

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company Hilcorp Energy Company	Contact Clara Cardoza
Address 9a CR 5793	Telephone No. 505-564-0733
Facility Name Zachry 16E	Facility Type Well

Surface Owner Federal (SF-080724-A)	Mineral Owner Federal	API No. 30-045-24434
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LOCATION OF RELEASE

Unit Letter P	Section 33	Township 29N	Range 10W	Feet from the 830	North/South Line South	Feet from the 830	East/West Line East	County San Juan
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Latitude 36.6776352 Longitude -107.8841248 NAD83

NATURE OF RELEASE

Type of Release Hydrocarbon	Volume of Release 65 bbl	Volume Recovered none
Source of Release Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 12/20/2017 12:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith & Whitney Thomas	
By Whom? Clara Cardoza	Date and Hour 12/21/2017 07:33 am – Cory Smith 12/21/2017 10:04 a.m.- Whitney Thomas	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

NMOCD

APR 23 2018

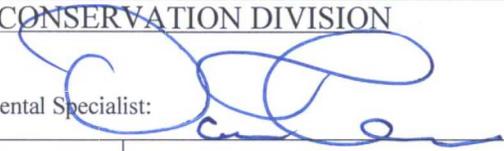
DISTRICT III

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
During field operator's routine visit to site to gauge the tank it was empty. Upon further investigation staining on the ground near the tank manway revealed corrosion which caused the release. **SITE RANK 10.**

Describe Area Affected and Cleanup Action Taken.*
Hilcorp Energy began excavation of the site on December 23, 2017 with environmental contractor onsite to perform field screening. **Approximately 5040 cubic yards of soil was removed from this excavation. Soil removal was completed on January 4, 2018 and confirmation sampling was conducted on January 6th. Attached is a site map of the excavation and final sample results.**

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Clara Cardoza	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: <u>5/17/18</u>	Expiration Date:
E-mail Address: ccardoza@hilcorp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 04/16/2018 Phone: 505-564-0733		

* Attach Additional Sheets If Necessary

NVF 1735626321

Legend

-  Soil Sample
-  Zachry #16E Wellhead
-  Approximate Inner Wall of Excavation
-  Former Above Ground Storage Tank (AGT)
-  Former Below Grade Tank (BGT)
-  Former Berm
-  Former Separator

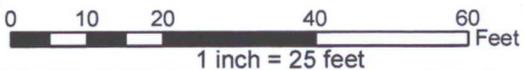
Zachry #16E Wellhead Monument
GPS: 36.67755, -107.88427

Former Separator



Source: Google Maps

Rule Engineering, LLC
Solutions to Regulations for Industry



P-S33-T29N-R10W
N36.67764, W107.88413
San Juan County, NM
API: 30-045-24434

Figure A
Site Assessment Map
Zachry #16E



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

January 10, 2018

Heather Woods

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

RE: HEC Zachry 16E

OrderNo.: 1801311

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 12 sample(s) on 1/6/2018 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project: HEC Zachry 16E

Collection Date: 1/5/2018 1:12:00 PM

Lab ID: 1801311-001

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/9/2018 2:46:58 PM	35915
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	1/9/2018 2:46:58 PM	35915
Surr: DNOP	102	70-130		%Rec	1	1/9/2018 2:46:58 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/9/2018 8:03:35 PM	35911
Surr: BFB	82.9	15-316		%Rec	1	1/9/2018 8:03:35 PM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	1/9/2018 8:03:35 PM	35911
Toluene	ND	0.049		mg/Kg	1	1/9/2018 8:03:35 PM	35911
Ethylbenzene	ND	0.049		mg/Kg	1	1/9/2018 8:03:35 PM	35911
Xylenes, Total	ND	0.098		mg/Kg	1	1/9/2018 8:03:35 PM	35911
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	1/9/2018 8:03:35 PM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
 Project: HEC Zachry 16E
 Lab ID: 1801311-002

Matrix: SOIL

Client Sample ID: SC-2
 Collection Date: 1/5/2018 1:19:00 PM
 Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/9/2018 3:09:11 PM	35915
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	1/9/2018 3:09:11 PM	35915
Surr: DNOP	101	70-130		%Rec	1	1/9/2018 3:09:11 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/9/2018 9:14:33 PM	35911
Surr: BFB	82.8	15-316		%Rec	1	1/9/2018 9:14:33 PM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/9/2018 9:14:33 PM	35911
Toluene	ND	0.048		mg/Kg	1	1/9/2018 9:14:33 PM	35911
Ethylbenzene	ND	0.048		mg/Kg	1	1/9/2018 9:14:33 PM	35911
Xylenes, Total	ND	0.096		mg/Kg	1	1/9/2018 9:14:33 PM	35911
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	1/9/2018 9:14:33 PM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project: HEC Zachry 16E

Collection Date: 1/5/2018 1:26:00 PM

Lab ID: 1801311-003

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	30	9.6		mg/Kg	1	1/9/2018 3:31:21 PM	35915
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/9/2018 3:31:21 PM	35915
Surr: DNOP	99.0	70-130		%Rec	1	1/9/2018 3:31:21 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	10	4.6		mg/Kg	1	1/9/2018 10:25:28 PM	35911
Surr: BFB	149	15-316		%Rec	1	1/9/2018 10:25:28 PM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	1/9/2018 10:25:28 PM	35911
Toluene	ND	0.046		mg/Kg	1	1/9/2018 10:25:28 PM	35911
Ethylbenzene	ND	0.046		mg/Kg	1	1/9/2018 10:25:28 PM	35911
Xylenes, Total	0.11	0.093		mg/Kg	1	1/9/2018 10:25:28 PM	35911
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	1/9/2018 10:25:28 PM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: HEC Zachry 16E

Collection Date: 1/5/2018 1:33:00 PM

Lab ID: 1801311-004

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	1/9/2018 3:53:40 PM	35915
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	1/9/2018 3:53:40 PM	35915
Surr: DNOP	97.3	70-130		%Rec	1	1/9/2018 3:53:40 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2018 12:24:05 AM	35911
Surr: BFB	85.4	15-316		%Rec	1	1/10/2018 12:24:05 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/10/2018 12:24:05 AM	35911
Toluene	ND	0.048		mg/Kg	1	1/10/2018 12:24:05 AM	35911
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2018 12:24:05 AM	35911
Xylenes, Total	ND	0.096		mg/Kg	1	1/10/2018 12:24:05 AM	35911
Surr: 4-Bromofluorobenzene	93.5	80-120		%Rec	1	1/10/2018 12:24:05 AM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-5

Project: HEC Zachry 16E

Collection Date: 1/5/2018 1:41:00 PM

Lab ID: 1801311-005

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/9/2018 4:15:56 PM	35915
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/9/2018 4:15:56 PM	35915
Surr: DNOP	99.7	70-130		%Rec	1	1/9/2018 4:15:56 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/10/2018 12:47:52 AM	35911
Surr: BFB	85.5	15-316		%Rec	1	1/10/2018 12:47:52 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/10/2018 12:47:52 AM	35911
Toluene	ND	0.049		mg/Kg	1	1/10/2018 12:47:52 AM	35911
Ethylbenzene	ND	0.049		mg/Kg	1	1/10/2018 12:47:52 AM	35911
Xylenes, Total	ND	0.098		mg/Kg	1	1/10/2018 12:47:52 AM	35911
Surr: 4-Bromofluorobenzene	95.5	80-120		%Rec	1	1/10/2018 12:47:52 AM	35911

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

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

Analytical Report

Lab Order 1801311

Date Reported: 1/10/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-6

Project: HEC Zachry 16E

Collection Date: 1/5/2018 1:51:00 PM

Lab ID: 1801311-006

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/9/2018 4:38:24 PM	35915
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/9/2018 4:38:24 PM	35915
Surr: DNOP	99.1	70-130		%Rec	1	1/9/2018 4:38:24 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2018 1:11:35 AM	35911
Surr: BFB	93.5	15-316		%Rec	1	1/10/2018 1:11:35 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/10/2018 1:11:35 AM	35911
Toluene	ND	0.048		mg/Kg	1	1/10/2018 1:11:35 AM	35911
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2018 1:11:35 AM	35911
Xylenes, Total	ND	0.096		mg/Kg	1	1/10/2018 1:11:35 AM	35911
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	1/10/2018 1:11:35 AM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7

Project: HEC Zachry 16E

Collection Date: 1/5/2018 2:01:00 PM

Lab ID: 1801311-007

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/9/2018 5:00:35 PM	35915
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/9/2018 5:00:35 PM	35915
Surr: DNOP	102	70-130		%Rec	1	1/9/2018 5:00:35 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/10/2018 1:35:19 AM	35911
Surr: BFB	86.0	15-316		%Rec	1	1/10/2018 1:35:19 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	1/10/2018 1:35:19 AM	35911
Toluene	ND	0.046		mg/Kg	1	1/10/2018 1:35:19 AM	35911
Ethylbenzene	ND	0.046		mg/Kg	1	1/10/2018 1:35:19 AM	35911
Xylenes, Total	ND	0.093		mg/Kg	1	1/10/2018 1:35:19 AM	35911
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	1/10/2018 1:35:19 AM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-8

Project: HEC Zachry 16E

Collection Date: 1/5/2018 2:06:00 PM

Lab ID: 1801311-008

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	97	9.9		mg/Kg	1	1/9/2018 5:22:50 PM	35915
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/9/2018 5:22:50 PM	35915
Surr: DNOP	104	70-130		%Rec	1	1/9/2018 5:22:50 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	170	4.9		mg/Kg	1	1/10/2018 1:58:57 AM	35911
Surr: BFB	735	15-316	S	%Rec	1	1/10/2018 1:58:57 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	1/10/2018 1:58:57 AM	35911
Toluene	0.43	0.049		mg/Kg	1	1/10/2018 1:58:57 AM	35911
Ethylbenzene	1.0	0.049		mg/Kg	1	1/10/2018 1:58:57 AM	35911
Xylenes, Total	7.0	0.099		mg/Kg	1	1/10/2018 1:58:57 AM	35911
Surr: 4-Bromofluorobenzene	134	80-120	S	%Rec	1	1/10/2018 1:58:57 AM	35911

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

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

Analytical Report

Lab Order 1801311

Date Reported: 1/10/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-9

Project: HEC Zachry 16E

Collection Date: 1/5/2018 2:14:00 PM

Lab ID: 1801311-009

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	9.7	9.4		mg/Kg	1	1/9/2018 5:44:56 PM	35915
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/9/2018 5:44:56 PM	35915
Surr: DNOP	105	70-130		%Rec	1	1/9/2018 5:44:56 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/10/2018 2:22:38 AM	35911
Surr: BFB	95.0	15-316		%Rec	1	1/10/2018 2:22:38 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/10/2018 2:22:38 AM	35911
Toluene	ND	0.049		mg/Kg	1	1/10/2018 2:22:38 AM	35911
Ethylbenzene	ND	0.049		mg/Kg	1	1/10/2018 2:22:38 AM	35911
Xylenes, Total	ND	0.098		mg/Kg	1	1/10/2018 2:22:38 AM	35911
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	1/10/2018 2:22:38 AM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-10

Project: HEC Zachry 16E

Collection Date: 1/5/2018 2:20:00 PM

Lab ID: 1801311-010

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/9/2018 6:07:04 PM	35915
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	1/9/2018 6:07:04 PM	35915
Surr: DNOP	98.3	70-130		%Rec	1	1/9/2018 6:07:04 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	1/10/2018 2:46:18 AM	35911
Surr: BFB	85.1	15-316		%Rec	1	1/10/2018 2:46:18 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	1/10/2018 2:46:18 AM	35911
Toluene	ND	0.046		mg/Kg	1	1/10/2018 2:46:18 AM	35911
Ethylbenzene	ND	0.046		mg/Kg	1	1/10/2018 2:46:18 AM	35911
Xylenes, Total	ND	0.093		mg/Kg	1	1/10/2018 2:46:18 AM	35911
Surr: 4-Bromofluorobenzene	93.7	80-120		%Rec	1	1/10/2018 2:46:18 AM	35911

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

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

Analytical Report

Lab Order 1801311

Date Reported: 1/10/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: OB-1

Project: HEC Zachry 16E

Collection Date: 1/5/2018 2:25:00 PM

Lab ID: 1801311-011

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/9/2018 6:29:06 PM	35915
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/9/2018 6:29:06 PM	35915
Surr: DNOP	105	70-130		%Rec	1	1/9/2018 6:29:06 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/10/2018 3:09:53 AM	35911
Surr: BFB	82.3	15-316		%Rec	1	1/10/2018 3:09:53 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/10/2018 3:09:53 AM	35911
Toluene	ND	0.048		mg/Kg	1	1/10/2018 3:09:53 AM	35911
Ethylbenzene	ND	0.048		mg/Kg	1	1/10/2018 3:09:53 AM	35911
Xylenes, Total	ND	0.096		mg/Kg	1	1/10/2018 3:09:53 AM	35911
Surr: 4-Bromofluorobenzene	90.5	80-120		%Rec	1	1/10/2018 3:09:53 AM	35911

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: OB-2

Project: HEC Zachry 16E

Collection Date: 1/5/2018 2:29:00 PM

Lab ID: 1801311-012

Matrix: SOIL

Received Date: 1/6/2018 10:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/9/2018 6:51:13 PM	35915
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/9/2018 6:51:13 PM	35915
Surr: DNOP	95.3	70-130		%Rec	1	1/9/2018 6:51:13 PM	35915
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/10/2018 3:33:30 AM	35911
Surr: BFB	80.8	15-316		%Rec	1	1/10/2018 3:33:30 AM	35911
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/10/2018 3:33:30 AM	35911
Toluene	ND	0.047		mg/Kg	1	1/10/2018 3:33:30 AM	35911
Ethylbenzene	ND	0.047		mg/Kg	1	1/10/2018 3:33:30 AM	35911
Xylenes, Total	ND	0.095		mg/Kg	1	1/10/2018 3:33:30 AM	35911
Surr: 4-Bromofluorobenzene	88.6	80-120		%Rec	1	1/10/2018 3:33:30 AM	35911

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1801311

10-Jan-18

Client: Rule Engineering LLC

Project: HEC Zachry 16E

Sample ID	LCS-35924		SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	LCSS		Batch ID: 35924	RunNo: 48292						
Prep Date:	1/9/2018		Analysis Date: 1/9/2018	SeqNo: 1550980	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.8	70	130			

Sample ID	MB-35924		SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	PBS		Batch ID: 35924	RunNo: 48292						
Prep Date:	1/9/2018		Analysis Date: 1/9/2018	SeqNo: 1550981	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	70	130			

Sample ID	LCS-35915		SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	LCSS		Batch ID: 35915	RunNo: 48292						
Prep Date:	1/8/2018		Analysis Date: 1/9/2018	SeqNo: 1551228	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.7	70	130			
Surr: DNOP	4.8		5.000		96.3	70	130			

Sample ID	MB-35915		SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	PBS		Batch ID: 35915	RunNo: 48292						
Prep Date:	1/8/2018		Analysis Date: 1/9/2018	SeqNo: 1551229	Units: mg/Kg					
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	10		10.00		103	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
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1801311

10-Jan-18

Client: Rule Engineering LLC

Project: HEC Zachry 16E

Sample ID	MB-35880	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	35880	RunNo:	48331					
Prep Date:	1/5/2018	Analysis Date:	1/9/2018	SeqNo:	1552377	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	860		1000		86.1	15	316			

Sample ID	LCS-35880	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	35880	RunNo:	48331					
Prep Date:	1/5/2018	Analysis Date:	1/9/2018	SeqNo:	1552378	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.7	15	316			

Sample ID	MB-35911	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552385	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.2	15	316			

Sample ID	LCS-35911	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552386	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	75.9	131			
Surr: BFB	940		1000		93.7	15	316			

Sample ID	1801311-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552405	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.70	0	122	77.8	128			
Surr: BFB	930		988.1		93.7	15	316			

Sample ID	1801311-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552406	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.9	24.39	0	127	77.8	128	2.91	20	
Surr: BFB	980		975.6		100	15	316	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1801311
10-Jan-18

Client: Rule Engineering LLC
Project: HEC Zachry 16E

Sample ID	MB-35880	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	35880	RunNo:	48331					
Prep Date:	1/5/2018	Analysis Date:	1/9/2018	SeqNo:	1552422	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.2	80	120			

Sample ID	LCS-35880	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	35880	RunNo:	48331					
Prep Date:	1/5/2018	Analysis Date:	1/9/2018	SeqNo:	1552423	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

Sample ID	MB-35911	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552428	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	80	120			

Sample ID	LCS-35911	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552429	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.1	77.3	128			
Toluene	0.96	0.050	1.000	0	95.8	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	97.9	81.6	129			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	80	120			

Sample ID	1801311-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552431	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9653	0	105	80.9	132			
Toluene	1.0	0.048	0.9653	0	108	79.8	136			
Ethylbenzene	1.1	0.048	0.9653	0	109	79.4	140			
Xylenes, Total	3.2	0.097	2.896	0	111	78.5	142			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1801311
10-Jan-18

Client: Rule Engineering LLC
Project: HEC Zachry 16E

Sample ID	1801311-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552431	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		0.9653		94.5	80	120			

Sample ID	1801311-001AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-1	Batch ID:	35911	RunNo:	48331					
Prep Date:	1/8/2018	Analysis Date:	1/9/2018	SeqNo:	1552432	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.023	0.9268	0	105	80.9	132	3.93	20	
Toluene	1.0	0.046	0.9268	0	108	79.8	136	4.28	20	
Ethylbenzene	1.0	0.046	0.9268	0	109	79.4	140	4.54	20	
Xylenes, Total	3.1	0.093	2.780	0	112	78.5	142	3.43	20	
Surr: 4-Bromofluorobenzene	0.90		0.9268		96.6	80	120	0	0	

Qualifiers:

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

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL** Work Order Number: **1801311** RcptNo: **1**

Received By: **Anne Thorne** 1/8/2018 10:30:00 AM *Anne Thorne*
 Completed By: **Sophia Campuzano** 1/8/2018 9:30:34 AM *Sophia Campuzano*
 Reviewed By: **IMO** 1/8/18

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
 2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. VOA vials have zero headspace? Yes No No VOA Vials
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____ (<2 or >12 unless noted) Adjusted? _____ Checked by: _____
--

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

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

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.1	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering, LLC

Mailing Address: 501 Airport Dr. Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

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

Accreditation
 NELAP Other _____

EDD (Type) _____

Turn-Around Time:
Due 1/12/18
 Standard Rush

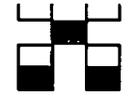
Project Name:
HEC Zachry #16E

Project #:

Project Manager:
Heather Woods

Sampler: Heather Woods

Sample Temperature: 31



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEALTHY	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
1/5/18	1312	Soil	SC-1	(1) 4oz Glass	Non	-001	X	X											
1/5/18	1319	Soil	SC-2	(1) 4oz Glass	Non	-002	X	X											
1/5/18	1326	Soil	SC-3	(1) 4oz Glass	Non	-003	X	X											
1/5/18	1333	Soil	SC-4	(1) 4oz Glass	Non	-004	X	X											
1/5/18	1341	Soil	SC-5	(1) 4oz Glass	Non	-005	X	X											
1/5/18	1351	Soil	SC-6	(1) 4oz Glass	Non	-006	X	X											
1/5/18	1401	Soil	SC-7	(1) 4oz Glass	Non	-007	X	X											
1/5/18	1406	Soil	SC-8	(1) 4oz Glass	Non	-008	X	X											
1/5/18	1414	Soil	SC-9	(1) 4oz Glass	Non	-009	X	X											
1/5/18	1420	Soil	SC-10	(1) 4oz Glass	Non	-010	X	X											
1/5/18	1425	Soil	OB-1	(1) 4oz Glass	Non	-011	X	X											
1/5/18	1429	Soil	OB-2	(1) 4oz Glass	Non	-012	X	X											

Date: 1/5/18 Time: 1635 Relinquished by: Heather M. Woods

Received by: [Signature] Date: 01/06/18 Time: 1030

Remarks: Direct Bill to Hilcorp
C/o Clara Cardoza
Due 1/12/18 No Rush Charge per Andy

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