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

\* Attach Additional Sheets If Necessary

## State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

Release Notificati	ion and Corrective Action								
	OPERATOR								
Name of Company ConocoPhillips Company	Contact Lisa Hunter								
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607								
Facility Name: San Juan 28-7 Unit 153E	Facility Type: Gas Well								
Surface Owner Federal Mineral Owner	er Federal (SF-078640) API No. 3003925883								
LOCATI	ON OF RELEASE								
	orth/South Line Feet from the East/West Line County South 795 East Rio Arriba								
	492 Longitude -107.59219								
	RE OF RELEASE    Volume of Release 82bbl & Volume Recovered 7bbls								
Type of Release Condensate & Produced Water	Volume of Release 82bbl & Volume Recovered 7bbls 7bbls								
Source of Release Production Tank	Date and Hour of Occurrence Date and Hour of Discovery								
W. F. P. N. C. C.	12/18/15 @ 7:00 a.m. 12/22/15 @ 11:15 a.m.								
Was Immediate Notice Given?  ☐ Yes ☐ No ☐ Not Requir	If YES, To Whom? Vanessa Fields, OCD								
Z 100 Z 100 Z 100 Z 100 Z 100 Z	Katherina Diemer, BLM								
By Whom? Lisa Hunter	Date and Hour 12/22/15 1:37 p.m. (OCD); 1:44 p.m. (BLM)								
Was a Watercourse Reached?  ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse. N/A OIL CONS. DIV DIST. 3								
If a Watercourse was Impacted, Describe Fully.* N/A	DEC 0 5 2016								
Describe Cause of Problem and Remedial Action Taken.*									
	routine tank gauging. Truck was called to remove standing fluids. Tank will								
be repaired.									
Describe Area Affected and Cleanup Action Taken.*									
	clean-up if necessary. Location is ranked 0. Excavation was 57' x 53' x 9-								
attached for review.	dards - no further action required. The soil sampling report is								
attached for review.									
	to the best of my knowledge and understand that pursuant to NMOCD rules and								
	se notifications and perform corrective actions for releases which may endanger								
	the NMOCD marked as "Final Report" does not relieve the operator of liability diate contamination that pose a threat to ground water, surface water, human health								
or the environment. In addition, NMOCD acceptance of a C-141 report	rt does not relieve the operator of responsibility for compliance with any other								
federal, state, or local laws and/or regulations.									
	OIL CONSERVATION DIVISION								
Yell H									
Signature:	Approved by Environmental Specialist:								
Printed Name: Lisa Hunter	Our Can								
	Approval Date: 2162016 Expiration Date:								
Title: Field Environmental Specialist	Approval Date: A Color Expiration Date:								
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval:								
Date: December 2, 2016 Phone: (505) 258-1607	NVERSEARUSMA								

OIL CONS. DIV DIST. 3
DEC 05 2016

# San Juan 28-7 #153E Release Report

Unit Letter I, Section 20, Township 27 North, Range 7 West Rio Arriba County, New Mexico

December 1, 2016

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

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



# ConocoPhillips San Juan 28-7 #153E 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, P.G., Area Manager

Reviewed by:

Michael A. Brown, P.E., Principal Engineer

December 1, 2016

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# **Appendices**

Appendix A Analytical Laboratory Reports



#### 1.0 Introduction

The ConocoPhillips San Juan 28-7 #153E release site is located in Unit Letter I, Section 20, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico. The release of approximately 82 barrels (bbls) of condensate and 7 bbls of produced water from the manway of the above ground condensate storage tank was discovered on December 18, 2015. The release was contained within the berm surrounding the tank and approximately 7 bbls of fluid were recovered using a vacuum truck.

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	San Juan 28-7 #153E								
Site Location Description	Unit Letter I, Section 2	20, Township 27 N	orth, Range 7 West						
Wellhead GPS Location	N36.55518 and W107.59234	N36.55492 and W107.59219							
Land Jurisdiction	Bureau of Land Management	Discovery Date	December 18, 2015						
Release Source	Above Grade Condensate Storage Tank	Substance(s) Released	Condensate and Produced Water						
Estimated Volume Released	82 bbls condensate/ 7 bbls produced water	Volume Recovered	7 bbls						
NMOCD Site Rank	0								
Distance to Nearest Surface Water	The channel of Cuervo Canyon is located over 1,000 feet northwest of the release location								
Estimated Depth to Groundwater	Greater than 100 feet below ground surface (bgs)	Distance to Nearest Water Well or Spring	Greater than 1,000 feet						

# 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 0 (Table 1).



Depth to groundwater at the site is greater than 100 feet bgs based on the elevation differential between the location and Cuervo Canyon and the cathodic well report for San Juan 28-7 #153M reported "no groundwater encountered".

A review was completed of the New Mexico Office of the State Engineer (NMOSE) online New Mexico Water Rights Reporting System (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.

The channel of Cuervo Canyon is located over 1,000 northwest of the release location.

Based on the ranking score of 0, 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) as gasoline range organics (GRO) and diesel range organics (DRO).

#### 4.0 Site Assessment

#### 4.1 Field Activities

On February 24, 2016, Rule Engineering, LLC (Rule) personnel conducted a site assessment to delineate the extent of the release which included advancing 11 soil borings (SB-1 through SB-11) utilizing a hand auger. Soil borings were advanced to depths ranging from approximately 2 to 3.5 feet bgs where refusal was encountered on hard soils or sandstone. Boring locations are illustrated on Figure 3.

#### 4.2 Soil Sampling

Rule collected soil samples from the soil borings at 0.5 to 2 foot intervals with an approximately 0.5 foot sample length at each interval. The lithology encountered at the site included interbedded clayey sand and poorly graded sand underlain by sandstone to the maximum depths of the soil borings.

A portion of each sample was field screened for volatile organic compounds (VOCs) and selected samples were analyzed for TPH. Field screening for VOC vapors was conducted with a MiniRAE 3000 photoionization detector (PID). Prior to field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field analysis for TPH was conducted for selected samples per United States Environmental Protection Agency (USEPA) Method 418.1, utilizing a Buck Scientific HC-404 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. Rule's practical quantitation limit for USEPA Method 418.1 is 20 mg/kg.

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 USEPA Method 8021B and TPH (GRO/DRO) per USEPA 8015D.



Initial site assessment field screening and laboratory analytical results are summarized in Table 2. The analytical laboratory report is included in Appendix A.

#### 4.3 Field Screening Results

Field screening results for samples collected from soil borings SB-1 through SB-11 indicated VOC concentrations ranging from 0.1 ppm to 3,621 ppm. Field TPH results for samples collected from soil borings SB-1 through SB-11 indicated TPH concentrations ranging from below the reporting limit of 20 mg/kg to greater than 2,500 mg/kg. Field screening results are summarized in Table 2.

#### 4.4 Laboratory Analytical Results

Laboratory analytical results for site assessment sample SB-6 at 3.25 feet reported concentrations of 2.7 mg/kg benzene, 214 mg/kg total BTEX, 2,200 mg/kg GRO, and 1,200 mg/kg DRO.

Site assessment field screening and laboratory analytical results are summarized in Table 2. The analytical laboratory report is included in Appendix A.

## 5.0 Excavation Confirmation Sampling

#### 5.1 Field Activities

On June 29, 2016, Rule personnel collected confirmation samples from the resultant excavation. Laboratory analysis indicated concentrations of total BTEX and/or TPH in excess of NMOCD action levels. Additional material was removed from the portions of the excavation represented by these samples, and resampling was conducted on July 14 through 15, 2016. Laboratory results again indicated concentrations in excess of NMOCD action levels, and following additional excavation of the north base, one additional sample was collected on August 11, 2016. The maximum extent of the final excavation measured approximately 57 feet by 53 feet by 9 to 11 feet in depth. Excavated hydrocarbon impacted soils and rock were transported to a local NMOCD approved landfarm for disposal/remediation and the excavation was backfilled with clean, imported material. A depiction of the final excavation with sample locations is included on Figure 4.

#### 5.2 Soil Sampling

Rule collected five composite confirmation soil samples (SC-1 through SC-8) on June 29, 2016; six additional samples (SC-2R, SC-3R, SC-4R, SC-7R, SC-8R, and SC-9) on July 14 and 15, 2016; and one additional sample (SC-8R(2)) on August 11, 2016. Each confirmation soil sample is a representative composite comprised of five equivalent portions of soil collected from the sampled area.



A portion of each sample was field screened for VOCs and selected samples were also field analyzed for TPH. Field screening for VOC vapors was conducted with a PID. Prior to field screening, the PID was calibrated with 100 ppm isobutylene gas. Field analysis for TPH was conducted for selected samples per 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. Rule's practical quantitation limit for USEPA Method 418.1 is 20 mg/kg.

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 USEPA Method 8021B, and TPH (GRO/DRO) per USEPA Method 8015M/D.

Field screening and laboratory analytical results are summarized in Table 3. The analytical laboratory reports are included in Appendix A.

#### 5.3 Field Screening Results

Field screening results for soil confirmation samples SC-1 through SC-9 (including replacement samples) indicated VOC concentrations ranging from 0.0 ppm to 3,600 ppm. The field TPH concentration results for these samples ranged from 1,600 mg/kg to 4,940 mg/kg. Field screening results are summarized in Table 3.

## 5.4 Laboratory Analytical Results

Samples Removed by Excavation: Samples removed by excavation due to NMOCD action level exceedances included SC-2, SC-3, SC-4, SC-7, SC-8, and SC-8R. Laboratory analytical results for these samples reported benzene concentrations ranging from below the laboratory reporting limits to 3.9 mg/kg; total BTEX concentrations ranging from 53 mg/kg to 297 mg/kg; and TPH (GRO/DRO) concentrations ranging from 1,450 mg/kg to 5,200 mg/kg.

Final Excavation Confirmation Samples: Samples collected for final excavation confirmation include SC-1, SC-2R, SC-3R, SC-4R, SC-5, SC-6, SC-7R, SC-8R(2), and SC-9. Laboratory analytical results for final excavation confirmation samples reported benzene concentrations ranging from below the laboratory reporting limit to 0.4 mg/kg, which are below the NMOCD action level of 10 mg/kg. Total BTEX concentrations for the final excavation samples ranged from below the laboratory reporting limit to 58 mg/kg, which were below the NMOCD action level for all the final excavation confirmation samples except for SC-7R, which exceeded the NMOCD action level of 50 mg/kg. The area of the base represented by SC-7 and SC-7R showed a significant reduction in total BTEX concentrations subsequent to the removal of an additional one to two feet of sandstone from 152 mg/kg on June 29, 2016, as sampled as SC-7 to 58 mg/kg on August 11, 2016 as samples as SC-7R. Laboratory analytical results indicate that TPH



(GRO/DRO) concentrations range from below the laboratory reporting limit to 1,740 mg/kg, which are below the NMOCD action level of 5,000 for a site rank of 0.

Laboratory analytical results are summarized in Table 3. The analytical laboratory reports are included in Appendix A.

#### 6.0 Conclusions

The ConocoPhillips San Juan 28-7 #153E release site is located in Unit Letter I, Section 20, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico. The release of approximately 82 barrels (bbls) of condensate and 7 bbls of produced water from the manway of the above ground condensate storage tank was discovered on December 18, 2015. The release was contained within the berm surrounding the tank and approximately 7 bbls of fluid were recovered using a vacuum truck. Following the initial excavation of hydrocarbon impacted soils, confirmation samples SC-1 through SC-8 were collected from the excavation. Based on laboratory analytical results indicating concentrations of total BTEX and/or TPH in excess of NMOCD action levels, additional material was removed from several of the walls and base of the excavation prior to collecting confirmation samples from the final extents of the excavation. The final excavation extents measured at maximum approximately 57 feet by 53 feet by 9 to 11 feet in depth.

Laboratory analytical results for final excavation confirmation samples (SC-1, SC-2R, SC-3R, SC-4R, SC-5, SC-6, SC-7R, SC-8R(2), and SC-9) reported benzene, total BTEX, and total TPH (GRO/DRO) concentrations below the applicable NMOCD action levels for a site rank of 0, except for sample SC-7R which exceeded the NMOCD action level for total BTEX. Total BTEX concentrations for the northeast portion of the sandstone base represented by sample SC-7 decreased significantly from 152 mg/kg as sampled on June 29, 2016 to 58 mg/kg as sampled as SC-7R on August 11, 2016, subsequent to the removal of an additional one to two feet of sandstone from the base. Excavated hydrocarbon impacted soils and rock were transported to a local NMOCD approved landfarm for disposal/remediation and the excavation was backfilled with clean, imported material.

Based on laboratory analytical results of the excavation confirmation samples, no further work is recommended at this time.

#### 7.0 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 San Juan 28-7 #153E Rio Arriba County, New Mexico

Ranking	Site-Based	Basis for Determination	Data Sources
00010	rtanking ocore		Courses
20		Elevation differential between location and Cuervo	NMOCD Online database,
10	0	and no groundwater encountered on cathodic well	Gould Pass Quadrangle, Google Earth, and Visual
0		report for the San Juan 26-7 #155M.	Inspection
20 (Yes)	0	No water source or recorded water wells within 1,000 foot radius of location.	NMOSE NMWRRS, Gould Pass Quadrangle, Google Earth, and Visual Inspection
0 (No)			Latti, and vioud inspection
20			Gould Pass Quadrangle,
10	0	The channel of Cuervo Canyon is located over 1,000 feet northwest of release location.	Google Earth, and Visual
0			Inspection
	20 10 0 20 (Yes) 0 (No)	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Elevation differential between location and Cuervo Canyon derived from the topographic map of the area and no groundwater encountered on cathodic well report for the San Juan 28-7 #153M.  No water source or recorded water wells within 1,000 foot radius of location.  No (No)  The channel of Cuervo Canyon is located over 1,000



# Table 2. Site Assessment Field Screening and Laboratory Analytical Results ConocoPhillips San Juan 27-8 #153E Rio Arriba County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field VOCs by PID (ppm)	Field TPH by 418.1 (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben- zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)
	NMO	CD Action Level*	100	5,000	10	NE	NE	NE	50	5,0	000
SB-1	3/24/2016	0.5	1.0		-			_			-
36-1	3/24/2010	2	0.4	-	-	-		-			
		0.5	0.7	-	-	-	-	-			
SB-2	3/24/2016	2	0.2	-	-			-			
		2.5	0.6	-	_			-			-
		0.5	0.1		-		-		-		
SB-3	3/24/2016	2	0.3	-	-	-		-	-		-
30-3	3/24/2010	2.5	583		-			-			
		3.5	974	32.6	-		-		-		-
		1	520		_	-	-			-	
SB-4	3/24/2016	2.5	1,000	-	-		-		-		-
		3	3,200	>2,500	-						
		1	1.7		-			-			
SB-5	3/24/2016	2	0.7			-		-			
		3	1.0	-	-					-	
		1	67.5	-	-					-	
		2	473	-	-	-		-	_		
SB-6	3/24/2016	3	767		-				-		
		3.25	1,734	>2,500	2.7	59	12	140	214	2,200	1,200
		3.5	1,222		_				-	-	-
SB-7	3/24/2016	2	1,053		_	-	-			_	
3D-1	3/24/2010	3.5	1,684		S==						
		0.5	2,565							-	-
SB-8	3/24/2016	2.5	1,229							-	
		4	1,357								
SB-9	3/24/2016	1.5	163								
00-0	3/24/2010	3	205	_	_	-		-	-		

# Table 2. Site Assessment Field Screening and Laboratory Analytical Results ConocoPhillips San Juan 27-8 #153E Rio Arriba County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field VOCs by PID (ppm)	Field TPH by 418.1 (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben- zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)
	NMOCD Action Level		100	5,000	10	NE	NE	NE	50	5,000	
SB-10	3/24/2016	1	3,621		-		-	-		-	
SB-10	3/24/2010	3	511	<20.0						-	
SB-11	3/24/216	1	1,971		-		-	-		-	-
SD-11	3/24/2 10	3	1,778					-	-	_	

Notes:

All borings were terminated at auger refusal on sandstone.

VOCs - volatile organic compounds

ND - not detected above laboratory reporting limits

PID - photoionization detector

BTEX - benzene, toluene, ethylbenzene, and xylenes

ft bgs - feet below grade surface

TPH - total petroleum hydrocarbons

ppm - parts per million

GRO - gasoline range organics

mg/kg - milligrams per kilogram

DRO - diesel range organics

NE - not-established

NMOCD - New Mexico Oil Conservation Division

\*Based on the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

\*\*Based on a site ranking of 0.



Table 3. Excavation Confirmation Field Screening and Laboratory Analytical Results ConocoPhillips
San Juan 28-7 #153E
Rio Arriba County, New Mexico

19-13-1	ENDOLUTE A		ALCOHOLD A	Field Scree	ning Results			Laborato	ory Analytica	al Results		
Sample Name	Date Locatio	Location	Approximate Sample Depth (ft bgs)	OVM by PID (ppm) on 6/29/2016	TPH per 418.1 on 6/29/2016	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben- zene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)
	NMOCD Action Level			100	5,000**	10	NE	NE	NE	50	5,000**	
				72-5-80 CT69 2	Removed b	y Excavation						Name 2
SC-2	6/29/2016	Wall	0.5 to 9	1,170	2,930	1.0	25	7.1	86	119	1,400	1,500
SC-3	6/29/2016	Wall	0.5 to 9	850	2,950	1.3	41	9.0	130	181	1,900	1,000
SC-4	6/29/2016	Wall	0.5 to 9	1,200	4,650	<1.1	7.5	4.2	53	65	1,100	1,100
SC-7	6/29/2016	Base	7 to 8	1,300	4,940	1.2	32	8.5	110	152	1,600	1,400
SC-8	6/29/2016	Base	8 to 9	1,030	2,090	< 0.23	10	3.2	40	53	570	880
SC-8R	7/14/2016	Base	9 to 10	1,870	4,460	3.9	78	15	200	297	3,100	2,100
A sales			1 MARK 178		<b>Excavation Conf</b>	irmation San	nples		AND NOV	4.346.346	to the second	
SC-1	6/29/2016	Wall	0.5 to 8	1,170	4,060	<0.25	2.2	1.3	17	21	320	1,400
SC-2R	7/14/2016	Wall	0.5 to 9	0.0	-	< 0.024	<0.048	<0.048	< 0.097	<0.217	<4.8	<9.7
SC-3R	7/14/2016	Wall	0.5 to 10	10.6	-	< 0.025	< 0.050	<0.050	<0.10	<0.23	<5.0	<9.5
SC-4R	7/15/2016	Wall	0.5 to 10	15.7	_	< 0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<10
SC-5	6/29/2016	Wall	0.5 to 9	860	2,780	<0.24	2.9	2.6	35	41	550	1,100
SC-6	6/29/2016	Wall	0.5 to 8	970	1,830	< 0.025	0.070	0.12	1.7	1.9	42	190
SC-7R	7/14/2016	Base	8 to 9	1,776	3,150	<0.24	7.2	3.5	47	58	540	1,200
SC-8R(2)	8/11/2016	Base	10 to 11	3,600	1,600	0.4	9.9	1.9	30	42.2	260	500
SC-9	7/15/2016	Wall	0.5 to 11	105	_	< 0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<10

Notes:

VOCs - volatile organic compounds

PID - photoionization detector

ft bgs - feet below grade surface

ppm - parts per million

mg/kg - milligrams per kilogram

NE - not-established

ND - not detected above laboratory reporting limits

BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH - total petroleum hydrocarbons

GRO - gasoline range organics

DRO - diesel range organics

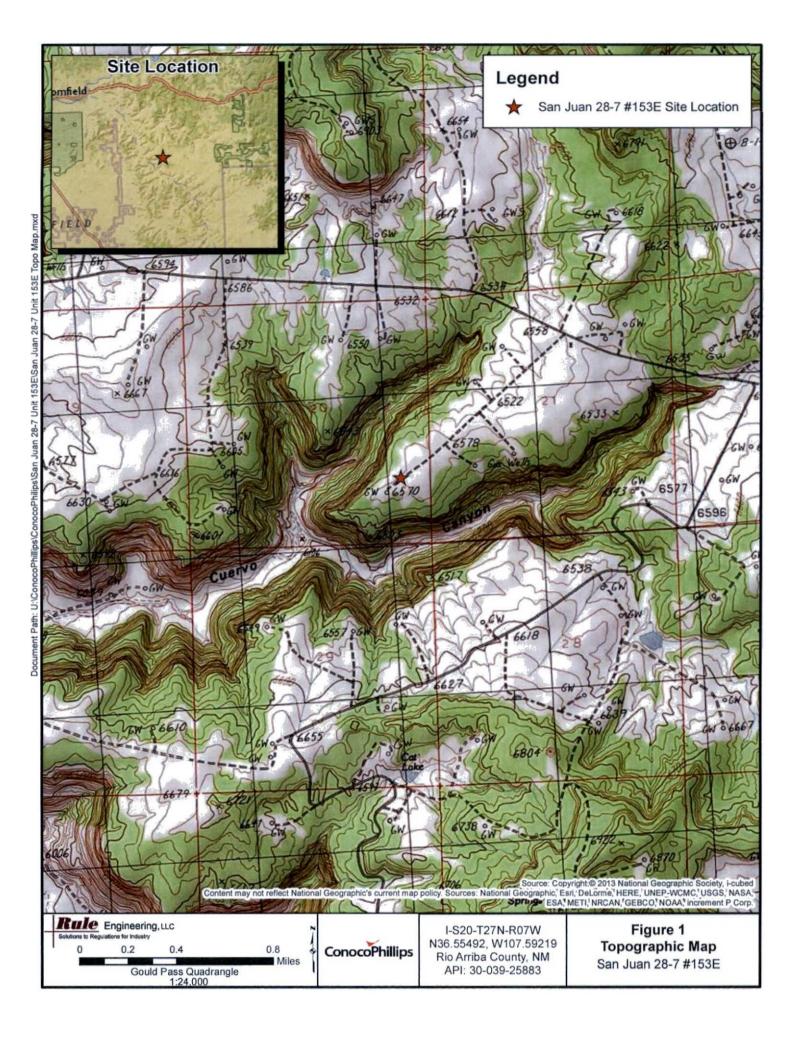
NMOCD - New Mexico Oil Conservation Division

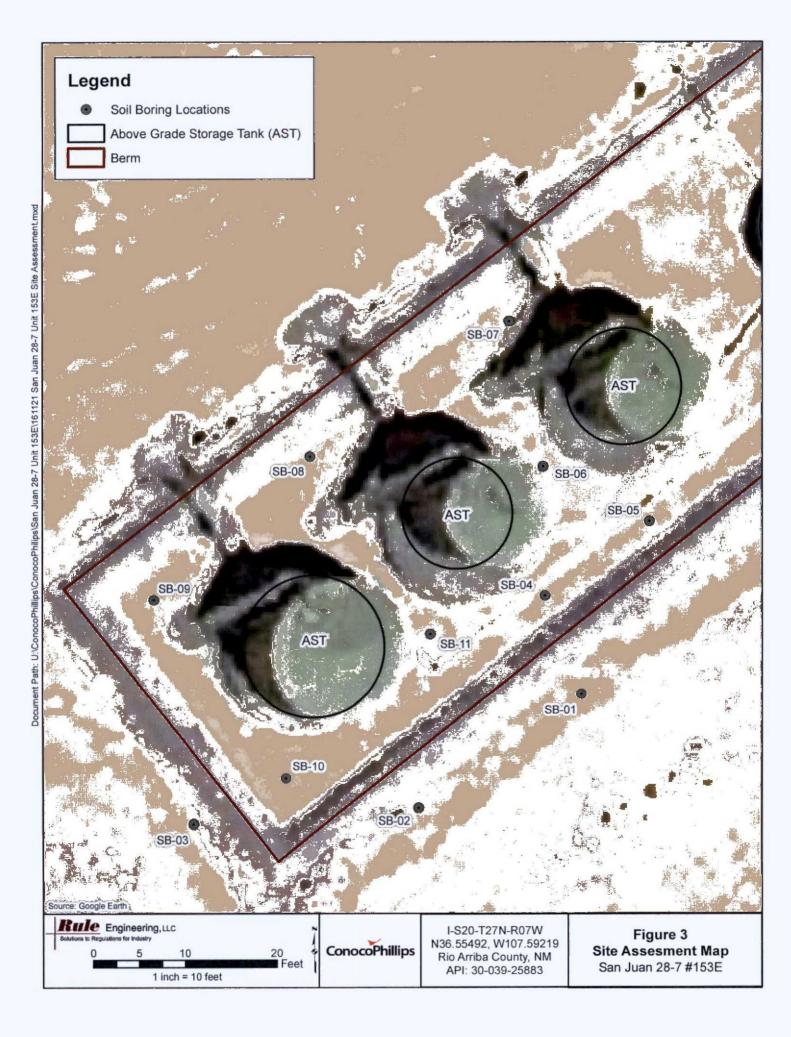
\*Based on the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

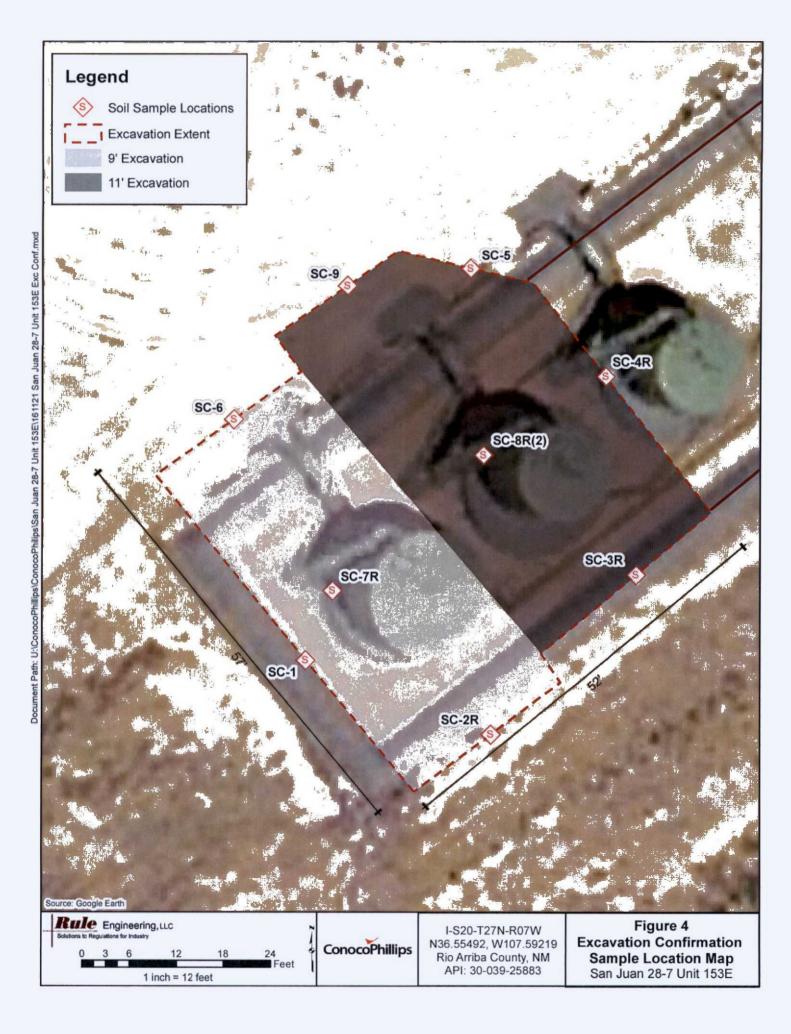
\*\*Based on a site ranking of 0.

# **Figures**









# Appendix A Analytical Laboratory Reports





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

OrderNo.: 1603C73

April 01, 2016

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

FAX

RE: COP San Juan 28 7 153E

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/25/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order 1603C73

Date Reported: 4/1/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SB-6@3.25'

Project: COP San Juan 28 7 153E

Collection Date: 3/24/2016 12:34:00 PM

Lab ID: 1603C73-001

Matrix: SOIL Received Date

Received Date: 3/25/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	s				Analyst	КЈН
Diesel Range Organics (DRO)	1200	100		mg/Kg	10	3/30/2016 1:10:40 PM	24462
Surr: DNOP	0	70-130	S	%Rec	10	3/30/2016 1:10:40 PM	24462
EPA METHOD 8015D: GASOLINE RAN	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	2200	97		mg/Kg	20	3/29/2016 12:07:56 PM	24469
Surr: BFB	306	66.2-112	S	%Rec	20	3/29/2016 12:07:56 PM	24469
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	2.7	0.49		mg/Kg	20	3/29/2016 12:07:56 PM	24469
Toluene	59	0.97		mg/Kg	20	3/29/2016 12:07:56 PM	24469
Ethylbenzene	12	0.97		mg/Kg	20	3/29/2016 12:07:56 PM	24469
Xylenes, Total	140	1.9		mg/Kg	20	3/29/2016 12:07:56 PM	24469
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	20	3/29/2016 12:07:56 PM	24469

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

- 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 Page 1 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1603C73

01-Apr-16

Client:

Rule Engineering LLC

Project:

COP San Juan 28 7 153E

TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID LCS-24462 SampType: LCS Client ID: RunNo: 33161 LCSS Batch ID: 24462 Prep Date: 3/28/2016 Analysis Date: 3/30/2016 SeqNo: 1018311 Units: mg/Kg HighLimit **RPDLimit** %REC %RPD Qual Analyte Result PQL SPK value SPK Ref Val LowLimit Diesel Range Organics (DRO) 45 50.00 90.1 65.8 136 Surr: DNOP 4.6 5.000 92.9 70 130

Sample ID MB-24462	SampT	ype: M	BLK	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	n ID: 24	462	F	RunNo: 3	3161				
Prep Date: 3/28/2016	Analysis D	)ate: 3/	30/2016	8	SeqNo: 1	018312	Units: mg/h	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								1000
Surr: DNOP	9.1		10.00		91.5	70	130			

#### Qualifiers:

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

E Value above quantitation range

Page 2 of 4

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1603C73

01-Apr-16

Client: Rule Engineering LLC
Project: COP San Juan 28 7 153E

Sample ID MB-24469 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS Batch ID: 24469 RunNo: 33130

Prep Date: 3/28/2016 Analysis Date: 3/29/2016 SeqNo: 1017591 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 ND
 5.0

 Surr: BFB
 1100
 1000
 107
 66.2
 112

Sample ID LCS-24469 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 24469 RunNo: 33130

SeqNo: 1017592 Analysis Date: 3/29/2016 Units: mg/Kg Prep Date: 3/28/2016 %REC HighLimit %RPD **RPDLimit** Qual Result PQL SPK value SPK Ref Val LowLimit Analyte 80 120 Gasoline Range Organics (GRO) 23 5.0 25.00 0 90.0 Surr: BFB 1100 1000 115 66.2 112 S

#### 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

Page 3 of 4

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1603C73

01-Apr-16

Client: Rule Engineering LLC
Project: COP San Juan 28 7 153E

Sample ID MB-24469	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	h ID: 24	469	RunNo: 33130						
Prep Date: 3/28/2016	Analysis D	Date: 3/	29/2016	8	SeqNo: 1	017599	Units: mg/F	(g		
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	1.1		1.000		111	80	120			

Sample ID LCS-24469	SampT	ype: LC	S	Tes	PA Method	d 8021B: Volatiles					
Client ID: LCSS	Batch	n ID: 24	469	F	3130						
Prep Date: 3/28/2016	Analysis D	)ate: 3/	29/2016	SeqNo: 1017600			Units: mg/F				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual	
Benzene	0.95	0.025	1.000	0	95.3	75.3	123				
Toluene	0.92	0.050	1.000	0	92.1	80	124				
Ethylbenzene	0.93	0.050	1.000	0	92.5	82.8	121				
Kylenes, Total	2.7	0.10	3.000	0	91.0	83.9	122				
Surr: 4-Bromofluorobenzene	1.1		1.000		113	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

Page 4 of 4



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	r: 1603C73		RcptNo: 1
Received by/date:			
Logged By: Lindsay Mangin 3/25/2016 7:45:00 AM	1	July Hago	
Completed By: Lindsay Mangin 3/25/2016 8:39:20 AM	1	Andy Hope	
Reviewed By: Q. (13/28/1)		000	ř.
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		
<u>Log In</u>			
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
12. Does paperwork match bottle labels?	Yes 🗹	No 🗆	bottles checked for pH:
(Note discrepancies on chain of custody)			(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?
14. Is it clear what analyses were requested?	Yes 🗹	No 🗆	Checked by:
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗔 :	Office of Dy.
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:			Marie Control of the
Client Instructions:			:
17. Additional remarks:			
18. Cooler Information	Cael Data	Signed By	I
Cooler No Temp °C Condition Seal Intact Seal No 1 1.3 Good Yes	Seal Date	Signed By	
P 5565			

ate: Time: Relinquished by:    1716   Headle   M. Woolf   Received by:   1716   Relinquished by:   Woolf   Received by:   Rece					4/16 1234 Soil SB-60325'	Date Time Matrix Sample Request ID	EDD (Type)	ccreditation	Standard    Level 4 (Full Validation)	nail or Fax#: hwoods@rubemine.cing.com	none # (505) 716-2767	Farmington, NM 8740)	ailing Address: 501 Airport Dr. Suite 205	c	Hent Rule Engineering, LLS	of-Custody Record
					1) 402 Glass Cold -001	Container Preservative HEAL No.	Sample Temberature: 1,3	Sampler: H. Woods / J. Valdez On loe: Pres - No	Heather Woods	Project Manager:		Project #:	Cop San Juan 28-7 #153E	Project Name:	A Standard □ Rush	Turn-Around Time:
Date Time Remarks:  3/24/14 1714 Wb: 21349392 Area: 7  Date Time Usur: MCINNSK Ordered by: Lisa Hunder  5/116 074/5 Area Super: Ervin Wyckoff  This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.					×	BTEX + ME BTEX + MT TPH 8015E TPH (Meth EDB (Meth PAH's (831 RCRA 8 M Anions (F,0 8081 Pestic 8260B (VO 8270 (Sem	FBE GOOD 4 FOR THE FIRST T	+ TPH RO / D (18.1) (604.1) 7 8270 8 O <sub>3</sub> ,NO 8 / 808	SIM	S)	Analy	Tel. 505-345-3975 Fax 505-345-4107	4901 Hawkins NE - Albuquerque, NM 87109	www.hallenvironmental.com	ANALYSIS LABORATORY	HALL ENVIRONMENTAL



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

July 06, 2016

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

FAX

RE: San Juan 28-7 153E OrderNo.: 1606G63

#### Dear Heather Woods:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/30/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

# Lab Order 1606G63 Date Reported: 7/6/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Client Sample ID: SC-1

 Project:
 San Juan 28-7 153E
 Collection Date: 6/29/2016 10:15:00 AM

 Lab ID:
 1606G63-001
 Matrix: SOIL
 Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3				Analyst	том
Diesel Range Organics (DRO)	1400	98		mg/Kg	10	7/5/2016 11:13:29 AM	26196
Surr: DNOP	0	70-130	S	%Rec	10	7/5/2016 11:13:29 AM	26196
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	320	49		mg/Kg	10	7/2/2016 10:10:29 AM	26163
Surr: BFB	225	80-120	S	%Rec	10	7/2/2016 10:10:29 AM	26163
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst	NSB
Benzene	ND	0.25		mg/Kg	10	7/2/2016 10:10:29 AM	26163
Toluene	2.2	0.49		mg/Kg	10	7/2/2016 10:10:29 AM	26163
Ethylbenzene	1.3	0.49		mg/Kg	10	7/2/2016 10:10:29 AM	26163
Xylenes, Total	17	0.98		mg/Kg	10	7/2/2016 10:10:29 AM	26163
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	10	7/2/2016 10:10:29 AM	26163

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

- 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 Page 1 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1606G63

Date Reported: 7/6/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project: San Juan 28-7 153E

Collection Date: 6/29/2016 1:15:00 PM

Lab ID: 1606G63-002

Matrix: SOIL Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	том
Diesel Range Organics (DRO)	1500	96		mg/Kg	10	7/5/2016 11:35:07 AM	26196
Surr: DNOP	0	70-130	S	%Rec	10	7/5/2016 11:35:07 AM	26196
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	1400	95		mg/Kg	20	7/1/2016 9:00:36 PM	26163
Surr: BFB	272	80-120	S	%Rec	20	7/1/2016 9:00:36 PM	26163
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	1.0	0.47		mg/Kg	20	7/1/2016 9:00:36 PM	26163
Toluene	25	0.95		mg/Kg	20	7/1/2016 9:00:36 PM	26163
Ethylbenzene	7.1	0.95		mg/Kg	20	7/1/2016 9:00:36 PM	26163
Xylenes, Total	86	1.9		mg/Kg	20	7/1/2016 9:00:36 PM	26163
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	20	7/1/2016 9:00:36 PM	26163

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

- 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 Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1606G63

Date Reported: 7/6/2016

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Rule Engineering LLC

Client Sample ID: SC-3

Project: San Juan 28-7 153E

Collection Date: 6/29/2016 1:30:00 PM

Lab ID: 1606G63-003

Matrix: SOIL Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS					Analyst	TOM
Diesel Range Organics (DRO)	1000	96		mg/Kg	10	7/5/2016 11:56:38 AM	26196
Surr: DNOP	0	70-130	S	%Rec	10	7/5/2016 11:56:38 AM	26196
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	1900	99		mg/Kg	20	7/1/2016 9:24:08 PM	26163
Surr: BFB	335	80-120	S	%Rec	20	7/1/2016 9:24:08 PM	26163
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst	NSB
Benzene	1.3	0.50		mg/Kg	20	7/1/2016 9:24:08 PM	26163
Toluene	41	0.99		mg/Kg	20	7/1/2016 9:24:08 PM	26163
Ethylbenzene	9.0	0.99		mg/Kg	20	7/1/2016 9:24:08 PM	26163
Xylenes, Total	130	2.0		mg/Kg	20	7/1/2016 9:24:08 PM	26163
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	20	7/1/2016 9:24:08 PM	26163

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

- \* 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 Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Lab Order 1606G63

Date Reported: 7/6/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-5

Project: San Juan 28-7 153E

Collection Date: 6/29/2016 3:55:00 PM

Lab ID: 1606G63-004

Matrix: SOIL

Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	том
Diesel Range Organics (DRO)	1100	100		mg/Kg	10	7/5/2016 12:18:20 PM	26196
Surr: DNOP	0	70-130	S	%Rec	10	7/5/2016 12:18:20 PM	26196
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	550	48		mg/Kg	10	7/2/2016 10:33:57 AM	26163
Surr: BFB	336	80-120	S	%Rec	10	7/2/2016 10:33:57 AM	26163
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.24		mg/Kg	10	7/2/2016 10:33:57 AM	26163
Toluene	2.9	0.48		mg/Kg	10	7/2/2016 10:33:57 AM	26163
Ethylbenzene	2.6	0.48		mg/Kg	10	7/2/2016 10:33:57 AM	26163
Xylenes, Total	35	0.96		mg/Kg	10	7/2/2016 10:33:57 AM	26163
Surr: 4-Bromofluorobenzene	122	80-120	S	%Rec	10	7/2/2016 10:33:57 AM	26163

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

- 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 Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1606G63

Date Reported: 7/6/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

San Juan 28-7 153E

Lab ID: 1606G63-005

Project:

Client Sample ID: SC-6

Collection Date: 6/29/2016 10:30:00 AM

Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	том
Diesel Range Organics (DRO)	190	100		mg/Kg	10	7/5/2016 12:40:18 PM	26196
Surr: DNOP	0	70-130	S	%Rec	10	7/5/2016 12:40:18 PM	26196
EPA METHOD 8015D: GASOLINE RAN	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	42	5.0		mg/Kg	1	7/2/2016 10:57:30 AM	26163
Surr: BFB	324	80-120	S	%Rec	1	7/2/2016 10:57:30 AM	26163
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	0.025		mg/Kg	1	7/2/2016 10:57:30 AM	26163
Toluene	0.070	0.050		mg/Kg	1	7/2/2016 10:57:30 AM	26163
Ethylbenzene	0.12	0.050		mg/Kg	1	7/2/2016 10:57:30 AM	26163
Xylenes, Total	1.7	0.099		mg/Kg	1	7/2/2016 10:57:30 AM	26163
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	7/2/2016 10:57:30 AM	26163

Matrix: SOIL

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

- 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 Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1606G63

Date Reported: 7/6/2016

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Rule Engineering LLC

Client Sample ID: SC-8

Project: San Juan 28-7 153E

Collection Date: 6/29/2016 1:45:00 PM

Lab ID: 1606G63-006

Matrix: SOIL

Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN					Analyst	TOM	
Diesel Range Organics (DRO)	880	96		mg/Kg	10	7/5/2016 1:02:03 PM	26196
Surr: DNOP	0	70-130	S	%Rec	10	7/5/2016 1:02:03 PM	26196
EPA METHOD 8015D: GASOLINE RAN	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	570	46		mg/Kg	10	7/2/2016 11:21:11 AM	26163
Surr: BFB	307	80-120	S	%Rec	10	7/2/2016 11:21:11 AM	26163
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst	NSB
Benzene	ND	0.23		mg/Kg	10	7/2/2016 11:21:11 AM	26163
Toluene	10	0.46		mg/Kg	10	7/2/2016 11:21:11 AM	26163
Ethylbenzene	3.2	0.46		mg/Kg	10	7/2/2016 11:21:11 AM	26163
Xylenes, Total	40	0.92		mg/Kg	10	7/2/2016 11:21:11 AM	26163
Surr: 4-Bromofluorobenzene	119	80-120		%Rec	10	7/2/2016 11:21:11 AM	26163

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

- 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 Page 6 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1

1606G63

06-Jul-16

Client: Project: Rule Engineering LLC San Juan 28-7 153E

Sample ID LCS-26196 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 26196 RunNo: 35412 Prep Date: 7/1/2016 Analysis Date: 7/5/2016 SeqNo: 1095779 Units: mg/Kg Result %REC HighLimit %RPD **RPDLimit PQL** SPK value SPK Ref Val LowLimit Qual Analyte Diesel Range Organics (DRO) 43 10 0 85.2 62.6 124 Surr: DNOP 4.5 5.000 89.4 70 130

Sample ID MB-26196	SampT	ype: ME	BLK	Test	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch	1D: 26	196	R	RunNo: 3	5412				
Prep Date: 7/1/2016	Analysis D	ate: 7/	5/2016	S	SeqNo: 1	095780	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.2		10.00		92.0	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
- W Sample container temperature is out of limit as specified

Page 7 of 9

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1606G63

06-Jul-16

Client:

Rule Engineering LLC

Project:

San Juan 28-7 153E

Sample ID	MB-26163

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

**PBS** 

Batch ID: 26163

5.0

RunNo: 35388

Analysis Date: 7/1/2016

1000

1000

SeqNo: 1095063

Prep Date: 6/30/2016

Result PQL

Units: mg/Kg

Analyte Gasoline Range Organics (GRO)

ND 990 SPK value SPK Ref Val %REC LowLimit

HighLimit

TestCode: EPA Method 8015D: Gasoline Range

80

%RPD **RPDLimit** 

Qual

Surr: BFB

99.4 80

120

Sample ID LCS-26163 Client ID: LCSS

SampType: LCS

RunNo: 35388

Batch ID: 26163

1200

Units: mg/Kg

Prep Date:

Surr: BFB

6/30/2016

Analysis Date: 7/1/2016

SeqNo: 1095064

Analyte Gasoline Range Organics (GRO) Result PQL SPK value SPK Ref Val 27 5.0 25.00

LowLimit %REC 107

115

120

%RPD HighLimit **RPDLimit** Qual 80 120

#### **Oualifiers:**

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank B

E Value above quantitation range

J Analyte detected below quantitation limits Page 8 of 9

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1606G63

06-Jul-16

Client:

Rule Engineering LLC

Project:

San Juan 28-7 153E

Sample ID MB-26163	Samp	SampType: MBLK			tCode: El	tiles				
Client ID: PBS	Batcl	h ID: 26	163	F	RunNo: 3	5388				
Prep Date: 6/30/2016	Analysis E	Date: 7/	1/2016	8	095090	Units: mg/K	(g			
Analyte	Result	PQL	SPK value	SPK Ref Val	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual	
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	80	120			

Sample ID LCS-26163	D LCS-26163 SampType: LCS				TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batcl	h ID: 26	163	F	RunNo: 3	5388							
Prep Date: 6/30/2016	Analysis D	Analysis Date: 7/1/2016			SeqNo: 1	095091	Units: mg/k	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.92	0.025	1.000	0	91.9	75.3	123						
Toluene	0.96	0.050	1.000	0	95.6	80	124						
Ethylbenzene	1.0	0.050	1.000	0	101	82.8	121						
Xylenes, Total	3.0	0.10	3.000	0	101	83.9	122						
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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

Page 9 of 9



rian Environmental Analysis Laboratory 490! Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

RULE ENGINEERING LL Work Order Number: 1606G63 RcptNo: 1 Client Name: Received by/date: Logged By: Ashley Gallegos 6/30/2016 8:05:00 AM Completed By Ashley Gallegos 6/30/2016 8:26:57 AM Reviewed By: Chain of Custody Not Present V 1. Custody seals intact on sample bottles? No Yes V No 🗌 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA . 4. Was an attempt made to cool the samples? Yes V NA Were all samples received at a temperature of >0° C to 6.0°C No No 🗌 Sample(s) in proper container(s)? Yes 🗸 Yes V No 🗆 7. Sufficient sample volume for indicated test(s)? Yes V No | 8. Are samples (except VOA and ONG) properly preserved? No V NA 🗌 9. Was preservative added to bottles? Yes No VOA Vials Yes No 10. VOA vials have zero headspace? Yes -No V 11. Were any sample containers received broken? # of preserved bottles checked No 🗌 Yes V for pH: 12. Does paperwork match bottle labels? (<2 or >12 unless noted) (Note discrepancies on chain of custody) Adjusted? No 13. Are matrices correctly identified on Chain of Custody? No 🗌 14. Is it clear what analyses were requested? Yes V No 🗌 Checked by 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) 16. Was client notified of all discrepancies with this order? Yes No 🗌 NA V Person Notified: Date By Whom: eMail Phone Fax In Person Via: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp C Condition Seal Intact Seal No Seal Date Signed By 1.1 Good Yes

			stody Record	Turn-Around	Time:								=	NV	/TE	20	NI	4 E	МТ	AL	
lient: {	Rule	Engine	ering, LL(	☐ Standard Project Name	∠ Rush	3 Day	-			A	N	AL	Y	SIS	5 L		30			ORY	
ailing	Address	501 F	timpart Drive suite 20	San Ju	an 28-7	153E		49	)1 H	awki	ins N	NE -	Alb	ouque	erqu	e, N	M 87	109			
ww	nuton.	NM	67/401	Project #:				Te	1. 50	5-34	15-3	975	F	-ax	505-	-345	4107	7			
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ccredi		- Oth-	1		stin Val	der		TPH (Gas only)	-	<del>-</del> :	£.	8270		(B)	808		3			1	î
NEL		□ Othe	r	On Ice:	Yes /	□ Ño	+	+	SRO	418.1)	504		S	M	l Se		OA)				o
EDD	(Type)_			Sample Tem	perature: //	<u></u>	1	TBE	B (C	bot	pou	100	leta	5	icide	8	-j-				S
Date	Time	Matrix	Sample Request ID	Container Preservative Type and # Type HEAL No.			BTEX + WEBE	BTEX + MTBE	18015B (GRO	(Method	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (# CINCENER PORTS)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
				Type and # Type HEAL No.					TPH	TPH	EDE	PAH	RCF	Anic	808	826	827				Air E
79/14	10:15	foil	56-1	0)4026/65 Cold -001					X	X				X							
ghe	1:15	1	56-2	(1)4026/es abld -001 -002					×	×				X					T		
die	1:30		66-3			-003	×		У	×				X					7		
glic dic	3:55		51-5			-004	×		×	×				×					$\top$		
118	16:30		96-6			-005	×		×	X				×					T		
1/6	1:45	J	66-8	$\vee$		-000	×		×	×				×							
			1																		
			J.																		
1916 17:30 July M			Received by:    Pate Time   Remarks:   Per Heather 10 cl or 4/8.   Consty     Received by:   Date Time   Remarks:   Per Heather 10 cl or 4/8.   Consty     Received by:   Pate Time   Pate Time   Per Heather 10 cl or 4/8.   Panely     Pate Time   Pate Time   Per Heather 10 cl or 4/8.   Panely     Pate Time   Pate Time   Per Heather 10 cl or 4/8.   Panely     Pate Time   Pate Time   Per Heather 10 cl or 4/8.   Panely     Pate Time   Pate Time   Per Heather 10 cl or 4/8.   Per Heather 10 cl or 4/8.     Pate Time   Pate Time   Per Heather 10 cl or 4/8.   Per Heather 10 cl or 4/8.     Pate Time   Pate Time   Per Heather 10 cl or 4/8.     Pate Time   Per Heather 10 cl or 4/8.   Per Heather 10 cl or 4/8.     Pate Time   Per Heather 10 cl or 4/8.   Per Heather 10 cl or 4/8.     Pate Time   Per Heather 10 cl or 4/8.   Per Heather 10 cl or 4/8.     Pate Time   Per Heather 10 cl or 4/8.   Per Heather 10 cl or 4/8.     Pate Time   Per Heather 10 cl or 4					rlys	J)												
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it	f necessary.	samples subr	nitted to Hall Environmental may be sub-	compacted to other ac	ccredited laboratorie	es. This serves as notice of this	s possil	oility.	Any su	b-conf	tracted	d data	will be	e clear	ly note	ated or	the ar	nalytica	il report	t.	



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

July 06, 2016

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

FAX

RE: San Juan 28-7 153 E OrderNo.: 1606G66

### Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/30/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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,

Andy Freeman

Laboratory Manager

andel

4901 Hawkins NE

Albuquerque, NM 87109

# Lab Order 1606G66

# Date Reported: 7/6/2016

Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: San Juan 28-7 153 E

Collection Date: 6/29/2016 10:20:00 AM

Lab ID: 1606G66-001

Matrix: SOIL Receive

Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	35	30		mg/Kg	20	6/30/2016 11:37:12 AM	26172
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	3				Analyst:	TOM
Diesel Range Organics (DRO)	1100	51		mg/Kg	5	6/30/2016 10:18:37 AM	26166
Surr: DNOP	97.4	70-130		%Rec	5	6/30/2016 10:18:37 AM	26166
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	1100	220		mg/Kg	50	6/30/2016 9:37:08 AM	A35340
Surr: BFB	187	80-120	S	%Rec	50	6/30/2016 9:37:08 AM	A35340
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	1.1		mg/Kg	50	6/30/2016 9:37:08 AM	B35340
Toluene	7.5	2.2		mg/Kg	50	6/30/2016 9:37:08 AM	B35340
Ethylbenzene	4.2	2.2		mg/Kg	50	6/30/2016 9:37:08 AM	B35340
Xylenes, Total	53	4.3		mg/Kg	50	6/30/2016 9:37:08 AM	B35340
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	50	6/30/2016 9:37:08 AM	B35340

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

### Analyte detected in the associated Method Blank Qualifiers: Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix E Value above quantitation range Analyte detected below quantitation limits Page 1 of 6 H Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range RL Reporting Detection Limit RPD outside accepted recovery limits

% Recovery outside of range due to dilution or matrix

### Lab Order 1606G66

Date Reported: 7/6/2016

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Rule Engineering LLC

Client Sample ID: SC-7

Project: San Juan 28-7 153 E

Collection Date: 6/29/2016 4:00:00 PM

Lab ID: 1606G66-002

Matrix: SOIL Received Date: 6/30/2016 8:05:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	MRA
Chloride	ND	30		mg/Kg	20	6/30/2016 11:49:36 AM	26172
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	;				Analyst	TOM
Diesel Range Organics (DRO)	1400	46		mg/Kg	5	6/30/2016 10:40:15 AM	26166
Surr: DNOP	102	70-130		%Rec	5	6/30/2016 10:40:15 AM	26166
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	1600	200		mg/Kg	50	6/30/2016 10:00:38 AM	A35340
Surr: BFB	222	80-120	S	%Rec	50	6/30/2016 10:00:38 AM	A35340
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	1.2	1.0		mg/Kg	50	6/30/2016 10:00:38 AM	B35340
Toluene	32	2.0		mg/Kg	50	6/30/2016 10:00:38 AM	B35340
Ethylbenzene	8.5	2.0		mg/Kg	50	6/30/2016 10:00:38 AM	B35340
Xylenes, Total	110	4.1		mg/Kg	50	6/30/2016 10:00:38 AM	B35340
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	50	6/30/2016 10:00:38 AM	B35340

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

- 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 Page 2 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1606G66

06-Jul-16

Client:

Rule Engineering LLC

Project:

San Juan 28-7 153 E

Sample ID MB-26172

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: 26172

RunNo: 35353

Result

Units: mg/Kg

Prep Date: Analyte

6/30/2016

Analysis Date: 6/30/2016 **PQL** 

SeqNo: 1093623

HighLimit

Qual

Chloride

ND 1.5

Sample ID LCS-26172

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Prep Date: 6/30/2016 Batch ID: 26172

RunNo: 35353

SeqNo: 1093624

Units: mg/Kg

**RPDLimit** 

Analysis Date: 6/30/2016

SPK value SPK Ref Val %REC

SPK value SPK Ref Val %REC LowLimit

HighLimit LowLimit

**RPDLimit** 

Analyte

Result **PQL** 

15.00

96.6

%RPD

%RPD

Qual

Chloride

14

1.5

90

110

### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND R RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank

Sample container temperature is out of limit as specified

- Value above quantitation range
- J Analyte detected below quantitation limits
- Sample pH Not In Range P
- RL Reporting Detection Limit
- Page 3 of 6

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1606G66

06-Jul-16

Client:

Rule Engineering LLC

Project:

San Juan 28-7 153 E

SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Batch	ID: 26	166	F	RunNo: 3	5333				
Analysis D	ate: 6/	30/2016	S	SeqNo: 1	093148	Units: mg/F	(g		
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
41	10	50.00	0	82.6	62.6	124			
4.4		5.000		87.3	70	130			
SampT	SampType: MBLK TestCode: EPA Method 8						esel Range	Organice	
3.						OUTOMIND. DI	osor rang	e Organics	
3.	ID: <b>26</b>		F	tunNo: 3 SeqNo: 1	5333	Units: mg/F		e Organics	
Batch	ID: <b>26</b>	166 30/2016	F	tunNo: 3	5333			RPDLimit	Qual
Batch Analysis D	ID: <b>26</b> ate: <b>6</b> /	166 30/2016	F	RunNo: 3 SeqNo: 1	5333 093149	Units: mg/k	(g		Qual
	Batch Analysis D Result 41 4.4	Batch ID: 26 Analysis Date: 6/ Result PQL 41 10 4.4	Result PQL SPK value 41 10 50.00 4.4 5.000	Batch ID: 26166 F  Analysis Date: 6/30/2016 S  Result PQL SPK value SPK Ref Val  41 10 50.00 0  4.4 5.000	Batch ID: 26166       RunNo: 3         Analysis Date:       6/30/2016       SeqNo: 1         Result       PQL       SPK value       SPK Ref Val       %REC         41       10       50.00       0       82.6         4.4       5.000       87.3	Batch ID: 26166         RunNo: 35333           Analysis Date:         6/30/2016         SeqNo: 1093148           Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit           41         10         50.00         0         82.6         62.6           4.4         5.000         87.3         70	Batch ID: 26166         RunNo: 35333           Analysis Date:         6/30/2016         SeqNo: 1093148         Units: mg/F           Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit           41         10         50.00         0         82.6         62.6         124           4.4         5.000         87.3         70         130	Batch ID: 26166         RunNo: 35333           Analysis Date:         6/30/2016         SeqNo: 1093148         Units: mg/Kg           Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD           41         10         50.00         0         82.6         62.6         124           4.4         5.000         87.3         70         130	Batch ID: 26166       RunNo: 35333         Analysis Date:       6/30/2016       SeqNo: 1093148       Units: mg/Kg         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit         41       10       50.00       0       82.6       62.6       124         4.4       5.000       87.3       70       130

Sample ID 1606G66-001AMS	SampType: MS TestCode: EPA Method						8015M/D: Di	esel Rang	e Organics	
Client ID: SC-4	Batch	Batch ID: <b>26166</b> RunNo: <b>35333</b>								
Prep Date: 6/30/2016	Analysis D	pate: 6/30/2016 SeqNo: 1093361 Ur				Units: mg/k	ζg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Diesel Range Organics (DRO)	1200	49	49.07	1132	191	33.9	141			S
Surr: DNOP	4.8		4.907		98.2	70	130			

Sample ID	1606G66-001AMS	SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID:	SC-4	Batch	Batch ID: 26166 RunNo: 35333								
Prep Date:	6/30/2016	Analysis Da	Analysis Date: 6/30/2016 SeqNo: 1093386 U						(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
)iesel Range (	Organics (DRO)	1100	50	49.70	1132	-31.7	33.9	141	9.35	20	S
Surr: DNOP		4.8		4.970		96.3	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

Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1606G66

06-Jul-16

Client: Project: Rule Engineering LLC San Juan 28-7 153 E

Sample ID 5ML RB

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS

Prep Date:

Batch ID: A35340 Analysis Date: 6/30/2016

PQL

Batch ID: A35340

PQL

5.0

RunNo: 35340

SeqNo: 1093812

Units: mg/Kg

Analyte Gasoline Range Organics (GRO)

Client ID: LCSS

ND

SPK value SPK Ref Val %REC 5.0

LowLimit

HighLimit

**RPDLimit** Qual

Surr: BFB

990

1000

99.0

80

%RPD

Sample ID 2.5UG GRO LCS

Result

SampType: LCS

SeqNo: 1093813

TestCode: EPA Method 8015D: Gasoline Range

RunNo: 35340

Units: mg/Kg

120

Prep Date: Analyte

Analysis Date: 6/30/2016

SPK value SPK Ref Val %REC

104

LowLimit

HighLimit

**RPDLimit** 

Qual

Page 5 of 6

Gasoline Range Organics (GRO) Surr: BFB

26 1100

Result

25.00

1000

108

80 80 120

%RPD

120

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- 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
- В 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
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1

1606G66

06-Jul-16

Client:

Rule Engineering LLC

Project:

San Juan 28-7 153 E

Sample ID 5ML RB	Samp	SampType: MBLK			tCode: E	tiles				
Client ID: PBS	Batc	h ID: B3	5340	F	RunNo: 3	5340				
Prep Date:	Analysis E	Date: 6/	30/2016	16 SeqNo: 1093842 U			Units: mg/K	(g		
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit				HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene										
lenes, Total ND 0.10										
Surr: 4-Bromofluorobenzene 0.94 1.000			93.9	80	120					

Sample ID 100NG BTEX LO	Samp	S SampType: LCS TestCode: EPA Method						tiles		
Client ID: LCSS	Bat	ch ID: B3	35340	F	RunNo: 3	5340				
Prep Date:	Analysis	Date: 6	/30/2016	5	093843	Units: mg/h	(g			
Analyte	Result		SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	104	75.3	123			
Toluene	1.0	0.050	1.000	0	103	80	124			
Ethylbenzene	1.0	0.050	1.000	0	104	82.8	121			
Xylenes, Total	3.1	0.10	3.000	00 0 102 83.9		122				
Surr: 4-Bromofluorobenzene	1.1		1.000	00 106			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

Page 6 of 6



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	er: 1606G66		RcptNo: 1	
Received by/date: iA 06/3d/c				·-·····
Logged By: Anne Thorne 6/30/2016 8:05:00 A	М	ann Ilm	_	
Completed By: Anne Thorne 6/30/2016		anne Ham		1
Reviewed By:		and from		
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			
<u>Log In</u>				
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	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	bottles checked for pH:	12 unless noted)
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 🗹	
En training and the second and the s	165	NO -		
Person Notified: Date  By Whom: Via:	J allan 🗀	Dhana 🗆 Eav	□ In Domen	
By Whom: Via:	eMail []	Phone  Fax	☐ In Person	
Client Instructions:		-	-	
17. Additional remarks:			244114 1.3. **** 1.5	
18. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No 1 1.1 Good Yes	Seal Date	Signed By	. 100 - 71 - 100 -	

C	hain	-of-Cu	stody Record	Turn-Around	Time:	Same Day					4.6		F	NV	TE	20	N	4FN	ATI	L	
lient:	Zule	Eran	eering, LLL	☐ Standard	☑ Rush	Same Day			F										TOF		
	100	- 19		Project Name	e:	1	1								nent						
ailing	Address	SDIA	in and Dr Suite	Sa Vu	w 28-7	ISSE		49	01 H								M 87	109			
05	Fac	nigator	inport Dr. Suite	Project #:	411 28-7	1000	1		el. 50								4107				
hone	#: 505	- 79	3 9486												Req						
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AVQC	Package:						302	38.0	軍			(S)		8,	PCB's						
Star			☐ Level 4 (Full Validation)	Heather	Woods		(S)	9	SN S			SIMS)		P.	2 P						
NEL	itation	□ Otho		Sampler:	estin Val	dez	FAMES (8021)	TPH (Gas only)	0/0	£.	=	8270		8	8082						or N
	(Type)	- Othe	r	On Ice:	Yes	□ No			GRC	418	205	or 8	SIE	8	es/		OA				Yor
Date	Time	Matrix	Sample Request ID	Acutadio Container Type and #	Preservative Type	BTEX + THEES+	BTEX + MTBE +	TPH 8015B (GRO / DRO / WARTED)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (#CI)(WO) MO. PO.,50)	8081 Pesticides	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (	
29/14	10:20	Soil	51-4	Whore Glass Cold Tool					X	X				×							
1/14		Soil	51-7	(1) Yor Glass Cold TOZ.					×	X				×							
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29/16 29/16				Received by:	tuliber	Date Time 1730 Date Time 06/30//6 080		nark	s:		1.0	9	18.1	p	4 1	140	the /si	₽/ >	-		
	f necessary.	samples sub	mitted to Hall Environmental may be sub	contracted to other a	ccredited laboratori	es. This serves as notice of th	is possi	bility.	Any su	ıb-con	tracte	d data	will be	e clear	ty nota	ited on	the ar	nalytical	report.		



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

OrderNo.: 1607694

July 22, 2016

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

RE: COP San Juan 28-7 153E

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 7/15/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1607694

Date Reported: 7/22/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2R

Project:

COP San Juan 28-7 153E

Collection Date: 7/14/2016 2:05:00 PM

Lab ID:

1607694-001

Matrix: SOIL

Received Date: 7/15/2016 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	3			Analyst	том
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	7/19/2016 6:28:56 PM	26444
Surr: DNOP	103	70-130	%Rec	1	7/19/2016 6:28:56 PM	26444
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	7/18/2016 9:51:24 AM	26415
Surr: BFB	84.2	80-120	%Rec	1	7/18/2016 9:51:24 AM	26415
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	7/18/2016 9:51:24 AM	26415
Toluene	ND	0.048	mg/Kg	1	7/18/2016 9:51:24 AM	26415
Ethylbenzene	ND	0.048	mg/Kg	1	7/18/2016 9:51:24 AM	26415
Xylenes, Total	ND	0.097	mg/Kg	1	7/18/2016 9:51:24 AM	26415
Surr: 4-Bromofluorobenzene	93.2	80-120	%Rec	1	7/18/2016 9:51:24 AM	26415

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

- 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 Page 1 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1607694

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/22/2016

CLIENT: Rule Engineering LLC Client Sample ID: SC-3R

 Project:
 COP San Juan 28-7 153E
 Collection Date: 7/14/2016 1:10:00 PM

 Lab ID:
 1607694-002
 Matrix: SOIL
 Received Date: 7/15/2016 7:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analyst	том
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	7/19/2016 7:34:29 PM	26444
Surr: DNOP	99.9	70-130	%Rec	1	7/19/2016 7:34:29 PM	26444
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	7/18/2016 11:04:22 AM	26415
Surr: BFB	85.9	80-120	%Rec	1	7/18/2016 11:04:22 AM	26415
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	7/18/2016 11:04:22 AM	26415
Toluene	ND	0.050	mg/Kg	1	7/18/2016 11:04:22 AM	26415
Ethylbenzene	ND	0.050	mg/Kg	1	7/18/2016 11:04:22 AM	26415
Xylenes, Total	ND	0.10	mg/Kg	1	7/18/2016 11:04:22 AM	26415
Surr: 4-Bromofluorobenzene	97.6	80-120	%Rec	1	7/18/2016 11:04:22 AM	26415

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

- 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 Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1607694

Date Reported: 7/22/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7R

Project: COP San Juan 28-7 153E Collection Date: 7/14/2016 1:15:00 PM

Lab ID: 1607694-003 Matrix: SOIL Received Date: 7/15/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst:	том
Diesel Range Organics (DRO)	1200	99		mg/Kg	10	7/20/2016 11:32:23 AM	26444
Surr: DNOP	0	70-130	S	%Rec	10	7/20/2016 11:32:23 AM	26444
EPA METHOD 8015D: GASOLINE RAN	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	540	48		mg/Kg	10	7/18/2016 11:28:43 AM	26415
Surr: BFB	260	80-120	S	%Rec	10	7/18/2016 11:28:43 AM	26415
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst:	NSB
Benzene	ND	0.24		mg/Kg	10	7/18/2016 11:28:43 AM	26415
Toluene	7.2	0.48		mg/Kg	10	7/18/2016 11:28:43 AM	26415
Ethylbenzene	3.5	0.48		mg/Kg	10	7/18/2016 11:28:43 AM	26415
Xylenes, Total	47	0.95		mg/Kg	10	7/18/2016 11:28:43 AM	26415
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	10	7/18/2016 11:28:43 AM	26415

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

- 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 Page 3 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Lab Order 1607694

Date Reported: 7/22/2016

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-8R

Project: COP San Juan 28-7 153E

Collection Date: 7/14/2016 1:20:00 PM

Lab ID: 1607694-004

Matrix: SOIL Received Date: 7/15/2016 7:50:00 AM

Analyses	Result	PQL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS					Analyst	том
Diesel Range Organics (DRO)	2100	93		mg/Kg	10	7/20/2016 12:00:12 PM	26444
Surr: DNOP	0	70-130	S	%Rec	10	7/20/2016 12:00:12 PM	26444
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst:	NSB
Gasoline Range Organics (GRO)	3100	240		mg/Kg	50	7/18/2016 11:53:04 AM	26415
Surr: BFB	202	80-120	S	%Rec	50	7/18/2016 11:53:04 AM	26415
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	3.9	1.2		mg/Kg	50	7/18/2016 11:53:04 AM	26415
Toluene	78	2.4		mg/Kg	50	7/18/2016 11:53:04 AM	26415
Ethylbenzene	15	2.4		mg/Kg	50	7/18/2016 11:53:04 AM	26415
Xylenes, Total	200	4.8		mg/Kg	50	7/18/2016 11:53:04 AM	26415
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	50	7/18/2016 11:53:04 AM	26415

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

- 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 Page 4 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: **1607694** 

22-Jul-16

Client: Rule Engineering LLC
Project: COP San Juan 28-7 153E

Sample ID 1607694-001AMS SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: SC-2R Batch ID: 26444 RunNo: 35794 Prep Date: 7/18/2016 Analysis Date: 7/19/2016 SeqNo: 1108673 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDI** imit Qual Diesel Range Organics (DRO) 50 9.9 49.31 102 33.9 141 Surr: DNOP 4.931 106 52 130 Sample ID LCS-26444 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 26444 RunNo: 35794 Prep Date: 7/18/2016 Analysis Date: 7/19/2016 SeqNo: 1108676 Units: mg/Kg SPK value Analyte Result SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 48 10 50.00 0 62.6 96.9 124 Surr: DNOP 5.1 5.000 102 70 130

Sample ID MB-26444 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PRS Batch ID: 26444 RunNo: 35794 Prep Date: 7/18/2016 Analysis Date: 7/19/2016 SeqNo: 1108679 Units: ma/Ka SPK value SPK Ref Val %REC LowLimit Analyte Result PQL HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) ND 10 Surr: DNOP 10.00 11 107 70 130

Sample ID 1607694-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: SC-2R Batch ID: 26444 RunNo: 35794 Prep Date: 7/18/2016 Analysis Date: 7/19/2016 SeqNo: 1108706 Units: mg/Kg SPK value SPK Ref Val LowLimit Analyte Result PQL %REC HighLimit %RPD **RPDLimit** Qual

Diesel Range Organics (DRO) 50 9.8 48.78 102 33.9 141 0.938 20 Surr: DNOP 5.1 4.878 105 70 0 130 0

Sample ID LCS-26455 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 26455 RunNo: 35794 Prep Date: 7/18/2016 Analysis Date: 7/20/2016 SeqNo: 1108851 Units: %Rec Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: DNOP 5.0 5.000 997 70 130

Sample ID MB-26455 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: PBS Batch ID: 26455 RunNo: 35794 Prep Date: 7/18/2016 Analysis Date: 7/20/2016 SeqNo: 1108853 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Surr: DNOP 10 10.00 102 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

W Sample container temperature is out of limit as specified

Page 5 of 8

# Hall Environmental Analysis Laboratory, Inc.

WO#: **1607694** 

22-Jul-16

Client:

Rule Engineering LLC

Project:

COP San Juan 28-7 153E

Sample ID LCS-26464	SampType	: LCS	Tes	tCode: E	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: LCSS	Batch ID	26464	F	RunNo: 3	35794				
Prep Date: 7/19/2016	Analysis Date	7/20/2016	8	SeqNo: 1	109636	Units: %Re	C		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.9	5.000		118	70	130			

Sample ID MB-26464	SampType: MBLK	TestCode: EPA Method	d 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 26464	RunNo: 35794	
Prep Date: 7/19/2016	Analysis Date: 7/20/2016	SeqNo: 1109637	Units: %Rec
Analyte	Result PQL SPK va	lue SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: DNOP	11 10	00 107 70	130

Sample ID LCS-26443	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 26443	RunNo: 35827	
Prep Date: 7/18/2016	Analysis Date: 7/20/2016	SeqNo: 1110532 Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit	Qual
Surr: DNOP	4.5 5.000	89.6 70 130	

Sample ID MB-26443	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: PBS	Batch	ID: 26	443	F	RunNo: 3	5827				
Prep Date: 7/18/2016	Analysis D	ate: 7/	20/2016	8	SeqNo: 1	110534	Units: %Red	C		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Surr: DNOP	8.8		10.00		87.5	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

Page 6 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC
Project: COP San Juan 28-7 153E

Sample ID MB-26415 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 26415 RunNo: 35780

Prep Date: 7/15/2016 Analysis Date: 7/18/2016 SeqNo: 1107183 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 890 1000 88.6 80 120

Sample ID LCS-26415 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: 26415 RunNo: 35780

Prep Date: 7/15/2016 Analysis Date: 7/18/2016 SeqNo: 1107184 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

 Gasoline Range Organics (GRO)
 29
 5.0
 25.00
 0
 117
 80
 120

 Surr: BFB
 870
 1000
 86.6
 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

Page 7 of 8

WO#:

1607694

22-Jul-16

# Hall Environmental Analysis Laboratory, Inc.

0.85

0.85

2.6

0.89

0.050

0.050

0.10

1.000

1.000

3.000

1.000

Client:

Rule Engineering LLC

Project:

Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

COP San Juan 28-7 153E

Sample ID MB-26415	SampT	SampType: MBLK TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch	n ID: 26	415	F	RunNo: 3	5780				
Prep Date: 7/15/2016	Analysis D	ate: 7/	18/2016	S	SeqNo: 1	107222	Units: mg/K	g		
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	1.0		1.000		101	80	120			
Sample ID LCS-26415	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	1D: <b>26</b>	415	F	RunNo: 3	5780				
Prep Date: 7/15/2016	Analysis D	ate: 7/	18/2016	S	SeqNo: 1	107223	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.8	75.3	123			

Sample ID 1607694-001AM	Samp	SampType: MS TestCode: EPA Method 8021B: Volatiles								
Client ID: SC-2R	Batc	h ID: 26	415	F	RunNo: 3	5780				
Prep Date: 7/15/2016	Analysis [	Date: 7/	18/2016	5	SeqNo: 1	107225	Units: mg/h	ζg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.023	0.9398	0	101	71.5	122			
Toluene	0.83	0.047	0.9398	0	88.8	71.2	123			
Ethylbenzene	0.84	0.047	0.9398	0	89.6	75.2	130			
Xylenes, Total	2.6	0.094	2.820	0	91.0	72.4	131			
Surr: 4-Bromofluorobenzene	0.91		0.9398		96.6	80	120			

0

0

0

85.3

84.5

86.0

89.3

80

82.8

83.9

80

124

121

122

120

Sample ID 1607694-001AMSD SampType: MSD				TestCode: EPA Method 8021B: Volatiles						
Client ID: SC-2R	F	RunNo: 35780								
Prep Date: 7/15/2016	Analysis D	ate: 7/	18/2016	5	SeqNo: 1	107226	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9737	0	92.1	71.5	122	5.89	20	
Toluene	0.79	0.049	0.9737	0	8.08	71.2	123	6.01	20	
Ethylbenzene	0.79	0.049	0.9737	0	80.6	75.2	130	6.95	20	
Xylenes, Total	2.4	0.097	2.921	0	81.9	72.4	131	7.05	20	
Surr: 4-Bromofluorobenzene	0.94		0.9737		96.2	80	120	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

Page 8 of 8

WO#:

1607694

22-Jul-16

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



## 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:	1607694		RcptNo:	1
Received by/dat	te: LAN 07115/	16				
Logged By:	Anne Thorne	7/15/2016 7:50:00 AM		am Am		
Completed By:	Anne Thorne	7/15/2016	*	anne Am	_	
Reviewed By:	0 01	1/15/16				
Chain of Cus	tody	, .,				
1. Custody sea	als intact on sample bottles?		Yes 🗌	No 🗆	Not Present 🗹	
2. Is Chain of C	Custody complete?		Yes 🗸	No 🗆	Not Present	
3. How was the	e sample delivered?		Courier		8	
Log In						
4. Was an atte	empt made to cool the sample	s?	Yes 🗹	No 🗆	NA 🗆	,
5. Were all sar	mples received at a temperatu	re of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) i	n proper container(s)?		Yes 🗹	No 🗆		
7. Sufficient sa	imple volume for indicated tes	it(s)?	Yes 🗹	No 🗆		
8. Are samples	(except VOA and ONG) prop	perly preserved?	Yes 🗹	No 🗆		
9. Was present	vative added to bottles?		Yes	No 🗹	NA 🗆	
10.VOA vials ha	ave zero headspace?		Yes 🗌	No 🗆	No VOA Vials 🗹	
11. Were any sa	ample containers received bro	oken?	Yes	No 🗹	# of preserved	
10				No. [7]	bottles checked for pH:	
	work match bottle labels? pancies on chain of custody)		Yes 🗸	No 📙	The state of the s	>12 unless noted)
	correctly identified on Chain	of Custody?	Yes 🗹	No 🗆	Adjusted?	
14, Is it clear wh	nat analyses were requested?		Yes 🗹	No 🗆		
	ding times able to be met? customer for authorization.)		Yes 🔽	No 🗆	Checked by:	
Special Hono	lling (if applicable)					
Manager War and	Illing (if applicable) notified of all discrepancies with	th this order?	Yes 🗌	No 🗆	NA 🗹	
			163 🗆	140	IV E	1
	n Notified:	Date	7 - <b>1</b> - 1	Dhara 🗆 East	□ In Passar	
By Wh Regan		Via: [	_ eMail _	Phone Fax	☐ In Person	
	Instructions:	The second section and the second sec		* 1 ** .	<u> </u>	
	,	PWILK.		(4)		J
17. Additional r						
18. Cooler Info		Seel Interé   Seel No. 1	ent Deta 1	Cianad D.	1	
Cooler N	o Temp °C Condition	Seal Intact   Seal No   S	Seal Date	Signed By		
Ŀ	12.2				l.	

116	6	i i						14/16	11/48/		4/4	Date	EDD	NELAP	ccreditation	Standard	nail or	hone #:	Far	ailing /		lient:	Ω
1941	E	Time:						14/16 1320	1315	1310	1405	Time	EDD (Type)_	D	ation	Standard	Fax#: 6	(585	Farming	ailing Address:		wh E	hain-
	Hour Relipquished	Relinguished by						8.	Soil	Soil	501	Matrix		□ Other			wood sle	5) 716	W. V.W		1	agines	of-Cu
Mother Jakes	the M. Wood	had hy:						SC-88	SC-7R	Sc-3R	SC-ZR	Sample Request ID		er		☐ Level 4 (Full Validation)	nail or Fax#: hwoodslevulsenginesring. can	716-2787	IGHTB W	501 Airport Dr. SVILL 205		Rule Engineering, LLS	Chain-of-Custody Record
may be subcontracted to off	200	D	_					5	6	3	3		S	ा		ion)		L	P		_		
acted to other at	Muallu Received by:	Received by:						(1) 4 of Glass	(1) Hi on Glass	(i) 4 oz Glass	ددمدي چو لا (۱)	Container Type and #	13,		Sampler:	Hea	Project Manager:		Project #:	Jop San	Project Name.	□ Standard	Turn-Around Time:
ordified laboratories	Wash.				¥			Cold	Cold	Cold	Cold	Preservative Type	1.	区	せんじ	Heather Wood's				Cof San Juan 28-7	27		Time:
his serves as notice of this	5	Data Time						g g	7003	2002	8	НЕАL.No:		J/No.		2				)-7 #153E		M Rush 3-Day TAT	
	86							<.	×	×	×	BTEX + Net	25	+ 🖫		(80	21)				-		_
Supervisor: Ervin Wyckoft Area: 7	WD: 21435822 US4: KGAACIA											BTEX + MT				_			Te	490			•
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E E	1887 1887	L				_						TPH (Metho			_				5-345	wkin	<	> :	I
3	BUC	-	-					_				EDB (Metho			_	11.40			Tel. 505-345-3975	4901 Hawkins NE -	www.hallenvironmental.com	3	A
2 P	8111	+	+					_		_		PAH's (8310 RCRA 8 Me	_	_	0.5	IIVIS		Ana			naller	7	
5	3	H	+	_								Anions (F,C		_	O <sub>2</sub> ,	PO <sub>4</sub> .	SO <sub>4</sub> )	lysis	Fax	bud	viro	IS.	Ž
		+	+									8081 Pestic		-				s Re	505	uerq	nmer	S	5
	9	r	$\top$									8260B (VOA						Analysis Request	-345	ue, N	ntal.c	5	קק מ
	Ordered by: Lisa Hun						П					8270 (Semi-		A)				Ä	Fax 505-345-4107	Albuquerque, NM 87109	MO	NALYSIS LABORATORY	ENVIRONMENTAL
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3,	mail v	L	$\perp$										0.									4	-

Air Bubbles (Y or N)



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

OrderNo.: 1607769

July 19, 2016

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

RE: CoP San Juan 28-7 153E

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/16/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

andel

4901 Hawkins NE

Albuquerque, NM 87109

### Date Reported: 7/19/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4R

Project: CoP San Juan 28-7 153E

**Collection Date:** 7/15/2016 11:20:00 AM

Lab ID: 1607769-001

Matrix: MEOH (SOIL) Received Date: 7/16/2016 8:45:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS	<b>3</b>			Analyst	том
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/18/2016 1:03:16 PM	26439
Surr: DNOP	93.0	70-130	%Rec	1	7/18/2016 1:03:16 PM	26439
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	7/18/2016 9:46:44 AM	A35768
Surr: BFB	94.8	80-120	%Rec	1	7/18/2016 9:46:44 AM	A35768
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	7/18/2016 9:46:44 AM	B35768
Toluene	ND	0.049	mg/Kg	1	7/18/2016 9:46:44 AM	B35768
Ethylbenzene	ND	0.049	mg/Kg	1	7/18/2016 9:46:44 AM	B35768
Xylenes, Total	ND	0.098	mg/Kg	1	7/18/2016 9:46:44 AM	B35768
Surr: 4-Bromofluorobenzene	91.9	80-120	%Rec	1	7/18/2016 9:46:44 AM	B35768

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

- 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 Page 1 of 5
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Date Reported: 7/19/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Client Sample ID: SC-9

Project: CoP San Juan 28-7 153E Collection Date: 7/15/2016 12:30:00 PM

Lab ID: 1607769-002 Matrix: MEOH (SOIL) Received Date: 7/16/2016 8:45:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS	3			Analyst:	том
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	7/18/2016 1:31:27 PM	26439
Surr: DNOP	94.2	70-130	%Rec	1	7/18/2016 1:31:27 PM	26439
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	7/18/2016 10:10:13 AM	A35768
Surr: BFB	94.3	80-120	%Rec	1	7/18/2016 10:10:13 AM	A35768
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	7/18/2016 10:10:13 AM	B35768
Toluene	ND	0.048	mg/Kg	1	7/18/2016 10:10:13 AM	B35768
Ethylbenzene	ND	0.048	mg/Kg	1	7/18/2016 10:10:13 AM	B35768
Xylenes, Total	ND	0.096	mg/Kg	1	7/18/2016 10:10:13 AM	B35768
Surr: 4-Bromofluorobenzene	90.3	80-120	%Rec	1	7/18/2016 10:10:13 AM	B35768

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

### Analyte detected in the associated Method Blank Qualifiers: Value exceeds Maximum Contaminant Level. В D Sample Diluted Due to Matrix E Value above quantitation range Analyte detected below quantitation limits Page 2 of 5 H Holding times for preparation or analysis exceeded J ND Not Detected at the Reporting Limit P Sample pH Not In Range Reporting Detection Limit RPD outside accepted recovery limits RL % Recovery outside of range due to dilution or matrix Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1607769 19-Jul-16

Client:	Rule Eng	ineering LL	C								
Project:	CoP San	Juan 28-7 1	53E								
Sample ID	LCS-26439	SampTy	pe: LC	s	Tes	tCode: El	PA Method	8015M/D: D	iesel Rang	e Organics	
Client ID:	LCSS	Batch I	D: <b>26</b>	439	F	RunNo: 3	5765				
Prep Date:	7/18/2016	Analysis Da	te: 7/	18/2016	8	SeqNo: 1	106622	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	50	10	50.00	0	99.7	62.6	124			
Surr: DNOP		4.8		5.000		95.5	70	130			
Sample ID	MB-26439	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	iesel Rang	e Organics	
Client ID:	PBS	Batch I	D: <b>26</b>	439	F	RunNo: 3	5765				
Prep Date:	7/18/2016	Analysis Da	te: 7/	18/2016	5	SeqNo: 1	106623	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	10								
Surr: DNOP	8	8.5		10.00		84.6	70	130			
Sample ID	1607769-001AMS	SampTy	pe: MS	S	Tes	tCode: El	PA Method	8015M/D: Di	iesel Rang	e Organics	
Client ID:	SC-4R	Batch I	D: <b>26</b>	439	F	RunNo: 3	5765				
Prep Date:	7/18/2016	Analysis Da	te: 7/	18/2016	8	SeqNo: 1	106737	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	55	10	50.71	2.022	104	33.9	141			
Surr: DNOP	).	5.0		5.071		97.8	70	130			
Sample ID	1607769-001AMSI	) SampTyp	pe: MS	SD	Tes	tCode: El	PA Method	8015M/D: Di	iesel Rang	e Organics	
Client ID:	SC-4R	Batch I	D: <b>26</b>	439	F	RunNo: 3	5765				
Prep Date:	7/18/2016	Analysis Da	te: 7/	18/2016	8	SeqNo: 1	106791	Units: mg/l	Kg		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	52	9.8	48.78	2.022	103	33.9	141	5.23	20	
Surr: DNOP		4.8		4.878		98.9	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

Page 3 of 5

# Hall Environmental Analysis Laboratory, Inc.

25

1100

5.0

1000

WO#: **1607769 19-Jul-16** 

Client: Rule Engineering LLC
Project: CoP San Juan 28-7 153E

Gasoline Range Organics (GRO)

Surr: BFB

Sample ID 5ML RB	SampType: MI	BLK	TestCode:	EPA Method	8015D: Gaso	line Rang	е	
Client ID: PBS	Batch ID: A3	5768	RunNo:	35768				
Prep Date:	Analysis Date: 7/	18/2016	SeqNo:	1107116	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND 5.0							
Surr: BFB	1000	1000	99.7	7 80	120			
Sample ID 2.5UG GRO LCS	SampType: LC	s	TestCode:	EPA Method	8015D: Gaso	line Rang	е	
Client ID: LCSS	Batch ID: A3	5768	RunNo:	35768				
Prep Date:	Analysis Date: 7/	18/2016	SeqNo:	1107117	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val %REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Sample ID 1607769-001	AMS Samp	Type: MS	S	Tes	tCode: El	PA Method	8015D: Gaso	oline Rang	е	
Client ID: SC-4R	Bate	ch ID: A3	5768	F	RunNo: 3	5768				
Prep Date:	Analysis	Date: 7	/18/2016	S	SeqNo: 1	107118	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Gasoline Range Organics (GRO	) 26	4.9	24.56	0	105	59.3	143			
Surr: BEB	1100		982.3		112	80	120			

80

80

109

120

120

Sample ID 1607769-001AMS	D SampT	ype: MS	SD	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID: SC-4R	Batch	n ID: A3	5768	F	RunNo: 3	5768				
Prep Date:	Analysis D	ate: 7/	/18/2016	8	SeqNo: 1	107119	Units: mg/h	<b>K</b> g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Gasoline Range Organics (GRO)	25	4.9	24.56	0	103	59.3	143	2.73	20	
Surr: BFB	1100		982.3		111	80	120	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

Page 4 of 5

# Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC
Project: CoP San Juan 28-7 153E

Sample ID 5ML RB SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: **PBS** Batch ID: **B35768** RunNo: 35768 Prep Date: Analysis Date: 7/18/2016 SeqNo: 1107152 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 0.025 ND Benzene Toluene ND 0.050 Ethylbenzene ND 0.050 Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.96 1.000 96 2 120 80

Sample ID 100NG BTEX LCS SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: **B35768** RunNo: 35768 Prep Date: Analysis Date: 7/18/2016 SeqNo: 1107153 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte LowLimit Benzene 0.91 0.025 1.000 0 90.5 75.3 123 0.91 0.050 1.000 0 91.4 80 124 Toluene Ethylbenzene 0.96 0.050 1.000 0 96.1 82.8 121 Xylenes, Total 29 0.10 3.000 0 95.8 83.9 122 Surr: 4-Bromofluorobenzene 1.0 1.000 102 80 120

Sample ID 1607769-002AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: SC-9 Batch ID: B35768 RunNo: 35768 Prep Date: Analysis Date: 7/18/2016 SeqNo: 1107154 Units: mg/Kg SPK value SPK Ref Val HighLimit %RPD **RPDLimit** Analyte Result PQL %REC LowLimit Qual Benzene 1.0 0.024 0.9606 0.01166 103 71.5 122 Toluene 0.97 0.048 0.9606 0.01789 99.6 71.2 123 Ethylbenzene 0.99 0.048 0.9606 103 75.2 130 0.03384 100 Xylenes, Total 2.9 0.096 2.882 72.4 131 Surr: 4-Bromofluorobenzene 0.95 0.9606 99.4 80 120

Sample ID 1607769-002AN	ISD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: SC-9	Batch	n ID: <b>B3</b>	5768	F	RunNo: 3	5768				
Prep Date:	Analysis D	Date: 7/	18/2016	5	SeqNo: 1	107155	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9606	0.01166	93.7	71.5	122	9.49	20	
Toluene	0.94	0.048	0.9606	0.01789	96.3	71.2	123	3.25	20	
Ethylbenzene	0.98	0.048	0.9606	0	102	75.2	130	0.654	20	
Xylenes, Total	2.9	0.096	2.882	0.03384	101	72.4	131	0.616	20	
Surr: 4-Bromofluorobenzene	0.96		0.9606		99.6	80	120	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

Page 5 of 5

WO#:

1607769

19-Jul-16



Hali 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	er: 1607769		RoptNo: 1
Received by/date: LM 07/16/16			
Logged By: Joe Archuleta 7/16/2016 8:45:00 A	м	Jear	
Completed By: Joe Archuleta 7/16/2016 12:52:95 l	PM .	Dear	
Reviewed By. Q/as 07/16	11/2	104	
Chain of Custody	1/6		4
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 Viats
11. Were any sample containers received broken?	Yes	No 🗹	# of presented
	-		# of preserved bottles checked
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes V	No. L	for pH: (<2 or >12 unless noted
13, Are matrices correctly identified on Chain of Custody?	Yes V	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		774	
Cooler No Temp °C Condition Seal Intect Seal No	Seal Date	Signed By	
1 3.8 Good Yes			

C	hain	of-Cu	stody Record	Turn-Around	Time:				D)OL	н	IAI		E	NIV	TE	20	NIN	1EN	JT/		
Client	Rule	Engine	oring, LLC	☐ Standard		Same Day		950						-				RA	and the same of		6
				Project Name	1;		-			١	www	v.hali	lenvi	ironr	nent	al.cc	m				
Mailing	Address	501 A	inport Dr. Suik 205	Cop San	Juan 26	3-7 #153E		49	01 H	awki	ns N	E -	Alb	uque	orqu	e, NI	M 87	109			
Far	minato	n NM	87401	Project #:				Te	el. 50	5-34	5-39		_	_	_	_	4107				
Phone	#: (505	716	-2707							M.		A	naly	/sis	Req	uest	WE.				
email o	r Fax#: \	nwoods	erweengineering com	Project Mana	ger:		=	uly)	2					70	10						
QAVQC	Package:						(8021)	TPH (Gas only)	- W			(3)		S,4,5	CB;						
Ŋ Stan			☐ Level 4 (Full Validation)	Heather			18	9	80			SIMS)		P. P.	12 P						
Accred		C Oth			eauther Woo	ds/Julin Valde	9	直	TPH 8015B (GRO / DRO / (B)	£.	=	8270		Anions (F,CI,NO3,NO2,PO1,SO1)	8081 Pesticides / 8082 PCB's						ê
	(Type)	L Oute	er	On Ice:	Yes	□ No	HT +	+ Ш	GRC	418	20	8 10	용	9	es		VOA				Yor
0 200	(Type)			Sample Tem	Delatule: 5	1	Ð	+ MTBE +	3B (	pou	thod	310	Met	2	ticid	OA)	Ti-				) se
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	BTEX + KLEB	+	301	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	S (F	Pes	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
5010		Moon	Campio reducatio	Type and #	Туре	1607769	P	втех	H	H	80	¥.	S	nior	081	260	270				ir Bi
7/101			10				_	8		F	ш	Δ.	œ	<	8	80	œ	_	+	+	A
1/15/16	1120	50:1	3C.4R	(1) 402 Glass		7001	X	_	X	-	-	$\dashv$	_					-	+		$\vdash$
113/16	1230	20:1	50-9	(1) 402 Glass	cold	-002	Х		X			_	_			_		_	_	-	Н
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Date:	Time:	Relinquist	and but	Received by:		Date Time	Por	nork					-			_					
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7/_/	1841	Relinquist	la landa	Received by:		Date Time	Su	peru	Nor	Er	vin			ott							
112/10		almost an	omitted to Hall Environmental may be sub-	contracted to other	A STATE OF THE STA	es. This serves as notice of thi				1 LV				nland.	ho m mi	and a	the i	minds files	where of		
	vaau y.		The state of the second control of the secon		Todago lagoriston	eu. Tino eurres as nume or thi	o puesti	winty.	roly at	A COUNT	rerustica	u ueliel	Abili DE	- GREET	y mote	sted or	, साम्र संह	idiyilda	HIDON.		



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

August 16, 2016

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

FAX

RE: 28-7 153E OrderNo.: 1608717

### Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/12/2016 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1608717

Date Reported: 8/16/2016

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Client Sample ID: SC-8R(2)

 Project:
 28-7 153E
 Collection Date: 8/11/2016 11:45:00 AM

 Lab ID:
 1608717-001
 Matrix: SOIL
 Received Date: 8/12/2016 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: ТОМ
Diesel Range Organics (DRO)	500	9.2	mg/Kg	1	8/12/2016 4:39:54 PM	26954
Surr: DNOP	95.0	70-130	%Rec	1	8/12/2016 4:39:54 PM	26954
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	RAA
Gasoline Range Organics (GRO)	260	95	mg/Kg	20	8/15/2016 1:10:33 PM	26953
Surr: BFB	109	68.3-144	%Rec	20	8/15/2016 1:10:33 PM	26953
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	RAA
Benzene	0.40	0.38	mg/Kg	20	8/15/2016 1:10:33 PM	26953
Toluene	9.9	0.95	mg/Kg	20	8/15/2016 1:10:33 PM	26953
Ethylbenzene	1.9	0.95	mg/Kg	20	8/15/2016 1:10:33 PM	26953
Xylenes, Total	30	1.9	mg/Kg	20	8/15/2016 1:10:33 PM	26953
Surr: 4-Bromofluorobenzene	105	80-120	%Rec	20	8/15/2016 1:10:33 PM	26953

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

- \* 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 Page 1 of 4
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1608717

16-Aug-16

Client:

Rule Engineering LLC

Sample ID LCS-26954	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 26	954	F	RunNo: 3	6459				
Prep Date: 8/12/2016	Analysis D	ate: 8/	12/2016	8	SeqNo: 1	129462	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.5	62.6	124			
Surr: DNOP	4.0		5.000		79.5	70	130			
Sample ID MB-26954	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: DDC	Batch	ID: 26	954	F	RunNo: 30	6459				
Client ID: PBS										
ALEGARAN DESER	Analysis D	ate: 8/	12/2016	S	SeqNo: 1	129463	Units: mg/K	g		
ALEGARAN DESER	Analysis D Result	ate: 8/		SPK Ref Val	SeqNo: 1	129463 LowLimit	Units: mg/k	%RPD	RPDLimit	Qual
Prep Date: 8/12/2016									RPDLimit	Qual

### 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
- RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range E
- Analyte detected below quantitation limits
- P Sample pH Not In Range
- Reporting Detection Limit
- Sample container temperature is out of limit as specified

Page 2 of 4

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1608717

16-Aug-16

Client:

Rule Engineering LLC

Project:

28-7 153E

Sample	ID	MB-26953
Jampie		MD-70333

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

Batch ID: 26953

RunNo: 36508

Prep Date: 8/12/2016

Analysis Date: 8/15/2016

Units: mg/Kg

Analyte

Result

760

Result

SeqNo: 1130701

Gasoline Range Organics (GRO)

PQL ND 5.0 SPK value SPK Ref Val %REC

HighLimit LowLimit

68.3

LowLimit

%RPD

Qual

Surr: BFB

1000

TestCode: EPA Method 8015D: Gasoline Range

144

Sample ID LCS-26953

SampType: LCS

Batch ID: 26953

RunNo: 36508

75.7

Prep Date:

Client ID: LCSS

Analysis Date: 8/15/2016 8/12/2016

SeqNo: 1130702

Units: mg/Kg

**RPDLimit** 

Analyte

PQL

SPK value SPK Ref Val 25.00

%REC 0 81.2

HighLimit %RPD 120

**RPDLimit** Qual

Surr: BFB

5.0

144

Gasoline Range Organics (GRO) 20 80 860 1000 85.6 68.3

### Qualifiers:

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

Page 3 of 4

# Hall Environmental Analysis Laboratory, Inc.

WO#: **1608717** 

16-Aug-16

Client: Rule Engineering LLC

**Project:** 28-7 153E

Sample ID MB-26953	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batcl	n ID: 26	953	F	RunNo: 3	6508				
Prep Date: 8/12/2016	Analysis D	)ate: 8/	15/2016	S	SeqNo: 1	130726	Units: mg/K	(g		
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	1.0		1.000		99.8	80	120			

Sample ID LCS-26953	Samp	Type: LC	S	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batc	h ID: 26	953	F	RunNo: 3	6508				
Prep Date: 8/12/2016	Analysis [	Date: 8/	15/2016	8	SeqNo: 1	130727	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	0.96	0.050	1.000	0	96.4	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	95.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	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

Page 4 of 4



### 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:	1608717	W-	RcptNo:	1
Received by/date: VV 06/12/10				
Logged By: Ashley Gallegos 8/12/2016 7:30:00 AM		A		
Completed By: Ashley Gallegos 8/12/2016 9:35:19 AM		A		
Reviewed By: 08/12/16		· · · · · · · · · · · · · · · · · · ·		
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			
<u>Log In</u>				
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 $\square$	
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	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗆	for pH: (<2 or	>12 unless noted)
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				
	Seal Date	Signed By		
1 3.0 Good Yes				

acted data will be clearly notated on the analytica	Any sub-contra	bility.	s possi	poratories.) This serves as notice of this	act edited lab	contracted to other	If necessary, samples submitted to Hall Environmental may be subcontracted to other adjected laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	samples sut	If necessary,	
8/12	Ish &	7		Pull 1950	ceived by:	Received by:	inquished by:	Relinquished by	S III	afte:
lenthy change to next day	1	nark	Remarks:	Date Time / 8/1/16 1640	H. Was	Received by:	justined by:	Relinquished by	1640	1
								5		
				,						
										-
	+		7	100-	PP	the lates	6C-8R(2)	Soil	Shil	11/16
EDB (Methor PAH's (831) RCRA 8 Methors (F,C 8081 Pestic 8260B (VO) 8270 (Semi-	TPH 8015B	BTEX + MT	BTEX +	ative	r Preservative # Type	Container Type and #	Sample Request ID	Matrix	Time	Date
0 or etals I,N( ides	od 4	BE	整	がしている。	Sample Temperature	Sample Te			EDD (Type)	) EDC
8270 5 O <sub>3</sub> ,NO	18.1)	+ TPI	+ 311	Ualdez La No	Justyn Z Yes	On loe:	ner.	□ Other	] NELAP	] NELAP
SIM		H (G	ES (	ods	2 Woods	Heather	□ Level 4 (Full Validation)		ndard	3 Standard
D <sub>4</sub> ,S	/極	as o	802		;	-			A/QC Package:	A/QC
	<b>(</b>	nly)	1)		nager:	Project Ma	Project Manager:	MAN.	mail or Fax#:	mail c
Analysis Request							B	J793	hone #: 505	hone
	Tel. 505-345-3975	Ţ				Project #:	10/15	Farmingon NM	Fasmin	Si
ns NE - Albuquerque, NM 87109	4901 Hawkins NE	49			163 E	28-7	Hisport Drive, Swite	105.	Mailing Address: 501	failing
www.hallenvironmental.com	<				me:	Project Name:	C	C		
4	□			Rush S Day		□ Standard	Rule Engineerian, LLC	Williams.	Rule F	Jient:
HALL ENVIRONMENTAL	i I			,	nd Time:	Turn-Around Time:	Chain-of-Custody Record	of-Cu	hain	

Air Bubbles (Y or N)

# HALL ENVIRONMENTAL