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 32-9 Unit 45A**	Facility Type: **Gas Well**

Surface Owner **BLM**	Mineral Owner **BLM (SF-078389-A)**	API No.**30-045-24876**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	12	31N	10W	1120	North	1520	West	San Juan

Latitude 36.91653 Longitude -107.83705

NATURE OF RELEASE

Type of Release **Produced Fluids**	Volume of Release **Unknown**	Volume Recovered **234 cu. yds.**
Source of Release **Below Grade Tank**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **5/1/2014**
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.	

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

OIL CONS. DIV DIST. 3

JUL 09 2014

Describe Cause of Problem and Remedial Action Taken.*
Below Grade Tank Closure Activities

Describe Area Affected and Cleanup Action Taken.*
The below grade tank sample results were above regulatory standards by USEPA method 418.1 for TPH confirming a release. The excavation was 26' x 34' x 7' and 234 cubic yards of soil was transported to a third party landfarm. Excavation and confirmation sampling occurred. Analytical results for TPH, BTEX and Chlorides were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release; therefore no further action is required. 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 Approved by Environmental Specialist: Jonathan D Kelly
Printed Name: **Crystal Tafoya**	
Title: **Field Environmental Specialist**	Approval Date: 9/5/2014 Expiration Date:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval: Attached ☐
Date: 7/8/2014 Phone: (505) 326-9837	

* Attach Additional Sheets If Necessary

nJK1424842845

26

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

July 7, 2014

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

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

RE: Release Assessment and Final Excavation Report
San Juan 32-9 #45A
San Juan County, New Mexico

Dear Ms. Tafoya:

On May 2, 7, and 20, 2014, Animas Environmental Services, LLC (AES) completed a release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 32-9 #45A, located in San Juan County, New Mexico. Historic contamination was discovered during facility reset activities. The release assessment was completed by AES on May 7, 2014, and the final excavation was completed by CoP contractors prior to AES' arrival at the location on May 20, 2014.

1.0 Site Information

1.1 Location

Site Name – San Juan 32-9 #45A
Location – NE¼ NW¼, Section 12, T31N, R10W, San Juan County, New Mexico
Well Head Latitude/Longitude – N36.91647 and W107.83769, respectively
Release Location Latitude/Longitude – N36.91639 and W107.83778, respectively
Land Jurisdiction – Bureau of Land Management (BLM)
Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, May 2014

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 cathodic protection report from the San Juan 32-9 #44 and #99, approximately 3,500 feet to the west and 100 feet lower in elevation, reported the depth to groundwater as 90 to 95 feet below ground surface (bgs). (0 points)
- **Wellhead Protection Area:** The tank location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** An unnamed ephemeral stream in Miller Canyon is located approximately 670 feet to the north. (10 points)

1.3 Assessment

AES was initially contacted by Lisa Hunter of CoP on May 1, 2014, and on May 2, 2014, Deborah Watson and Lavina Lamone of AES completed the initial assessment field work. The assessment included collection and field sampling of one composite sample of contaminated soils in the north wall of a previously excavated area. Based on the field sampling results, AES recommended a release assessment on the north side of the excavation due to the close proximity of in place equipment. The previously excavated area associated with facility reset activities measured approximately 26 feet by 34 feet by 7 feet in depth.

On May 7, 2014, AES personnel returned to complete an additional release assessment. The assessment included collection of 10 soil samples from 3 soil borings on the north side of the excavation near the separator. Soil borings were terminated on sandstone at approximately 5 feet bgs. Based on the field sampling results, AES recommended additional excavation of the release area. Sample locations from the May 2 and 7, 2014 release assessment are shown on Figure 3.

On May 20, 2014, AES returned to the location to collect a confirmation soil sample of the excavation. The field sampling activities included collection of one confirmation soil sample from the excavation. The area of the final excavation of impacted soils measured approximately 2 feet by 10 feet by 7 feet in depth. Sample locations and final excavation extents are presented on Figure 4.

2.0 Soil Sampling

A total of 10 soil samples from 3 borings (SB-1 through SB-3) and 2 composite samples (SC-1 through SC-2) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also

analyzed for total petroleum hydrocarbons (TPH). Two composite samples (SC-1 and SC-2) were submitted for confirmation laboratory analysis.

2.1 Field Sampling

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 U.S. Environmental Protection Agency (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 sample chain of custody records. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples SC-1 and SC-2 were laboratory analyzed for:

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

2.3 Field and Laboratory Analytical Results

On May 2 and 7, 2014, assessment field screening results for VOCs via OVM ranged from 0.1 ppm in SB-2 up to 33.3 ppm in SC-1. Field TPH concentrations ranged from 20.1 mg/kg in SB-3 up to 11,000 mg/kg in SC-1.

On May 20, 2014, the final excavation field sampling results in SC-2 reported VOCs via OVM at 0.4 ppm and the field TPH concentrations at 212 mg/kg. Results are included below in Table 1 and on Figures 3 and 4. The AES Field Sampling Reports are attached.

Table 1. Field Sampling VOCs and TPH Results
San Juan 32-9 #45A Release Assessment and Final Excavation
May 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	VOCs via OVM (ppm)	TPH 418.1 (mg/kg)
*NMOCD Action Level**			*100*	*1,000*
SC-1	5/2/14	1 to 7	33.3	**11,000**
SB-1	5/7/14	1	0.3	NA
		3	0.4	NA
		5	0.2	NA
		5.5	0.2	34.2
SB-2	5/7/14	1	0.3	NA
		3	0.1	NA
		5	0.1	35.4
SB-3	5/7/14	1	0.5	NA
		3	0.3	NA
		5	0.3	20.1
SC-2	5/20/14	1 to 7	0.4	212

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 were used to confirm field sampling results of the release assessment. TPH concentrations as GRO/DRO in SC-1 were reported at 6,105 mg/kg.

Laboratory analyses for SC-2 were used to confirm field sampling results from the final excavation. TPH concentrations as GRO/DRO in SC-2 were reported at 212 mg/kg. Results are presented in Table 2 and on Figures 3 and 4. The laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results –TPH
San Juan 32-9 #45A Release Assessment and Final Excavation, May 2014

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
*NMOCD Action Level**			*10*	*50*	*1,000*	
SC-1	5/2/14	1 to 7	NA	NA	**5.0**	**6,100**

Sample ID	Date Sampled	Sample Depth (ft bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)
SC-2	5/20/14	1 to 7	NA	NA	<4.6	210

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 May 2 and 7, 2014, AES conducted an assessment of petroleum contaminated soils associated with a historic release discovered during facility reset activities at the San Juan 32-9 #45A. 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.

Assessment field sampling results above the NMOCD action level of 1,000 mg/kg TPH were reported in SC-1. The VOC concentration was reported at 33.3 ppm, and the TPH concentration was 11,000 mg/kg. Laboratory analyses for SC-1 were used to confirm field sampling results. TPH concentration as GRO/DRO exceeded the NMOCD action level of 1,000 mg/kg and was reported at 6,105 mg/kg. AES recommended excavation of an additional 2 feet to remove the petroleum hydrocarbon contaminated soil.

Prior to AES arrival on May 20, 2014, final excavation of the impacted area was completed. Field sampling results of the excavation extents showed that VOC and field TPH concentrations were below applicable NMOCD action levels for the final walls and base of the excavation. Laboratory analytical results for TPH concentrations as GRO/DRO were reported below the applicable NMOCD action level of 1,000 mg/kg in SC-2.

Based on final field sampling and laboratory analytical results of the excavation extents at the San Juan 32-9 #45A, VOC and TPH concentrations were below applicable NMOCD action levels for the sidewalls and base of the excavation. 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,

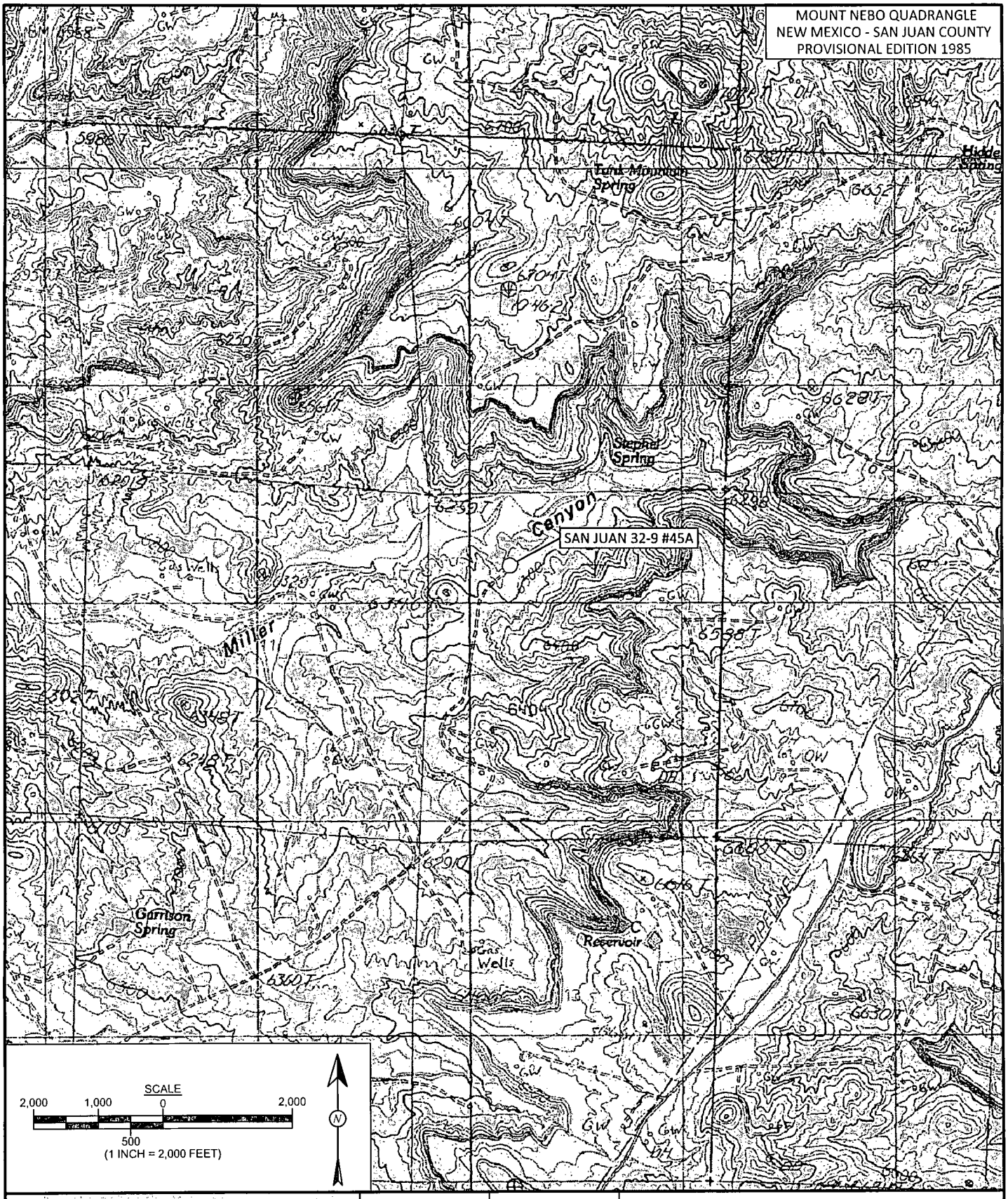
Emilee Skyles
Staff Geologist

Elizabeth McNally, PE

Attachments:

Figure 1. Topographic Site Location Map
Figure 2. Aerial Site Map, May 2014
Figure 3. Release Assessment Sample Locations and Results, May 2014
Figure 4. Final Excavation Sample Locations and Results, May 2014
AES Field Sampling Report 050214
AES Field Sampling Report 050714
AES Field Sampling Report 052014
Hall Laboratory Analytical Report 1405104
Hall Laboratory Analytical Report 1405894

SVRMAIN2\Shared\Animas 2000\Dropbox (Animas Environmental)\0000 Animas Server Dropbox EM\2014 Projects\ConocoPhillips\SJ 32-9 #45A\Release Assessment\CoP San Juan 32-9 #45A Release and Final Excavation Report 070714.docx



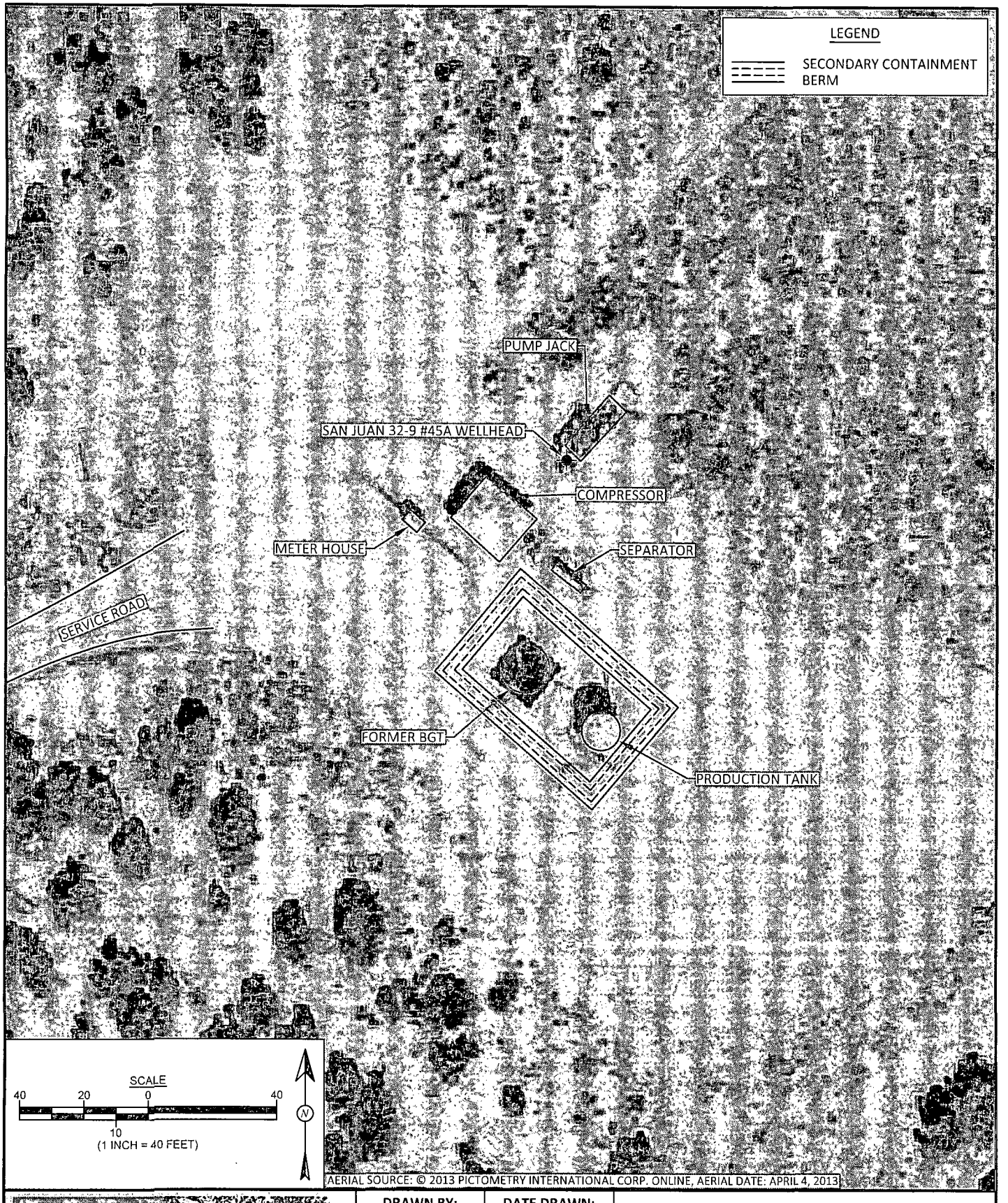
DRAWN BY: S. Glasses	**DATE DRAWN:** April 17, 2014
REVISIONS BY: C. Lameman	**DATE REVISED:** May 30, 2014
CHECKED BY: D. Watson	**DATE CHECKED:** May 30, 2014
APPROVED BY: E. McNally	**DATE APPROVED:** May 30, 2014

Animas Environmental Services, LLC

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP

ConocoPhillips
SAN JUAN 32-9 #45A
NE¼ NW¼, SECTION 12, T31N, R10W
SAN JUAN COUNTY, NEW MEXICO
N36.91647, W107.83769



Animas Environmental Services, LLC

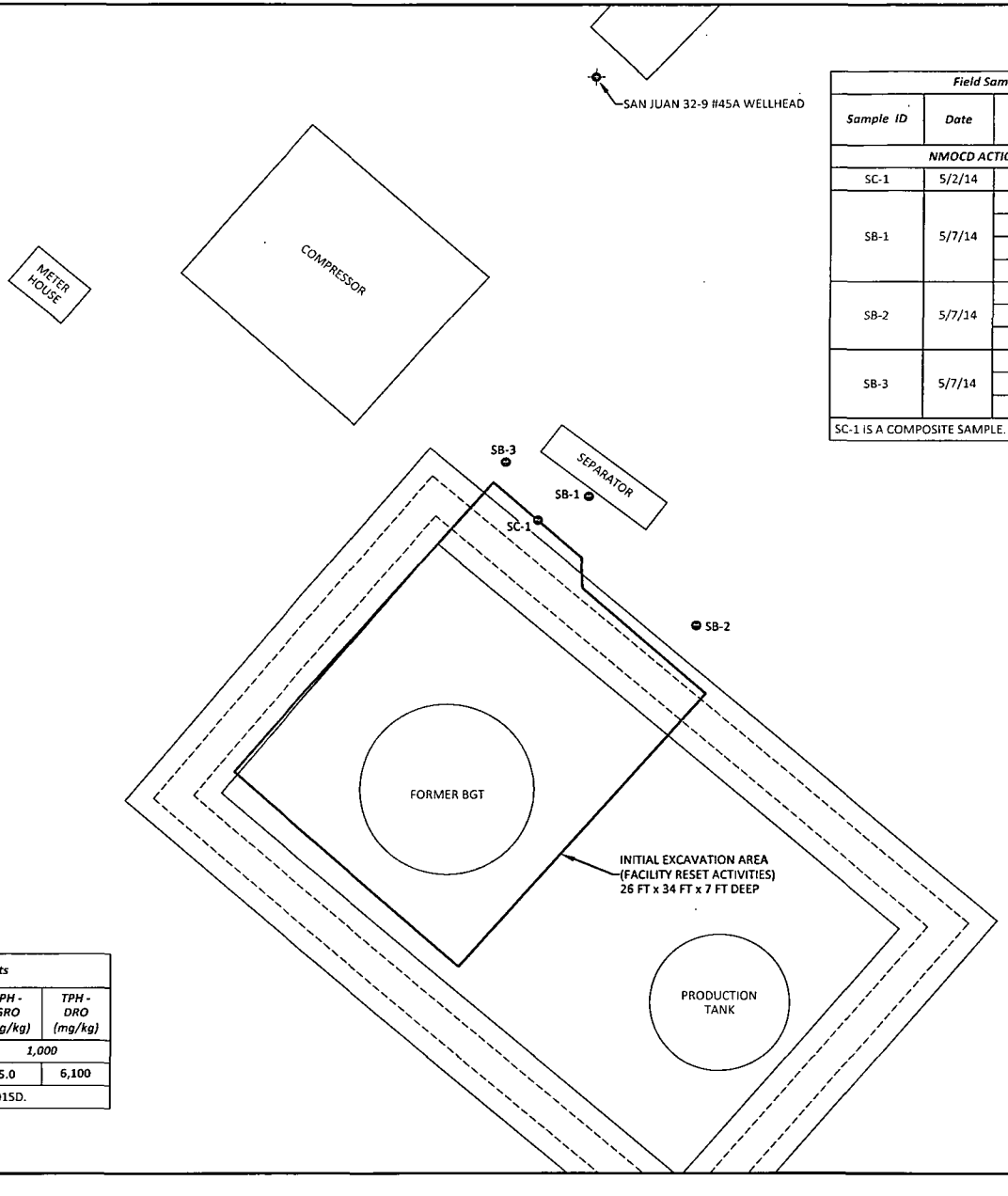
DRAWN BY: S. Glasses	**DATE DRAWN:** April 17, 2014
REVISIONS BY: C. Lameman	**DATE REVISED:** May 30, 2014
CHECKED BY: D. Watson	**DATE CHECKED:** May 30, 2014
APPROVED BY: E. McNally	**DATE APPROVED:** May 30, 2014

FIGURE 2

AERIAL SITE MAP
MAY 2014
ConocoPhillips
SAN JUAN 32-9 #45A
NE¼ NW¼, SECTION 12, T31N, R10W
SAN JUAN COUNTY, NEW MEXICO
N36.91647, W107.83769

FIGURE 3

RELEASE ASSESSMENT SAMPLE LOCATIONS AND RESULTS
MAY 2014
ConocoPhillips
SAN JUAN 32-9 #45A
NE¼ NW¾, SECTION 12, T31N, R10W
SAN JUAN COUNTY, NEW MEXICO
N36.91647, W107.83769



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-1	5/2/14	1 to 7	33.3	11,000
SB-1	5/7/14	1	0.3	NA
		3	0.4	NA
		5	0.2	NA
		5.5	0.2	34.2
SB-2	5/7/14	1	0.3	NA
		3	0.1	NA
		5	0.1	35.4
SB-3	5/7/14	1	0.5	NA
		3	0.3	NA
		5	0.3	20.1
SC-1 IS A COMPOSITE SAMPLE. NA - NOT ANALYZED				

Laboratory Analytical Results				
Sample ID	Date	Depth (ft)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			1,000	
SC-1	5/2/14	1 to 7	5.0	6,100
SAMPLE WAS ANALYZED PER EPA METHOD 8015D.				

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: May 8, 2014
REVISIONS BY: C. Lameman	DATE REVISED: May 30, 2014
CHECKED BY: D. Watson	DATE CHECKED: May 30, 2014
APPROVED BY: E. McNally	DATE APPROVED: May 30, 2014

LEGEND

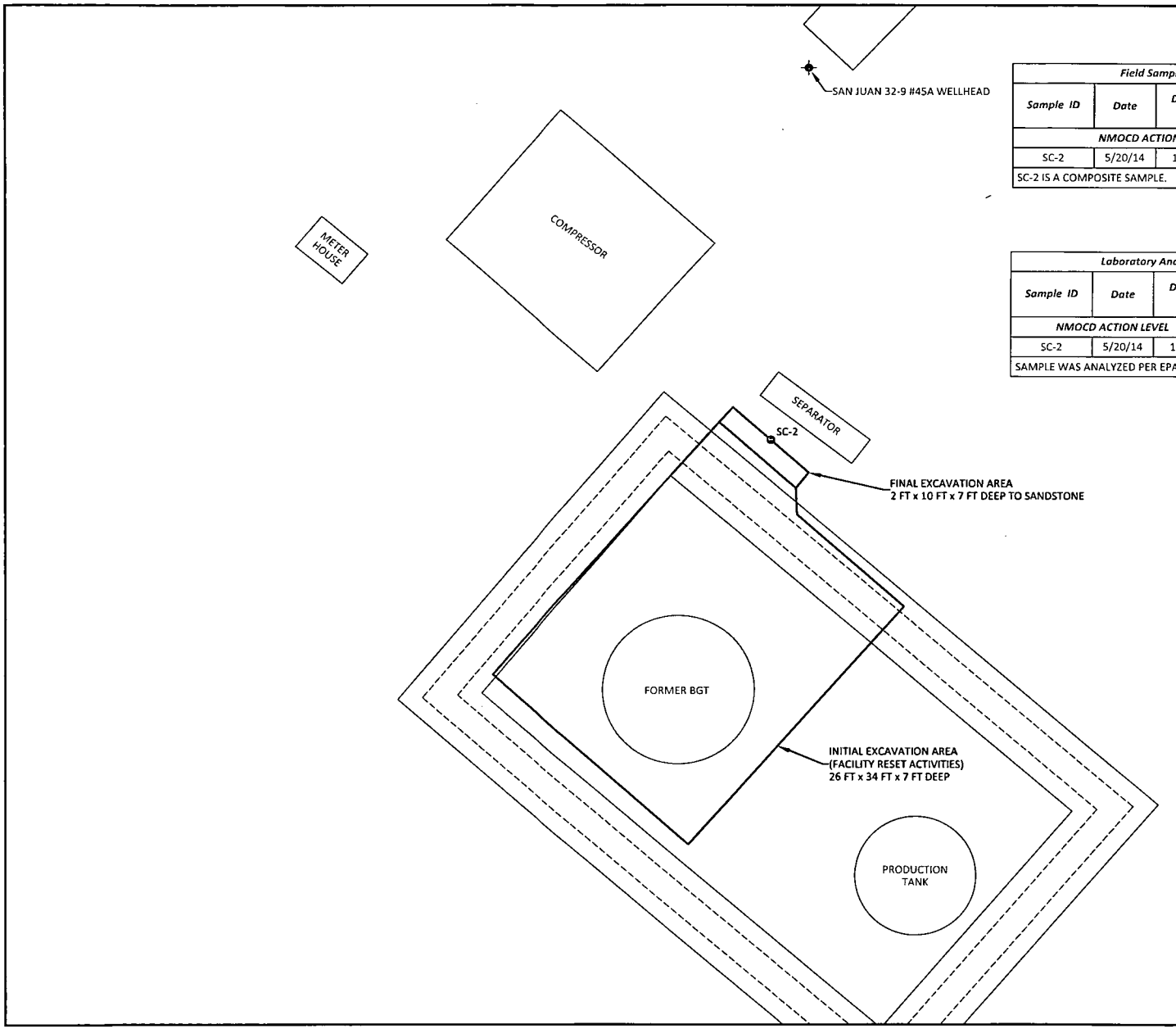
- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

N

SCALE
10 6 0 10
2
(1 INCH = 10 FEET)

FIGURE 4

FINAL EXCAVTION SAMPLE LOCATIONS AND RESULTS
MAY 2014
ConocoPhillips
SAN JUAN 32-9 #45A
NE¼ NW¼, SECTION 12, T31N, R10W
SAN JUAN COUNTY, NEW MEXICO
N36.91647, W107.83769



Field Sampling Results				
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	TPH (mg/kg)
NMOCD ACTION LEVEL			100	1,000
SC-2	5/20/14	1 to 7	0.4	212
SC-2 IS A COMPOSITE SAMPLE.				

Laboratory Analytical Results				
Sample ID	Date	Depth (ft)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOCD ACTION LEVEL			1,000	
SC-2	5/20/14	1 to 7	<4.6	210
SAMPLE WAS ANALYZED PER EPA METHOD 8015D.				

Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: May 30, 2014
REVISIONS BY: C. Lameman	DATE REVISED: May 30, 2014
CHECKED BY: D. Watson	DATE CHECKED: May 30, 2014
APPROVED BY: E. McNally	DATE APPROVED: May 30, 2014

LEGEND

- SAMPLE LOCATIONS
- SECONDARY CONTAINMENT BERM

SCALE
10 6 0 10
2
(1 INCH = 10 FEET)

AES Field Sampling 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 32-9 #45A

Date: 5/2/2014

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	TPH Analysis Time	TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	5/2/2014	12:25	Composite Northeast Wall	33.3	13:10	11,000	200	10	DAW

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

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Deborah Watson

Report Finalized: 5/2/14

AES Field Sampling 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 32-9 #45A

Date: 5/7/2014

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	TPH* (mg/kg)	TPH Analysis Time	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SB-1 @ 1'	5/7/2014	9:32	0.3	*Not Analyzed for TPH*				
SB-1 @ 3'	5/7/2014	9:39	0.4	*Not Analyzed for TPH*				
SB-1 @ 5'	5/7/2014	9:45	0.2	*Not Analyzed for TPH*				
SB-1 @ 5.5'	5/7/2014	9:47	0.2	34.2	10:37	20.0	1	EMS
SB-2 @ 1'	5/7/2014	9:55	0.3	*Not Analyzed for TPH*				
SB-2 @ 3'	5/7/2014	9:58	0.1	*Not Analyzed for TPH*				
SB-2 @ 5'	5/7/2014	10:02	0.1	35.4	10:40	20.0	1	EMS
SB-3 @ 1'	5/7/2014	10:55	0.5	*Not Analyzed for TPH*				
SB-3 @ 3'	5/7/2014	10:59	0.3	*Not Analyzed for TPH*				
SB-3 @ 5'	5/7/2014	11:04	0.3	20.1	11:23	20.0	1	EMS

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

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Emily Sky

Report Finalized: 5/7/14

AES Field Sampling 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 32-9 #45A

Date: 5/20/2014

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVM (ppm)	TPH Analysis Time	TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-2	5/20/2014	7:15	Excavation Composite	0.4	7:35	212	20.0	1	DAW

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

Total Petroleum Hydrocarbons - USEPA 418.1

Analyst: Deborah Watson

Report Finalized: 5/20/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

May 06, 2014

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

RE: CoP San Juan 32-9 Unit 45A OrderNo.: 1405104

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/3/2014 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. In order to properly interpret your results it is imperative that you review this report in its entirety. 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. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1405104**
Date Reported: **5/6/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP San Juan 32-9 Unit 45A
Lab ID: 1405104-001 **Matrix:** SOIL

Client Sample ID: SC-1
Collection Date: 5/2/2014 12:25:00 PM
Received Date: 5/3/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	6100	1000		mg/Kg	100	5/5/2014 12:22:41 PM	12995
Surr: DNOP	0	57.9-140	S	%REC	100	5/5/2014 12:22:41 PM	12995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.0	3.5		mg/Kg	1	5/5/2014 10:21:08 AM	R18376
Surr: BFB	111	74.5-129		%REC	1	5/5/2014 10:21:08 AM	R18376

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.
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#: **1405104**

06-May-14

Client: Animas Environmental

Project: CoP San Juan 32-9 Unit 45A

Sample ID **MB-12995**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **12995**	RunNo: **18374**
Prep Date: **5/5/2014**	Analysis Date: **5/5/2014**	SeqNo: **530743** 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	8.2		10.00		81.9	57.9	140			

Sample ID **LCS-12995**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **12995**	RunNo: **18374**
Prep Date: **5/5/2014**	Analysis Date: **5/5/2014**	SeqNo: **530744** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.0	60.8	145			
Surr: DNOP	3.9		5.000		78.0	57.9	140			

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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405104**

06-May-14

Client: Animas Environmental

Project: CoP San Juan 32-9 Unit 45A

Sample ID **MB-12990 MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R18376**	RunNo: **18376**
Prep Date:	Analysis Date: **5/5/2014**	SeqNo: **531630** 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	840		1000		84.2	74.5	129			

Sample ID **LCS-12990 MK**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R18376**	RunNo: **18376**
Prep Date:	Analysis Date: **5/5/2014**	SeqNo: **531635** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.3	71.7	134			
Surr: BFB	930		1000		92.6	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.
- RL Reporting Detection Limit

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: 1405104 RcptNo: 1

Received by/date: AT 05/03/14

Logged By: Anne Thorne 5/3/2014 10:20:00 AM Anne Thorne

Completed By: Anne Thorne 5/5/2014 Anne Thorne

Reviewed By: AT 05/05/14

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			

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

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)

☐ Standard ☒ Rush Same day

Project Name: CoP San Juan 32-9 Unit 45A

Project #:

Project Manager: D. Watson

Sampler: D Watson

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1405104	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
5-2-14	1225	Soil	SC-1	(1) Meoh kit (2) 4oz jars	Meoh / —	-001			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/2/14	1603	Debra Watson	[signature]	5/2/14	1603
5/3/14	1644	[signature]	[signature]	05/03/14	1020

Remarks: Bill to ConocoPhillips

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

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
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Website: www.hallenvironmental.com

May 23, 2014

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

RE: CoP San Juan 32-9 Unit 45A OrderNo.: 1405894

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/21/2014 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. In order to properly interpret your results it is imperative that you review this report in its entirety. 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. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1405894**
Date Reported: **5/23/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental
Project: CoP San Juan 32-9 Unit 45A
Lab ID: 1405894-001 **Matrix:** SOIL

Client Sample ID: SC-2
Collection Date: 5/20/2014 7:15:00 AM
Received Date: 5/21/2014 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)	210	100		mg/Kg	10	5/22/2014 9:53:32 AM	13277
Surr: DNOP	0	57.9-140	S	%REC	10	5/22/2014 9:53:32 AM	13277
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/22/2014 2:38:47 PM	13281
Surr: BFB	84.9	80-120		%REC	1	5/22/2014 2:38:47 PM	13281

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.
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#: **1405894**

23-May-14

Client: Animas Environmental

Project: CoP San Juan 32-9 Unit 45A

Sample ID **LCS-13277**	SampType: **LCS**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **13277**			RunNo: **18749**					
Prep Date: **5/21/2014**	Analysis Date: **5/21/2014**			SeqNo: **541687**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.7	60.8	145			
Surr: DNOP	4.7		5.000		94.5	57.9	140			

Sample ID **MB-13277**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **13277**			RunNo: **18749**					
Prep Date: **5/21/2014**	Analysis Date: **5/21/2014**			SeqNo: **541689**		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	8.1		10.00		81.5	57.9	140			

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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1405894**

23-May-14

Client: Animas Environmental

Project: CoP San Juan 32-9 Unit 45A

Sample ID **MB-13281**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **13281**	RunNo: **18795**
Prep Date: **5/21/2014**	Analysis Date: **5/22/2014**	SeqNo: **543156** 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	830		1000		83.0	80	120			

Sample ID **LCS-13281**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **13281**	RunNo: **18795**
Prep Date: **5/21/2014**	Analysis Date: **5/22/2014**	SeqNo: **543158** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.4	71.7	134			
Surr: BFB	910		1000		90.7	80	120			

Sample ID **1405894-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-1**	Batch ID: **13281**	RunNo: **18795**
Prep Date: **5/21/2014**	Analysis Date: **5/22/2014**	SeqNo: **543161** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.6	23.13	0	99.8	69.5	145			
Surr: BFB	870		925.1		94.1	80	120			

Sample ID **1405894-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-1**	Batch ID: **13281**	RunNo: **18795**
Prep Date: **5/21/2014**	Analysis Date: **5/22/2014**	SeqNo: **543166** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.6	23.15	0	94.0	69.5	145	5.81	20	
Surr: BFB	880		925.9		94.9	80	120	0	0	

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.
- RL Reporting Detection Limit

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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1405894 RcptNo: 1

Received by/date: CS 05/21/14

Logged By: Lindsay Mangin 5/21/2014 10:00:00 AM

Completed By: Lindsay Mangin 5/21/2014 10:51:34 AM

Reviewed By: 05/22/14

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

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
Mailing Address: 624 E Comanche Farmington NM 87401	Project Name: CoP San Juan 32-9 Unit 45A
Phone #: 505 564 2281	Project #:
email or Fax#:	Project Manager: D. Watson
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)	Sampler: D Watson
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. 1405512	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
5-20-14	715	Soil	SC-1	1-4oz glass	—	-001			X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/20/14	1645	Dawn Watson	Christie Walters	5/20/14	1645
5/20/14	1700	Christie Walters	Celina Sena	05/21/14	10:00

Remarks: Bill to ConocoPhillips

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