OIL CONS. DIV DIST. 3

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

OCT 28 2015

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 **Lisa Hunter**
Address **3401 East 30th St, Farmington, NM**	Telephone No. **(505) 258-1607**
Facility Name: **Pierce SRC #1**	Facility Type: **Gas Well**

Surface Owner **Federal**	Mineral Owner **Federal**	API No. **3004510340**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	**30**	**31N**	**10W**	**16450**	**North**	**990**	**East**	**San Juan**

Latitude 36.86511 Longitude -107.91994

NATURE OF RELEASE

Type of Release **Unknown - Historic**	Volume of Release **Unknown**	Volume Recovered **3.5 c yds**
Source of Release **Below Grade Tank (BGT)**	Date and Hour of Occurrence **Unknown**	Date and Hour of Discovery **06/15/15**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? **N/A**	
By Whom? **N/A**	Date and Hour **N/A**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **N/A**	

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

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

Describe Area Affected and Cleanup Action Taken.*
NMOCD action levels for releases are specified in NMOCD's Guidelines for Leaks, Spills and Releases and the release was assigned a ranking score of 10. Historic hydrocarbon impacted soil was discovered during BGT closure sampling. Excavation measured approximately 3.5 cubic yards of soil transported to IEI land farm. No further work will be performed. The final report is attached for review.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: **Lisa Hunter**	Approved by Environmental Specialist:
Title: **Field Environmental Specialist**	Approval Date: 12/24/2015 Expiration Date:
E-mail Address: **Lisa.Hunter@cop.com**	Conditions of Approval: Attached ☐
Date: **October 23, 2015** Phone: **(505) 258-1607**	—

* Attach Additional Sheets If Necessary

NUF1535827984

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Pierce SRC #1A Release Report

Unit Letter O, Section 30, Township 31 North, Range 10 West
N36.86511, W107.91994
San Juan County, New Mexico

October 23, 2015

Prepared for:
ConocoPhillips
5525 Highway 64
Farmington, New Mexico 87401

Prepared by:
Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

Rule Engineering, LLC
Solutions to Regulations for Industry

ConocoPhillips
Pierce SRC #1A
Release Report

Prepared for:

ConocoPhillips
5525 Highway 64
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

Heather M. Woods

Heather M. Woods, P.G., Area Manager

Reviewed by:

Russell Knight, PG, Principal Hydrogeologist

October 23, 2015

Table of Contents

Tables

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Appendices

1.0 Introduction

A historic release was discovered on September 24, 2015, at the ConocoPhillips Pierce SRC #1A well pad during facility upgrade activities. The ConocoPhillips Pierce SRC #1A is located in Unit Letter O, Section 30, Township 31 North, Range 10 West, in San Juan County, New Mexico. A topographic map of the location reproduced from the United States Geological Society quadrangle map of the area is included as Figure 1 and an aerial site map is included as Figure 2.

2.0 Release Summary

Site Name	Pierce SRC #1A		
Site Location Description	Unit Letter O, Section 30, Township 31 North, Range 10 West (N36.86511, W107.91994)		
Land Jurisdiction	Bureau of Land Management		
Discovery Date	September 24, 2015		
Release Source	Historic		
Substance(s) Released	Undetermined	***Volume Released***	Undetermined
NMOCD Site Rank	10		
Distance to Surface Water	Unnamed ephemeral wash located approximately 215 feet south of the release location which drains to Hart Canyon		
Estimated Depth to Groundwater	Greater than 100 feet below grade surface (bgs)	***Distance to Water Well or Spring***	Greater than 1,000 feet
Approximate Excavation Dimensions	21.5 feet by 19 feet by 3 to 5 feet in depth	***Volume of Soil Transported for Disposal/Remediation***	Approximately 3.5 cubic yards

3.0 NMOCD Site Ranking

In accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 10 (Table 1).

Depth to groundwater at the site is estimated to be greater than 100 feet below grade surface (bgs) based on cathodic protection well logs and interpretation of topographic elevations of features from the surrounding area.

A review was completed of the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System and no water wells were identified within a 1,000

foot radius of the location. No water wells were observed within a 1,000 foot radius of the location during a visual inspection.

An unnamed ephemeral wash traverses the area approximately 215 feet south of the release location and drains to the wash in Hart Canyon.

Based on the ranking score of 10, action levels for remediated soils at the site are as follows: 10 milligrams per kilogram (mg/kg) benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

4.0 Field Activities

On September 24, 2015, Rule Engineering, LLC (Rule) personnel conducted a visual inspection of the excavation completed during the facility upgrade activities. Soil and rock discoloration and hydrocarbon odor was observed. Rule personnel collected two composite samples (SC-1 and SC-2) from the base and sidewalls of the excavation. Approximately 20 cubic yards of discolored soil and rock were removed from the excavation measuring approximately 26 feet by 21 feet, with an upper shelf approximately 3 feet deep and a lower base approximately 6 feet deep. A depiction of the excavation with sample locations and summary of analytical results is included as Figure 3.

5.0 Soil Sampling

Rule collected confirmation soil samples (SC-1 and SC-2) from the sidewalls and base of the excavation. Each confirmation soil sample is a representative composite comprised of five equivalent aliquots of soil collected from the sampled area.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per U.S. Environmental Protection Agency (USEPA) Method 8260B and TPH (GRO/DRO) per USEPA 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory reports are included in Appendix C.

Portions of samples SC-1 and SC-2 were field screened for volatile organic compounds (VOCs) and a portion of SC-1 was field analyzed for TPH. Field screening for VOC vapors was conducted with a photoionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field analysis for TPH was conducted per USEPA 418.1, utilizing a total hydrocarbon analyzer calibrated following the manufacturer's procedure which includes calculation of a calibration curve using know concentration standards.

Field screening results for VOCs indicated concentrations of 1,692 ppm for SC-1 and 280 ppm for SC-2. Field analysis results for TPH indicated a concentration of 468 mg/kg for SC-1. Field results are summarized in Table 2.

6.0 Laboratory Analytical Results

Laboratory analytical results for confirmation samples SC-1 and SC-2 reported benzene concentrations below the laboratory reporting limit, which is below the NMOCD action level of 10 mg/kg. Laboratory analytical results reported total BTEX concentrations ranging from below the laboratory reporting limit to 0.23 mg/kg, which are below the NMOCD action level of 50 mg/kg. Laboratory analytical results reported TPH (GRO/DRO) concentrations ranging 6.3 mg/kg and 87 mg/kg, which are below the applicable NMOCD action level of 1,000 mg/kg for a site with a ranking of 10. Laboratory analytical results are summarized in Table 2 and presented on Figure 3.

7.0 Conclusions

The ConocoPhillips Pierce SRC #1A well pad is located in Unit Letter O, Section 30, Township 31 North, Range 10 West, in San Juan County, New Mexico. The historic release was discovered during facility upgrade activities. Approximately 3.5 cubic yards of discolored soil and rock were excavated and transported to the landfarm for disposal/remediation. Confirmation samples were collected from the sidewalls and base of the resultant excavation which measured approximately 21.5 feet by 19 feet by 3 to 5 feet in depth. Laboratory analytical results for the soil confirmation samples (SC-1 and SC-2) reported benzene, total BTEX, and total TPH (GRO/DRO) concentrations below the applicable NMOCD action levels.

Based on laboratory analytical results of the confirmation soil samples, no further work is recommended.

8.0 Closure and Limitations

This report has been prepared for the exclusive use of ConocoPhillips and is subject to the terms, conditions, and limitations stated in Rule's report and Service Agreement with ConocoPhillips. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Tables

Table 1. NMOCD Site Ranking Determination
ConocoPhillips
Pierce SRC #1A
San Juan County, New Mexico

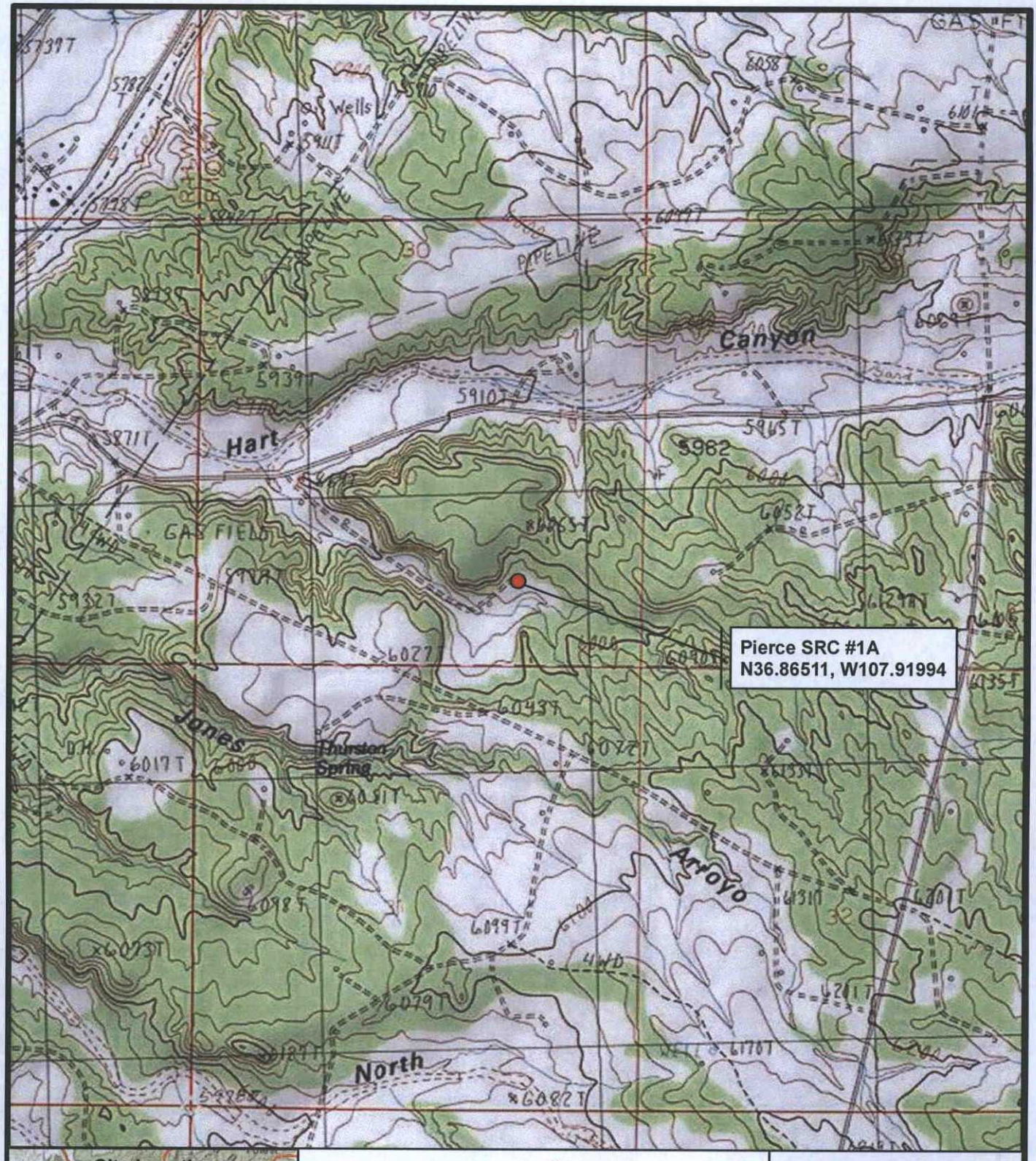
Ranking Criteria	Ranking Score	Site-Based Ranking Score	Basis for Determination	Data Sources
Depth to Groundwater				
<50 feet	20	0	Local cathodic protection well logs and elevation differential information derived from the topographic map of the area.	NMOCD Online database, Aztec Quadrangle, Google Earth, and Visual Inspection
50-99 feet	10			
>100 feet	0			
Wellhead Protection Area				
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes)	0	No water source or recorded water wells within 1,000 foot radius of location.	NMOSE NMWRRS, Aztec Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	10	An unnamed, ephemeral wash located approximately 215 feet south which drains to the wash in Hart Canyon.	Aztec Quadrangle, Google Earth, and Visual Inspection
200 to 1,000 horizontal feet	10			
>1,000 horizontal feet	0			
Site Based Total Ranking Score		**10**		

Table 2. Excavation Closure Field Sampling and Laboratory Analytical Results
Pierce SRC #1A
San Juan County, New Mexico
ConocoPhillips

Sample ID	Date	Sample Type	Sample Depth (ft)	Field Sampling Results		Laboratory Analytical Results						
				VOCs (PID) (ppm)	TPH (Method 418.1) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
NMOCD Action Levels*				**100**	**1,000**	**10**	**--**	**--**	**--**	**50**	**1,000**	
SC-1	9/24/15	Composite	0.5 to 3	**1,692**	468	<0.032	<0.032	0.073	0.16	0.23	43	44
SC-2	9/24/15	Composite	0.5 to 5	**280**	NA	<0.035	<0.035	<0.035	<0.070	ND	6.3	<9.7

Notes:
VOCs - volitile organic compounds
PID - photo-ionization detector
mg/kg - milligrams/kilograms
TPH - total petroleum hydrocarbons
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
GRO - gasoline range organics
DRO - diesel range organics
ND - not detected above the laboratory reporting limits
NA - not analyzed
*NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (1993) for site rank of 10

Figures



ConocoPhillips

0 0.125 0.25 0.5 0.75 1 Miles

N

Rule Engineering, LLC
Solutions to Regulations for Industry

10/9/2015

1:24,000

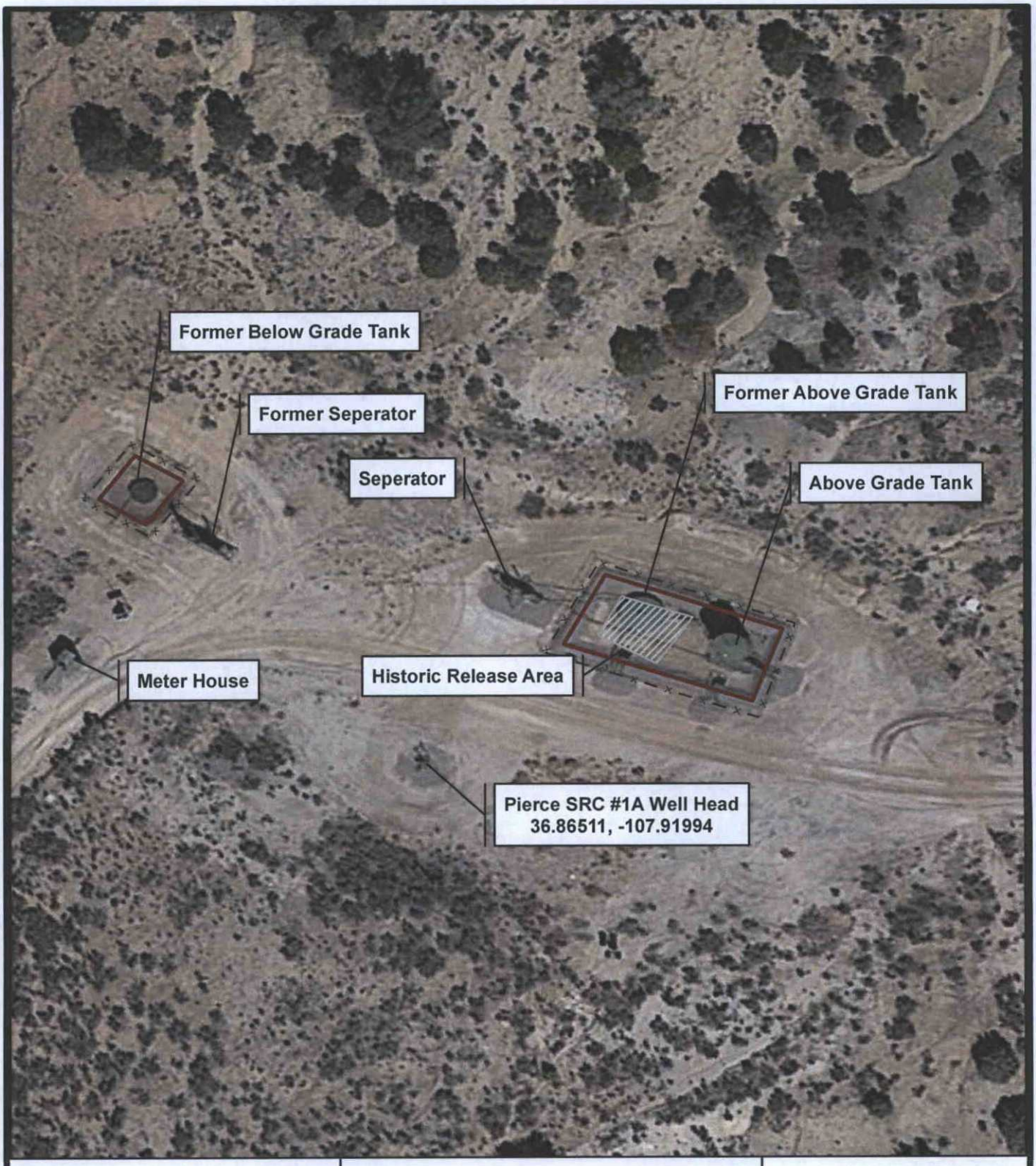
Topographic Site Map

ConocoPhillips
Pierce SRC #1A
API: 30-045-21796

Figure 1

O-S30-T31N-R010W
N36.86511, W107.91994
Aztec Quadrangle
San Juan County, New Mexico

Document Name: 151009 Pierce SRC #1A Topo Map



Historic Release Area

Fence

Berm

1:582 10/9/2015

ConocoPhillips

0 30 60 120

Feet

N

Rule Engineering, LLC

Solutions to Regulations for Industry

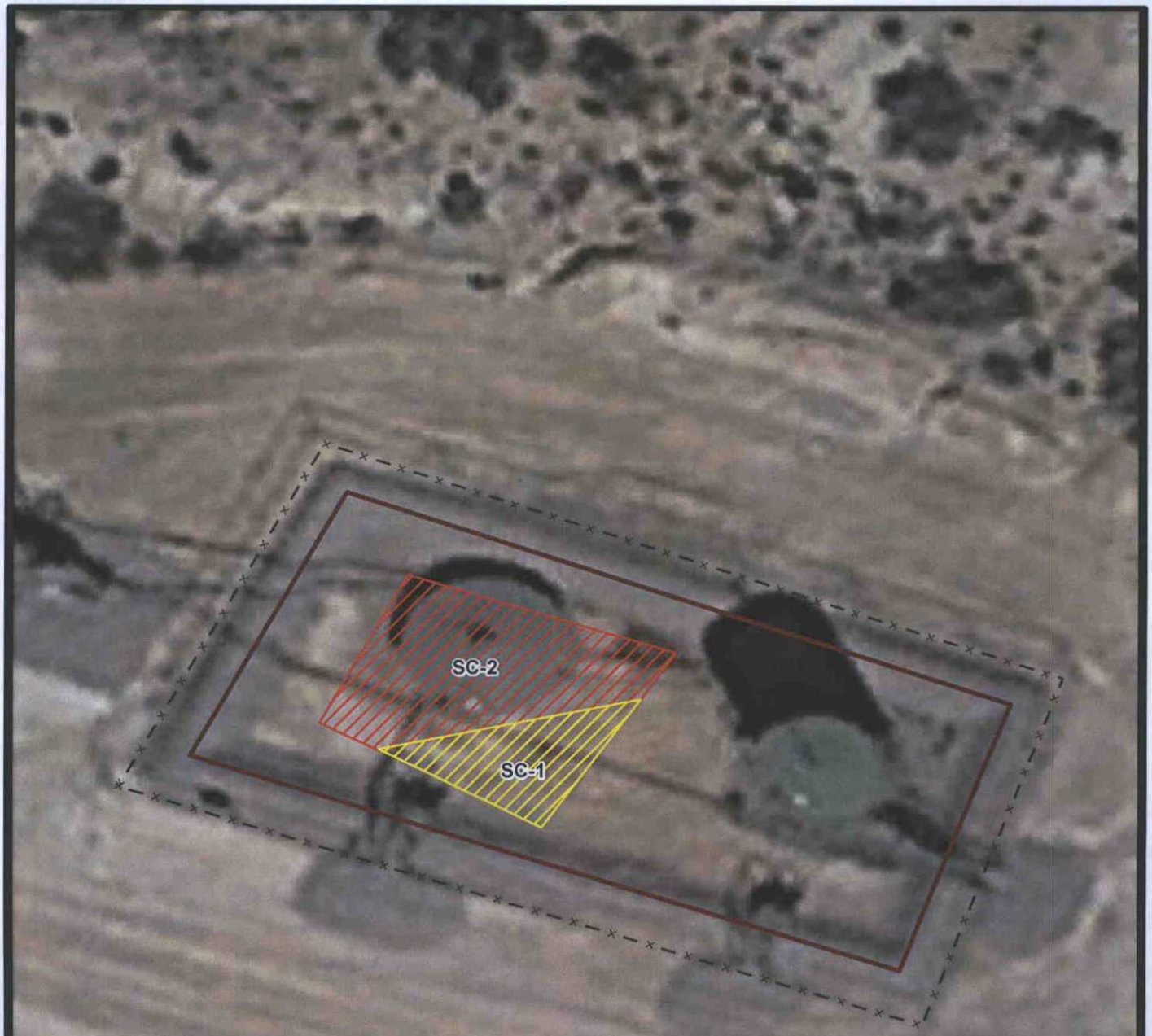
Aerial Site Map

ConocoPhillips
Pierce SRC #1A
API: 30-045-21796

Figure 2

O-S30-T31N-R010W
N36.86511, W107.91994
San Juan County, New Mexico

Document Name: 151009 Pierce SRC #1A Aerial Map



Sample ID	Date	Sample Type	Sample Depth (ft)	Laboratory Analytical Results						
				Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
NMOCD Action Levels				10	--	--	--	50	1,000	
SC-1	9/24/15	Composite	0.5 to 3	<0.032	<0.032	0.073	0.16	0.23	43	44
SC-2	9/24/15	Composite	0.5 to 5	<0.035	<0.035	<0.035	<0.070	ND	6.3	<9.7

NOTE: SC-1 and SC-2 are five point composites

Sample Composite 1

Sample Composite 2

Fence

Berm

ConocoPhillips

0 4 8 16 24 32

Feet

N

Rule Engineering, LLC

Solutions to Regulations for Industry

Excavation Closure Map

ConocoPhillips
Pierce SRC #1A
API: 30-045-21796

Figure 3

O-S30-T31N-R010W
N36.86511, W107.91994
San Juan County, New Mexico

Document Name: 151009 Pierce SRC #1A Excavation Map

1:171

10/14/2015

Appendix A

Laboratory Analytical Report

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

September 28, 2015

Heather Woods
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 860-2712
FAX

RE: CoP Pierce SRC #1A OrderNo.: 1509B87

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/25/2015 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-1
Project: CoP Pierce SRC #1A
Collection Date: 9/24/2015 3:03:00 PM
Lab ID: 1509B87-001
Matrix: MEOH (SOIL)
Received Date: 9/25/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	43	3.2		mg/Kg	1	9/25/2015 10:54:22 AM	D29107
Surr: BFB	105	70-130		%REC	1	9/25/2015 10:54:22 AM	D29107
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	44	10		mg/Kg	1	9/25/2015 10:41:06 AM	21499
Surr: DNOP	92.6	57.9-140		%REC	1	9/25/2015 10:41:06 AM	21499
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.032		mg/Kg	1	9/25/2015 10:54:22 AM	B29107
Toluene	ND	0.032		mg/Kg	1	9/25/2015 10:54:22 AM	B29107
Ethylbenzene	0.073	0.032		mg/Kg	1	9/25/2015 10:54:22 AM	B29107
Xylenes, Total	0.16	0.065		mg/Kg	1	9/25/2015 10:54:22 AM	B29107
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	9/25/2015 10:54:22 AM	B29107
Surr: 4-Bromofluorobenzene	87.3	70-130		%REC	1	9/25/2015 10:54:22 AM	B29107
Surr: Dibromofluoromethane	109	70-130		%REC	1	9/25/2015 10:54:22 AM	B29107
Surr: Toluene-d8	101	70-130		%REC	1	9/25/2015 10:54:22 AM	B29107

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Project: CoP Pierce SRC #1A
Lab ID: 1509B87-002
Matrix: MEOH (SOIL)
Client Sample ID: SC-2
Collection Date: 9/24/2015 3:05:00 PM
Received Date: 9/25/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	6.3	3.5		mg/Kg	1	9/25/2015 11:21:57 AM	D29107
Surr: BFB	104	70-130		%REC	1	9/25/2015 11:21:57 AM	D29107
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/25/2015 11:02:33 AM	21499
Surr: DNOP	86.6	57.9-140		%REC	1	9/25/2015 11:02:33 AM	21499
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.035		mg/Kg	1	9/25/2015 11:21:57 AM	B29107
Toluene	ND	0.035		mg/Kg	1	9/25/2015 11:21:57 AM	B29107
Ethylbenzene	ND	0.035		mg/Kg	1	9/25/2015 11:21:57 AM	B29107
Xylenes, Total	ND	0.070		mg/Kg	1	9/25/2015 11:21:57 AM	B29107
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	9/25/2015 11:21:57 AM	B29107
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	9/25/2015 11:21:57 AM	B29107
Surr: Dibromofluoromethane	106	70-130		%REC	1	9/25/2015 11:21:57 AM	B29107
Surr: Toluene-d8	99.3	70-130		%REC	1	9/25/2015 11:21:57 AM	B29107

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1509B87**

28-Sep-15

Client: Rule Engineering LLC

Project: CoP Pierce SRC #1A

Sample ID **MB-21499**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **21499**	RunNo: **29100**
Prep Date: **9/25/2015**	Analysis Date: **9/25/2015**	SeqNo: **883407** 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	9.3		10.00		92.9	57.9	140			

Sample ID **LCS-21499**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **21499**	RunNo: **29100**
Prep Date: **9/25/2015**	Analysis Date: **9/25/2015**	SeqNo: **883434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.0	57.4	139			
Surr: DNOP	4.3		5.000		86.9	57.9	140			

Sample ID **1509B87-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **21499**	RunNo: **29100**
Prep Date: **9/25/2015**	Analysis Date: **9/25/2015**	SeqNo: **883766** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	82	9.5	47.30	44.09	79.6	42.3	146			
Surr: DNOP	4.4		4.730		93.5	57.9	140			

Sample ID **1509B87-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **21499**	RunNo: **29100**
Prep Date: **9/25/2015**	Analysis Date: **9/25/2015**	SeqNo: **883767** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	92	9.6	47.76	44.09	100	42.3	146	11.9	28.9	
Surr: DNOP	4.6		4.776		95.4	57.9	140	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1509B87**

28-Sep-15

Client: Rule Engineering LLC

Project: CoP Pierce SRC #1A

Sample ID **rb5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **B29107**	RunNo: **29107**
Prep Date:	Analysis Date: **9/26/2015**	SeqNo: **884384** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.2	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **B29107**	RunNo: **29107**
Prep Date:	Analysis Date: **9/25/2015**	SeqNo: **884385** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	70	130			
Toluene	1.1	0.050	1.000	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.50		0.5000		99.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1509B87**

28-Sep-15

Client: Rule Engineering LLC

Project: CoP Pierce SRC #1A

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **D29107**	RunNo: **29107**
Prep Date:	Analysis Date: **9/25/2015**	SeqNo: **884481** 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	480		500.0		96.4	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **D29107**	RunNo: **29107**
Prep Date:	Analysis Date: **9/25/2015**	SeqNo: **884482** 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	99.9	70	123			
Surr: BFB	490		500.0		98.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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: **RULE ENGINEERING LL** Work Order Number: **1509B87** RcptNo: **1**

Received by/date: 09/25/15

Logged By: **Lindsay Mangin** 9/25/2015 7:30:00 AM

Completed By: **Lindsay Mangin** 9/25/2015 7:49:01 AM

Reviewed By: 09/25/15

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 ☑	# of preserved bottles checked for pH: (<2 or >12 unless noted)
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 ☐	Adjusted?
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 ☐	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	2.8	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering, LLC

Mailing Address: 501 Airport Dr, Suite 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
CoP Pierce SRC #1A

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.8 - 0.2 = 2.8

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. 1501887	BTEX + [redacted] (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / [redacted])	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)
1/24/15	1503	Soil	SC-1	MeOH Kit (1) 4 oz Glass	MeOH Non	-001	X		X													
1/24/15	1505	Soil	SC-2	MeOH Kit (1) 4 oz Glass	MeOH Non	-002	X		X													

NF HW

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/24/15	2000	Heather M. Woods	Christie Walls	9/24/15	2000
1/25/15	2047	Christie Walls		09/25/15	0730

Remarks: Bill to ConocoPhillips
WO: 10384415
Lead: Michael Marquez
Plant: H2F3
User ID: BENALE
Area: 300
Ordered by: Lisa Hunter