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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **Burlington Resources, a wholly owned subsidiary of ConocoPhillips Company**	Contact **Lindsay Dumas**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 599-4089
Facility Name: **Starr #3**	Facility Type: **Gas Well**

Surface Owner: BLM	Mineral Owner: BLM (SF-078962)	API No.**30-045-06051**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	**5**	**26N**	**08W**	**1560**	**North**	**1850**	**East**	**San Juan**

Latitude 36.51892 Longitude -107.70227

NATURE OF RELEASE

Type of Release **Produced Water & Hydrocarbon**	Volume of Release 20 BBL Produced Water 20 GAL Hydrocarbons	Volume Recovered 19.5 BBL Produced Water 18 GAL Hydrocarbons
Source of Release **Pit tank overflow**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **9/30/2013 2:00PM**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

RCVD JAN 31 '14
OIL CONS. DIV.
DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
95 BBL pit tank found overflowing and water drain valve was partially opened. The water drain valve on produced oil tank was immediately closed, the well was shut in, the dump valves on separator were shut off, and the vessel was bled down. A truck was called to empty tank. COP will continue to monitor tanks and tank valves for vandalism.

Describe Area Affected and Cleanup Action Taken.*
Excavation was 28' x 24' x 6' Deep. 100 c/yds of soil was transported to Envirotech Land Farm and 100 c/yds of clean soil was transported from Envirotech, and placed in the excavation site. 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: Lindsay Dumas	OIL CONSERVATION DIVISION
Printed Name: **Lindsay Dumas**	Approved by Environmental Specialist: Jonathan D. Kelly
Title: **Field Environmental Specialist**	Approval Date: 6/18/2014 Expiration Date:
E-mail Address: Lindsay.Dumas@conocophillips.com	Conditions of Approval: Attached ☐
Date: 1/30/14 Phone: (505) 599-4089	

* Attach Additional Sheets If Necessary

nJK1416956144

22

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

January 17, 2014

Lindsay Dumas
ConocoPhillips
San Juan Business Unit
Office 214-07
5525 Hwy 64
Farmington, New Mexico 87401

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

RE: Initial Release Assessment and Final Excavation Report
Starr #3
San Juan County, New Mexico

Dear Ms. Dumas:

On October 8 and 17, 2013, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) Starr #3, located in San Juan County, New Mexico. The release occurred when the onsite below grade tank (BGT) overflowed. The release consisted of approximately 20 barrels (bbl) of produced water and 20 gallons (gal) of hydrocarbons, of which 19.5 bbls of produced water and 18 gal of hydrocarbon were recovered. The initial release assessment was completed by AES on October 8, 2013, and the final excavation was completed by CoP contractors while AES was on location on October 17, 2013.

1.0 Site Information

1.1 Location

Site Name – Starr #3
Location – SW¼ NE¼, Section 5, T26N, R8W, San Juan County, New Mexico
Well Head Latitude/Longitude – N36.51926 and W107.70255, respectively
Release Location Latitude/Longitude – N36.51904 and W107.70244, respectively
Land Jurisdiction – Bureau of Land Management
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2013

1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to site work. The release was given a ranking score of 10 based on the following factors:

- **Depth to Groundwater:** A location Field Pit Site Assessment form dated June 1994 listed groundwater as greater than 100 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** An unnamed wash which discharges to the wash in Blanco Canyon is located approximately 350 feet northwest of the location. (10 points)

1.3 Assessment

AES was initially contacted by Lisa Hunter of CoP on October 2, 2013, and on October 8, 2013, Deborah Watson and Jesse Christopherson of AES completed the release assessment field work. The assessment included collection and field screening of 15 soil samples from 8 borings in and around the release area. Soil borings were terminated on sandstone between 4 and 6.5 feet bgs. Based on the field screening results, AES recommended further excavation of the release area. Sample locations are shown on Figure 3.

On October 17, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of two confirmation composite soil samples; one composite collected from each of the four walls and one collected from the base of the excavation. The final excavation included removal of loose rock and sand from the sidewalls and base of the BGT pit, resulting in a final excavation area approximately 28 feet by 24 feet by 4 to 6 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 15 soil samples from 8 borings (SB-1 through SB-8) were collected during the release assessment and 2 composite samples (SC-1 and SC-2) were collected during the excavation clearance. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). The two composite samples (SC-1 and SC-2) collected during the excavation clearance 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 sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B; and
- Chloride per USEPA Method 300.0.

Sample SC-2 was laboratory analyzed for:

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

2.3 Field Screening and Laboratory Analytical Results

On October 8, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm in SB-1 and SB-4 up to 32.9 ppm in SB-3. Field TPH concentrations ranged from 52.9 mg/kg in SB-3 up to 2,610 mg/kg in SB-8.

On October 17, 2013, final excavation field screening results for VOCs via OVM were measured at 119 ppm in SC-1 and 40.2 ppm in SC-2. Field TPH concentrations were measured at 584 mg/kg in SC-1 and 1,200 mg/kg in SC-2. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Screening Reports are attached.

Table 1. Field Screening VOCs and TPH Results
Starr #3 Initial Release Assessment and Final Excavation, October 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	10/8/13	4.5	0.0	137
SB-2	10/8/13	4	0.5	865
		5.5	0.4	140
SB-3	10/8/13	4	0.4	52.9
		6	14.4	NA
		6.5	32.9	675
SB-4	10/8/13	4	0.0	NA
SB-5	10/8/13	4	0.5	NA
SB-6	10/8/13	4	0.7	157
		5	0.1	NA
		5.5	0.5	108
SB-7	10/8/13	4	0.1	NA
		5	8.1	NA
SB-8	10/8/13	4	1.5	NA
		5.5	3.1	**2,610**
SC-1	10/17/13	4 to 6	**119**	584
SC-2	10/17/13	1 to 6	40.2	**1,200**

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

Laboratory analyses for SC-1 and SC-2 were used to confirm field screening results from the final excavation. Benzene and total BTEX concentrations in SC-1 were reported below laboratory detection limits of 0.05 mg/kg and 0.25 mg/kg, respectively. The chloride concentration in SC-1 was reported at less than 30 mg/kg. TPH concentrations as GRO/DRO in SC-2 were reported at 290 mg/kg. Results are presented in Table 2 and on Figure 4. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, TPH, and Chloride
Starr #3 Final Excavation, October 2013

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	Chloride (mg/kg)
	*NMOCD Action Level**		*10*	*50*	*1,000*		-----
SC-1	10/17/13	4 to 6	<0.050	<0.25	NA	NA	<30
SC-2	10/17/13	1 to 6	NA	NA	<5.0	290	NA

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

3.0 Conclusions and Recommendations

On October 8, 2013, AES conducted an initial assessment of petroleum contaminated soils associated with a BGT overflow at the Starr #3. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10.

Initial assessment field screening results were below the NMOCD action level of 100 ppm VOCs in each sample. TPH concentrations above the NMOCD action level of 1,000 mg/kg TPH were reported in SB-8 with 2,610 mg/kg.

On October 17, 2013, final clearance of the excavation area was completed. The excavation base sample (SC-1) had a reported VOC concentration of 119 ppm, just above the NMOCD action level of 100 ppm, and a field TPH concentration below the applicable NMOCD action level of 1,000 mg/kg, with 584 mg/kg. Laboratory analytical results for SC-1 reported benzene and total BTEX concentrations below NMOCD action levels. The chloride concentration in SC-1 was reported below the detection limit of 30 mg/kg. For the sidewall confirmation sample (SC-2), field screening showed that VOC concentrations were below the applicable NMOCD action level of 100 ppm, but field TPH exceeded the NMOCD action level with 1,200 mg/kg. Laboratory analytical results for TPH as GRO/DRO in SC-2 were reported below the applicable NMOCD action level of 1,000 mg/kg, with 290 mg/kg.

Based on final field screening and laboratory analytical results at the Starr #3, benzene, total BTEX, VOC, and TPH concentrations were below applicable NMOCD action levels for the sidewalls and base of the excavation extents. No further work is recommended at the Starr #3.

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

Sincerely,

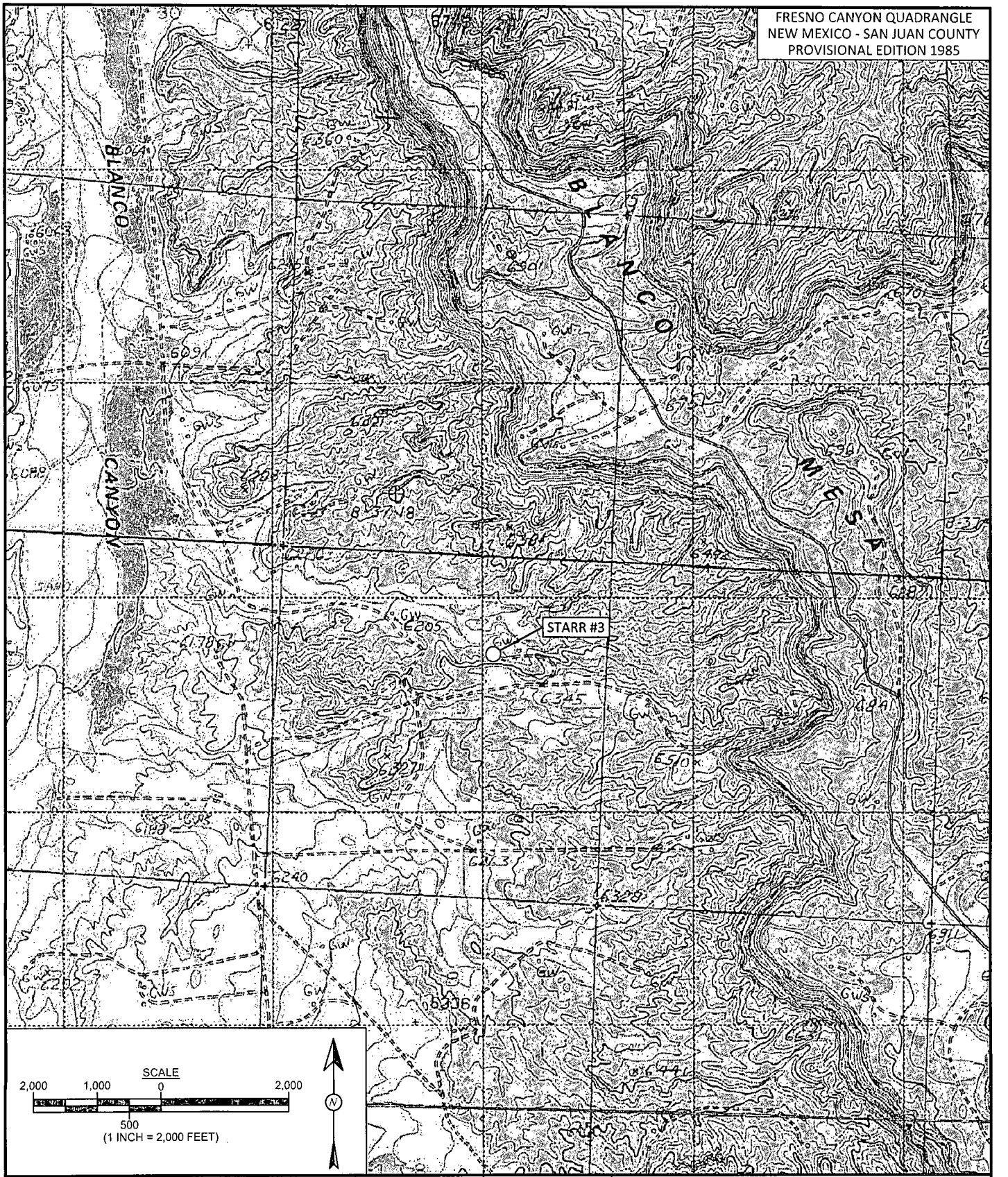
David J. Reese
Environmental Scientist

Elizabeth McNally, PE

Attachments:

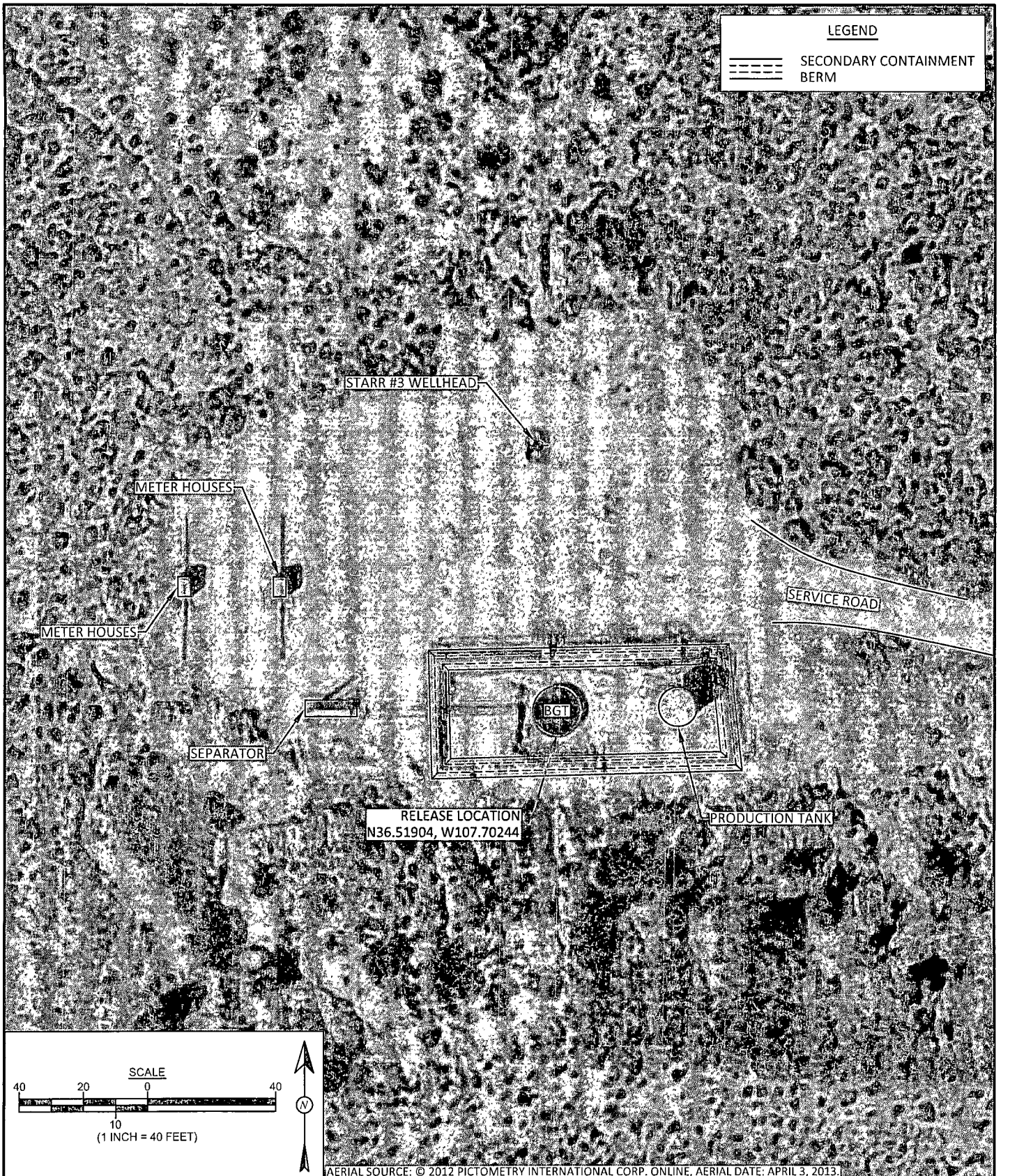
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, October 2013
Figure 3. Initial Assessment Sample Locations and Results, October 2013
Figure 4. Final Excavation Sample Locations and Results, October 2013
AES Field Screening Report 100813
AES Field Screening Report 101713
Hall Laboratory Analytical Report 1310921

R:\Animas 2000\Dropbox\0000 Animas Server Dropbox EM\2014 Projects\ConocoPhillips\Starr #3\Starr #3 Release and Final Excavation Report 011714.docx



DRAWN BY: C. Lameman	**DATE DRAWN:** November 6, 2013	**FIGURE 1**
REVISIONS BY: C. Lameman	**DATE REVISED:** November 6, 2013	**TOPOGRAPHIC SITE LOCATION MAP**
CHECKED BY: D. Watson	**DATE CHECKED:** November 6, 2013	ConocoPhillips STARR #3 SW¼ NE¼, SECTION 5, T26N, R8W SAN JUAN COUNTY, NEW MEXICO N36.51926, W107.70255
APPROVED BY: E. McNally	**DATE APPROVED:** November 6, 2013	

AES
Animas Environmental Services, LLC



AERIAL SOURCE: © 2012 PICTOMETRY INTERNATIONAL CORP. ONLINE, AERIAL DATE: APRIL 3, 2013.

Animas Environmental Services, LLC

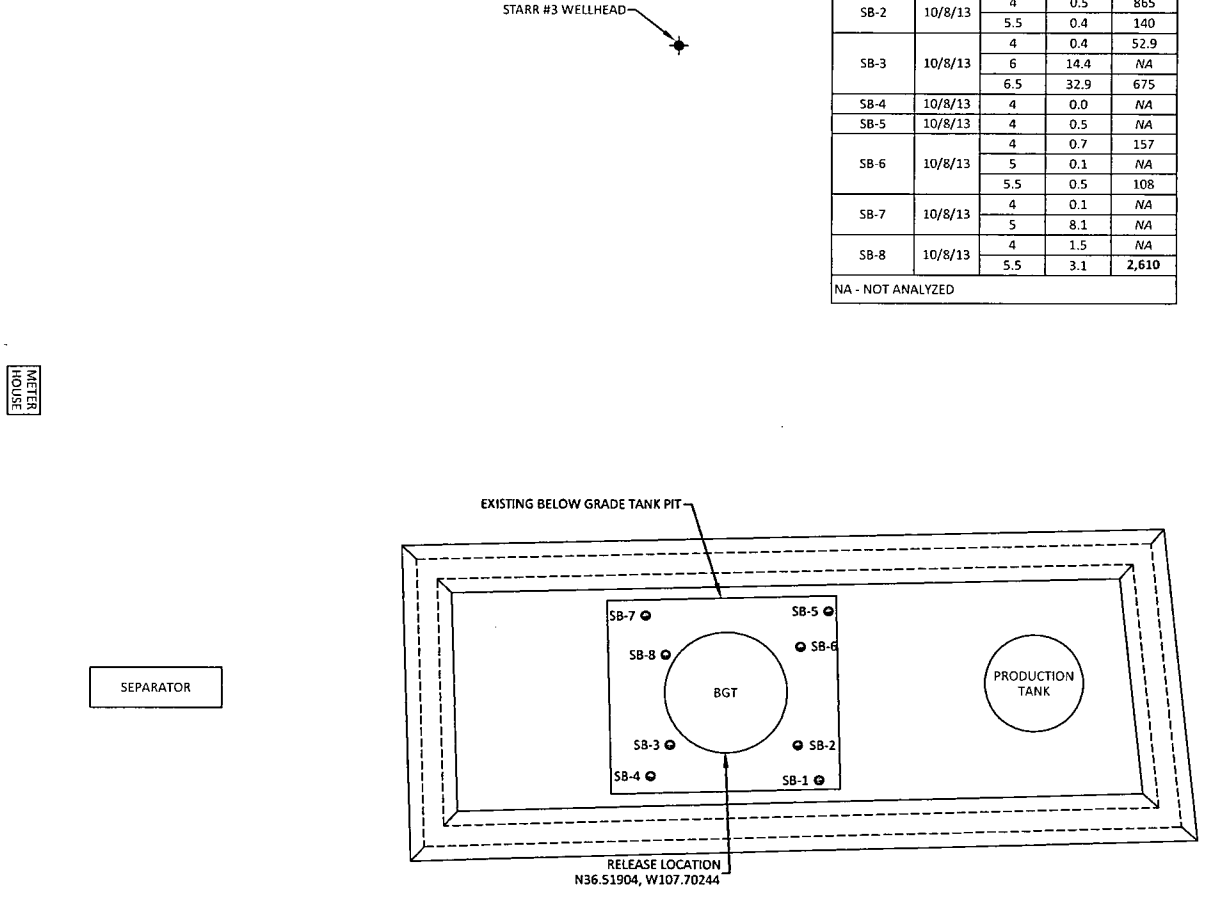
DRAWN BY: C. Lameman	**DATE DRAWN:** November 6, 2013	**FIGURE 2**
REVISIONS BY: C. Lameman	**DATE REVISED:** November 6, 2013	**AERIAL SITE MAP OCTOBER 2013**
CHECKED BY: D. Watson	**DATE CHECKED:** November 6, 2013	ConocoPhillips STARR #3 SW¼ NE¼, SECTION 5, T26N, R8W SAN JUAN COUNTY, NEW MEXICO N36.51926, W107.70255
APPROVED BY: E. McNally	**DATE APPROVED:** November 6, 2013	

FIGURE 3

INITIAL ASSESSMENT SAMPLE LOCATIONS AND RESULTS
OCTOBER 2013
ConocoPhillips
STARR #3
SW¼ NE¼, SECTION 5, T26N, R8W
SAN JUAN COUNTY, NEW MEXICO
N36.51926, W107.70255

Field Screening Results				
Sample ID	Date	Depth (ft/bgs)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-1	10/8/13	4.5	0.0	137
SB-2	10/8/13	4	0.5	865
		5.5	0.4	140
SB-3	10/8/13	4	0.4	52.9
		6	14.4	NA
		6.5	32.9	675
SB-4	10/8/13	4	0.0	NA
SB-5	10/8/13	4	0.5	NA
SB-6	10/8/13	4	0.7	157
		5	0.1	NA
		5.5	0.5	108
SB-7	10/8/13	4	0.1	NA
		5	8.1	NA
SB-8	10/8/13	4	1.5	NA
		5.5	3.1	2,610

NA - NOT ANALYZED



DRAWN BY: C. Lameman	**DATE DRAWN:** October 11, 2013
REVISIONS BY: C. Lameman	**DATE REVISED:** January 15, 2014
CHECKED BY: D. Watson	**DATE CHECKED:** January 16, 2014
APPROVED BY: E. McNally	**DATE APPROVED:** January 16, 2014

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

N

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

FIGURE 4

FINAL EXCAVATION SAMPLE LOCATIONS AND RESULTS
OCTOBER 2013
ConocoPhillips
STARR #3
SW¼ NE¼, SECTION 5, T26N, R8W
SAN JUAN COUNTY, NEW MEXICO
N36.51926, W107.70255

DRAWN BY:	DATE DRAWN:
C. Lameman	November 6, 2013
REVISIONS BY:	**DATE REVISED:**
C. Lameman	January 15, 2014
CHECKED BY:	**DATE CHECKED:**
D. Watson	January 16, 2014
APPROVED BY:	**DATE APPROVED:**
E. McNally	January 16, 2014

STARR #3 WELLHEAD

Field Screening Results

Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-1	10/17/13	4 to 6	119	584
SC-2	10/17/13	1 to 6	40.2	1,200

Laboratory Analytical Results

Sample ID	Date	Depth (ft)	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		NE
SC-1	10/17/13	4 to 6	<0.050	<0.25	NA	NA	<30
SC-2	10/17/13	1 to 6	NA	NA	<5.0	290	NA

SC-1 WAS ANALYZED PER EPA METHOD 8021B AND 300.0
SC-2 WAS ANALYZED PER EPA METHOD 8015D.
NA - NOT ANALYZED
NE - NOT ESTABLISHED

METER HOUSE

SERVICE ROAD

BELOW GRADE TANK PIT/EXCAVATION AREA
28 FT X 24 FT X 4 to 6 FT DEEP

SC-1

SC-2

PRODUCTION TANK

SEPARATOR

BGT
RELEASE LOCATION
N36.51904, W107.70244

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: Starr #3

Date: 10/8/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 4.5'	10/8/2013	12:15	0.0	137	13:53	20.0	1	DAW
SB-2 @ 4'	10/8/2013	12:17	0.5	865	13:56	20.0	1	DAW
SB-2 @ 5.5'	10/8/2013	12:18	0.4	140	14:01	20.0	1	DAW
SB-3 @ 4'	10/8/2013	12:20	0.4	52.9	14:04	20.0	1	DAW
SB-3 @ 6'	10/8/2013	12:23	14.4	*Not Analyzed for TPH*				
SB-3 @ 6.5'	10/8/2013	12:25	32.9	675	14:07	20.0	1	DAW
SB-4 @ 4'	10/8/2013	12:30	0.0	*Not Analyzed for TPH*				
SB-5 @ 4'	10/8/2013	12:33	0.5	*Not Analyzed for TPH*				
SB-6 @ 4'	10/8/2013	12:35	0.7	157	14:09	20.0	1	DAW
SB-6 @ 5'	10/8/2013	12:38	0.1	*Not Analyzed for TPH*				
SB-6 @ 5.5'	10/8/2013	12:40	0.5	108	14:12	20.0	1	DAW
SB-7 @ 4'	10/8/2013	12:42	0.1	*Not Analyzed for TPH*				
SB-7 @ 5'	10/8/2013	12:45	8.1	*Not Analyzed for TPH*				
SB-8 @ 4'	10/8/2013	12:50	1.5	*Not Analyzed for TPH*				
SB-8 @ 5.5'	10/8/2013	12:52	3.1	2,610	14:15	20.0	1	DAW

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

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

Analyst: Deborah Watson

Report Finalized: 10/8/13

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: Starr #3

Date: 10/17/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Field TPH* (mg/kg)	Field TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	10/17/2013	17:35	Base Composite	119	584	18:04	20.0	1	DAW
SC-2	10/17/2013	18:10	Sidewall Composite	40.2	1,200	18:27	20.0	1	DAW

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

Analyst: Deborah Watson

Report Finalized: 10/17/13

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

November 18, 2013

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

RE: CoP Starr #3 OrderNo.: 1310921

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/18/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 21, 2013.

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.

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 **1310921**
Date Reported: **11/18/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Client Sample ID: SC-1
Project: CoP Starr #3
Collection Date: 10/17/2013 5:35:00 PM
Lab ID: 1310921-001
Matrix: MEOH (SOIL)
Received Date: 10/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	10/21/2013 12:34:37 PM	R14233
Toluene	ND	0.050		mg/Kg	1	10/21/2013 12:34:37 PM	R14233
Ethylbenzene	ND	0.050		mg/Kg	1	10/21/2013 12:34:37 PM	R14233
Xylenes, Total	ND	0.10		mg/Kg	1	10/21/2013 12:34:37 PM	R14233
Surr: 4-Bromofluorobenzene	132	80-120	S	%REC	1	10/21/2013 12:34:37 PM	R14233
EPA METHOD 300.0: ANIONS						Analyst: **JRR**	
Chloride	ND	30		mg/Kg	20	11/15/2013 5:56:38 AM	10343

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Client Sample ID: SC-2
Project: CoP Starr #3
Collection Date: 10/17/2013 6:10:00 PM
Lab ID: 1310921-002
Matrix: MEOH (SOIL)
Received Date: 10/18/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	290	10		mg/Kg	1	10/18/2013 1:27:41 PM	9905
Surr: DNOP	121	66-131		%REC	1	10/18/2013 1:27:41 PM	9905
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2013 1:04:52 PM	R14233
Surr: BFB	118	74.5-129		%REC	1	10/21/2013 1:04:52 PM	R14233

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
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#: **1310921**

18-Nov-13

Client: Animas Environmental

Project: CoP Starr #3

Sample ID	**MB-10343**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**10343**		RunNo:	**14805**				
Prep Date:	**11/14/2013**	Analysis Date:	**11/14/2013**		SeqNo:	**426440**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-10343**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**10343**		RunNo:	**14805**				
Prep Date:	**11/14/2013**	Analysis Date:	**11/14/2013**		SeqNo:	**426441**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1310921

18-Nov-13

Client: Animas Environmental

Project: CoP Starr #3

Sample ID **MB-9905**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **9905**	RunNo: **14182**
Prep Date: **10/18/2013**	Analysis Date: **10/18/2013**	SeqNo: **406691** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	66	131			

Sample ID **LCS-9905**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **9905**	RunNo: **14182**
Prep Date: **10/18/2013**	Analysis Date: **10/18/2013**	SeqNo: **406692** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.6	77.1	128			
Surr: DNOP	4.9		5.000		97.3	66	131			

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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
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#: **1310921**

18-Nov-13

Client: Animas Environmental

Project: CoP Starr #3

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R14233**	RunNo: **14233**
Prep Date:	Analysis Date: **10/21/2013**	SeqNo: **407782** 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	1100		1000		108	74.5	129			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R14233**	RunNo: **14233**
Prep Date:	Analysis Date: **10/21/2013**	SeqNo: **407783** 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	100	74.5	126			
Surr: BFB	1200		1000		116	74.5	129			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1310921**

18-Nov-13

Client: Animas Environmental

Project: CoP Starr #3

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R14233**	RunNo: **14233**
Prep Date:	Analysis Date: **10/21/2013**	SeqNo: **407787** 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	1.2		1.000		123	80	120			S

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R14233**	RunNo: **14233**
Prep Date:	Analysis Date: **10/21/2013**	SeqNo: **407788** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.3	80	120			
Toluene	0.99	0.050	1.000	0	98.8	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		127	80	120			S

Qualifiers:

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

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: 1310921 RcptNo: 1

Received by/date: 10/18/13

Logged By: Lindsay Mangin 10/18/2013 10:00:00 AM

Completed By: Lindsay Mangin 10/18/2013 11:19:59 AM

Reviewed By: 10/18/13

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 ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °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 #:

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 Starr #3

Project #:

Project Manager: D. Watson

Sampler: D Watson

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. 1310927	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)
10-17-13	1735	Soil	SC-1	~~Mason~~ 4oz	~~Mason~~	-001	X							X								
10-17-13	1810	Soil	SC-2	~~Mason~~ 4oz	~~Mason~~	-002			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-18-13	0635	Deborah Watson		10/18/13	1000
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Bill to ConocoPhillips

Per DW Acidify Samples (Analyze) 10/18/13 1119

11/14/13 DW added Cl for

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.