OIL CONS. DIV DIST. 3

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources JAN 23 2017

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 Notification and Corrective Action											
						OPERA'	ГOR		☐ Initi	al Report	\boxtimes	Final Report
				, a Wholly Owi	ied	Contact Li	sa Hunter			•		
		Phillips Co		73.4		m 1 1 3	. (505) 250 t	1.607				
		Oth St, Farm		NM			No. (505) 258-1	1607				
Facility Nai	ne: Davis	A Federal	I .			Facility Typ	e: Gas Well					
Surface Ow	ner Fede	ral		Mineral C	wner	Federal (S)	F 079962)		API No	. 30045092	210	
				LOCA	OIT	N OF RE	LEASE					
Unit Letter D	Section 25	Township 30N	Range 11W	Feet from the 1190		/South Line North	Feet from the 990		est Line est	County San Juan		
							e <u>-107. 94857</u>					
Type of Release Hydrocarbon (Historic) Volume of Release Unknown Volume Recovered 540 cyd											cvd	
		duction Tank					Iour of Occurrence		Date and	Hour of Disc	covery	· ·
						Unknown			02/17/16	@ 12:00 pm		
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Require						If YES, To	Whom?					
		Ц	ies L	NO M NOT K	quired	N/A						
By Whom? Was a Water	N/A	1- 10				Date and H		the Water				
was a water	course Read		Yes 🛛 1	No		If YES, Volume Impacting the Watercourse. N/A						
70 777												
N/A	irse was Im	pacted, Descri	ibe Fully.	•								
	ise of Proble	em and Remed	dial Actio	n Taken.*								
			OCD ins	pector from bott	om of I	Production Ta	ank. Volume of	release i	unknow	n, and suspe	ct tha	t had been
seeping for u	inknown d	uration.										
Describe Are	a Affected	and Cleanup A	Action Tal	cen.*								
				540 c/yds of soil						nalytical re	sults	were below
the regulat	ory standa	ards – no fu	rther act	ion required.	The so	il sampling	report is attach	ned for	review.			ľ
I hereby certi	fy that the i	nformation gi	ven above	is true and comp	ete to t	he hest of my	knowledge and u	ınderstan	d that nurs	suant to NM()CD rı	iles and
				nd/or file certain re								
				ce of a C-141 repo								
				investigate and re								
		ws and/or regu		tance of a C-141	eport c	ioes not renev	e the operator of	responsit	offity for c	omphance w	im any	other
, , , , , , , , , , , , , , , , , , , ,							OIL CON	SERV	ATION	DIVISIO	N	
	1.1	n Ht							1		_	
Signature:	FIN	m tot						(1	7)	
						Approved by	Environmental S	pecialist:	1,	()		
Printed Name	e: Lisa Hu	nter			-			_			-	
Title: Field	Environme	ntal Specialis	t			Approval Dat	e: 0/31/20	A) E	xpiration]	Date:		
E-mail Addre	ess: Lisa.Hu	inter@cop.co	m			Conditions of	Approval:			Attached		
Date: Janua	ry 18, 2017	Phone: (5	05) 258-1	607		NOSI	412696	395	-	1 xttdelled		

Davis A Federal #1 Release Report

Unit Letter D, Section 25, Township 30 North, Range 11 West San Juan County, New Mexico

January 17, 2017

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 Davis A Federal #1 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:

Kerri Crawford, P.E., Senior Engineer

January 17, 2017

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Appendices

Appendix A Analytical Laboratory Reports



1.0 Introduction

The ConocoPhillips Davis A Federal #1 release site is located in Unit Letter D, Section 25, Township 30 North, Range 11 West, in San Juan County, New Mexico. A release was discovered on February 17, 2016, during below grade tank (BGT) closure activities at the site.

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	Davis A Federal #1									
Site Location Description	Unit Letter D, Section	25, Township 30 N	North, Range 11 West							
Wellhead GPS Location	N36.78709 and W107.94821									
Land Jurisdiction	Bureau of Land Management									
Release Description			ade production tank was d by wet soils near the							
NMOCD Site Rank	10									
Distance to Nearest Surface Water	An ephemeral tributar approximately 400 fee	,	,							
Estimated Depth to Groundwater	Greater than 100 feet below grade surface (bgs) Distance to Nearest Water Well or Spring Greater than 1,000 feet 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 10. Refer to Table 1.

Depth to groundwater at the site is estimated to be greater than 100 feet bgs based on the information published on the New Mexico Office of the State Engineer (NMOSE) online New Mexico Water Rights Reporting System (NMWRRS) and elevation differential between the location and large, local washes.



A review was completed of the NMWRRS and no water wells were identified within a 1,000 foot radius of the location. No water wells were observed within a 1,000 foot radius of the location during a visual inspection.

An ephemeral tributary of Bloomfield Canyon is located approximately 400 feet west of the release location.

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

4.0 Site Assessment

A site assessment was conducted to delineate the horizontal and vertical extents of the release.

4.1 Field Activities

On February 26, 2016, Rule Engineering, LLC (Rule) personnel advanced five soil borings (SB-1 through SB-5) utilizing a hand auger. Soil boring SB-1 was advanced near the observed release location near the sales valve of the production tank at a slight angle in an attempt to sample the soils beneath the tank. The remaining soil borings were advanced vertically. All five soil borings were advanced to the maximum extent of the equipment which is about 12 to 14 feet in depth.

Based on laboratory analytical results in excess of the NMOCD action level for TPH in soil boring SB-1 for the deepest sample collected at approximately 14 feet bgs, the site assessment was continued utilizing a Geoprobe® on March 19, 2016. Soil borings SB-6 through SB-9 were advanced vertically to depths ranging from approximately 24 to 28 feet bgs.

Soil boring locations are illustrated on Figure 2.

4.2 Soil Sampling

Rule collected soil samples from the soil borings at one to four foot intervals with sample lengths of approximately six inches. The lithology encountered at the site included poorly graded sand with varying amounts of clay to about 16 to 20 feet, underlain by clayey sand grading to clay to the total depths drilled. A portion of each sample was field screened for VOCs and selected samples were analyzed for TPH. Field screening for volatile organic compounds (VOC) vapors was conducted with a photoionization detector (PID). Prior to field screening, the PID was calibrated with 100 ppm isobutylene gas.

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 per USEPA 8015M/D.

4.3 Field Screening Results

Field screening results for site assessment samples collected from soil borings SB-1 through SB-9 indicated VOC concentrations ranging from 1.1 ppm to 1,648 ppm. Site assessment field screening results are summarized in Table 2.

4.4 Laboratory Analytical Results

Laboratory analytical results for samples collected from soil borings SB-1 through SB-9 reported benzene concentrations below the laboratory reporting limits and total BTEX concentrations ranging from below the laboratory reporting limits to 168 mg/kg. Concentrations of TPH as gasoline range organics (GRO) and diesel range organics (DRO) for samples collected from soil borings SB-1 through SB-9 ranged from below the laboratory reporting limits to 17,930 mg/kg.

5.0 Excavation Confirmation Sampling

5.1 Field Activities

On December 7, 2016, Rule personnel returned to the location to provide excavation guidance and collect confirmation samples from the resultant excavation. A sample was also collected from stockpiled soils associated with the excavation bench which was constructed to increase the depth the onsite equipment could reach. The maximum extent of the excavation measured approximately 37.5 feet by 32 feet by 16 to 19 feet in depth. Excavated soils were transported to a local NMOCD approved landfarm for disposal/remediation. The excavation was backfilled with clean imported material and the laboratory confirmed reusable stockpiled bench soils. A depiction of the final excavation with sample locations is included on Figure 3.

5.2 Soil Sampling

Rule collected nine composite confirmation soil samples (SC-1 and SC-9) from the final excavation and one composite sample from the stockpiled bench soils (SC-10) for field screening and laboratory analysis. 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 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 analyzer was calibrated following the manufacturer's procedure which includes calculation of a calibration curve using known concentration standards. Rule's practical quantitation limit TPH utilizing this method 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 per USEPA 8015M/D.

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

5.3 Field Screening Results

Field screening results for soil confirmation samples SC-1 through SC-6 indicated VOC concentrations ranging from 0.4 ppm to 135 ppm. The field TPH concentration results for samples SC-1 through SC-10 ranged from below the reporting limit of 20 mg/kg to 539 mg/kg. Excavation confirmation field screening results are summarized in Table 3.

5.4 Laboratory Analytical Results

Laboratory analytical results for soil confirmation samples SC-1 through SC-10 reported benzene and total BTEX concentrations below the laboratory reporting limits, which are below the NMOCD action level of 10 mg/kg and 50 mg/kg, respectively. Concentrations of TPH for samples SC-1 through SC-10 ranged from below the laboratory reporting limits to 528 mg/kg, which are below the NMOCD action level of 1,000 mg/kg for a site rank of 10.

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

6.0 Conclusions

Hydrocarbon impacted soils associated with a release discovered on February 17, 2016, at the ConocoPhillips Davis A Federal #1 have been excavated and transported to a NMOCD approved landfarm for disposal/remediation. The excavation has been backfilled with clean, imported material and laboratory confirmed reusable stockpiled bench soils. Field screening and laboratory analytical results for samples collected from the final excavation sidewalls and base indicate that concentrations of benzene, total BTEX, and TPH are below NMOCD action levels for a site rank of 10. Therefore, 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 Davis A Federal #1 San Juan County, New Mexico

	Ranking	Site-Based		Data	
Ranking Criteria	Score	Ranking Score	Basis for Determination	Sources	
Depth to Groundwater					
<50 feet	20		Based on local cathodic well groundwater elevations	NMOCD Online database.	
50-99 feet	10	0	and elevation differential information derived from the topographic map of the area between the site and	Aztec Quadrangle, Google Earth, and Visual Inspection	
>100 feet	0		large, local washes.	Laitii, aliu visuai irispectio	
Wellhead Protection Area		ľ		Г	
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes)	0	No water source or recorded water wells within 1,000 foot radius of location.	NMOSE NMWRRS, Aztec Quadrangle, Google Earth, and Visual Inspection	
	0 (No)				
Distance to Surface Water Body					
<200 horizontal feet	20				
200 to 1,000 horizontal feet	10	10	An ephemeral tributary of Bloomfield Canyon is located approximately 400 feet west of release location.	Aztec Quadrangle, Google Earth, and Visual Inspection	
>1,000 horizontal feet	0		,		
Site Based Total Rank	ing Score	10			



Table 2. Site Assessment Soil Sampling Results - VOCs, Benzene, Total BTEX, and TPH ConocoPhillips
Davis A Federal #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field VOCs by PID (ppm)	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	10	NE	NE	NE	50	1,0	000
		0.5	2.2		-				-	
		5	1.3							
SB-4	2/26/2016	6.5	1.7	-	1		-		-	
30-4	2/20/2010	8.5	1.9		-					
		11	2.0		_					
		12	1.9							
		1	2.0			-				
		5	2.2			·		-		
SB-5	2/26/2016	7.5	1.6							
3D-3	9 1.3 10 1.5 12.5 1.4	9	1.3							-
				-	_					
		12.5	1.4		-	_				
		0 to 2	1,648		-	-			-	
		2 to 4	1,112			-				
		4 to 6	1,453						-	
		6 to 8	1,505		-					
		8 to 10	1,390							
		10 to 12	1,364					-		
SB-6	4/19/2016	12 to 14	1,365							-
SB-0	4/19/2016	14 to 16	1,244							
		16 to 18	720	-						
		18 to 20	615	<0.23	<0.46	<0.46	<0.92	ND	<46	2,100
		20 to 22	473	<0.25	<0.49	<0.49	<0.98	ND	<49	1,000
		22 to 24	38.4	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.3
		24 to 26	20.1							
		28	3.3							

Table 2. Site Assessment Soil Sampling Results - VOCs, Benzene, Total BTEX, and TPH ConocoPhillips
Davis A Federal #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field VOCs by PID (ppm)	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	10	NE	NE	NE	50	1,0	00
		0.25		-		-	-		-	
		1.25				-			-	
		2.5							-	-
		3		-			_		-	-
SB-1	2/26/2016	4.5	984			-		-		
SD-1	2/20/2010	8	940			-		_	-	
		9	678	<0.59	11	7.2	150	168	930	17,000
		12	680	<0.24	0.55	0.97	22	24	230	3,500
		13.5	13.5 741							
		14	896	<0.48	2.9	3.4	79	85	640	8,800
		2	4.5	-					_	_
		6	5.5			-		-	-	
SB-2	2/26/2016	8	5.1		-	_		_		
3D-2	2/20/2010	11	5.0			_		-		
		12	3.8							
		14 896 <0.48 2.9 3.4 79 85 640 2 4.5 6 5.5 8 5.1 11 5.0								
		0.5	2.5							
		2.5	3.8			-		-		-
		5.5	2.4		-			-		
SB-3	2/26/2016	6.5	1.6	-	-	-	-	-		
		9	2.3	-		-		_	-	-
		12	2.2					_		
		14	2.5		_	-				_

Table 2. Site Assessment Soil Sampling Results - VOCs, Benzene, Total BTEX, and TPH ConocoPhillips
Davis A Federal #1
San Juan County, New Mexico

Sample Name	Date	Approximate Sample Depth (ft bgs)	Field VOCs by PID (ppm)	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	10	NE	NE	NE	50	1,0	000
		0 to 2	367							-
		2 to 4	55.6							
		4 to 6	17.4							
		6 to 8	8.3	-		s 			-	
SB-7		8 to 10	16.0	-		_	-		-	
	4/19/2016	10 to 12	14.8	_		-	-		-	-
OB-7	4/13/2010	12 to 14	6.0			_	-	-	-	-
		14 to 16	3.2		-				-	
		16 to 18	4.5	-						
		18 to 20	5.1		-					
		20 to 22	4.4	-	_				_	
		22 to 24	3.7		_		-			
		0 to 2	3.9		-					
		2 to 4	3.3	-	-		-			
		4 to 6	3.6						-	
		6 to 8	3.0	-			-		-	
		8 to 10	3.1	-					_	
SB-8	4/19/2016	10 to 12	3.9				-			
3D-0	4/19/2010	12 to 14	2.5	-		_			_	
		14 to 16	2.8		-	-		_		
		16 to 18	2.9	_		_				
		18 to 20	3.1	-	_					
		20 to 22	3.5						_	
		22 to 24	3.0							

Table 2. Site Assessment Soil Sampling Results - VOCs, Benzene, Total BTEX, and TPH ConocoPhillips
Davis A Federal #1
San Juan County, New Mexico

Sample Name	Date		Field VOCs by PID (ppm)		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	10	NE	NE	NE	50	1,0	000
		0 to 2	2.4	_	-		_			
		2 to 4	2.0	-						
		4 to 6	2.1	-			-			
		6 to 8	1.2	_			-			
		8 to 10	1.8	-			-			
SB-9	4/19/2016	10 to 12	1.1	-						
30-9	4/19/2010	12 to 14	2.1	-		-				-
		14 to 16	1.8	-		-	-		-	
		16 to 18	1.3							
		18 to 20	1.7	-				-		
		20 to 22	1.3			-		-		_
		22 to 24	1.1					_		

Notes:

VOCs - volatile organic compounds

PID - photoionization detector

ft bgs - feet below grade surface

ppm - parts per million by volume

mg/kg - milligrams per kilogram

NE - not-established

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

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

**Based on a site ranking of 10.

Table 3. Excavation Confirmation Field Screening and Laboratory Analytical Results ConocoPhillips
Davis A Federal #1
San Juan 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)	TPH as MRO (mg/kg)
	NMOCD Action Level		100	1,000**	10	NE	NE	NE	50		1,000**	
SC-1	12/7/2016	16 to 19	135	448	<0.018	< 0.037	0.037	0.20	0.20	8.2	520	<48
SC-2	12/7/2016	10 to 19	3.4	<20	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.5	<47
SC-3	12/7/2016	10 to 19	1.2	<20	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.6	<48
SC-4	12/7/2016	0.5 to 10	0.7	<20	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.4	<47
SC-5	12/7/2016	10 to 19	3.5	<20	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49
SC-6	12/7/2016	0.5 to 10	5.6	<20	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.7	<48
SC-7	12/7/2016	0.5 to 10	4.0	<20	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.6	<48
SC-8	12/7/2016	10 to 19	19.9	44.5	<0.024	<0.048	<0.048	<0.096	ND	<4.8	19	<47
SC-9	12/7/2016	16 to 19	112	539	<0.022	<0.043	<0.043	<0.086	ND	9.2	390	<47
SC-10	12/7/2016	Stockpile	0.4	<20	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.7	<49

Notes: VOCs - volatile organic compounds

PID - photoionization detector ft bgs - feet below grade surface ppm - parts per million by volume mg/kg - milligrams per kilogram

NMOCD - New Mexico Oil Conservation Division

NE - not-established

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

**Based on a site ranking of 10.

ND - not detected above laboratory reporting limits

BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH - total petroleum hydrocarbons

GRO - gasoline range organics

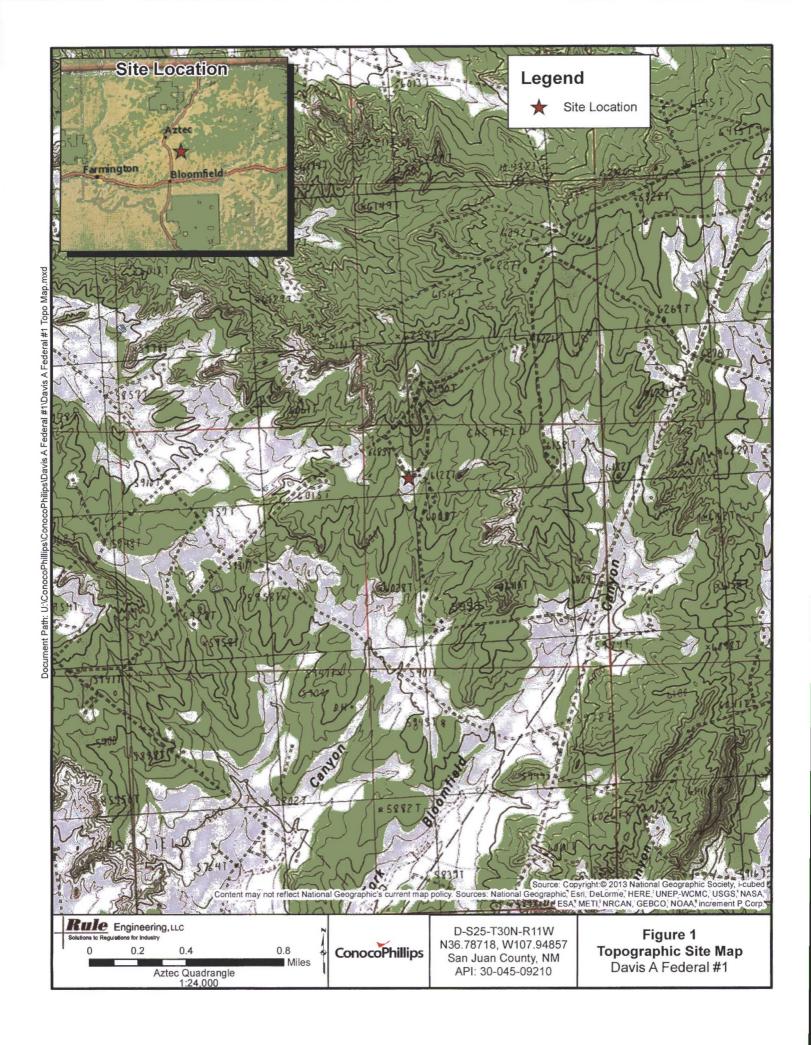
DRO - diesel range organics

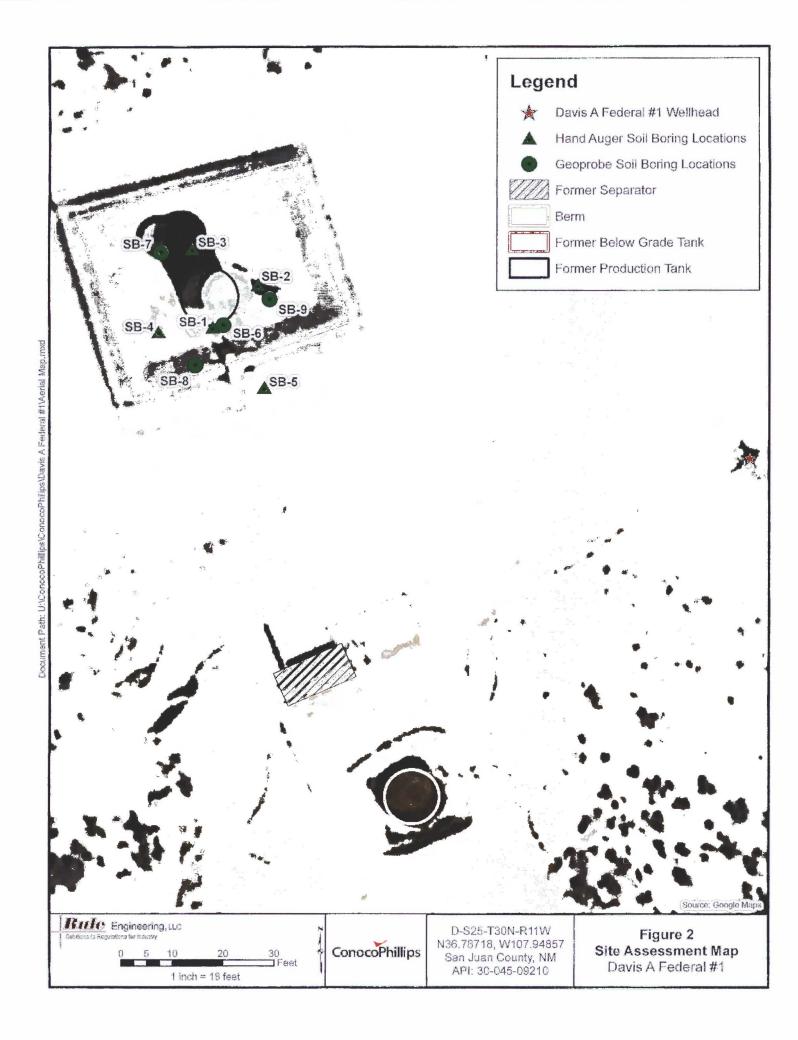
MRO - mineral oil range organics

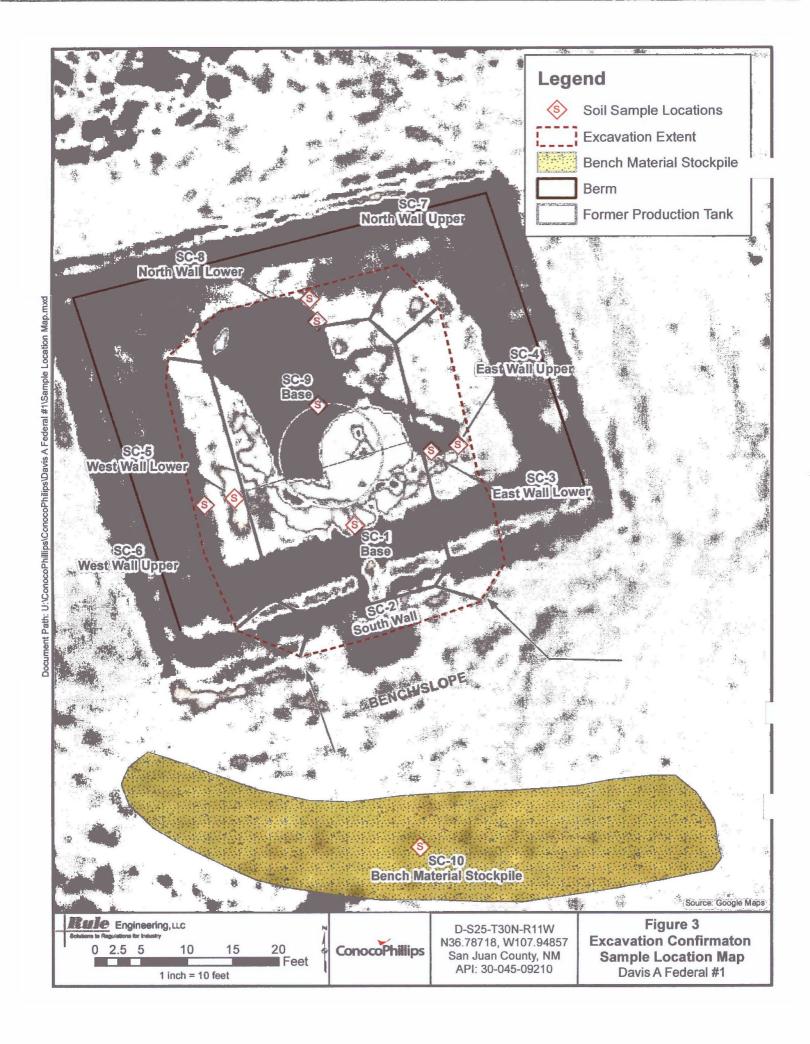


Figures









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.: 1602B80

March 04, 2016

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

FAX

RE: CoP Davis A Federal #1

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 3 sample(s) on 2/27/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1602B80

Date Reported: 3/4/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project:

Lab ID:

CoP Davis A Federal #1

1602B80-001

Client Sample ID: SB-1 @ 9

Collection Date: 2/26/2016 9:30:00 AM

Received Date: 2/27/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	3				Analyst	JME
Diesel Range Organics (DRO)	17000	980		mg/Kg	100	3/3/2016 9:54:36 AM	24005
Surr: DNOP	0	70-130	S	%Rec	100	3/3/2016 9:54:36 AM	24005
EPA METHOD 8015D: GASOLINE RA	NGE					Analyst	: NSB
Gasoline Range Organics (GRO)	930	120		mg/Kg	25	3/2/2016 4:36:35 PM	24008
Surr: BFB	200	66.2-112	S	%Rec	25	3/2/2016 4:36:35 PM	24008
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.59		mg/Kg	25	3/2/2016 4:36:35 PM	24008
Toluene	11	1.2		mg/Kg	25	3/2/2016 4:36:35 PM	24008
Ethylbenzene	7.2	1.2		mg/Kg	25	3/2/2016 4:36:35 PM	24008
Xylenes, Total	150	2.4		mg/Kg	25	3/2/2016 4:36:35 PM	24008
Surr: 4-Bromofluorobenzene	144	80-120	S	%Rec	25	3/2/2016 4:36:35 PM	24008

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
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 6 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602B80

Date Reported: 3/4/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

CoP Davis A Federal #1 Project:

1602B80-002 Lab ID:

Client Sample ID: SB-1 @ 12

Collection Date: 2/26/2016 9:45:00 AM

Received Date: 2/27/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANIC	S				Analys	t: JME
Diesel Range Organics (DRO)	3500	93		mg/Kg	10	3/3/2016 8:50:50 AM	24005
Surr: DNOP	0	70-130	S	%Rec	10	3/3/2016 8:50:50 AM	24005
EPA METHOD 8015D: GASOLINE RA	NGE					Analys	: NSB
Gasoline Range Organics (GRO)	230	48		mg/Kg	10	3/2/2016 5:01:01 PM	24008
Surr: BFB	178	66.2-112	S	%Rec	10	3/2/2016 5:01:01 PM	24008
EPA METHOD 8021B: VOLATILES						Analys	: NSB
Benzene	ND	0.24		mg/Kg	10	3/2/2016 5:01:01 PM	24008
Toluene	0.55	0.48		mg/Kg	10	3/2/2016 5:01:01 PM	24008
Ethylbenzene	0.97	0.48		mg/Kg	10	3/2/2016 5:01:01 PM	24008
Xylenes, Total	22	0.96		mg/Kg	10	3/2/2016 5:01:01 PM	24008
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	10	3/2/2016 5:01:01 PM	24008

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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 6 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1602B80

Date Reported: 3/4/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: CoP Davis A Federal #1

Lab ID: 1602B80-003

Client Sample ID: SB-1 @ 14

Collection Date: 2/26/2016 10:00:00 AM

Received Date: 2/27/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	5				Analyst	JME
Diesel Range Organics (DRO)	8800	93		mg/Kg	10	3/3/2016 9:12:14 AM	24005
Surr: DNOP	0	70-130	S	%Rec	10	3/3/2016 9:12:14 AM	24005
EPA METHOD 8015D: GASOLINE RAM	NGE					Analyst	: NSB
Gasoline Range Organics (GRO)	640	97		mg/Kg	20	3/2/2016 5:25:31 PM	24008
Surr: BFB	192	66.2-112	S	%Rec	20	3/2/2016 5:25:31 PM	24008
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.48		mg/Kg	20	3/2/2016 5:25:31 PM	24008
Toluene	2.9	0.97		mg/Kg	20	3/2/2016 5:25:31 PM	24008
Ethylbenzene	3.4	0.97		mg/Kg	20	3/2/2016 5:25:31 PM	24008
Xylenes, Total	79	1.9		mg/Kg	20	3/2/2016 5:25:31 PM	24008
Surr: 4-Bromofluorobenzene	140	80-120	S	%Rec	20	3/2/2016 5:25:31 PM	24008

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 3 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#: 1602B80

04-Mar-16

Client:

Rule Engineering LLC

Project:

CoP Davis A Federal #1

Sample ID LCS-24005 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 24005 RunNo: 32499 Prep Date: 3/1/2016 Analysis Date: 3/2/2016 SeqNo: 994768 Units: mg/Kg Result SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual Analyte **PQL** LowLimit Diesel Range Organics (DRO) 42 10 84.0 65.8 50.00 136 Surr: DNOP 4.6 5.000 91.0 70 130

Sample ID MB-24005 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: **PBS** Batch ID: 24005 RunNo: 32499 Prep Date: 3/1/2016 Analysis Date: 3/2/2016 SeqNo: 994770 Units: mg/Kg Analyte SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

 Diesel Range Organics (DRO)
 ND
 10

 Surr: DNOP
 8.5
 10.00
 85.4
 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 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602B80

04-Mar-16

Client:

Rule Engineering LLC

Project:

CoP Davis A Federal #1

Sample ID MB-24008

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

Client ID: PBS Batch ID: 24008

RunNo: 32521

Prep Date: 3/1/2016 Analysis Date: 3/2/2016

Analyte

Result PQL 5.0 SeqNo: 994929

Units: mg/Kg HighLimit

RPDLimit Qual

Gasoline Range Organics (GRO)

ND

%RPD

1000

91.4

66.2

Surr: BFB

910

TestCode: EPA Method 8015D: Gasoline Range

112

Sample ID LCS-24008

Prep Date: 3/1/2016

Client ID: LCSS SampType: LCS Batch ID: 24008

0

SPK value SPK Ref Val %REC

RunNo: 32521

Units: mg/Kg

Gasoline Range Organics (GRO)

Result PQL

Analysis Date: 3/2/2016 SPK value SPK Ref Val

5.0

SeqNo: 994930 %REC

HighLimit %RPD

RPDLimit Qual

Surr: BFB

25 1000 25.00 1000

102 104

80 66.2

120 112

Qualifiers:

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

Analyte detected in the associated Method Blank

Page 5 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1602B80

04-Mar-16

Client:

Rule Engineering LLC

Project:

CoP Davis A Federal #1

Sample ID MB-24008	SampT	SampType: MBLK TestCode: EPA Method					8021B: Volat	iles			
Client ID: PBS	Batch	ID: 24	800	RunNo: 32521							
Prep Date: 3/1/2016	Analysis D	ate: 3/	2/2016	SeqNo: 994973			Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.050									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120				

Sample ID LCS-24008	SampT	SampType: LCS			TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch	1D: 24	800	RunNo: 32521									
Prep Date: 3/1/2016	Analysis D	ate: 3/	2/2016 SeqNo: 994974 Units: mg/Kg					(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.93	0.050	1.000	0	92.9	80	120						
Toluene	1.0	0.050	1.000	0	102	80	120						
Ethylbenzene	1.0	0.050	1.000	0	105	80	120						
Xylenes, Total	3.1	0.10	3.000	0	105	80	120						
Surr: 4-Bromofluorobenzene	1.3		1.000		127	80	120			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 6 of 6



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

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

Sample Log-In Check List

RULE ENGINEERING LL Work Order Number: 1602B80 RcptNo: 1 Client Name Received by/date: 2/27/2016 8:00:00 AM Logged By: **Ashley Gallegos** 2/29/2016 4:51:23 PM Completed By: **Ashley Gallegos** 3/1/20/6 Reviewed By: Chain of Custody No 🗌 Not Present ▼ Yes 1 Custody seals intact on sample bottles? No 🗌 Yes V Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In No 🗌 NA 🗌 Yes V 4. Was an attempt made to cool the samples? No 🗌 NA 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 No 🗌 Yes V Sample(s) in proper container(s)? No 🗌 Yes V 7. Sufficient sample volume for indicated test(s)? No 🗌 Yes V 8. Are samples (except VOA and ONG) properly preserved? No V NA Yes _ 9. Was preservative added to bottles? No 🗌 No VOA Vials Yes 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? Yes V No 🗌 13. Are matrices correctly identified on Chain of Custody? No 🗌 Yes V 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) Yes No NA V 16. Was client notified of all discrepancies with this order? Person Notified Date [By Whom: Via: eMail Phone Fax In Person Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp C Condition Seal Intact Seal No Seal Date

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EDD	(Type)_			Sample Tem	perature: 1,6		4	MTBE	B (C	pot	Pol	100	leta	5	icid	(A)	<u>-</u>				S
Date	Time	Matrix	Sample Request ID	Container	Preservative	HEAL No.	+	+	8015B	(Method 418.1)	(Method	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles
			- Linguistric	Type and #	Туре	1402880	BTEX	BTEX	ТРН	TPH	EDB	PAH	RCR	Anior	8081	8260	8270				Air B
leriy	0930	Soil	5B-109	1(402) Glass	Cold	-001	×		X												
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M	necessary,	samples sub	mitted to Hall Environmental may be sub	contracted to other	ecredited laboratore										ly nota	ated or	n the a	nalytic	al report	t.	



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

April 25, 2016

Heather Woods

Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401

TEL: (505) 325-1055

FAX

RE: CoP Davis Federal A #1

OrderNo.: 1604854

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/20/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

Only

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1604854

Date Reported: 4/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SB-6 @ 18-20'

Project: CoP Davis Federal A #1

Collection Date: 4/19/2016 1:19:00 PM

Lab ID: 1604854-001

Matrix: SOIL

Received Date: 4/20/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGI	ORGANICS					Analyst	TOM
Diesel Range Organics (DRO)	2100	93		mg/Kg	10	4/22/2016 12:56:08 PM	24929
Surr: DNOP	0	70-130	S	%Rec	10	4/22/2016 12:56:08 PM	24929
EPA METHOD 8015D: GASOLINE RANG	Ε					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	46	D	mg/Kg	10	4/21/2016 3:51:38 PM	24908
Surr: BFB	108	80-120	D	%Rec	10	4/21/2016 3:51:38 PM	24908
EPA METHOD 8021B: VOLATILES						Analyst	: NSB
Benzene	ND	0.23	D	mg/Kg	10	4/21/2016 3:51:38 PM	24908
Toluene	ND	0.46	D	mg/Kg	10	4/21/2016 3:51:38 PM	24908
Ethylbenzene	ND	0.46	D	mg/Kg	10	4/21/2016 3:51:38 PM	24908
Xylenes, Total	ND	0.92	D	mg/Kg	10	4/21/2016 3:51:38 PM	24908
Surr: 4-Bromofluorobenzene	99.0	80-120	D	%Rec	10	4/21/2016 3:51:38 PM	24908

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
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 7 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1604854

Date Reported: 4/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: CoP Davis Federal A #1

Lab ID: 1604854-002

Client Sample ID: SB-6 @ 20-22'

Collection Date: 4/19/2016 1:23:00 PM

Received Date: 4/20/2016 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	том
Diesel Range Organics (DRO)	1000	93		mg/Kg	10	4/22/2016 12:34:21 PM	24929
Surr: DNOP	0	70-130	S	%Rec	10	4/22/2016 12:34:21 PM	24929
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	ND	49	D	mg/Kg	10	4/21/2016 4:15:02 PM	24908
Surr: BFB	108	80-120	D	%Rec	10	4/21/2016 4:15:02 PM	24908
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.25	D	mg/Kg	10	4/21/2016 4:15:02 PM	24908
Toluene	ND	0.49	D	mg/Kg	10	4/21/2016 4:15:02 PM	24908
Ethylbenzene	ND	0.49	D	mg/Kg	10	4/21/2016 4:15:02 PM	24908
Xylenes, Total	ND	0.98	D	mg/Kg	10	4/21/2016 4:15:02 PM	24908
Surr: 4-Bromofluorobenzene	99.6	80-120	D	%Rec	10	4/21/2016 4:15:02 PM	24908

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 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1604854

Date Reported: 4/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SB-6 @ 22-24'

Project:

CoP Davis Federal A #1

Collection Date: 4/19/2016 1:25:00 PM

Lab ID:

1604854-003

Matrix: SOIL

Received Date: 4/20/2016 7:30:00 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	9.3	mg/Kg	1	4/22/2016 11:07:40 AM	24929
Surr: DNOP	75.7	70-130	%Rec	1	4/22/2016 11:07:40 AM	24929
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	4/21/2016 12:19:48 PM	24908
Surr: BFB	94.8	80-120	%Rec	1	4/21/2016 12:19:48 PM	24908
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	4/21/2016 12:19:48 PM	24908
Toluene	ND	0.050	mg/Kg	1	4/21/2016 12:19:48 PM	24908
Ethylbenzene	ND	0.050	mg/Kg	1	4/21/2016 12:19:48 PM	24908
Xylenes, Total	ND	0.099	mg/Kg	1	4/21/2016 12:19:48 PM	24908
Surr: 4-Bromofluorobenzene	93.9	80-120	%Rec	1	4/21/2016 12:19:48 PM	24908

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
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 7 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1604854

Date Reported: 4/25/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SB-6 @ 28'

CoP Davis Federal A #1 Project:

Collection Date: 4/19/2016 1:30:00 PM Lab ID: 1604854-004 Matrix: SOIL Received Date: 4/20/2016 7:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	4/22/2016 9:41:23 AM	24929
Surr: DNOP	74.9	70-130	%Rec	1	4/22/2016 9:41:23 AM	24929
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	4/21/2016 1:30:20 PM	24908
Surr: BFB	94.6	80-120	%Rec	1	4/21/2016 1:30:20 PM	24908
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	4/21/2016 1:30:20 PM	24908
Toluene	ND	0.049	mg/Kg	1	4/21/2016 1:30:20 PM	24908
Ethylbenzene	ND	0.049	mg/Kg	1	4/21/2016 1:30:20 PM	24908
Xylenes, Total	ND	0.099	mg/Kg	1	4/21/2016 1:30:20 PM	24908
Surr: 4-Bromofluorobenzene	95.7	80-120	%Rec	1	4/21/2016 1:30:20 PM	24908

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
- RPD outside accepted recovery limits
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 7 J
- 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#: **1604854 25-Apr-16**

Rule Engineering LLC Client: Project: CoP Davis Federal A #1 Sample ID MB-24929 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics PBS Client ID: Batch ID: 24929 RunNo: 33715 Prep Date: Analysis Date: 4/22/2016 SeqNo: 1038493 4/21/2016 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Diesel Range Organics (DRO) ND 10 Surr: DNOP 8.5 10.00 84.8 70 130 Sample ID LCS-24929 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics LCSS Batch ID: 24929 Client ID: RunNo: 33715 Prep Date: 4/21/2016 Analysis Date: 4/22/2016 SeqNo: 1038494 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual 48 10 0 96.2 65.8 Diesel Range Organics (DRO) 50.00 136 Surr: DNOP 3.9 5.000 78.3 70 130 TestCode: EPA Method 8015M/D: Diesel Range Organics Sample ID 1604854-004AMS SampType: MS Client ID: SB-6 @ 28' Batch ID: 24929 RunNo: 33715 Prep Date: Analysis Date: 4/22/2016 SeqNo: 1038496 4/21/2016 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) 45 47.21 95.9 31.2 162 Surr: DNOP 3.7 4.721 78.0 70 130 Sample ID 1604854-004AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: Batch ID: 24929 RunNo: 33715 SB-6 @ 28' Prep Date: 4/21/2016 Analysis Date: 4/22/2016 SeaNo: 1038497 Units: ma/Ka SPK value SPK Ref Val %REC %RPD **RPDLimit** Analyte Result PQL LowLimit HighLimit Qual Diesel Range Organics (DRO) 44 94 47.17 0 94.0 31.2 162 2.09 31.7 Surr: DNOP 3.7 4.717 78.5 70 130 0 Sample ID LCS-24946 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 24946 RunNo: 33715 Prep Date: 4/22/2016 Analysis Date: 4/22/2016 SeqNo: 1039133 Units: %Rec Analyte SPK value SPK Ref Val %REC I owl imit HighLimit %RPD **RPDLimit** Qual Surr: DNOP 3.6 5.000 72.4 130 Sample ID MB-24946 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: Batch ID: 24946 RunNo: 33715 Prep Date: 4/22/2016 Analysis Date: 4/22/2016 SeqNo: 1039134 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual

Qualifiers:

Surr: DNOP

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

7.1

10.00

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

70

130

E Value above quantitation range

70.8

J Analyte detected below quantitation limits

Page 5 of 7

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#: 1604854

25-Apr-16

Client:

Rule Engineering LLC

Project:

CoP Davis Federal A #1

Comple ID MD 24000	CompTupe: MDI V	TootCodo: EDA Mathad 204ED: Casalina Danga	
Sample ID MB-24908	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range	
Client ID: PBS	Batch ID: 24908	RunNo: 33691	
Prep Date: 4/20/2016	Analysis Date: 4/21/2016	SeqNo: 1038225 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Q	Qual
Gasoline Range Organics (GRO)	ND 5.0		
Surr: BFB	940 1000	93.7 80 120	
Sample ID LCS-24908	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range	
Client ID: LCSS	Batch ID: 24908	RunNo: 33691	
Prep Date: 4/20/2016	Analysis Date: 4/21/2016	SeqNo: 1038226 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Q	(ual
Gasoline Range Organics (GRO)	24 5.0 25.00	0 94.4 80 120	
Surr: BFB	1000 1000	101 80 120	
Sample ID 5ML RB	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range	
Client ID: PBS	Batch ID: R33691	RunNo: 33691	
Prep Date:	Analysis Date: 4/21/2016	SeqNo: 1038254 Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qu	(ual
Surr: BFB	970 1000	97.1 80 120	

Sample ID	2.5UG GRO LCS	SampType: LCS TestCode: EPA Method 8					8015D: Gaso	line Rang	е		
Client ID:	LCSS	Batch	ID: R3	3691	R	RunNo: 3	3691				
Prep Date:		Analysis Da	ate: 4/	21/2016	SeqNo: 1038255			Units: %Red	;		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		1000		1000		104	80	120			

Qualifiers:

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

Page 6 of 7

Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC CoP Davis Federal A #1 Project:

MB-24908 SampType: MBLK TestCode: EPA Method 8021B: Volatiles Sample ID Batch ID: 24908 RunNo: 33691 Client ID: PBS Prep Date: 4/20/2016 Analysis Date: 4/21/2016 SeqNo: 1038272 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result PQL Qual 0.025 Benzene ND

ND 0.050 Toluene Ethylbenzene ND 0.050 Xylenes, Total ND 0.10

0.95 1.000 95.1 80 120 Surr: 4-Bromofluorobenzene

Sample ID LCS-24908 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS RunNo: 33691 Batch ID: 24908

Prep Date: 4/20/2016 Analysis Date: 4/21/2016 SeqNo: 1038273 Units: mg/Kg

%RPD **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit Benzene 1.0 0.025 1.000 0 103 75.3 123 Toluene 0.95 0.050 1.000 0 95.3 80 124 0.91 0.050 1.000 0 91.3 82.8 121 Ethylbenzene Xylenes, Total 2.7 0.10 3.000 0 88.6 83.9 122 Surr: 4-Bromofluorobenzene 1.000 101 80 120 1.0

Sample ID 1604854-003AMS SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: SB-6 @ 22-24' Batch ID: 24908 RunNo: 33691

Prep Date: 4/20/2016 Analysis Date: 4/21/2016 SeqNo: 1038277 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Benzene 0.98 0.024 0.9515 0 103 71.5 122 Toluene 0.96 0.048 0.9515 0 101 71.2 123 Ethylbenzene 0.94 0.048 0.9515 0 98.5 75.2 130 0.095 0 98.1 Xylenes, Total 2.8 2.854 72.4 131 0.95 0.9515 99.6 Surr: 4-Bromofluorobenzene 120

Sample ID 1604854-003AMSD SampType: MSD TestCode: EPA Method 8021B: Volatiles

Client ID: SB-6 @ 22-24' Batch ID: 24908 RunNo: 33691

Analysis D)ate: 4/	21/2016	S	SeqNo: 1	038278	Units: mg/K	g		
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1.1	0.024	0.9533	0	120	71.5	122	15.3	20	
1.1	0.048	0.9533	0	114	71.2	123	12.6	20	
1.0	0.048	0.9533	0	110	75.2	130	11.0	20	
3.1	0.095	2.860	0	108	72.4	131	10.1	20	
0.97		0.9533		102	80	120	0	0	
	Result 1.1 1.1 1.0 3.1	Result PQL 1.1 0.024 1.1 0.048 1.0 0.048 3.1 0.095	1.1 0.024 0.9533 1.1 0.048 0.9533 1.0 0.048 0.9533 3.1 0.095 2.860	Result PQL SPK value SPK Ref Val 1.1 0.024 0.9533 0 1.1 0.048 0.9533 0 1.0 0.048 0.9533 0 3.1 0.095 2.860 0	Result PQL SPK value SPK Ref Val %REC 1.1 0.024 0.9533 0 120 1.1 0.048 0.9533 0 114 1.0 0.048 0.9533 0 110 3.1 0.095 2.860 0 108	Result PQL SPK value SPK Ref Val %REC LowLimit 1.1 0.024 0.9533 0 120 71.5 1.1 0.048 0.9533 0 114 71.2 1.0 0.048 0.9533 0 110 75.2 3.1 0.095 2.860 0 108 72.4	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit 1.1 0.024 0.9533 0 120 71.5 122 1.1 0.048 0.9533 0 114 71.2 123 1.0 0.048 0.9533 0 110 75.2 130 3.1 0.095 2.860 0 108 72.4 131	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD 1.1 0.024 0.9533 0 120 71.5 122 15.3 1.1 0.048 0.9533 0 114 71.2 123 12.6 1.0 0.048 0.9533 0 110 75.2 130 11.0 3.1 0.095 2.860 0 108 72.4 131 10.1	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit 1.1 0.024 0.9533 0 120 71.5 122 15.3 20 1.1 0.048 0.9533 0 114 71.2 123 12.6 20 1.0 0.048 0.9533 0 110 75.2 130 11.0 20 3.1 0.095 2.860 0 108 72.4 131 10.1 20

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 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

Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 7 of 7

WO#:

1604854

25-Apr-16

Qual



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:	1604854		RcptNo:	1
Received by/date: 4-04/2016					
Logged By: Anne Thome 4/3	20/2016 7:30:00 AM		· am An	_	
Completed By: Anne Thorne 4/2	20/2016		aone Mr.	_	
Reviewed By:	04/20/16				
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 🗆	
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 p	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 c	or >12 unless noted)
13. Are matrices correctly identified on Chain of Cu	stody?	Yes 🗹	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?		Yes 🗹	No 🗆		
15. Were all holding times able to be met?		Yes 🗹	No 🗌	Checked by:	
(If no, notify customer for authorization.)					
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:		to the solution of the			
Client Instructions:		* 5 - 6	W. W. C.		
17. Additional remarks: Per HW -	USe 5B-6	No	+ SB-1 A	-04/20/1	
18. Cooler Information Cooler No Temp °C Condition Seal 1 1.4 Good Yes	Intact Seal No S	Seal Date	Signed By	-	

			stody Record	Turn-Around	ı ime:					H	A	п	F	NV	TE	20	NA	4F	NT	AL	
ient:	Railo	Enain	neering	⊠ Standard	□ Rush															OR	
		0	J	Project Name	:							v.hal									
ailing	Address	DOI A	importer Silk 2015	Cop Davi	s Federal	2 A #1		490	01 H			IE -						109			
Favy	ninsa	00 . AIJ	M 8:740)	Project #:						5-34						345-					
none a	#: (565	5) 716	- 2787			···						Α	naly	/sis	Req	uest		1			
nail o	Fax#: \	woods	Prulegneincering Com	Project Mana	ger:		=	nly)	â.					04)							
VQC I	Package:		0 8				(8021)	(Gas only)	ON THE STATE OF TH			3		, S(CB's						
Stan			☐ Level 4 (Full Validation)	H. Wood			M	9	8			SIMS)		,PC	2 P(
credi		□ Othe	ar.	Sampler: H.	Woods /	J. Valdez	S S S S S S S S S S S S S S S S S S S	TPH		£.	1.1	8270		NO,	808						Î
	(Type) _	- Oute		On Ice:	Acres	ECF-1.0 = //		+ Ш	(GRO	418	20		sls	NO3	les /		VO A				√ or
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX +(ME)	BTEX + MTBE	TPH 8015B (TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
19/110	1319	Soil	5B-6 @ 1B-20'	(1) for Glass	Cold	1004854 -001	X	<u>a</u>	N		Ш	<u>a</u>	ĸ	A	œ	.89	8		+		_ <
-	1323	900	SB-6 @ 20-22'	(1) 402 Glass		702	×		A										\top	\top	
		Soil		(1)4026las		-703	X		ŵ										\dashv	1	
	1330	1	58-6028	1) 402 Glass		7004	X		X										\neg	\top	\top
1710	10,00	700	30 00 00	NZ QUEST	COLA	04,	1												\neg		
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ate:	Time: 1524 Time:	Relinquish Relinquish	ed by: Ab. M. Wasser ed by: 15 1	Received by:	y Waet	Date Time 4/19/16/15/24 Date Time	D	nark inec o:	j b						rili	ps	lere	elby	j: L	isq tun	1-51
19/14	1844 f necessary	samples sub	mitted to Hall Environmental may be subd	contracted to other ac	credited laboratorio	es. This serves as notice of this	V	ur:	Mi	८५१	EN	c)	,		ly note	ated or	the a	nalytica	al repo	rt.	



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

OrderNo.: 1612404

December 09, 2016

Heather Woods Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401

TEL: (505) 325-1055

FAX

RE: Davis A Federal 1

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

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

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1612404

Date Reported: 12/9/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project: Davis A Federal 1

Collection Date: 12/7/2016 10:15:00 AM

Lab ID: 1612404-001

Matrix: MEOH (SOIL) Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANIC	s				Analyst	ТОМ
Diesel Range Organics (DRO)	520	9.6		mg/Kg	1	12/8/2016 10:54:13 AM	29071
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/8/2016 10:54:13 AM	29071
Surr: DNOP	83.3	70-130		%Rec	1	12/8/2016 10:54:13 AM	29071
EPA METHOD 8015D: GASOLINE RAN	IGE					Analyst	NSB
Gasoline Range Organics (GRO)	8.2	3.7		mg/Kg	1	12/8/2016 11:44:33 AM	G39252
Surr: BFB	160	68.3-144	S	%Rec	1	12/8/2016 11:44:33 AM	G39252
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.018		mg/Kg	1	12/8/2016 11:44:33 AM	B39252
Toluene	ND	0.037		mg/Kg	1	12/8/2016 11:44:33 AM	B39252
Ethylbenzene	ND	0.037		mg/Kg	1	12/8/2016 11:44:33 AM	B39252
Xylenes, Total	0.20	0.074		mg/Kg	1	12/8/2016 11:44:33 AM	B39252
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	12/8/2016 11:44:33 AM	B39252

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

Lab Order 1612404

Date Reported: 12/9/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Davis A Federal 1

Lab ID: 1612404-002

Client Sample ID: SC-9

Collection Date: 12/7/2016 12:50:00 PM

Matrix: MEOH (SOIL) Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S				Analyst	TOM
Diesel Range Organics (DRO)	390	9.4		mg/Kg	1	12/8/2016 11:21:14 AM	29071
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/8/2016 11:21:14 AM	29071
Surr: DNOP	88.0	70-130		%Rec	1	12/8/2016 11:21:14 AM	29071
EPA METHOD 8015D: GASOLINE RANG	GE					Analyst	NSB
Gasoline Range Organics (GRO)	9.2	4.3		mg/Kg	1	12/8/2016 12:09:09 PM	G39252
Surr: BFB	171	68.3-144	S	%Rec	1	12/8/2016 12:09:09 PM	G39252
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.022		mg/Kg	1	12/8/2016 12:09:09 PM	B39252
Toluene	ND	0.043		mg/Kg	1	12/8/2016 12:09:09 PM	B39252
Ethylbenzene	ND	0.043		mg/Kg	1	12/8/2016 12:09:09 PM	B39252
Xylenes, Total	ND	0.086		mg/Kg	1	12/8/2016 12:09:09 PM	B39252
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	12/8/2016 12:09:09 PM	B39252

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 5
- 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#: 1612404

09-Dec-16

Client:

Rule Engineering LLC

Project:

Davis A Federal 1

Sample ID LCS-29071	SampTy	pe: LC	S	Test	Code: El	PA Method	8015M/D: Die	esel Rang	e Organics		
Client ID: LCSS	Batch	ID: 29	071	R	tunNo: 3	9237					
Prep Date: 12/8/2016	Analysis Date: 12/8/2016 SeqNo: 1227846 Units: mg/Kg										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	50	10	50.00	0	100	62.6	124				
Surr: DNOP	4.4		5.000		88.0	70	130				

Sample ID MB-29071	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	organics or	
Client ID: PBS	Batch	ID: 29	071	R	RunNo: 3	9237				
Prep Date: 12/8/2016	Analysis D	ate: 12	2/8/2016	S	SeqNo: 1	227849	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		95.1	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 3 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#:

1612404

09-Dec-16

Client:

Rule Engineering LLC

Project:

Davis A Federal 1

Sample ID RB

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: G39252

PQL

Batch ID: G39252

5.0

RunNo: 39252

Analysis Date: 12/8/2016

Prep Date: Analyte

Result

SeqNo: 1228807

Units: mg/Kg HighLimit

RPDLimit Qual

Gasoline Range Organics (GRO)

ND

1000

SPK value SPK Ref Val %REC

SPK Ref Val

85.1

144

850

Result

%RPD

%RPD

Surr: BFB

Sample ID 2.5UG GRO LCS Client ID:

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

68.3

LowLimit

Prep Date:

LCSS

Analysis Date: 12/8/2016

RunNo: 39252 SeqNo: 1228808

Units: mg/Kg HighLimit

Analyte

PQL SPK value 5.0 25.00 %REC 95.2

74.6

123

Qual

Gasoline Range Organics (GRO)

1000

93.6

68.3

Surr: BFB

24 940

0

LowLimit

144

RPDLimit

Qualifiers:

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 B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

Sample pH Not In Range

Reporting Detection Limit RL Sample container temperature is out of limit as specified Page 4 of 5

Hall Environmental Analysis Laboratory, Inc.

WO#: **1612404**

09-Dec-16

Client: Rule Engineering LLC
Project: Davis A Federal 1

Sample ID RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	n ID: B3	9252	R	RunNo: 3	9252				
Prep Date:	Analysis D	ate: 12	2/8/2016	S	SeqNo: 1	228831	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	0.96		1.000		96.4	80	120			

Sample ID 100NG BTEX LC	S Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batc	h ID: B3	9252	F	RunNo: 3	9252				
Prep Date:	Analysis [Date: 12	2/8/2016	g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	75.2	115			
Toluene	1.1	0.050	1.000	0	107	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	103	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.9	79.2	115			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	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

Page 5 of 5

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 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

				-						
Client Name: F	RULE ENGI	NEERING LL	Work Order	Number:	16124	04			RcptNo	: 1
Received by/date:	•	X	Izlosli	,						
Logged By:	Lindsay Ma	ngin	12/8/2016 8:10):00 AM			(Streety)	Hayso		
Completed By:	Lindsay Ma	ngin	12/8/2016 8:34	1:59 AM			Juney	Alego		
Reviewed By:	IO		12/08/16				U	0		
Chain of Custo	0.000		14/00/1							
1 Custody seals		mple bottles?			Yes		No		Not Present ✓	
2. Is Chain of Cu					Yes	~	No		Not Present	
3. How was the s	sample delive	ered?			Cour	er				
l na la										
Log In										
4. Was an attem	npt made to d	cool the samp	les?		Yes	•	No	•	NA	
5. Were all samp	oles received	l at a tempera	ture of >0° C to 6.0)°C	Yes	V	No		NA	
6. Sample(s) in p	proper conta	iner(s)?			Yes	✓.	No			
7. Sufficient sam	ple volume f	or indicated to	est(s)?		Yes	v ;	No			
8. Are samples (except VOA	and ONG) pro	perly preserved?		Yes	V .	No			
9. Was preserval	tive added to	bottles?			Yes		No	v	NA	
10.VOA vials hav	e zero head:	space?			Yes		No	1	No VOA Vials ✔	
11. Were any san			roken?		Yes					
	•							!	# of preserved bottles checked	
12.Does paperwo					Yes	~	No		for pH:	10
(Note discrepa					Vac		No		Adjusted?	or >12 unless noted)
13. Are matrices of 14. Is it clear what					Yes	V.	No			
15. Were all holding					Yes	1	No		Checked by:	
(If no, notify co	-									
Special Handli										
16. Was client not	tified of all di	screpancies w	rith this order?	100	Yes	į	No	•	NA 🗸	
Person I	Notified:			Date:	hand the distance		1 AMERICAN AND AND AND AND AND AND AND AND AND A	*********		
By Who		distribute (file) shares a comment to the file file.		Via:	eMa	il	Phone ;	Fax	In Person	
Regardin			Additional and the second							
Client In	structions:									
17. Additional ren	narks:									
18. Cooler Inform										
Cooler No		Condition	Seal Intact Sea	No S	Seal Da	ite	Signed I	Ву		
1	1.1	Good	Yes					l		

C	hain	-of-Cu	istody Record	Turn-Around	Time:	Same Day					IAI		E	MV	TE	20	NIA	AFI	ATE	
ent:	Rule	Engine	ering, LLU	☐ Standard	⊈ Rush	Same Day				A	N	AL	YS	SIS	S L	AE	30		TOI	1
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	tation			Sampler: Ju	istin Valo	dez		TPH (Gas only)	0/	=	=	270		Š	808					Î
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EDD	(Type)	T		Sample Tem	perature:			MTBE	3 (G	pa	po	0 0	etal	Z	cide	3	>-			5
ate	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALINO: 1	BTEX + TATES	+	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
1/16	1015	Soil	50-1	Har Coluss	(dd	-001	+	_	+											
1/16	1015	Soil	56-9	402 Glass	Cold	-002	+		+											
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ie: 1/16 :e:	Time: 1822 Time:	Relinquish Relinquish	in Valet	Received by:	at.	Date Time	Ren	nark	s:	Bill	to	0	onoi	Œ	Ph	illi	15			
1/10	1910	11/	Trait		XI	208/160810														
11	necessary,	samples sub	mitted to Half Environmental may be sub-	contracted to other a	condited laboratori-	es. This serves as notice of th	is possi	bility	Any su	ıb-conti	racted	data	will be	e dear	ty nota	ated or	n the a	alytical	report.	



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

December 12, 2016

Heather Woods

Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401

TEL: (505) 325-1055

FAX

RE: Davis A Federal #1

OrderNo.: 1612403

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

Only

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1612403

Date Reported: 12/12/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Davis A Federal #1

Lab ID: 1612403-001

Client Sample ID: SC-2

Collection Date: 12/7/2016 10:20:00 AM

Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANIC	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/9/2016 2:53:29 PM	29082
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2016 2:53:29 PM	29082
Surr: DNOP	83.4	70-130	%Rec	1	12/9/2016 2:53:29 PM	29082
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/9/2016 6:58:59 PM	29078
Surr: BFB	85.7	68.3-144	%Rec	1	12/9/2016 6:58:59 PM	29078
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/9/2016 6:58:59 PM	29078
Toluene	ND	0.049	mg/Kg	1	12/9/2016 6:58:59 PM	29078
Ethylbenzene	ND	0.049	mg/Kg	1	12/9/2016 6:58:59 PM	29078
Xylenes, Total	ND	0.098	mg/Kg	1	12/9/2016 6:58:59 PM	29078
Surr: 4-Bromofluorobenzene	93.5	80-120	%Rec	1	12/9/2016 6:58:59 PM	29078

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 1 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1612403

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/12/2016

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

 Project:
 Davis A Federal #1
 Collection Date: 12/7/2016 10:25:00 AM

 Lab ID:
 1612403-002
 Matrix: SOIL
 Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/9/2016 3:20:25 PM	29082
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/9/2016 3:20:25 PM	29082
Surr: DNOP	86.3	70-130	%Rec	1	12/9/2016 3:20:25 PM	29082
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/9/2016 7:22:27 PM	29078
Surr: BFB	84.5	68.3-144	%Rec	1	12/9/2016 7:22:27 PM	29078
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.025	mg/Kg	1	12/9/2016 7:22:27 PM	29078
Toluene	ND	0.050	mg/Kg	1	12/9/2016 7:22:27 PM	29078
Ethylbenzene	ND	0.050	mg/Kg	1	12/9/2016 7:22:27 PM	29078
Xylenes, Total	ND	0.099	mg/Kg	1	12/9/2016 7:22:27 PM	29078
Surr: 4-Bromofluorobenzene	91.6	80-120	%Rec	1	12/9/2016 7:22:27 PM	29078

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 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1612403

Date Reported: 12/12/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Davis A Federal #1

Lab ID: 1612403-003

Client Sample ID: SC-4

Collection Date: 12/7/2016 10:30:00 AM

Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL Q	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANC	SE ORGANIC	s			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/9/2016 3:46:56 PM	29082
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2016 3:46:56 PM	29082
Surr: DNOP	86.0	70-130	%Rec	1	12/9/2016 3:46:56 PM	29082
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/9/2016 7:45:49 PM	29078
Surr: BFB	85.3	68.3-144	%Rec	1	12/9/2016 7:45:49 PM	29078
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	12/9/2016 7:45:49 PM	29078
Toluene	ND	0.049	mg/Kg	1	12/9/2016 7:45:49 PM	29078
Ethylbenzene	ND	0.049	mg/Kg	1	12/9/2016 7:45:49 PM	29078
Xylenes, Total	ND	0.098	mg/Kg	1	12/9/2016 7:45:49 PM	29078
Surr: 4-Bromofluorobenzene	92.2	80-120	%Rec	1	12/9/2016 7:45:49 PM	29078

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 3 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1612403

Date Reported: 12/12/2016

12/9/2016 8:09:12 PM

29078

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project:

Lab ID:

Davis A Federal #1

1612403-004

Surr: 4-Bromofluorobenzene

Client Sample ID: SC-5

Collection Date: 12/7/2016 10:35:00 AM Received Date: 12/8/2016 8:10:00 AM

Result PQL Qual Units **Analyses DF** Date Analyzed Batch **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: TOM Diesel Range Organics (DRO) ND 9.8 mg/Kg 12/9/2016 4:13:36 PM 29082 Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/9/2016 4:13:36 PM 29082 Surr: DNOP 85.8 70-130 %Rec 12/9/2016 4:13:36 PM 29082 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 4.9 mg/Kg 12/9/2016 8:09:12 PM 29078 Surr: BFB 84.1 68.3-144 %Rec 1 12/9/2016 8:09:12 PM 29078 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.024 mg/Kg 12/9/2016 8:09:12 PM 29078 1 Toluene 0.049 ND mg/Kg 12/9/2016 8:09:12 PM 29078 Ethylbenzene ND 0.049 mg/Kg 12/9/2016 8:09:12 PM 29078 Xylenes, Total ND 0.098 mg/Kg 1 12/9/2016 8:09:12 PM 29078

80-120

%Rec

Matrix: SOIL

91.0

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 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1612403

Date Reported: 12/12/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Davis A Federal #1

Lab ID: 1612403-005

Client Sample ID: SC-6

Collection Date: 12/7/2016 10:40:00 AM

Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	s			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/9/2016 4:40:07 PM	29082
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/9/2016 4:40:07 PM	29082
Surr: DNOP	84.8	70-130	%Rec	1	12/9/2016 4:40:07 PM	29082
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/9/2016 8:32:38 PM	29078
Surr: BFB	85.7	68.3-144	%Rec	1	12/9/2016 8:32:38 PM	29078
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.023	mg/Kg	1	12/9/2016 8:32:38 PM	29078
Toluene	ND	0.047	mg/Kg	1	12/9/2016 8:32:38 PM	29078
Ethylbenzene	ND	0.047	mg/Kg	1	12/9/2016 8:32:38 PM	29078
Xylenes, Total	ND	0.093	mg/Kg	1	12/9/2016 8:32:38 PM	29078
Surr: 4-Bromofluorobenzene	92.5	80-120	%Rec	1	12/9/2016 8:32:38 PM	29078

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 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1612403

Date Reported: 12/12/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Davis A Federal #1

Lab ID: 1612403-006

Client Sample ID: SC-7

Collection Date: 12/7/2016 12:40:00 PM

Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL Qu	ıal Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	том
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	12/9/2016 5:06:38 PM	29082
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/9/2016 5:06:38 PM	29082
Surr: DNOP	87.1	70-130	%Rec	1	12/9/2016 5:06:38 PM	29082
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/9/2016 8:56:05 PM	29078
Surr: BFB	88.0	68.3-144	%Rec	1	12/9/2016 8:56:05 PM	29078
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	12/9/2016 8:56:05 PM	29078
Toluene	ND	0.048	mg/Kg	1	12/9/2016 8:56:05 PM	29078
Ethylbenzene	ND	0.048	mg/Kg	1	12/9/2016 8:56:05 PM	29078
Xylenes, Total	ND	0.097	mg/Kg	1	12/9/2016 8:56:05 PM	29078
Surr: 4-Bromofluorobenzene	92.9	80-120	%Rec	1	12/9/2016 8:56:05 PM	29078

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 6 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order 1612403

Date Reported: 12/12/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Davis A Federal #1

Lab ID: 1612403-007

Client Sample ID: SC-8

Collection Date: 12/7/2016 12:55:00 PM

Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANIC	S			Analyst	: TOM
Diesel Range Organics (DRO)	19	9.5	mg/Kg	1	12/9/2016 5:33:25 PM	29082
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2016 5:33:25 PM	29082
Surr: DNOP	88.0	70-130	%Rec	1	12/9/2016 5:33:25 PM	29082
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/9/2016 9:19:36 PM	29078
Surr: BFB	84.1	68.3-144	%Rec	1	12/9/2016 9:19:36 PM	29078
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.024	mg/Kg	1	12/9/2016 9:19:36 PM	29078
Toluene	ND	0.048	mg/Kg	1	12/9/2016 9:19:36 PM	29078
Ethylbenzene	ND	0.048	mg/Kg	1	12/9/2016 9:19:36 PM	29078
Xylenes, Total	ND	0.096	mg/Kg	1	12/9/2016 9:19:36 PM	29078
Surr: 4-Bromofluorobenzene	90.1	80-120	%Rec	1	12/9/2016 9:19:36 PM	29078

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 7 of 10
- 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#: 1612403

12-Dec-16

Client: Project:

Rule Engineering LLC Davis A Federal #1

Sample ID LCS-29082

SampType: LCS

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS

Batch ID: 29082

RunNo: 39269

Prep Date: 12/8/2016

SeqNo: 1230208

Units: mg/Kg

124

130

Analysis Date: 12/9/2016

HighLimit

Analyte Diesel Range Organics (DRO)

Sample ID MB-29082

Result PQL SPK value SPK Ref Val 47 50.00 10 4.7 5.000

%REC LowLimit 93.1

93.7

RPDLimit Qual

Surr: DNOP

SampType: MBLK

SPK value SPK Ref Val %REC

TestCode: EPA Method 8015M/D: Diesel Range Organics

%RPD

Client ID: **PBS** Prep Date:

Surr: DNOP

12/8/2016

Batch ID: 29082 Analysis Date: 12/9/2016 RunNo: 39269 SeqNo: 1230209

Units: mg/Kg

HighLimit

130

%RPD

RPDLimit Qual

Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)

Result PQL ND 10 ND 50

10

10.00

100

70

62.6

LowLimit

70

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

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

Page 8 of 10

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#: 1612403

12-Dec-16

Client:

Rule Engineering LLC

Project:

Davis A Federal #1

MB-29078 Sample ID

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS** Batch ID: 29078

PQL

5.0

RunNo: 39283

Prep Date:

Analyte

12/8/2016

Analysis Date: 12/9/2016

SeqNo: 1229674

Units: mg/Kg

HighLimit

Qual

Gasoline Range Organics (GRO)

ND 860

85.7

RPDLimit %RPD

Surr: BFB

Result

1000

68.3

LowLimit

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

144

Sample ID LCS-29078

LCSS

Batch ID: 29078

RunNo: 39283

Analyte

Client ID:

Prep Date: 12/8/2016

Analysis Date: 12/9/2016 PQL

SeqNo: 1229675

Units: mg/Kg HighLimit

Gasoline Range Organics (GRO)

Result 23 920 SPK value 25.00

91.9

LowLimit 74.6

%RPD **RPDLimit**

Qual

Surr: BFB

5.0 1000

SPK Ref Val

SPK value SPK Ref Val %REC

92.3

%REC

68.3

123 144

Qualifiers:

D

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

- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 9 of 10

Hall Environmental Analysis Laboratory, Inc.

SampType: MBLK

12-Dec-16

1612403

WO#:

Rule Engineering LLC Client: Davis A Federal #1 Project:

Sample ID MB-29078

Client ID: PBS Batch ID: 29078 RunNo: 39283

Prep Date: 12/8/2016 Analysis Date: 12/9/2016 SeqNo: 1229693 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit Result PQL HighLimit %RPD **RPDLimit** Qual Analyte ND Benzene 0.025 Toluene ND 0.050 ND 0.050 Ethylbenzene Xylenes, Total ND 0.10 Surr: 4-Bromofluorobenzene 0.95 1.000 94.5 80 120

TestCode: EPA Method 8021B: Volatiles

TestCode: EPA Method 8021B: Volatiles Sample ID LCS-29078 SampType: LCS Client ID: Batch ID: 29078 RunNo: 39283 Prep Date: 12/8/2016 Analysis Date: 12/9/2016 SeqNo: 1229694 Units: mg/Kg Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte 0.92 0.025 1.000 0 91.9 75.2 115 Benzene 0.050 0 95.1 80.7 Toluene 0.95 1.000 112 0.95 0.050 1.000 0 94.6 78.9 117 Ethylbenzene 2.9 0 Xylenes, Total 0.10 3.000 954 79.2 115 Surr: 4-Bromofluorobenzene 0.98 1.000 98.5 80 120

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
- RPD outside accepted recovery limits R
- % 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

Page 10 of 10

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



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NAI 87109

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

Sample Log-In Check List

Clie	ent Name: RULE ENG	INEERING LL	Work Order Number	16124	103		Rop	1No: 1
Rec	eived by/date: LM	, , , , , , ,	12/08/16					
	ged By: Andy Jans	son	12/8/2016 8:10:00 AM 12 (08 (16			anymor		
Rev	lewed By.		12/08/16					
Cha	in of Custody		1					
1.	Custody seals intact on s	ample bottles?		Yes		No	Not Present	V
2.	Is Chain of Custody comp	olete?		Yes	Y	No 🗌	Not Present	
3.	How was the sample deliv	vered?		Cour	ier			
Lo	a In							
4.	Was an attempt made to	cool the samples?	>	Yes	V	No 🗆	NA	
5.	Were all samples receive	d at a temperature	of >0° C to 6.0°C	Yes	V	No 🗆	NA	
6.	Sample(s) in proper conta	ainer(s)?		Yes	V	No 🗌		
7.	Sufficient sample volume	for indicated test(s	3)7	Yes	~	No 🗆		
8.	Are samples (except VOA	and ONG) proper	ly preserved?	Yes	~	No 🗆		
9.	Was preservative added to	o bottles?		Yes		No 🗹	NA	
10.	VOA vials have zero head	Ispace?		Yes		No 🗆	No VOA Vials	✓
11.	Were any sample contain	ners received broke	en?	Yes		No 🗸	# of preserved	
12	Does paperwork match bo	ottle inhele?		Yes		No 🗔	bottles checker for pH:	d
	(Note discrepancies on ch			165		140		(<2 or >12 unless noted)
	Are matrices correctly idea		Custody?	Yes	4	No 🗌	Adjusted	?
14.	Is it clear what analyses w	vere requested?		Yes	~	No .		
	Were all holding times abl (If no, notify customer for			Yes	V	No 🗆	Checked	by:
Spe	cial Handling (if app	olicable)						
	Was client notified of all d		this order?	Yes		No 🗌	NA	$\overline{\mathbf{Z}}$
	Person Notified:		Date					
	By Whom:		Via:	eMa	il 🗌	Phone Fax	In Person	
	Regarding:							
	Client Instructions:							-
17.	Additional remarks:	****						
18.	Cooler Information	la						
	Cooler No Temp °C 1.1		eal Intact Seal No 3	Seal Da	ite	Signed By	-	

C	hain-	-of-Cu	stody Record						IA		E	NIV	TE	20	NI B	1EI	MIT	ΔI			
ent:	Rule I	Engine	ering, LLC	☐ Standard	 Rush	3-Day		300										RA			•
		3	3	Project Name) :				かに	1	www	v.hal	lenv	roni	ment	tal.co	om				
ailing	Address	501 P	tipport Dr. Suite 205	Davis AF	rederal #	1		49	01 H	awki	ns N	E -	Alb	uqu	erqu	e, NI	M 87	109			
	mytos		8740	Project #:				Te	el. 50	5-34	5-39	75	F	ax	505-	345-	4107	7			
ione	#: 5	705 79	13 9486	1								A	naly	sis	Req	uest					3
-			e@ rule engineering.com	Project Mana	ger:			ly)	MRO)					(%)							
	Package:	0	3 3				(8021)	sor	M			6		38,	PCB's						
Star	ndard		☐ Level 4 (Full Validation)	Heatner	woods		8	(Gas only)	DRO/			SIMS)		PO	PC						
cred	itation				istin Vald	67.	曲	ТРН	-	=	=	8270		Š	3082						=
NEL	.AP	☐ Othe	er	On loe:	Yes	□ No	+	+	(GRO	418.1)	504.1)			03,1	3/8		₹				010
EDD	(Type)			Sample Tem	perature:			MTBE	(0	9d 4	20	0	stals	Ž	ide	8	2				ح
)ate	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + M	BTEX + MT	TPH 8015B	TPH (Method	EDB (Method	PAH's (8310 or	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
Itali	1020	Soil	54-2	402 Glass	Cold	-001	+		+												
1	1025		St-3	1		-002	+		+							100	ALL STREET				
	1030		56-4			-003	+		+												
	1035		51-5			-004	+		+												
	1040		86-6			-005	+		4												
	1240		56-7			-006	+		+												
1	MAG	t	56-8	J	1	-007	+		+												
							_												_		
							_							_				_	+	_	_
							-							_					+	+	+
							+	_					_	-			\vdash	\dashv	+	+	+
	T	2	adhir I A A	Quantized but		Date Time	D													\perp	
ate: 7/16	1822	Religiquish	In John	Reserved by:	iat	12/7/10 1874	- Rei	nark Ne	s:	Bil	1	b (ma	00	R	illi	B				
ate:	Time:	Refinquish	ed by:	Roodived by:	1	Date) Time	7		~ (1				
1/10	1911	1 Chr	Walls		X	12/08/12/08/1	7														
	If necessary,	samples sub	mitted to Half Environmental may be sub-	contracted to other a	ocredited laboratorie	es. This serves as notice of th	is possi	bility.	Any su	ib-cont	racte	d data	will be	e dear	rly note	ated on	1 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

December 14, 2016

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

FAX

RE: David A Federal #1 OrderNo.: 1612428

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1612428

Date Reported: 12/14/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Project: Lab ID:

1612428-001

David A Federal #1

Matrix: SOIL

Client Sample ID: SC-10

Collection Date: 12/7/2016 3:00:00 PM

Received Date: 12/8/2016 8:10:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	S			Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/13/2016 3:23:43 P	M 29134
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/13/2016 3:23:43 P	M 29134
Surr: DNOP	87.4	70-130	%Rec	1	12/13/2016 3:23:43 P	M 29134
EPA METHOD 8015D: GASOLINE RAN	IGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/12/2016 12:11:47	PM 29099
Surr: BFB	89.0	68.3-144	%Rec	-1	12/12/2016 12:11:47	PM 29099
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.025	mg/Kg	1	12/12/2016 12:11:47	PM 29099
Toluene	ND	0.049	mg/Kg	1	12/12/2016 12:11:47	PM 29099
Ethylbenzene	ND	0.049	mg/Kg	1	12/12/2016 12:11:47	PM 29099
Xylenes, Total	ND	0.099	mg/Kg	1	12/12/2016 12:11:47	PM 29099
Surr: 4-Bromofluorobenzene	96.2	80-120	%Rec	1	12/12/2016 12:11:47	PM 29099

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

- 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
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 4 J
- 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#: 1612428

14-Dec-16

Client:

Rule Engineering LLC

Project:

David A Federal #1

Sample	ID	1612428-001AM

SampType: MS

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: SC-10

RunNo: 39356

Batch ID: 29134

Prep Date: 12/12/2016 Analysis Date: 12/13/2016

SeqNo: 1231855

Units: mg/Kg

HighLimit

Analyte Diesel Range Organics (DRO)

%RPD

Result %REC PQL SPK value SPK Ref Val LowLimit 43 93 46.64 92 5 Surr: DNOP 3.9 4.664 83.5

51.6 130 70 130

TestCode: EPA Method 8015M/D: Diesel Range Organics

RPDLimit

Qual

Sample ID LCS-29134

Client ID:

SampType: LCS

Batch ID: 29134

PQL

RunNo: 39356

Prep Date: 12/12/2016

LCSS

Analysis Date: 12/13/2016

Result

SPK value

SeqNo: 1231856

Units: mg/Kg

HighLimit %RPD 63.8

130

Analyte Diesel Range Organics (DRO) Surr: DNOP

Sample ID MB-29134

44 10 50.00 4.2 5.000

%REC SPK Ref Val LowLimit 89.0 84.4

116

RPDLimit Qual

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

%RPD

Client ID:

PBS

Batch ID: 29134

RunNo: 39356

Prep Date:

12/12/2016

Analysis Date: 12/13/2016

SeaNo: 1231857

Units: mg/Kg

HighLimit

Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Result PQL ND 10 ND

7.8

4.5

50

10.00

4.717

SPK value SPK Ref Val %REC LowLimit

70

70

RPDLimit Qual

Qual

Sample ID 1612428-001AMSD

Surr: DNOP

SampType: MSD Batch ID: 29134 TestCode: EPA Method 8015M/D: Diesel Range Organics

95.9

78.0

RunNo: 39356 SeqNo: 1232100

Client ID: Prep Date: 12/12/2016

SC-10

Analysis Date: 12/13/2016

Units: mg/Kg

130

RPDLimit 20

0

Analyte Diesel Range Organics (DRO)

Surr: DNOP

Result PQL 50 9.4

SPK value SPK Ref Val 47.17

%REC

LowLimit 107 51.6

HighLimit 70

130 15.6 130 0

%RPD

Qualifiers:

R

- 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
- 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
- Page 2 of 4

- 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#:

1612428

14-Dec-16

Client:

Rule Engineering LLC

Project:

David A Federal #1

Sample ID MB-29099

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 29099

RunNo: 39314

Prep Date: 12/9/2016

Analysis Date: 12/12/2016

SeqNo: 1230865

Units: mg/Kg

HighLimit

Result PQL Analyte 5.0 SPK value SPK Ref Val %REC

LowLimit

144

Qual

Gasoline Range Organics (GRO)

ND 860

1000

86.2

68.3

%RPD **RPDLimit**

Surr: BFB Sample ID LCS-29099

SampType: LCS

TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Prep Date: 12/9/2016

Batch ID: 29099 Analysis Date: 12/12/2016 RunNo: 39314

%REC

HighLimit

SPK Ref Val

SeqNo: 1230866

Units: mg/Kg

Analyte Gasoline Range Organics (GRO) Result 23

SPK value 5.0 25.00

91.0 94.2 74.6

123

RPDLimit

Qual

Surr: BFB

940

1000

%RPD

68.3

LowLimit

144

Qualifiers:

H

R

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- ND Not Detected at the Reporting Limit

RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

Holding times for preparation or analysis exceeded

- Analyte detected in the associated Method Blank B
- Value above quantitation range E
- Analyte detected below quantitation limits J

Page 3 of 4

Sample pH Not In Range

RL

Reporting Detection Limit Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

WO#:

1612428 14-Dec-16

Rule Engineering LLC Client: David A Federal #1 Project:

Sample ID MB-29099	SampT	ype: ME	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch	n ID: 29	099	R	RunNo: 3					
Prep Date: 12/9/2016	Analysis D	ate: 12	2/12/2016	S	SeqNo: 1	230878	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	0.95		1.000		95.4	80	120			

Sample ID LCS-29099	SampT	ype: LC	S	Test	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	ID: 29	099	R	RunNo: 3	9314				
Prep Date: 12/9/2016	Analysis D	ate: 12	2/12/2016	S	SeqNo: 1	230879	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	75.2	115			
Toluene	1.0	0.050	1.000	0	103	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	99.9	78.9	117			
Xylenes, Total	3.0	0.10	3.000	0	99.4	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID 1612428-001AMS	Samp1	SampType: MS TestCode: EPA Method 8021B: Volatiles									
Client ID: SC-10	Batcl	Batch ID: 29099 RunNo: 39314									
Prep Date: 12/9/2016	Analysis D	Date: 12	2/12/2016	6 SeqNo: 1230887 Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.91	0.025	0.9843	0	92.0	61.5	138				
Toluene	0.91	0.049	0.9843	0	92.9	71.4	127				
Ethylbenzene	0.91	0.049	0.9843	0	92.6	70.9	132				
Xylenes, Total	2.8	0.098	2.953	0	93.3	76.2	123				
Surr: 4-Bromofluorobenzene	0.98		0.9843		99.5	80	120				

Sample ID	1612428-001AMS	Samply	pe: MS	SD	les	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	SC-10	Batch ID: 29099 RunNo: 39314									
Prep Date:	12/9/2016	Analysis Da	ate: 12	2/12/2016	8	SeqNo: 1230896		Units: mg/k	(g		
Analyte	Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.023	0.9225	0	99.5	61.5	138	1.34	20	
Toluene		0.88	0.046	0.9225	0	95.5	71.4	127	3.72	20	
Ethylbenzene		0.86	0.046	0.9225	0	92.8	70.9	132	6.33	20	
Xylenes, Total		2.6	0.092	2.768	0	92.6	76.2	123	7.21	20	
Surr: 4-Bromofluorobenzene		0.92		0.9225		100	80	120	0	0	

Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

RPD outside accepted recovery limits R

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits Page 4 of 4

P Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4197 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: RULE	ENGINEERING LL	Work Order Number:	1612428		RcptNo: 1	
Received by/date:	LM	12/08/16				
Logged By: Andy	Jansson	12/8/2016 8:10:00 AM		where		
Completed By: An	0/ Jansson	12/08/16	1			
Reviewed By:	2	19 09	lue			
Chain of Custody	, /	•	'			
1. Custody seals intac	t on sample bottles?		Yes	No 🗌	Not Present	
2. Is Chain of Custody	complete?		Yes 🗸	No	Not Present	
3. How was the sample	e delivered?		Courier			
Log In						
4. Was an attempt ma	ade to cool the samples	?	Yes V	No	NA 🗌	
5. Were all samples re	eceived at a temperatur	e of >0° C to 6.0°C	Yes 🗸	No 🗆	NA	
6. Sample(s) in prope	r container(s)?		Yes 🗸	No 🗌		
7. Sufficient sample ve	olume for indicated test	(s)?	Yes 🗸	No 🗌		
8. Are samples (excep	t VOA and ONG) prope	erly preserved?	Yes Y	No 🗌		
9. Was preservative a	dded to bottles?		Yes	No 🗸	NA 🗌	
10.VOA vials have zero	o headspace?		Yes	No 🗀	No VOA Vials	
11, Were any sample of	containers received brok	en?	Yes	No 🗸	# of preserved	
12. Does paperwork ma	atch hottle labele?		Yes 🗹	No 🗆	bottles checked for pH:	
country of the state of the sta	on chain of custody)		res 💌	140	ONE TO BE SETTING THE PERSON	12 unless noted)
13. Are matrices correct	tly identified on Chain o	f Custody?	Yes 🗸	No 🗆	Adjusted?	
14. Is it clear what anal	yses were requested?		Yes 🗹	No 🗆		
15. Were all holding tim (If no, notify custom	nes able to be met? ner for authorization.)		Yes 🗹	No 🗌	Checked by:	(1)
Special Handling (if applicable)					
16. Was client notified		this order?	Yes	No 🗆	NA 🗹	
Person Notifie	ed:	Date				
By Whom:		Via:	eMail	Phone Fax	In Person	
Regarding:						
Client Instruct	tions:					
17. Additional remarks			and the second second			
18. Cooler Informatio	<u>n</u>					
Cooler No Te		Seal Intact Seal No 5	Seal Date	Signed By		
2 1.1	Good Ye	98				
Carlo Printer Carlo II					er ber den ern speri det den ern	C 1885 1880 1880 1881 188

Chain-of-Custody Record			Turn-Around Time:						-	-1.0		F	NV	TE	30	NP	ИF	NT	ΔΙ			
							HALL ENVIRONMENTAL ANALYSIS LABORATORY															
J							www.hallenvironmental.com															
failing Address: 501 Angont Dr. Shife			David A Federal #1			4901 Hawkins NE - Albuquerque, NM 87109																
D5 Farmington NM 87401				Project #: Project Manager: Heather Woods				Tel. 505-345-3975						Fax 505-345-4107								
mail or Fax#: jualde r @ weengineering, (OM) A/OC Package: Standard Level 4 (Full Validation)			Analysis Request																			
			TPH (Gas only)					IRO)					(°	S								
								RO/M			SIMS)		2,PO4,S	2 PCB					- Annie de la company de la co			
ccreditation NELAP Other				Sampler: Justin Valdez On lee: 12 Yes □ No				+ TPI	0/0	18.1)	504.1)	8270		3,NO	/ 808		A)				or N	
] EDD	(Type)			Sample Tem	TO A SECURE WHEN AND ADDRESS OF THE PARTY OF		開	BE.	95	od 4.)g pc	0 0	stals	N.	ides	8	-40				ζ.	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. \ 6 \ \ Z 4 \ Z 8	BTEX +	BTEX + MTBE +	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method	PAH's (8310	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)	
17/16	1500	Soil	56-10	Hoz Glass	Cold	- 001	X		X										The second			
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)ate; 7 6 2 6 7 6 7 6 7 6 7 6 7 6 7 6 7 7	Time: \$22 Time: 1916 1	Relinquishe Relinquishe	lin Jalle	Received by:	Last	Date Time		nark:		incu	+	Bi	11	to	Co	noi	D (Mil	llips	>		
		samples subr	mitted to Hall Environmental may be sub-	contracted to other a	ccredited laboratorie	7 08116 081 es. This serves as notice of thi		bility.	Any st	ıb-cön	tracte	d data	will be	e clear	ly nota	ated or	n the a	nalytic	si report	t		