AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.

App Number: pJK1431630173

3RP - 1020

CONOCOPHILLIPS COMPANY

3/7/2018

24

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 Oil & Gas Company**	Contact **Crystal Tafoya**
Address 3401 East 30th St, Farmington, NM	Telephone No.(505) 326-9837
Facility Name: **San Juan 30-6 CTB #3 SWD**	Facility Type: **Central Tank Battery**

Surface Owner **Federal**	Mineral Owner **Federal (Lease # SF080712-A)**	API No.**N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	**22**	**30N**	**6W**	**1140**	**South**	**960**	**East**	**Rio Arriba**

Latitude36*47.6 Longitude107*27.3

NATURE OF RELEASE

Type of Release **Produced Water & Lube Oil**	Volume of Release **31 bbls (25bbls PW & 6bbls Lube Oil)**	Volume Recovered **30 bbls (25bbls PW & 5bbls Lube Oil)**
Source of Release **Below-Grade Tank**	Date and Hour of Occurrence **7/27/2012 at 1:45 pm**	Date and Hour of Discovery **7/27/2012 at 1:48 pm**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Brandon Powell & Mark Kelly (BLM)**	RCVD DEC 5 '12
By Whom? **Crystal Tafoya**	Date and Hour **7/30/2012 at 10:57 am**	OIL CONS. DIV.
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. **Unknown**	DIST. 3

If a Watercourse was Impacted, Describe Fully.*
Rainwater traveled through location and flooded below-grade tank causing it to overflow and travel down the bar ditch approximately 1000' and being transported through a culvert into a watercourse.

Describe Cause of Problem and Remedial Action Taken.*
Location berm was penetrated by heavy rain fall and filled the below-grade tank with oil on top flooding onto location and down bar ditch. Animas Environmental was contacted and conducted an assessment and testing. A crew had the below-grade tank and secondary containment pulled by a water hauler. Oil absorber was used on certain areas and the stained soil is being shoveled and staged on location waiting on lab results.

Describe Area Affected and Cleanup Action Taken.*
Contaminated soil was removed and confirmation sampling occurred. Analytical results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases; therefore no further action is needed. 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: Crystal L. Tafoya	OIL CONSERVATION DIVISION
Printed Name: **Crystal Tafoya**	Approved by Environmental Specialist: Jonathan D. Kelly
Title: **Field Environmental Specialist**	Approval Date: 3/07/2013 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 11/30/2012 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nSK1306650299

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

November 13, 2012

Crystal Tafoya
ConocoPhillips
San Juan Business Unit
Office 214-05
5525 Hwy 64
Farmington, New Mexico 87401

RE: Initial Release Assessment and Confirmation Sampling Report
San Juan 30-6 CTB #3 SWD
Rio Arriba County, New Mexico

Dear Ms. Tafoya:

On July 30 and August 20, 2012, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance at the ConocoPhillips (CoP) San Juan 30-6 CTB #3 SWD, located in Rio Arriba County, New Mexico. A significant rainfall event caused stormwater run-on at the location resulting in overflow of the below grade tank. Petroleum impacted soils associated with the release were removed utilizing hydro-excavation. Cleanup activities were completed by contractors prior to AES' arrival to the location on August 20, 2012.

1.0 Site Information

1.1 Location

Location - SW¼ SW¼, Section 22, T30N, R6W, Rio Arriba County, New Mexico
Release Location Latitude/Longitude – N36.79425 and W107.45617, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, July 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and a Cathodic Protection Report dated May 1991 for the San Juan 30-6 #50 and #473 located adjacent and south of the location reported the depth to groundwater as 175 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping

tool (http://ford.nmt.edu/react/project.html) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet bgs. An unnamed arroyo which flows into Frances Creek is located approximately 700 feet southwest of the location. The site location has been assigned a ranking score of 10 per the *NMOCD Guidelines for Leaks, Spills, and Releases* (1993).

1.3 Release Assessment

AES was initially contacted by Crystal Tafoya of CoP on July 30, 2012, and on the same day, Tom Long and Corwin Lameman of AES completed the release assessment field work. The assessment included collection of 43 samples from 19 soil borings (SB-1 through SB-19). Based on the field screening results, AES recommended removal of all visibly stained soils along the release path. Sample locations and results are shown on Figure 3.

On August 20, 2012, AES returned to the location to collect confirmation soil samples of the petroleum hydrocarbon impacted area. The field screening activities included collection of three confirmation soil samples in the area of SB-5, SB-7, and SB-9. Sample locations and results are presented on Figure 4.

2.0 Soil Sampling

A total of 43 soil samples were collected from 19 soil borings during the initial release assessment. Three additional grab soil samples were collected for confirmation from representative areas of hydrocarbon impact, SB-5, SB-7 and SB-9 (August 20). All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). One of the soil samples collected during the confirmation sampling on August 20, 2012, (SB-5) was also 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 sample collected for laboratory analysis was placed into new, clean, laboratory-supplied containers, which were 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. The soil sample was laboratory analyzed for:

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

2.3 Field Screening and Laboratory Analytical Results

On July 30, 2012, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 0.0 ppm in several borings up to 40.3 ppm in SB-2. Field TPH concentrations ranged from 116 mg/kg in SB-2 up to 41,300 mg/kg in SB-7.

On August 20, 2012, confirmation sampling field screening readings for VOCs via OVM ranged from 0.2 ppm in SB-9 to 0.4 ppm in SB-5. Field TPH concentrations ranged from 77.8 mg/kg in SB-7 up to 1,340 mg/kg in S-8. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Screening Reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results
San Juan 30-6 CTB #3 SWD Release Assessment and Confirmation Sampling
July and August 2012

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
	*NMOCD Action Level**		*100*	*1,000*
SB-1	7/30/12	Surface	3.8	NA
		1	13.3	184
		2	1.4	NA
		3	20.5	250
SB-2	7/30/12	Surface	39.9	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
	*NMOCD Action Level**		*100*	*1,000*
		1	40.3	135
		2	19.4	NA
		3	28.8	116
SB-3	7/30/12	Surface	0.3	NA
		1	8.4	128
		2	27.4	NA
		3	23.6	157
SB-4	7/30/12	Surface	31.7	NA
		1	21.5	167
		2	13.3	NA
		3	0.8	133
SB-5	7/30/12	Surface	0.0	**8,320**
SB-6	7/30/12	Surface	0.0	NA
SB-7	7/30/12	Surface	0.0	**41,300**
SB-8	7/30/12	Surface	0.0	**40,000**
SB-9	7/30/12	Surface	0.0	345
SB-10	7/30/12	Surface	0.0	NA
		1	0.0	130
		2	0.0	NA
		3	0.0	164
SB-11	7/30/12	Surface	0.0	NA
		1	0.0	138
SB-12	7/30/12	Surface	0.0	NA
		1	0.0	135
SB-13	7/30/12	Surface	0.0	NA
		1	0.0	NA
SB-14	7/30/12	Surface	0.0	NA
		1	0.0	162
SB-15	7/30/12	Surface	0.0	NA
		0.5	0.0	NA

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	Field TPH (mg/kg)
	*NMOCD Action Level**		*100*	*1,000*
SB-16	7/30/12	Surface	0.0	NA
		1	0.0	NA
SB-17	7/30/12	Surface	0.0	NA
		1	0.0	NA
SB-18	7/30/12	Surface	0.0	NA
		1	0.0	126
SB-19	7/30/12	Surface	0.0	NA
		0.5	0.0	NA
SB-5	8/20/12	Surface	0.4	**1,340**
SB-7	8/20/12	Surface	0.3	77.8
SB-9	8/20/12	Surface	0.2	103

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 SB-5 (August 20, 2012) were used to confirm field screening results. TPH concentrations (as GRO/DRO) were less than 5.0 mg/kg GRO and 110 mg/kg DRO in SB-5. Results are presented in Table 2 and on Figure 4. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results –TPH (GRO/DRO)
San Juan 30-6 CTB #3 SWD Confirmation Sampling, August 2012

Sample ID	Date Sampled	Sample Depth (ft bgs)	GRO (mg/kg)	DRO (mg/kg)
*NMOCD Action Level**			*1,000*	
SB-5	8/20/12	Surface	<5.0	110

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

3.0 Conclusions and Recommendations

On July 30, 2012, AES conducted an initial assessment of a release associated with the overflow of the below grade tank which was caused by stormwater run-on at the San Juan 30-6 CTB #3 SWD. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a rank of 10. Field screening results for VOCs were reported below the NMOCD action level of 100 ppm in all samples. Field TPH results were reported above the NMOCD action level of 1,000 mg/kg in SB-5, SB-7, and SB-8, with the highest concentration reported in SB-7 with 41,300 mg/kg. Based on field screening results, excavation of all visibly stained soils along the release path was recommended for the location.

On August 20, 2012, following CoP cleanup, AES returned to the location to collect grab soil samples from representative locations within the area of hydrocarbon pooling. Field screening results showed that VOC and TPH concentrations were below applicable NMOCD action levels for all the samples (SB-5, SB-7 and SB-9), except for SB-5 with a TPH concentration of 1,340 mg/kg. However, laboratory analytical results for SB-5 reported TPH concentrations (as GRO/DRO) below the NMOCD action level of 1,000 mg/kg, with less than 5 mg/kg GRO and 110 mg/kg DRO.

Based on the final field screening results of the areas that had been hydro-vacuumed to remove petroleum contaminated soils at the San Juan 30-6 CTB #3 SWD, VOC and TPH concentrations were reported 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,

Heather M. Woods

Heather M. Woods
Staff Geologist

Elizabeth McNally

Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, July 2012
Figure 3. Initial Assessment Soil Sample Locations and Results, July 2012
Figure 4. Confirmation Soil Sample Locations and Results, August 2012
AES Field Screening Report 073012
AES Field Screening Report 082012
Hall Laboratory Analytical Report 1208956

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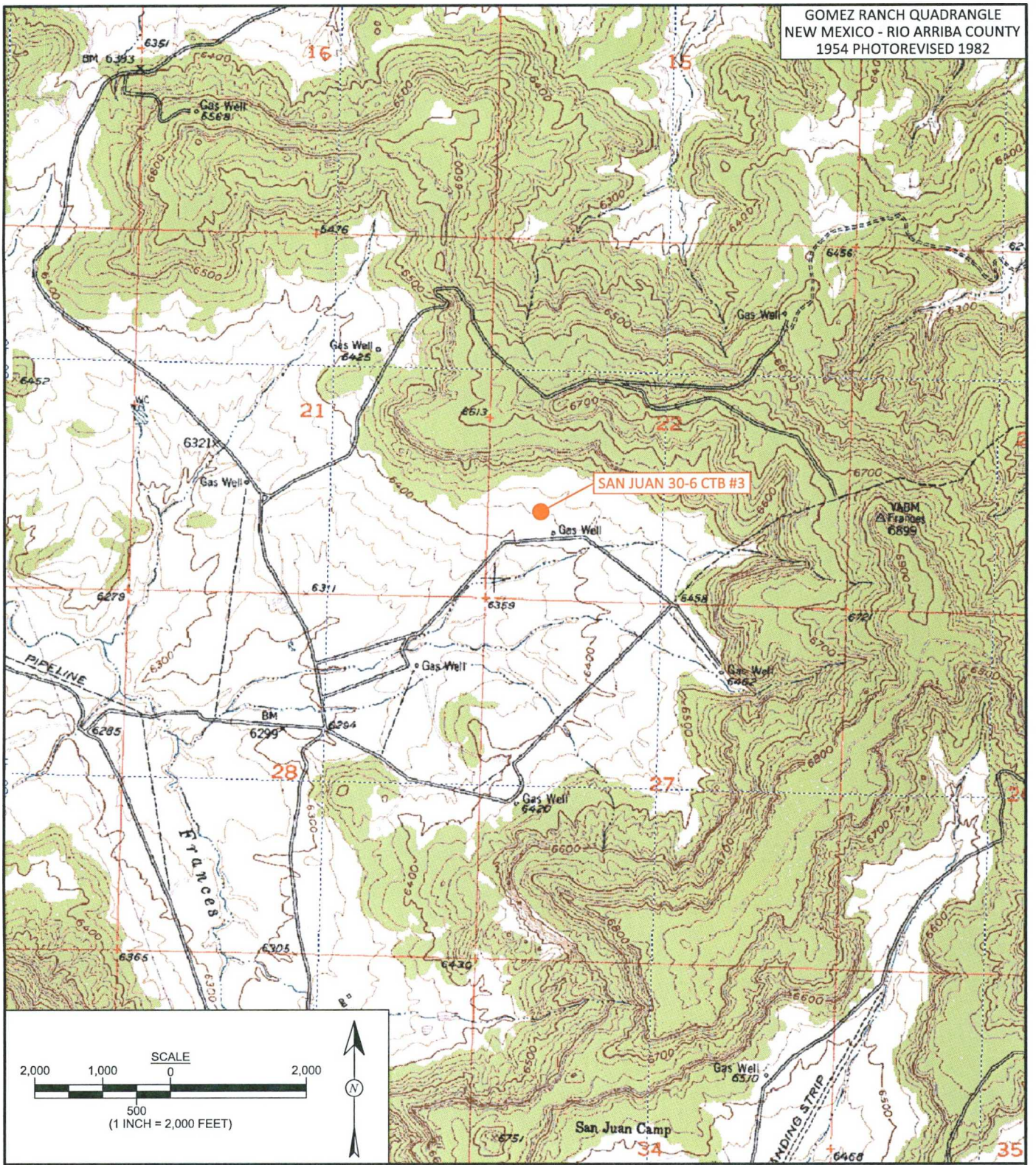

DRAWN BY: C. Lameman	**DATE DRAWN:** June 31, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** June 31, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** June 31, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** June 31, 2012

Animas Environmental Services, LLC

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ConocoPhillips
SAN JUAN 30-6 CTB #3 SWD
RIO ARRIBA COUNTY, NEW MEXICO
SW¼ SW¼, SECTION 22, T30N, R6W
N36.79425, W107.45617

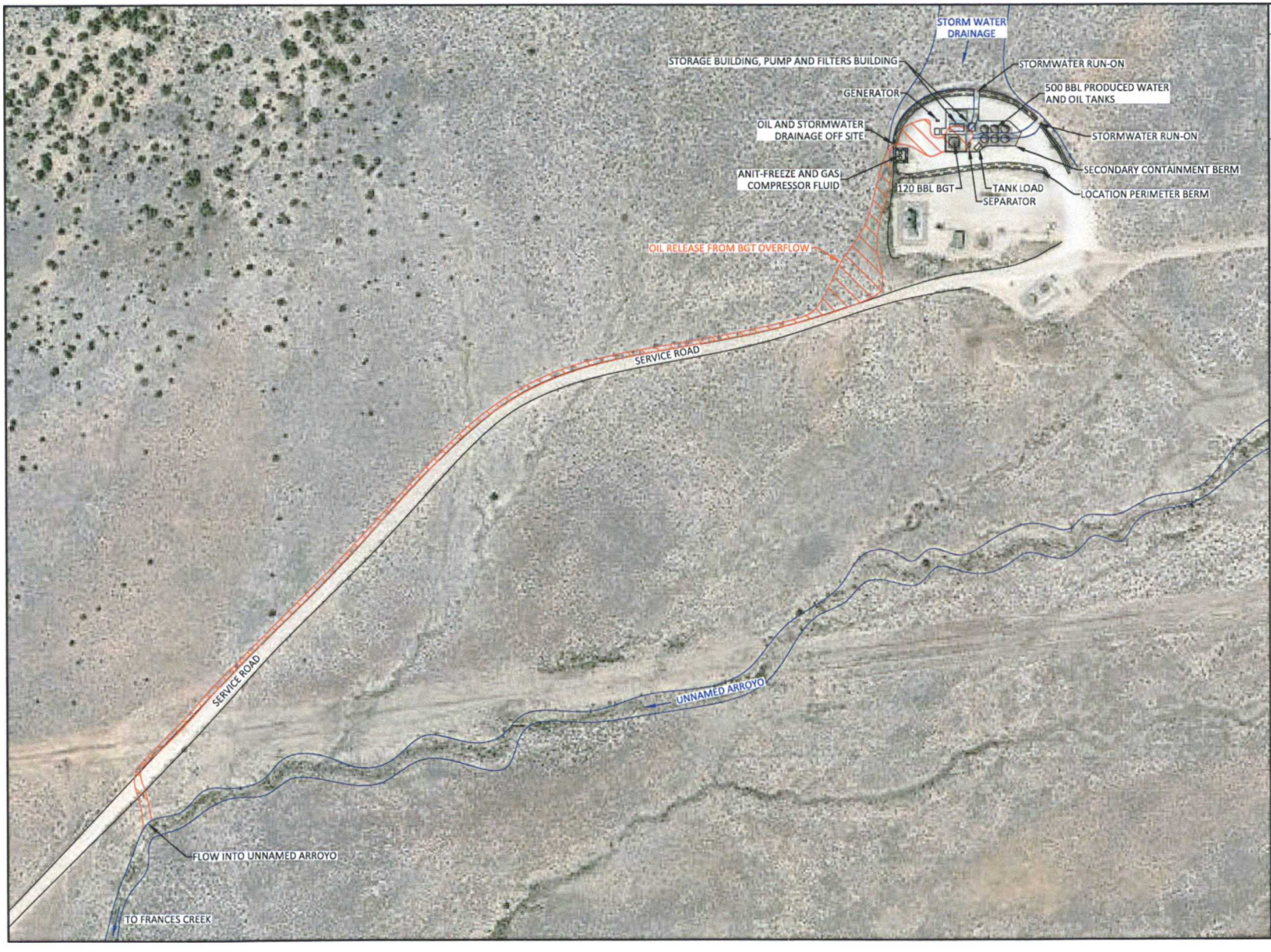

FIGURE 2

AERIAL SITE MAP
JULY 2012
ConocoPhillips
SAN JUAN 30-6 CTB #3 SWD
RIO ARRIBA COUNTY, NEW MEXICO
SW¼ SW¼, SECTION 22, T30N, R6W
N36.79425, W107.45617

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	**DATE DRAWN:** July 31, 2012
REVISIONS BY: C. Lameman	**DATE REVISED:** July 31, 2012
CHECKED BY: D. Watson	**DATE CHECKED:** July 31, 2012
APPROVED BY: E. McNally	**DATE APPROVED:** July 31, 2012

LEGEND

SECONDARY CONTAINMENT BERM

AERIAL SOURCE: © 2012 MICROSOFT CORPORATION - AVAILABLE EXCLUSIVELY BY DIGITALGLOBE

N

SCALE
150 90 0 150
30
(1 INCH = 150 FEET)

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-1	7/30/12	Surface	3.8	NA
		1	13.3	184
		2	1.4	NA
		3	20.5	250
SB-2	7/30/12	Surface	39.9	NA
		1	40.3	135
		2	19.4	NA
		3	28.8	116
SB-3	7/30/12	Surface	0.3	NA
		1	8.4	128
		2	27.4	NA
		3	23.6	157
SB-4	7/30/12	Surface	31.7	NA
		1	21.5	167
		2	13.3	NA
		3	0.8	133
SB-5	7/30/12	Surface	0.0	**8,320**
SB-6	7/30/12	Surface	0.0	NA
SB-7	7/30/12	Surface	0.0	**41,300**
SB-8	7/30/12	Surface	0.0	**40,000**
SB-9	7/30/12	Surface	0.0	345
SB-10	7/30/12	Surface	0.0	NA
		1	0.0	130
		2	0.0	NA
		3	0.0	164
SB-11	7/30/12	Surface	0.0	NA
		1	0.0	138
SB-12	7/30/12	Surface	0.0	NA
		1	0.0	135
SB-13	7/30/12	Surface	0.0	NA
		1	0.0	NA
SB-14	7/30/12	Surface	0.0	NA
		1	0.0	162
SB-15	7/30/12	Surface	0.0	NA
		0.5	0.0	NA
SB-16	7/30/12	Surface	0.0	NA
		1	0.0	NA
SB-17	7/30/12	Surface	0.0	NA
		1	0.0	NA
SB-18	7/30/12	Surface	0.0	NA
		1	0.0	126
SB-19	7/30/12	Surface	0.0	NA
		0.5	0.0	NA

NA - NOT ANALYZED

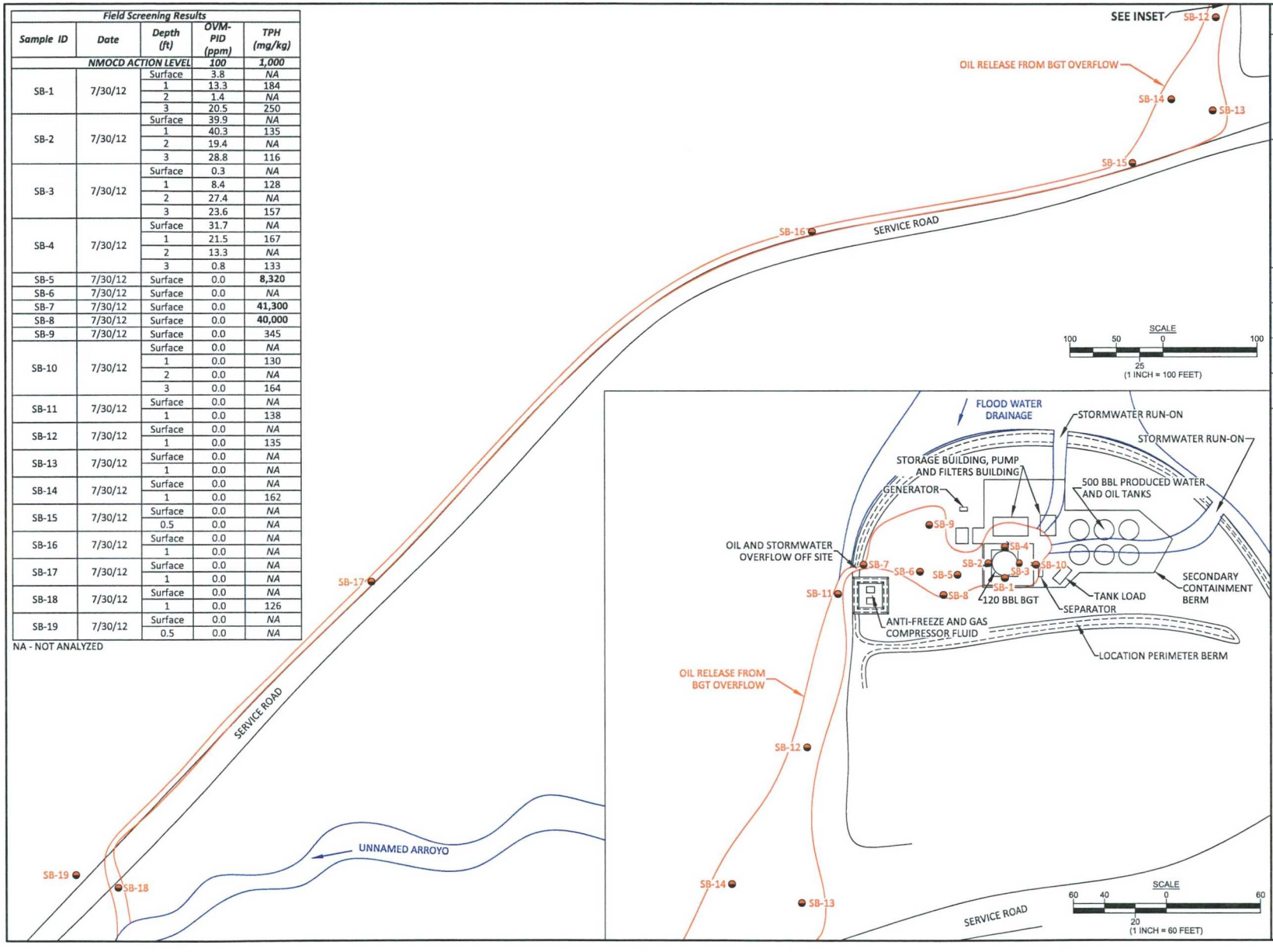

FIGURE 3

INITIAL ASSESSMENT SOIL SAMPLE LOCATIONS AND RESULTS
JULY 2012
ConocoPhillips
SAN JUAN 30-6 CTB #3 SWD
RIO ARRIBA COUNTY, NEW MEXICO
SW¼ SW¼, SECTION 22, T30N, R6W
N36.79425, W107.45617

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	July 31, 2012
REVISIONS BY:	**DATE REVISED:**
C. Lameman	July 31, 2012
CHECKED BY:	**DATE CHECKED:**
D. Watson	July 31, 2012
APPROVED BY:	**DATE APPROVED:**
E. McNally	July 31, 2012

LEGEND

SAMPLE LOCATIONS

SECONDARY CONTAINMENT BERM

N

Field Screening Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SB-5	8/20/12	Surface	0.4	**1,340**
SB-7	8/20/12	Surface	0.3	77.8
SB-9	8/20/12	Surface	0.2	103

Laboratory Analytical Results				
Sample ID	Date	Depth (ft)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
NMOCD ACTION LEVEL			1,000	
SB-5	8/20/12	Surface	<5.0	110
SAMPLE WAS ANALYZED PER EPA METHOD 8015B.				

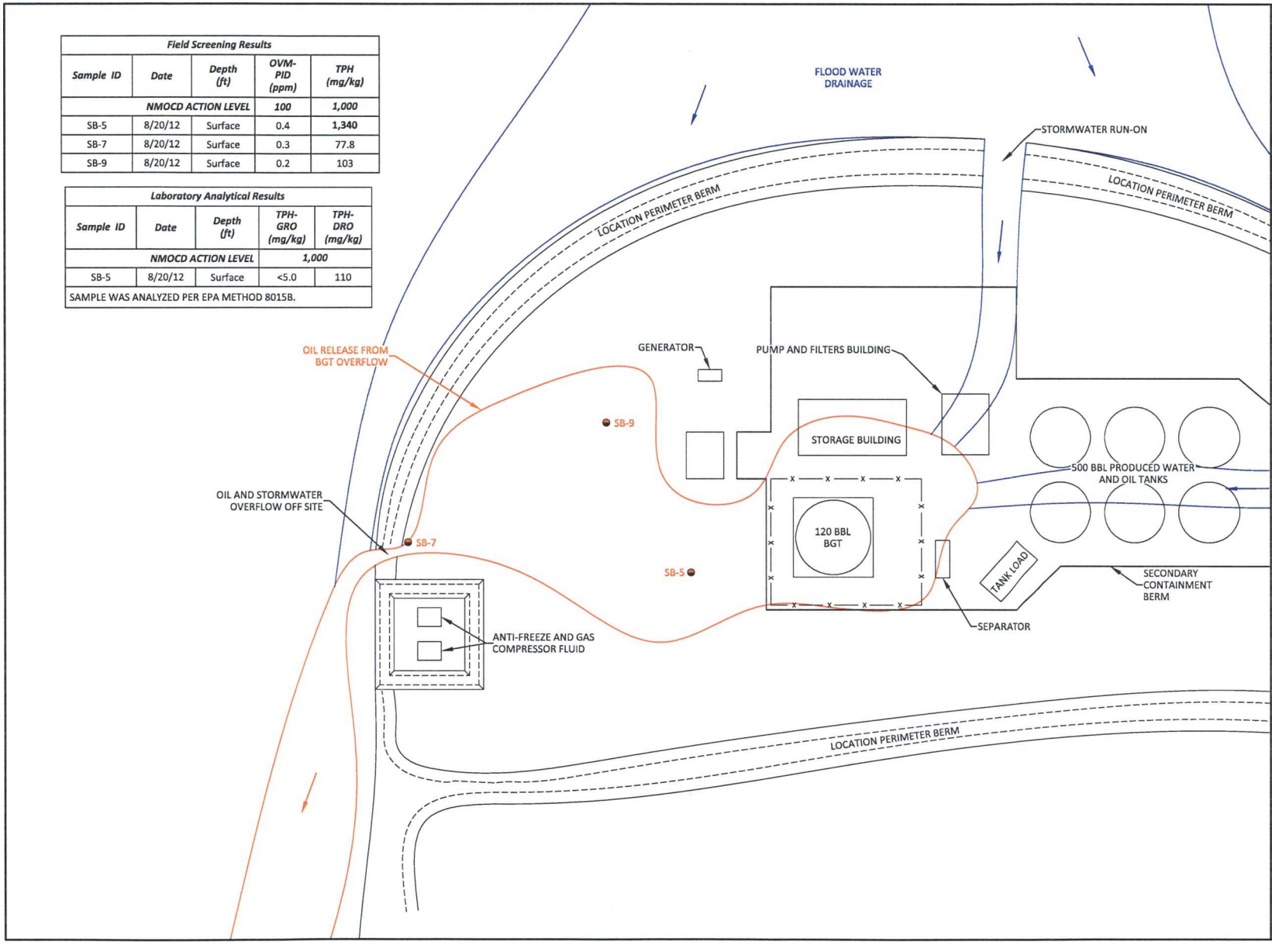

FIGURE 4

CONFIRMATION SOIL SAMPLE LOCATIONS AND RESULTS
AUGUST 2012
ConocoPhillips
SAN JUAN 30-6 CTB #3 SWD
RIO ARRIBA COUNTY, NEW MEXICO
SW¼ SW¼, SECTION 22, T30N, R6W
N36.79425, W107.45617

Animas Environmental Services, LLC

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

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

N

SCALE
20 10 0 20
5
(1 INCH = 20 FEET)

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: San Juan 30-6 CTB #3

Date: 7/30/2012

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ Surface	7/30/2012	16:17	3.8	*Not analyzed for TPH*				
SB-1 @ 1'	7/30/2012	16:18	13.3	9:53	184	40.0	1	DAW
SB-1 @ 2'	7/30/2012	16:19	1.4	*Not analyzed for TPH*				
SB-1 @ 3'	7/30/2012	16:20	20.5	9:56	250	40.0	1	DAW
SB-2 @ Surface	7/30/2012	16:22	39.9	*Not analyzed for TPH*				
SB-2 @ 1'	7/30/2012	16:23	40.3	9:58	135	40.0	1	DAW
SB-2 @2'	7/30/2012	16:24	19.4	*Not analyzed for TPH*				
SB-2 @ 3'	7/30/2012	16:25	28.8	10:00	116	40.0	1	DAW
SB-3 @ Surface	7/30/2012	16:30	0.3	*Not analyzed for TPH*				
SB-3 @ 1'	7/30/2012	16:32	8.4	10:02	128	40.0	1	DAW
SB-3 @ 2'	7/30/2012	16:33	27.4	*Not analyzed for TPH*				
SB-3 @ 3'	7/30/2012	16:34	23.6	10:04	157	40.0	1	DAW
SB-4 @ Surface	7/30/2012	16:36	31.7	*Not analyzed for TPH*				
SB-4 @ 1'	7/30/2012	16:37	21.5	10:07	167	40.0	1	DAW
SB-4 @ 2'	7/30/2012	16:40	13.3	*Not analyzed for TPH*				
SB-4 @ 3'	7/30/2012	16:42	0.8	10:16	133	40.0	1	DAW
SB-5 @ Surface	7/30/2012	17:20	0.0	10:22	8,320	400	10	DAW
SB-6 @ Surface	7/30/2012	17:22	0.0	*Not analyzed for TPH*				
SB-7 @ Surface	7/30/2012	17:24	0.0	10:29	41,300	4,000	100	DAW
SB-8 @ Surface	7/30/2012	17:26	0.0	10:32	40,000	400	10	DAW
SB-9 @ Surface	7/30/2012	17:28	0.0	10:35	345	40.0	1	DAW
SB-10 @ Surface	7/30/2012	17:40	0.0	*Not analyzed for TPH*				
SB-10 @ 1'	7/30/2012	17:41	0.0	10:37	130	40.0	1	DAW
SB-10 @ 2'	7/30/2012	17:42	0.0	*Not analyzed for TPH*				

Report Finalized: 07/30/12

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-10 @ 3'	7/30/2012	17:43	0.0	10:39	164	40	1	DAW
SB-11 @ Surface	7/30/2012	17:50	0.0	*Not analyzed for TPH*				
SB-11 @ 1'	7/30/2012	17:51	0.0	10:42	138	40.0	1	DAW
SB-12 @ Surface	7/30/2012	17:52	0.0	*Not analyzed for TPH*				
SB-12 @ 1'	7/30/2012	18:16	0.0	10:44	135	40.0	1	DAW
SB-13 @ Surface	7/30/2012	18:17	0.0	*Not analyzed for TPH*				
SB-13 @ 1'	7/30/2012	18:18	0.0	*Not analyzed for TPH*				
SB-14 @ Surface	7/30/2012	18:19	0.0	*Not analyzed for TPH*				
SB-14 @ 1'	7/30/2012	18:20	0.0	10:47	162	40.0	1	DAW
SB-15 @ Surface	7/30/2012	18:24	0.0	*Not analyzed for TPH*				
SB-15 @ 0.5'	7/30/2012	18:25	0.0	*Not analyzed for TPH*				
SB-16 @ Surface	7/30/2012	18:27	0.0	*Not analyzed for TPH*				
SB-16 @ 1'	7/30/2012	18:28	0.0	*Not analyzed for TPH*				
SB-17 @ Surface	7/30/2012	18:35	0.0	*Not analyzed for TPH*				
SB-17 @ 1'	7/30/2012	18:36	0.0	*Not analyzed for TPH*				
SB-18 @ Surface	7/30/2012	18:40	0.0	*Not analyzed for TPH*				
SB-18 @ 1'	7/30/2012	18:42	0.0	10:48	126	40.0	1	DAW
SB-19 @ Surface	7/30/2012	18:55	0.0	*Not analyzed for TPH*				
SB-19 @ 0.5'	7/30/2012	18:56	0.0	*Not analyzed for TPH*				

Total Petroleum Hydrocarbons - USEPA 418.1

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

**Field TPH concentrations analyzed on 7/31/12.*

Analyst: Deborah Watts

AES Field Screening Report

Animas Environmental Services, LLC
www.animasenvironmental.com
624 E. Comanche
Farmington, NM 87401
505-564-2281
Durango, Colorado
970-403-3274

Client: ConocoPhillips

Project Location: San Juan 30-6 CTB #3

Date: 8/20/2012

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-5	8/20/2012	14:49	0.4	9:15	1,340	20.0	1	CL
SB-7	8/20/2012	14:40	0.3	9:21	77.8	20.0	1	CL
SB-9	8/20/2012	14:49	0.2	9:25	103	20.0	1	CL

Total Petroleum Hydrocarbons - USEPA 418.1

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

**Samples analyzed for field TPH on 8/21/2012.*

Analyst:

Report Finalized: 08/20/12

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

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

RE: CoP SJ 30-6 CTB #3 OrderNo.: 1208956

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/22/2012 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 **1208956**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services
Client Sample ID: SB-5
Project: CoP SJ 30-6 CTB #3
Collection Date: 8/20/2012 2:49:00 PM
Lab ID: 1208956-001
Matrix: MEOH (SOIL)
Received Date: 8/22/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	110	98		mg/Kg	10	8/22/2012 10:58:53 AM
Surr: DNOP	0	77.6-140	S	%REC	10	8/22/2012 10:58:53 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/22/2012 12:19:43 PM
Surr: BFB	122	84-116	S	%REC	1	8/22/2012 12:19:43 PM

Qualifiers:

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	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits
X	Value exceeds Maximum Contaminant Level.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208956**

27-Aug-12

Client: Animas Environmental Services
Project: CoP SJ 30-6 CTB #3

Sample ID **MB-3438**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **3438**	RunNo: **5017**
Prep Date: **8/22/2012**	Analysis Date: **8/22/2012**	SeqNo: **142066** 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		112	77.6	140			

Sample ID **LCS-3438**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **3438**	RunNo: **5017**
Prep Date: **8/22/2012**	Analysis Date: **8/22/2012**	SeqNo: **142334** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	73.1	52.6	130			
Surr: DNOP	4.4		5.000		88.2	77.6	140			

Sample ID **1208857-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **3438**	RunNo: **5044**
Prep Date: **8/22/2012**	Analysis Date: **8/23/2012**	SeqNo: **143789** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	9.9	49.70	0	78.9	57.2	146			
Surr: DNOP	4.6		4.970		93.0	77.6	140			

Sample ID **1208857-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **3438**	RunNo: **5044**
Prep Date: **8/22/2012**	Analysis Date: **8/23/2012**	SeqNo: **143790** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.6	57.2	146	0.154	24.5	
Surr: DNOP	4.1		5.000		81.7	77.6	140	0	0	

Qualifiers:

- 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
- 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#: **1208956**

27-Aug-12

Client: Animas Environmental Services
Project: CoP SJ 30-6 CTB #3

Sample ID **MB-3460**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**							
Client ID: **PBW**	Batch ID: **3460**	RunNo: **5044**							
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143373**	Units: **%REC**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID **LCS-3460**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**							
Client ID: **LCSW**	Batch ID: **3460**	RunNo: **5044**							
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143388**	Units: **%REC**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID **LCSD-3460**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**							
Client ID: **LCSS02**	Batch ID: **3460**	RunNo: **5044**							
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143389**	Units: **%REC**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Qualifiers:

- 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
- 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#: **1208956**

27-Aug-12

Client: Animas Environmental Services

Project: CoP SJ 30-6 CTB #3

Sample ID **MB-3428**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **3428**	RunNo: **5025**
Prep Date: **8/21/2012**	Analysis Date: **8/22/2012**	SeqNo: **143036** 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	970		1000		97.4	84	116			

Sample ID **LCS-3428**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **3428**	RunNo: **5025**
Prep Date: **8/21/2012**	Analysis Date: **8/22/2012**	SeqNo: **143037** 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	97.3	74	117			
Surr: BFB	1000		1000		99.9	84	116			

Sample ID **1208857-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3428**	RunNo: **5025**
Prep Date: **8/21/2012**	Analysis Date: **8/22/2012**	SeqNo: **143040** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.49	0	92.7	70	130			
Surr: BFB	990		979.4		101	84	116			

Sample ID **1208857-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3428**	RunNo: **5025**
Prep Date: **8/21/2012**	Analysis Date: **8/22/2012**	SeqNo: **143041** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.39	0	89.4	70	130	4.08	22.1	
Surr: BFB	1000		975.6		102	84	116	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208956**

27-Aug-12

Client: Animas Environmental Services

Project: CoP SJ 30-6 CTB #3

Sample ID **MB-3428**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **3428**	RunNo: **5025**
Prep Date: **8/21/2012**	Analysis Date: **8/22/2012**	SeqNo: **143050** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **LCS-3428**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **3428**	RunNo: **5025**
Prep Date: **8/21/2012**	Analysis Date: **8/22/2012**	SeqNo: **143051** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

- 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
- 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: 1208956

Received by/date: AG 08/22/12

Logged By: Michelle Garcia 8/22/2012 10:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 8/22/2012 10:07:36 AM Michelle Garcia

Reviewed By: IO 08/22/12

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 ☐	
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	2.0	Good	Yes			

Chain-of-Custody Record

Client: Animas Environmental Services

Mailing Address: 624 E Comanche

Farmington NM 87401

Phone #: 505-564-2281

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other ____________

☐ EDD (Type) ____________

Turn-Around Time:

☐ Standard ☒ Rush Same day

Project Name: CoP SJ 30-6 CTB #3

Project #:

Project Manager: D. Watson

Sampler: C. Lameman

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.0

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. 1208956	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel) GRO/DRO	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
[illegible]-2012	1449	Soil	SB-5	4oz Jar/MeOH Kit	NA/MeOH	-001			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
[illegible]21-12	1740	[signature]	Christa Waite	8/21/12	1740
8/21/12	1751	Christa Waite	[signature]	08/22/12	10:00

Remarks: Bill to ConocoPhillips.

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