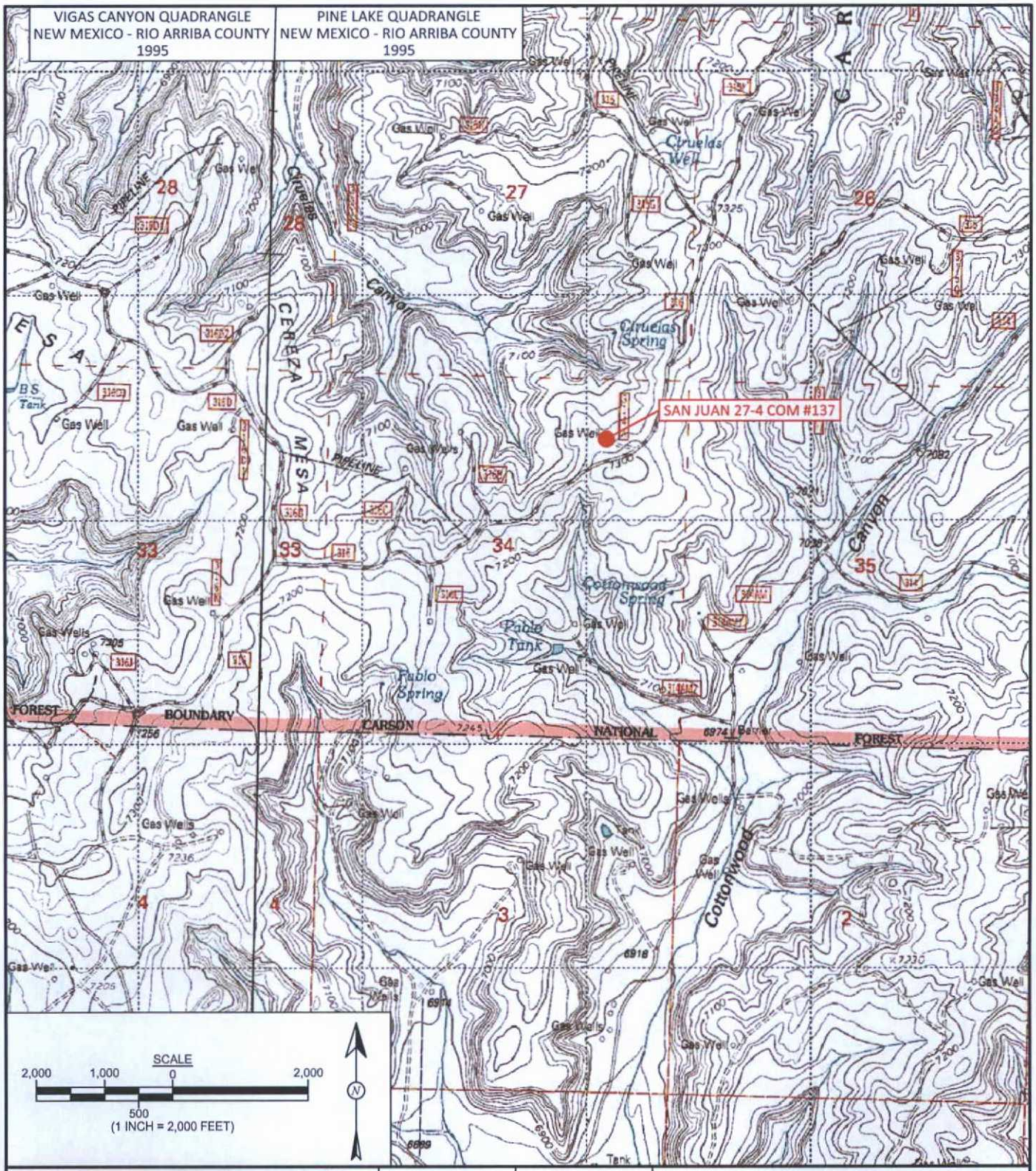
Heather M. Woods
Staff Geologist

Elizabeth McNally, P.E.

Attachments:

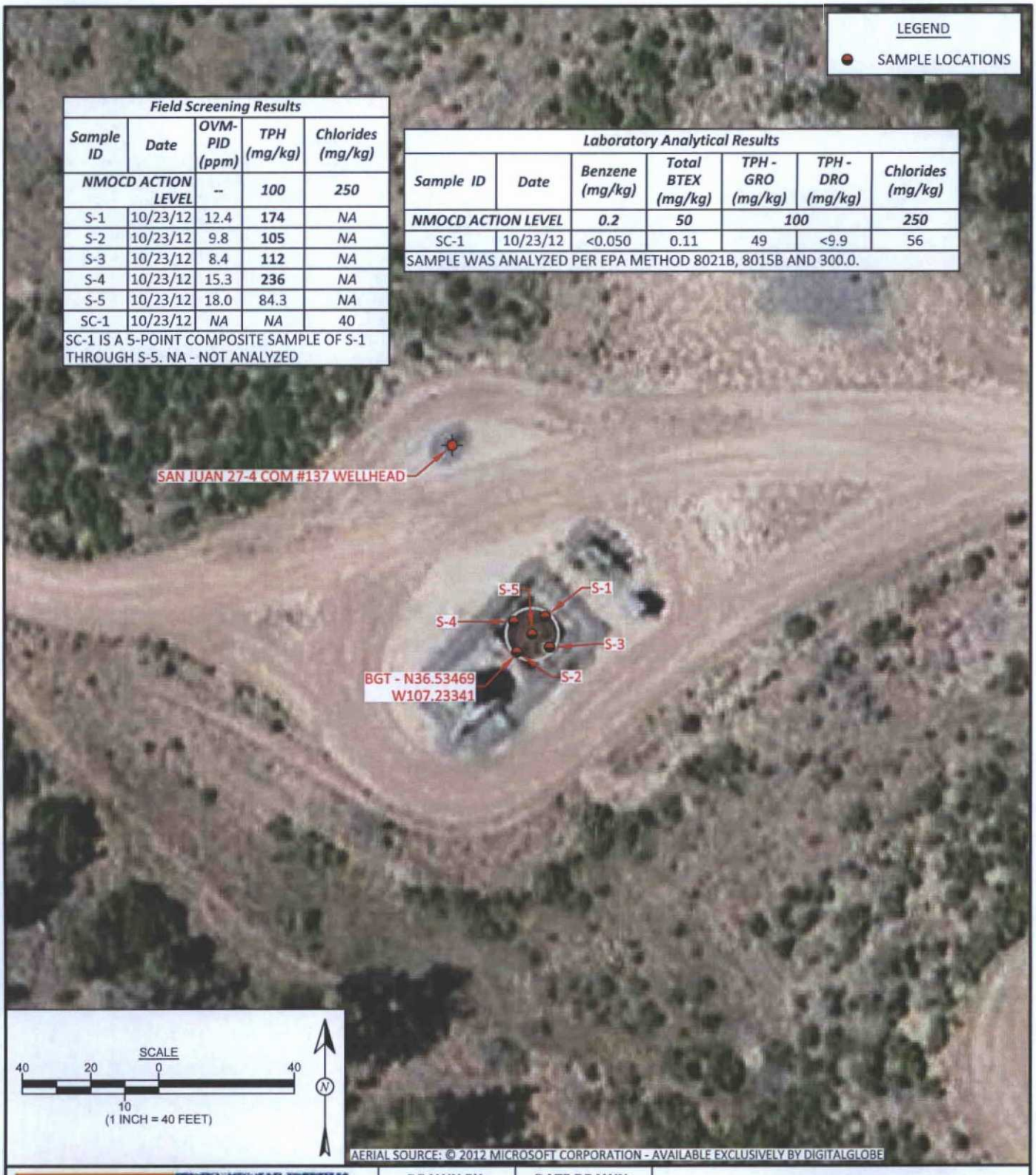
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2012
AES Field Screening Report 102312
Hall Analytical Report 1210B44

R:\Animas 2000\Dropbox\2013 Projects\ConocoPhillips\SJ 27-4 #137\SJ 27-4 Com #137 BGT Closure Report 021113.docx



DRAWN BY: C. Lameman	**DATE DRAWN:** November 23, 2012	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** November 23, 2012	**TOPOGRAPHIC SITE LOCATION MAP**
CHECKED BY: D. Watson	**DATE CHECKED:** November 23, 2012	ConocoPhillips SAN JUAN 27-4 COM #137 RIO ARRIBA COUNTY, NEW MEXICO NE¼ NE¼, SECTION 34, T27N, R4W N36.53483, W107.23351
APPROVED BY: E. McNally	**DATE APPROVED:** November 23, 2012	

AES
Animas Environmental Services, LLC



Field Screening Results

Sample ID	Date	OVM-PID (ppm)	TPH (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		--	100	250
S-1	10/23/12	12.4	174	NA
S-2	10/23/12	9.8	105	NA
S-3	10/23/12	8.4	112	NA
S-4	10/23/12	15.3	236	NA
S-5	10/23/12	18.0	84.3	NA
SC-1	10/23/12	NA	NA	40

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

Laboratory Analytical Results

Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		0.2	50	100		250
SC-1	10/23/12	<0.050	0.11	49	<9.9	56

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

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: November 23, 2012
REVISIONS BY: C. Lameman	DATE REVISED: November 23, 2012
CHECKED BY: D. Watson	DATE CHECKED: November 23, 2012
APPROVED BY: E. McNally	DATE APPROVED: November 23, 2012

FIGURE 2

AERIAL SITE MAP
BELOW GRADE TANK CLOSURE
OCTOBER 2012
ConocoPhillips
SAN JUAN 27-4 COM #137
RIO ARRIBA COUNTY, NEW MEXICO
NE¼ NE¼, SECTION 34, T27N, R4W
N36.53483, W107.23351

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 Com #137

Date: 10/23/2012

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	10/23/2012	11:00	North	12.4	NA	11:57	174	20.0	1	HMW
S-2	10/23/2012	11:02	South	9.8	NA	12:00	105	20.0	1	HMW
S-3	10/23/2012	11:04	East	8.4	NA	12:03	112	20.0	1	HMW
S-4	10/23/2012	11:06	West	15.3	NA	12:05	236	20.0	1	HMW
S-5	10/23/2012	11:08	Center	18.0	NA	12:08	84.3	20.0	1	HMW
SC-1	10/23/2012	11:13	Composite	NA	40	*Not Analyzed for TPH.*				

PQL Practical Quantitation Limit
ND Not Detected at the Reporting Limit
NA Not Analyzed
DF Dilution Factor
**Field TPH concentrations recorded may be below PQL.*

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with Silver Nitrate
Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Heather M. Woods

Report Finalized: 10/23/12

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

October 31, 2012

Debbie Watson

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

RE: COP San Juan 27-4 #137 OrderNo.: 1210B44

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/25/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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 **1210B44**
Date Reported: **10/31/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: SC-1
Project: COP San Juan 27-4 #137
Collection Date: 10/23/2012 11:13:00 AM
Lab ID: 1210B44-001
Matrix: MEOH (SOIL)
Received Date: 10/25/2012 10:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/25/2012 11:12:39 AM
Surr: DNOP	100	77.6-140		%REC	1	10/25/2012 11:12:39 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	49	5.0		mg/Kg	1	10/25/2012 12:20:46 PM
Surr: BFB	593	84-116	S	%REC	1	10/25/2012 12:20:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/25/2012 12:20:46 PM
Toluene	ND	0.050		mg/Kg	1	10/25/2012 12:20:46 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2012 12:20:46 PM
Xylenes, Total	0.11	0.10		mg/Kg	1	10/25/2012 12:20:46 PM
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	10/25/2012 12:20:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	56	30		mg/Kg	20	10/25/2012 12:09:40 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#: **1210B44**

31-Oct-12

Client: Animas Environmental Services

Project: COP San Juan 27-4 #137

Sample ID	**MB-4526**	SampType: **MBLK**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID: **4526**			RunNo: **6496**					
Prep Date:	**10/25/2012**	Analysis Date: **10/25/2012**			SeqNo: **187004**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

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

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

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210B44**

31-Oct-12

Client: Animas Environmental Services

Project: COP San Juan 27-4 #137

Sample ID **MB-4517**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4517**	RunNo: **6441**
Prep Date: **10/24/2012**	Analysis Date: **10/25/2012**	SeqNo: **186402** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		101	77.6	140			

Sample ID **LCS-4517**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4517**	RunNo: **6441**
Prep Date: **10/24/2012**	Analysis Date: **10/25/2012**	SeqNo: **186419** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.3	52.6	130			
Surr: DNOP	4.5		5.000		90.8	77.6	140			

Sample ID **1210A51-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4517**	RunNo: **6441**
Prep Date: **10/24/2012**	Analysis Date: **10/25/2012**	SeqNo: **186977** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.8	49.02	0	81.6	57.2	146			
Surr: DNOP	4.4		4.902		90.3	77.6	140			

Sample ID **1210A51-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4517**	RunNo: **6441**
Prep Date: **10/24/2012**	Analysis Date: **10/25/2012**	SeqNo: **186978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.70	0	85.9	57.2	146	6.54	24.5	
Surr: DNOP	4.5		4.970		91.1	77.6	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210B44**

31-Oct-12

Client: Animas Environmental Services
Project: COP San Juan 27-4 #137

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

Sample ID **LCS-4474**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	74	117			
Surr: BFB	1000		1000		100	84	116			

Sample ID **1210A08-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187638** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.34	11.22	90.8	70	130			
Surr: BFB	1100		973.7		117	84	116			S

Sample ID **1210A08-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187639** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.39	11.22	89.9	70	130	0.479	22.1	
Surr: BFB	1100		975.6		115	84	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210B44**

31-Oct-12

Client: Animas Environmental Services
Project: COP San Juan 27-4 #137

Sample ID **MB-4474**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187651** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **LCS-4474**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187652** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	76.3	117			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	77	116			
Xylenes, Total	3.2	0.10	3.000	0	106	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID **1210A21-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187719** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.048	0.9653	0	97.3	67.2	113			
Toluene	0.96	0.048	0.9653	0	99.1	62.1	116			
Ethylbenzene	0.97	0.048	0.9653	0	101	67.9	127			
Xylenes, Total	2.9	0.097	2.896	0	101	60.6	134			
Surr: 4-Bromofluorobenzene	1.0		0.9653		106	80	120			

Sample ID **1210A21-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187720** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.048	0.9653	0	102	67.2	113	5.00	14.3	
Toluene	1.0	0.048	0.9653	0	104	62.1	116	5.16	15.9	
Ethylbenzene	1.0	0.048	0.9653	0	108	67.9	127	6.85	14.4	
Xylenes, Total	3.1	0.097	2.896	0	109	60.6	134	7.20	12.6	
Surr: 4-Bromofluorobenzene	1.0		0.9653		106	80	120	0	0	

Qualifiers:

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

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: **1210B44**

Received by/date: 10/25/12

Logged By: **Ashley Gallegos** 10/25/2012 10:05:00 AM

Completed By: **Ashley Gallegos** 10/25/2012 10:16:32 AM

Reviewed By: MG 10/25/12

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

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

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Animas Environmental Services LLC	Turn-Around Time: ☐ Standard ☒ Rush same day
Mailing Address: 624 E Comanche Farmington, NM 87401	Project Name: CoP San Juan 27-4 #137
Phone #: 505 564 2281	Project #:
email or Fax#:	Project Manager: D Watson
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)	Sampler: H Woods
Accreditation ☐ NELAP ☐ Other	On Ice: ☒ Yes ☐ No
☐ EDD (Type)	Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210B444	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 ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	300.0 Chlorides	Air Bubbles (Y or N)
10-23-12	1113	soil	SC-1	MeOH Kit 402	MeOH —	-001		X									X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/24/12	1624	Heather M. Woods	Christie Walters	10/24/12	1624
10/24/12	1741	Christie Walters		10/25/12	1005

Remarks: Bill to ConocoPhillips
WO: 10340353
activity code: C200
Area: 25
User ID: KGARCIA
work ordered by: Bruce Yazzie

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.