

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 ConocoPhillips Company	Contact Lisa Hunter
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607
Facility Name: Holloway Federal #4	Facility Type: Gas Well
Surface Owner Federal	Mineral Owner Federal (SF-078895)
API No. 3004506704	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	07	27N	11W	1650	North	1650	East	San Juan

Latitude 36.59246 Longitude -108.04279

NATURE OF RELEASE

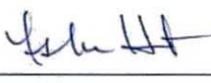
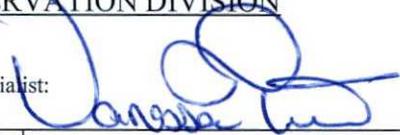
Type of Release Hydrocarbon	Volume of Release Unknown	Volume Recovered N/A
Source of Release Below Grade Tank (BGT)	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 08/17/2016
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.*
N/A **DEC 02 2016**

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

Describe Area Affected and Cleanup Action Taken.*
The below grade tank sample results were above regulatory standard by USEPA method 418.1 for TPH and Organic Vapors, confirming a release. The sample was then transported to the lab and analytical results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Release (Risk Rank 0); therefore no further action is required.

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: 12/19/2016	Expiration Date:
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: November 29, 2016 Phone: (505) 258-1607	NVF1634436312	

* Attach Additional Sheets If Necessary

November 17, 2016

Ms. Lisa Hunter
ConocoPhillips
San Juan Business Unit
5525 Highway 64
Farmington, New Mexico 87401

**Re: Holloway Federal #4
Below Grade Tank Closure Sampling Report**

Dear Ms. Hunter:

This report summarizes the below grade tank (BGT) closure sampling activities conducted by Rule Engineering, LLC (Rule) at the ConocoPhillips Holloway Federal #4 located in Unit Letter G, Section 7, Township 27N, Range 11W in San Juan County, New Mexico. Activities included collection and analysis of a 5-point composite soil confirmation sample from beneath the BGT on August 17, 2016. A topographic map of the location is included as Figure 1 and an aerial site map is included as Figure 2.

BGT Summary

Site Name – Holloway Federal #4

Location – Unit Letter G, Section 7, Township 27N, Range 11W

API Number – 30-045-06704

Wellhead Latitude/Longitude – N36.59232 and W108.04191

BGT Latitude/Longitude – N36.59246 and W108.04279

Land Jurisdiction – Navajo Nation Trust

Size of BGT – 120 bbls

Date of BGT Closure Soil Sampling – August 17, 2016

NNEPA/NMOCD Site Ranking and BGT Closure Standards

The site is located on the Navajo Nation under the jurisdiction of the Navajo Nation Environmental Protection Agency (NNEPA). Based on NNEPA recommendations, remediation of soils associated with natural gas and condensate releases are assigned a rank 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 0 (Table 1).

Depth to groundwater at the site is estimated to be greater than 100 feet bgs based on the information published on the New Mexico Office of the State Engineer (NMOSE) online New Mexico Water Rights Reporting System (NMWRRS) and elevation information derived from the topographic map of the area. A review was completed of the NMWRRS 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. No surface water features were identified within 1,000 feet of the site.

As outlined in 19.15.17.13 New Mexico Administrative Code (NMAC), BGT closure standards for the Holloway Federal #4 are as follows: 0.2 milligrams per kilogram (mg/kg) benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), 100 mg/kg total petroleum hydrocarbons (TPH), and 250 mg/kg chlorides.

Based on the ranking score of 0, NNEPA/NMOCD 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 5,000 mg/kg total petroleum hydrocarbons (TPH).

Field Activities

On August 17, 2016, following removal of the BGT tank, Rule personnel conducted a visual inspection for surface/subsurface indications of a release. Possible staining and odor was observed below the tank. Rule personnel then collected five soil samples (S-1 through S-5) from 0.5 feet beneath the floor of the BGT excavation. Figure 2 provides the location of the soil samples collected from below the BGT. The field work summary sheet is attached.

Soil Sampling

The five soil samples (S-1 through S-5) collected from below the floor of the BGT excavation were combined to create soil confirmation sample SC-1. A portion of sample SC-1 was field screened for volatile organic compounds (VOCs) and chlorides, and field analyzed for TPH. Soil sample locations are indicated on the Field Work Summary Sheet and Figure 3.

Field screening for VOC vapors was conducted with a photo-ionization detector (PID). Prior to field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field analysis for TPH was conducted per U.S. Environmental Protection Agency (USEPA) Method 418.1, utilizing a total hydrocarbon analyzer. Prior to field analysis, the machine was calibrated following the manufacturer's procedure which includes calculation of a calibration curve using known concentration standards. Field screening for chloride was conducted using the Hach chloride low range test kit. Chloride concentrations were determined by drop count titration method using silver nitrate titrant.

The portion of sample SC-1 collected for laboratory analysis was placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The sample was analyzed for BTEX per USEPA Method 8021B, TPH per USEPA Method 418.1 and 8015D, and chlorides per USEPA Method 300.0.

Field and Analytical Results

Field sampling results for soil confirmation sample SC-1 indicated a VOC concentration of 5.3 ppm and a TPH concentration of 800 mg/kg. Field chloride concentrations were reported at 40 mg/kg.

Laboratory analytical results for sample SC-1 reported benzene and total BTEX concentrations below the laboratory reporting limits of 0.018 mg/kg and 0.162 mg/kg, respectively. Laboratory analytical results for sample SC-1 reported TPH concentrations of 1,200 mg/kg per USEPA 418.1, below the laboratory reporting limit of 3.6 mg/kg as gasoline range organics per USEPA 8015D, and 250 mg/kg diesel range organics per USEPA Method 8015M/D. The laboratory analytical result for sample SC-1 for chloride concentration was 62 mg/kg. Laboratory results are summarized in Table 2, and the analytical laboratory report is attached.

Conclusions

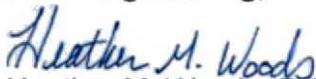
On August 17, 2016, BGT closure sampling activities were conducted at the ConocoPhillips Holloway Federal #4. Field screening results for confirmation sample SC-1 indicated TPH concentrations above the BGT closure standards, but below NNEPA/NMOCD action levels for a site rank of 0. Laboratory analytical results confirm that benzene, total BTEX, and chloride concentrations are below BGT closure standards for sample SC-1. Laboratory analytical results also indicate that TPH concentrations exceed BGT closure standards for sample SC-1; however, TPH concentrations are below NNEPA/NMOCD action levels for a site rank of 0.

Based on field screening and laboratory analytical results, no further work is recommended.

Rule Engineering appreciates the opportunity to provide services to ConocoPhillips. If you have any questions, please contact me at (505) 325-1055.

Sincerely,

Rule Engineering, LLC



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

Attachments:

Table 1. NNEPA/NMOCD Site Ranking Determination

Table 2. BGT Soil Sampling Results

Figure 1. Topographic Map

Figure 2. Aerial Site Map

Figure 3. Sample Location Map

Field Work Summary Sheet

Analytical Laboratory Report

Table 1. NNEPA/NMOCD Site Ranking Determination
ConocoPhillips
Holloway Federal #4
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	Elevation information derived from the topographic map of the area and reported depth to groundwater for registered water wells in the area.	NMOCD Online database, NMOSE NMWRRS, Gallegos Trading Post 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, Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	0	No surface water features were identified within 1,000 feet of the site.	Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
200 to 1,000 horizontal feet	10			
>1,000 horizontal feet	0			
Site Based Total Ranking Score		0		

**Table 2. Field and Analytical Laboratory Results
 ConocoPhillips
 Holloway Federal #4
 San Juan County, New Mexico**

Sample ID	Date	Sample Type	Sample Depth (ft below BGT liner)	Field Sampling Results			Laboratory Analytical Results					
				VOCs (PID) (ppm)	TPH - 418.1 (mg/kg)	Chloride** (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - 418.1 (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chloride*** (mg/kg)
BGT Closure Standards*				--	100	250	0.2	50	100	--		250
NNEPA/NMOCD Action Levels†				100	5,000	--	10	50	5,000	5,000		--
SC-1	8/17/16	Composite	0.5	5.3	800	40	<0.018	<0.162	1,200	<3.6	250	62

Notes: PID - photo-ionization detector

ppm - parts per million

mg/kg - milligrams/kilograms

VOCs - volatile organic compounds

BTEX - benzene, toluene, ethylbenzene, and total xylenes

*19.15.17.13 NMAC

**Per Hach chloride low-range test kit

***Per USEPA Method 300.0 chlorides

†Based on the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases (August 1993)* site ranking of 0.

TPH - total petroleum hydrocarbons per USEPA Method 418.1

GRO - gasoline range organics

DRO - diesel range organics

NNEPA - Navajo Nation Environmental Protection Agency

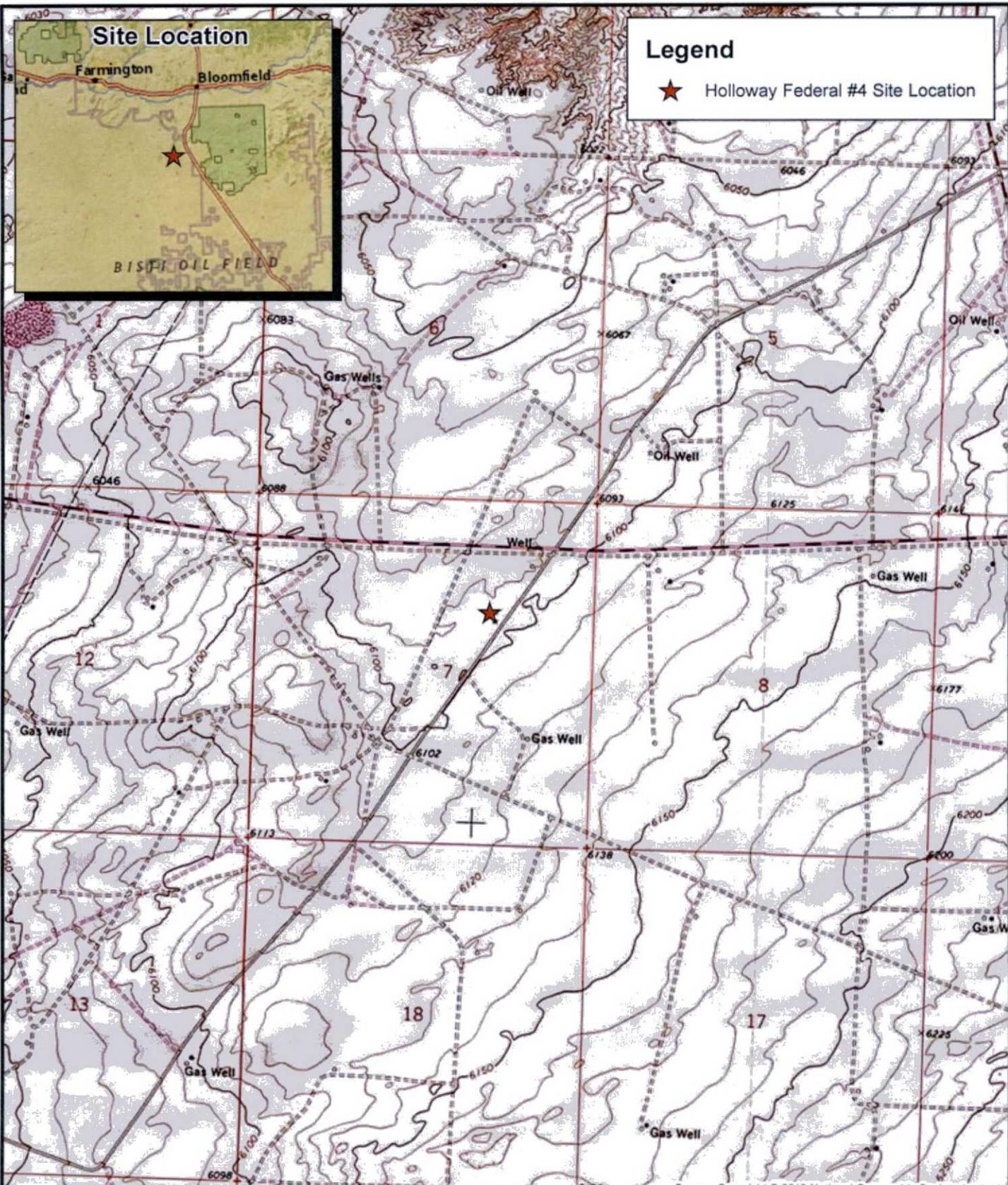
NMOCD - New Mexico Oil Conservation Division

Document Path: U:\ConocoPhillips\ConocoPhillips\Holloway Federal #4\Holloway Federal #4 Topographic.mxd



Legend

- ★ Holloway Federal #4 Site Location



Source: Copyright: © 2013 National Geographic Society, I-cubed Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Rule Engineering, LLC
Solutions to Regulations for Industry

0 0.225 0.45 0.9 Miles

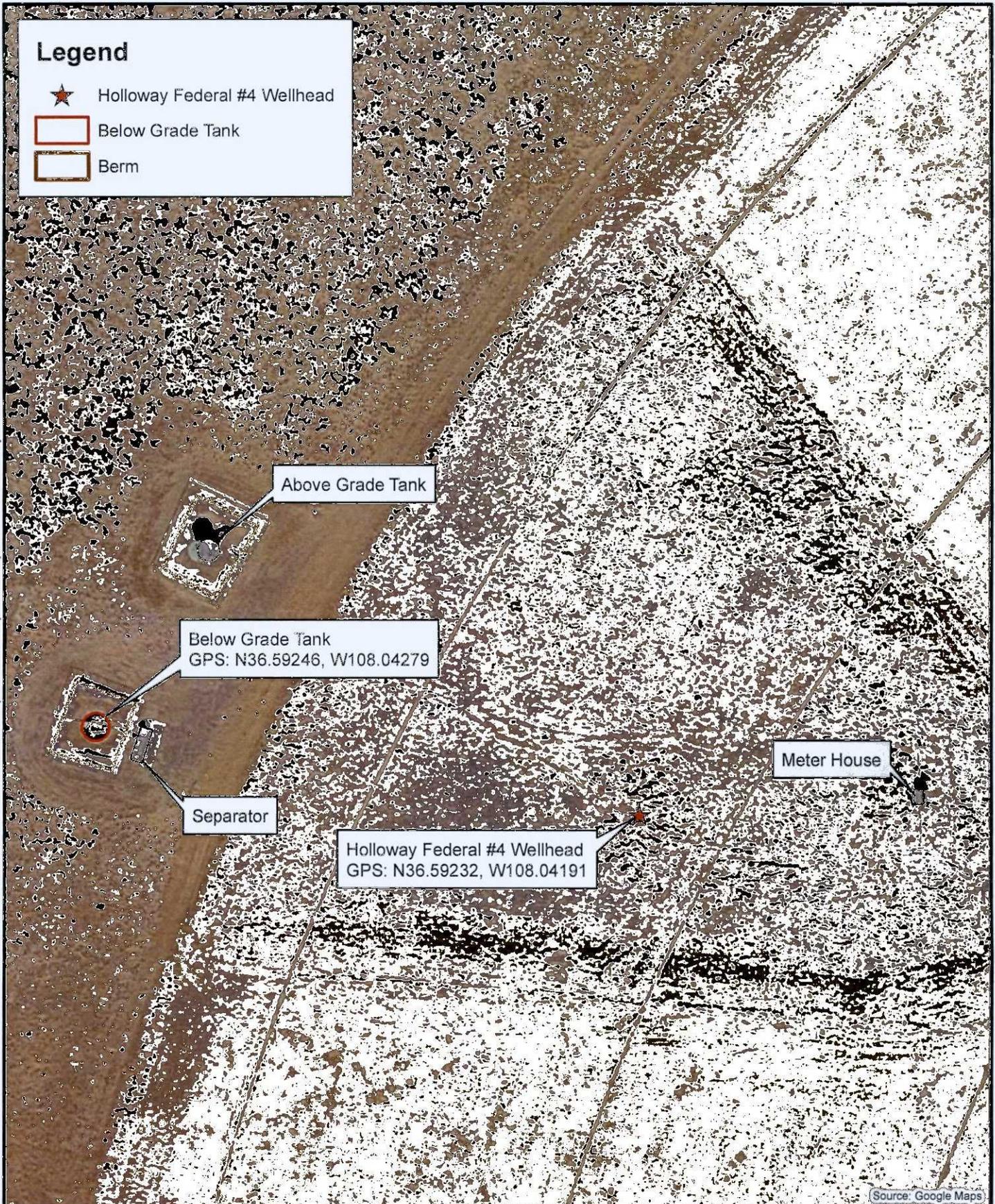
Gallegos Trading Post Quadrangle
1:24,000

G-S07-T27N-R11W
N36.59246, W108.04279
San Juan County, NM
API: 30-045-06704

Figure 1
Topographic Site Map
Holloway Federal #4

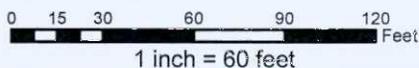
Legend

-  Holloway Federal #4 Wellhead
-  Below Grade Tank
-  Berm



Source: Google Maps

Rule Engineering, LLC
Solutions to Regulations for Industry



G-S07-T27N-R11W
 N36.59246, W108.04279
 San Juan County, NM
 API: 30-045-06704

Figure 2
Aerial Site Map
 Holloway Federal #4

Legend

-  Soil Sample Locations
-  Below Grade Tank
-  Berm



Source: Google Maps

Rule Engineering, LLC
Solutions to Regulations for Industry

0 3 6 12 18 24 Feet

1 inch = 10 feet



G-S07-T27N-R11W
N36.59246, W108.04279
San Juan County, NM
API: 30-045-06704

Figure 3
Sample Location Map
Holloway Federal #4

Rule Engineering Field Work Summary Sheet

Company: ConocoPhillips
 Location: Holloway Federal #4
 API: 30-045-06704
 Legals: G-S7-T27N-R11W
 County: San Juan
 Land Jurisdiction: Navajo Nation Trust

Date:	8/17/16
Staff:	Justin Valdez

Wellhead GPS: 36.59232, -108.04191
 BGT GPS: 36.59246, -108.04279

Siting Information based on BGT Location:

Site Rank 0

Groundwater: Estimated to be greater than 100 feet below grade surface, based on reported depth to groundwater for local registered water wells.

Surface Water: No surface water features were identified within 1,000 feet of the location

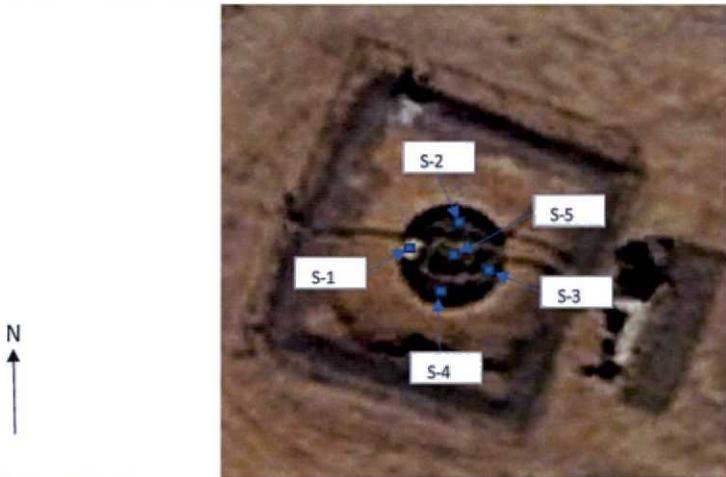
Wellhead Protection: No water wells identified within 1,000 ft of location.

Objective: Closure sampling for BGT
 Tank Size: 120 barrels, removed during closure activities
 Liner: No liner was present
 Observations: Possible staining and odor was observed below the tank.
 Notes: Katherina Diemer, BLM representative, was onsite during sample collection activities.

Field Sampling Information

Name	Type of Sample	Collection Time	Collection Location	VOCs ¹ (ppm)	VOCs time	TPH ² mg/kg	TPH Time	Chloride ³ mg/kg	Chloride Time
SC-1	Composite	10:20	See below	5.3	10:26	800	11:00	40	11:06

SC-1 is a 5-point composite of S-1 through S-5, collected 0.5 ft below BGT.
 Sample SC-1 was laboratory analyzed for TPH (8015), BTEX (8021) and chlorides (300.0).



Field Sampling Notes:

- ¹ Field screening for volatile organic compounds (VOC) vapors was conducted with a photo-ionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas.
- ² Field analysis for TPH was conducted using a total hydrocarbon analyzer. Prior to field analysis, the machine was calibrated following the manufacturer’s procedure which includes calculation of a calibration curve using known concentration standards.
- ³ Field screening for chlorides was conducted using the Hach chloride low range test kit. Chloride concentrations are determined by drop count titration method using silver nitrate titrant.



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

August 19, 2016

Heather Woods
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Holloway Fed 4

OrderNo.: 1608A51

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/18/2016 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 qualifiers 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Project: Holloway Fed 4
Lab ID: 1608A51-001

Client Sample ID: SC-1
Collection Date: 8/17/2016 10:20:00 AM
Received Date: 8/18/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: MAB
Petroleum Hydrocarbons, TR	1200	190		mg/Kg	10	8/18/2016 12:00:00 PM	27049
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	62	30		mg/Kg	20	8/18/2016 10:59:07 AM	27070
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	250	9.8		mg/Kg	1	8/18/2016 1:14:12 PM	27048
Surr: DNOP	85.6	70-130		%Rec	1	8/18/2016 1:14:12 PM	27048
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	8/18/2016 9:44:54 AM	A36601
Surr: BFB	86.5	68.3-144		%Rec	1	8/18/2016 9:44:54 AM	A36601
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	8/18/2016 9:44:54 AM	B36601
Toluene	ND	0.036		mg/Kg	1	8/18/2016 9:44:54 AM	B36601
Ethylbenzene	ND	0.036		mg/Kg	1	8/18/2016 9:44:54 AM	B36601
Xylenes, Total	ND	0.072		mg/Kg	1	8/18/2016 9:44:54 AM	B36601
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	8/18/2016 9:44:54 AM	B36601

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	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A51
19-Aug-16

Client: Rule Engineering LLC
Project: Holloway Fed 4

Sample ID	MB-27070	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	27070	RunNo:	36631					
Prep Date:	8/18/2016	Analysis Date:	8/18/2016	SeqNo:	1134648	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-27070	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	27070	RunNo:	36631					
Prep Date:	8/18/2016	Analysis Date:	8/18/2016	SeqNo:	1134649	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

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
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A51

19-Aug-16

Client: Rule Engineering LLC

Project: Holloway Fed 4

Sample ID MB-27049	SampType: MBLK		TestCode: EPA Method 418.1: TPH							
Client ID: PBS	Batch ID: 27049		RunNo: 36597							
Prep Date: 8/18/2016	Analysis Date: 8/18/2016		SeqNo: 1133450	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID LCS-27049	SampType: LCS		TestCode: EPA Method 418.1: TPH							
Client ID: LCSS	Batch ID: 27049		RunNo: 36597							
Prep Date: 8/18/2016	Analysis Date: 8/18/2016		SeqNo: 1133451	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	108	80.7	121			

Sample ID LCSD-27049	SampType: LCSD		TestCode: EPA Method 418.1: TPH							
Client ID: LCSS02	Batch ID: 27049		RunNo: 36597							
Prep Date: 8/18/2016	Analysis Date: 8/18/2016		SeqNo: 1133452	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	113	80.7	121	3.83	20	

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 | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A51

19-Aug-16

Client: Rule Engineering LLC

Project: Holloway Fed 4

Sample ID	MB-27048	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	27048	RunNo:	36594					
Prep Date:	8/18/2016	Analysis Date:	8/18/2016	SeqNo:	1133354	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	8.0		10.00		80.0	70	130			

Sample ID	LCS-27048	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	27048	RunNo:	36594					
Prep Date:	8/18/2016	Analysis Date:	8/18/2016	SeqNo:	1133371	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	74.8	62.6	124			
Surr: DNOP	3.9		5.000		77.1	70	130			

Sample ID	1608A51-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	27048	RunNo:	36594					
Prep Date:	8/18/2016	Analysis Date:	8/18/2016	SeqNo:	1133738	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	180	9.8	49.07	248.4	-139	33.9	141			S
Surr: DNOP	1.9		4.907		38.9	70	130			S

Sample ID	1608A51-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1	Batch ID:	27048	RunNo:	36594					
Prep Date:	8/18/2016	Analysis Date:	8/18/2016	SeqNo:	1133739	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	260	9.8	48.78	248.4	17.9	33.9	141	35.3	20	RS
Surr: DNOP	4.3		4.878		87.8	70	130	0	0	

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
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A51
19-Aug-16

Client: Rule Engineering LLC
Project: Holloway Fed 4

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	A36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134203	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	850		1000		84.7	68.3	144			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	A36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134204	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	80	120			
Surr: BFB	940		1000		94.3	68.3	144			

Sample ID	1608A51-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	A36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134205	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.6	18.08	0.9906	93.2	59.3	143			
Surr: BFB	690		723.1		95.4	68.3	144			

Sample ID	1608A51-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1	Batch ID:	A36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134206	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.6	18.08	0.9906	93.2	59.3	143	0.0811	20	
Surr: BFB	670		723.1		92.9	68.3	144	0	0	

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
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1608A51

19-Aug-16

Client: Rule Engineering LLC

Project: Holloway Fed 4

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134227	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B36601	RunNo:	36601					
Prep Date:		Analysis Date:	8/18/2016	SeqNo:	1134228	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.0	75.3	123			
Toluene	0.97	0.050	1.000	0	97.2	80	124			
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121			
Xylenes, Total	3.0	0.10	3.000	0	100	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

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
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL**

Work Order Number: **1608A51**

RcptNo: **1**

Received by/date:

[Signature]

08/18/16
8/18/2016 7:30:00 AM

[Signature]
[Signature]

Logged By: **Ashley Gallegos**

Completed By: **Ashley Gallegos**

Reviewed By: **AJ**

8/18/2016 8:28:26 AM

08/18/16

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:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

