

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 August 8, 2011

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

## Release Notification and Corrective Action

### OPERATOR

Initial Report    X Final Report

Name of Company: Lucid Energy Delaware	Contact: Kerry Egan
Address: 326 West Quay Artesia, NM 88210	Telephone No.: 575 513-8988
Facility Name: Grace 8" Poly Line	Facility Type: Pipeline ROW

Surface Owner:	Mineral Owner	API No.
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### LOCATION OF RELEASE

Unit Letter	Section 29	Township 22S	Range 32E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32.368724 Longitude -103.696726

### NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release: Unknown MCF of gas	Volume Recovered: None
Source of Release: Pinhole leak on 8" Poly line	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 1-11-2017 9:00AM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume	

**APPROVED**

**By Olivia Yu at 12:51 pm, Mar 07, 2017**



If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* The release was caused by a small leak in an 8" poly gas gathering line. Upon identification, the line was shut in and blown down to prevent further release. Lucid personnel excavated the line as soon as possible to verify the cause of the leak, and to ensure that no further release of gas or liquids occurred.

Describe Area Affected and Cleanup Action Taken.\* There are signs of surface contamination within an area approximately 30' W x 45' L along the ROW. After exposing the line, it appears that the contamination is primarily isolated to the top 18"-24" of the soil. This further indicates a gas leak, with little to no liquids contamination. Lucid personnel have begun to excavate the apparently contaminated material and stockpile it on site. Depending on the results of the soil sampling conducted on 1/12/17, Lucid may propose remediation on site or disposal at an NMOCD landfill.

Update: The soil samples collected from the location show the contamination levels to be below the Recommended Remediation Action Levels (RRAL) for this location. The minimal discoloration in the top 18"-24" of the soil profile does not show to represent significant hydrocarbon contamination. Given that contamination levels are below the RRAL for this location, Lucid requests closure of this release without any further remediation work. Lucid will backfill the excavation and return the area to natural grade.

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: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kerry Egan		Approved by Environmental Specialist: 	
Title: Environmental Tech	Approval Date: <b>3/7/2017</b>	Expiration Date: <b>xx/xx/xxxx</b>	
E-mail Address: KEgan@agaveenergy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: <b>1/31/17</b>	Phone: 575 810-6021		

\* Attach Additional Sheets If Necessary

1RP-4627 is  
approved for  
closure.



**Lucid Energy Delaware**

**Grace 8" Poly Line**

**Sec 29, T22S, R32E**

**Lea County, New Mexico**

**January 16, 2017**

**Updated: January 31, 2017**

## Location

The leak occurred on an 8" Poly gas line in the north half of Sec 29, T22S, R32E. The leak is located along the pipeline ROW and is not associated with any individual facility. The nearest facility to the leak is the Grace Federal #1 Well (EOG-Y owned). From the Grace Fed #1 you must access the leak by traveling south along the ROW for ¾ of a mile.

## Introduction

On January 11, 2017, Lucid Energy Delaware, L.L.C. (Lucid) personnel were conducting a leak survey of the "Bootleg Ridge" gas system. During the survey, they became aware of a release of hydrocarbons along the 8" poly line south of the Grace Fed #1. The suspected cause of the release was the buried 8" poly gas line. This line was immediately shut in, and blown down to prevent further release of gas and/or liquids. As soon as we could, Lucid had contractors on site to excavate the line to verify the cause of the release and to ensure that no residual material was being lost to the soil. Upon excavation, it was discovered that a pinhole leak in the 8" line was the source of the release. The responsible section of line was replaced.

During the excavation of the line it appeared that the resulting contamination was localized to the top 18"-24" of the soil profile. Below this depth, including around and below the pipe itself, there was no indication of contamination (i.e. no free liquids, no staining, no detectable odor). We take this as evidence that the release was primarily gas, with little to no liquids. Otherwise we would expect to see contamination below the pipe as the liquids migrated through the soil profile. The leak occurred in a depression along the ROW that apparently kept the contamination from migrating horizontally by following site topography. This depression is free of vegetation, but we believe this was naturally occurring and not a case where the leak killed off vegetation. There is no dead grass, no dead shrub brush, no dead mesquite or any other plants that indicate vegetation had been growing and was killed by the leak.

Samples have been collected at the point of the rupture to characterize the level and type of contamination.

## Site Ranking

Based on the *Guidelines for Remediation of Leaks, Spills and Releases* (NMOCD, August 13, 1993), hereafter referred to as "the Guidelines", the site ranking criteria are as follows.

**Depth to Ground Water:** The nearest well on record is C-02939 does not record any information regarding the depth to groundwater. Well records for this township show an

average depth to groundwater of 350'. Exhibiting a depth to groundwater of greater than 100' results in a site ranking of 0.

**Wellhead Protection Area:** The nearest water well is C-02939, is located 8,600' to the northwest of the site. According to the *Guidelines*, not being within 1000 feet of a water source results in a site ranking of 0.

**Distance to Surface Water Body:** The nearest surface water body is the Salt Lake, located 17 miles to the west of the site, resulting in a site ranking of 0.

**Total Site Ranking:**

Depth to Ground water	0
Wellhead Protection Area	0
Distance to Surface Water Body	<u>0</u>
Total:	0

## Recommended Remediation Action Level

According to the *Guidelines*, a location with a site ranking of 0 is subject to the following Recommended Remediation Action Level (RRAL).

Benzene	10 ppm
BTEX	50 ppm
TPH	5000 ppm

There are no standards set for chloride contamination set within the *Guidelines*. If chlorides are determined to be present, Lucid will work with the District I Oil Conservation office to determine an appropriate action level, and will attempt to delineate to 1000 ppm chlorides in accordance with standard Bureau of Land Management work practice.

## Proposed Remediation Work

Given the nature of the release, and the inaccessibility of the location, Lucid believes excavation and disposal of the soil may prove unnecessary. If soil samples show contamination levels to be below the RRAL for this site, no further work will be conducted at this site.

If the samples show levels greater than the RRAL, Lucid is requesting approval to remediate in place by excavating and aerating the top 2' of soil affected by contamination. Being allowed to remediate in place would negate the need to bring dump trucks into the location to be loaded and unloaded. Being in the sand hills east of Carlsbad, the location can be very difficult to get to with any motorized vehicle without tracks. A fully loaded dump truck would not be able to get from the location to a drivable road, and trying to do so would result in greater damage to existing vegetation. Given that the leak does not pose a threat to either ground or surface waters, remediation on site would be the least detrimental strategy to the surrounding vegetation and wildlife.

The proposed means of remediation on site would be to have a single backhoe aerate the affected material onsite once every 2-4 weeks. Soil samples would be collected to determine the effectiveness of this strategy. If after three months no discernable effect on contamination levels is documented, Lucid may accept excavation and disposal as the necessary route to remediate this site.

Lucid will inform the NMOCD and BLM offices of the results of the soil samples as soon as is practicable, and will confirm with them our plan for remediation at the location.

*Updated 1/31/2017*

Based on the results of the subsequent soil sampling mentioned above, contamination levels are below the RRAL for the site. As such Lucid is requesting closure of this release. Lucid will backfill the excavation opened to repair the line and return the area to the pre-existing grade. No further remediation work is proposed.

Any questions regarding this notification and proposed remediation plan can be directed to:

Kerry Egan

Environmental Technician

Lucid Energy Delaware

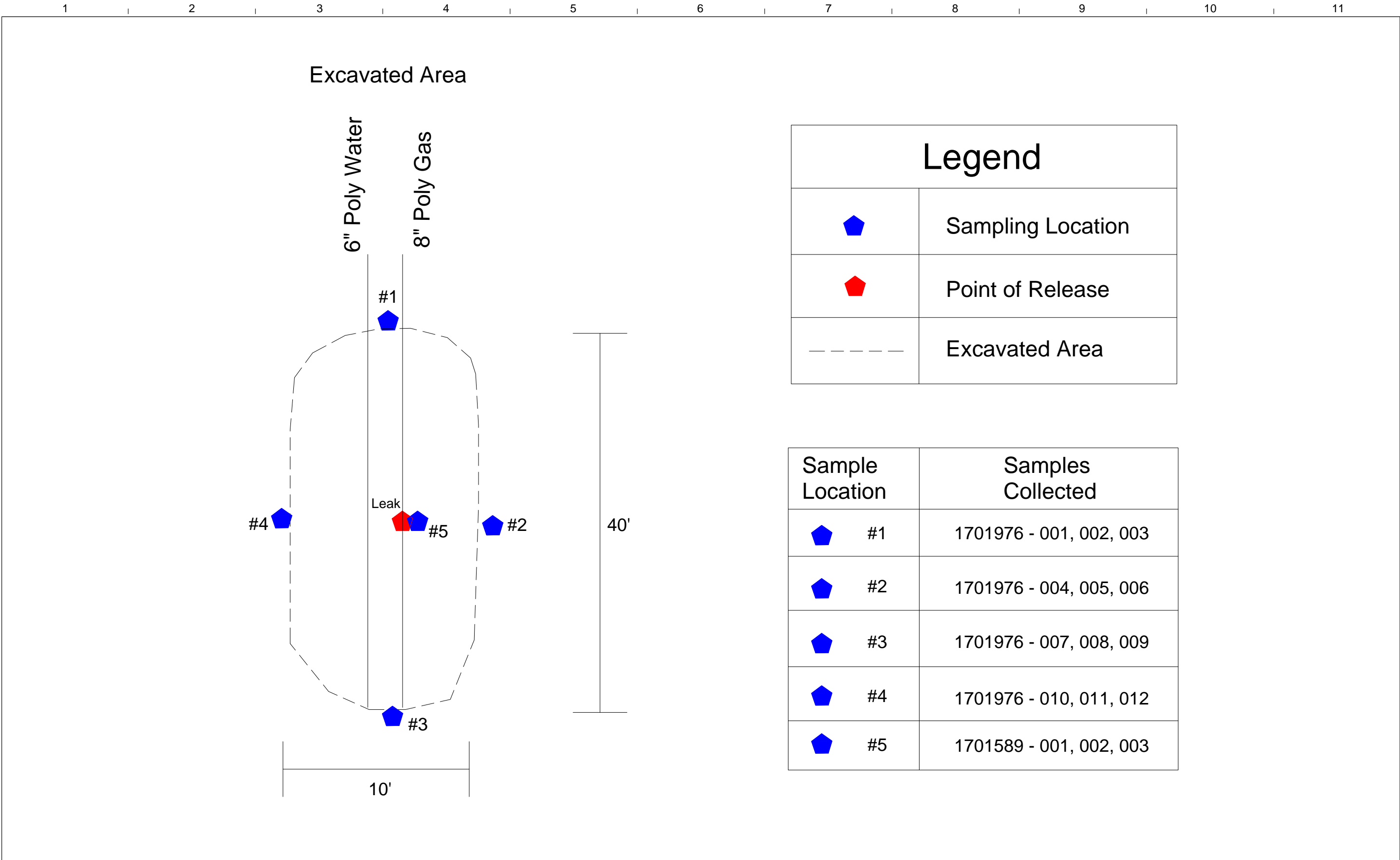
Office: (575) 810-6021




Cell: (575) 513-8988






Kegan@agaveenergy.com


### Sampling Summary for Grace 8" Remediation Project

Analytical Report							
1701976	Sample Date	Depth	BTEX	GRO	DRO	Cl-	Comments
1701976-001	1/20/2017	Surface	ND	ND	ND	ND	Collected from the north end of the affected area.
1701976-002	1/20/2017	2'	ND	ND	ND	ND	Collected from the north end of the affected area.
1701976-003	1/20/2017	4'	ND	ND	ND	ND	Collected from the north end of the affected area.
1701976-004	1/20/2017	Surface	ND	ND	14	ND	Collected from the east side of the affected area.
1701976-005	1/20/2017	2'	ND	ND	ND	ND	Collected from the east side of the affected area.
1701976-006	1/20/2017	4'	ND	ND	ND	ND	Collected from the east side of the affected area.
1701976-007	1/20/2017	Surface	ND	ND	21	ND	Collected from the south end of the affected area.
1701976-008	1/20/2017	2'	ND	ND	15	ND	Collected from the south end of the affected area.
1701976-009	1/20/2017	4'	ND	ND	ND	ND	Collected from the south end of the affected area.
1701976-010	1/20/2017	Surface	0.782	15	25	ND	Collected from the west side of the affected area.
1701976-011	1/20/2017	2'	0.32	6.8	ND	ND	Collected from the west side of the affected area.
1701976-012	1/20/2017	4'	ND	ND	ND	ND	Collected from the west side of the affected area.
1701589-001	1/12/2017	Surface	1.88	32	ND	ND	Collected from the point of release.
1701589-002	1/12/2017	2'	ND	ND	ND	ND	Collected from the point of release.
1701589-003	1/12/2017	4'	ND	ND	ND	ND	Collected from the point of release.



Legend	
	Sampling Location
	Point of Release
	Excavated Area

Sample Location		Samples Collected
	#1	1701976 - 001, 002, 003
	#2	1701976 - 004, 005, 006
	#3	1701976 - 007, 008, 009
	#4	1701976 - 010, 011, 012
	#5	1701589 - 001, 002, 003

REFERENCE DRAWINGS		SPECIAL NOTES		REVISIONS					DRAWN BY: KE		<p>THIS DRAWING IS THE PROPERTY OF AGAVE ENERGY COMPANY AND SHALL NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SPECIFICALLY INTENDED</p>		LUCID ENERGY DELAWARE		
<p>1. INSTRUMENT LETTER DESIGNATIONS PER ANSI/ISA-S5.1 (LATEST EDITION) 2. FOR BLOCK VALVES - USE BALL OR GATE VALVES UP TO 275°F DESIGN TEMPERATURES AND GATE VALVES FOR HIGHER DESIGN TEMPERATURES. 3. ALL DRAIN PIPING TO BE FREE DRAINING. 4. ALL PIPING TO PSV's TO BE FREE DRAINING. 5. PROVIDE VENTS WITH 0.5" VALVES ON ALL HIGH POINTS, AND DRAINS WITH 0.75" VALVES ON ALL LOW POINTS.</p>		REV.	DATE	BY	DESCRIPTION	APP'D.	CHECKED BY:	<p>GRACE 8" POLY RELEASE SAMPLE DIAGRAM</p>							
							APPROVAL:								
							APPROVAL: N/A								
							DATE: 1/30/2017								
							SCALE: N.T.S.								
											EDDY COUNTY				
											JOB #	DWG #	REV 2		



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

January 17, 2017

Kerry Egan  
Agave Energy Company  
P.O. Box 158  
Artesia, NM 88211  
TEL: (575) 513-8988  
FAX

RE: Grace 8"

OrderNo.: 1701589

Dear Kerry Egan:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/14/2017 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](http://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.

## Analytical Report

Lab Order 1701589

Date Reported: 1/17/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #1

**Project:** Grace 8"

**Collection Date:** 1/12/2017 9:00:00 AM

**Lab ID:** 1701589-001

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 12:02:21 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/16/2017 11:14:49 AM	29698
Surr: DNOP	98.2	70-130		%Rec	1	1/16/2017 11:14:49 AM	29698
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	32	5.0		mg/Kg	1	1/15/2017 10:38:12 AM	29695
Surr: BFB	132	68.3-144		%Rec	1	1/15/2017 10:38:12 AM	29695
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	0.21	0.025		mg/Kg	1	1/15/2017 10:38:12 AM	29695
Toluene	0.12	0.050		mg/Kg	1	1/15/2017 10:38:12 AM	29695
Ethylbenzene	0.15	0.050		mg/Kg	1	1/15/2017 10:38:12 AM	29695
Xylenes, Total	1.4	0.099		mg/Kg	1	1/15/2017 10:38:12 AM	29695
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	1/15/2017 10:38:12 AM	29695

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701589

Date Reported: 1/17/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #2

**Project:** Grace 8"

**Collection Date:** 1/12/2017 9:00:00 AM

**Lab ID:** 1701589-002

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 12:14:45 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/16/2017 11:36:31 AM	29698
Surr: DNOP	105	70-130		%Rec	1	1/16/2017 11:36:31 AM	29698
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/15/2017 11:48:40 AM	29695
Surr: BFB	90.7	68.3-144		%Rec	1	1/15/2017 11:48:40 AM	29695
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/15/2017 11:48:40 AM	29695
Toluene	ND	0.050		mg/Kg	1	1/15/2017 11:48:40 AM	29695
Ethylbenzene	ND	0.050		mg/Kg	1	1/15/2017 11:48:40 AM	29695
Xylenes, Total	ND	0.10		mg/Kg	1	1/15/2017 11:48:40 AM	29695
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	1/15/2017 11:48:40 AM	29695

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701589

Date Reported: 1/17/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #3

**Project:** Grace 8"

**Collection Date:** 1/12/2017 9:00:00 AM

**Lab ID:** 1701589-003

**Matrix:** SOIL

**Received Date:** 1/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/16/2017 12:51:59 PM	29704
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/16/2017 11:57:59 AM	29698
Surr: DNOP	102	70-130		%Rec	1	1/16/2017 11:57:59 AM	29698
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/15/2017 12:58:50 PM	29695
Surr: BFB	85.3	68.3-144		%Rec	1	1/15/2017 12:58:50 PM	29695
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	1/15/2017 12:58:50 PM	29695
Toluene	ND	0.050		mg/Kg	1	1/15/2017 12:58:50 PM	29695
Ethylbenzene	ND	0.050		mg/Kg	1	1/15/2017 12:58:50 PM	29695
Xylenes, Total	ND	0.099		mg/Kg	1	1/15/2017 12:58:50 PM	29695
Surr: 4-Bromofluorobenzene	92.1	80-120		%Rec	1	1/15/2017 12:58:50 PM	29695

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701589

17-Jan-17

Client: Agave Energy Company

Project: Grace 8"

Sample ID	MB-29704		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 29704		RunNo: 40057					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1255351		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29704		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29704		RunNo: 40057					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1255352		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701589

17-Jan-17

Client: Agave Energy Company

Project: Grace 8"

Sample ID	LCS-29698		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29698		RunNo: 40028					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1254640		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	94.3	63.8	116			
Surr: DNOP	4.6		5.000		91.2	70	130			

Sample ID	MB-29698		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29698		RunNo: 40028					
Prep Date:	1/16/2017		Analysis Date: 1/16/2017		SeqNo: 1254641		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.0	70	130			

Sample ID	MB-29674		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254788		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-29674		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29674		RunNo: 40030					
Prep Date:	1/13/2017		Analysis Date: 1/16/2017		SeqNo: 1254824		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		109	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701589

17-Jan-17

Client: Agave Energy Company

Project: Grace 8"

Sample ID	MB-29695		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29695		RunNo: 40013					
Prep Date:	1/14/2017		Analysis Date: 1/15/2017		SeqNo: 1253868		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	870		1000		87.2	68.3	144			

Sample ID	LCS-29695		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29695		RunNo: 40013					
Prep Date:	1/14/2017		Analysis Date: 1/15/2017		SeqNo: 1253869		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	74.6	123			
Surr: BFB	970		1000		96.8	68.3	144			

Sample ID	1701589-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Grace #1		Batch ID: 29695		RunNo: 40013					
Prep Date:	1/14/2017		Analysis Date: 1/15/2017		SeqNo: 1253871		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	57	4.9	24.32	31.84	104	61.3	150			
Surr: BFB	1400		972.8		143	68.3	144			

Sample ID	1701589-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	Grace #1		Batch ID: 29695		RunNo: 40013					
Prep Date:	1/14/2017		Analysis Date: 1/15/2017		SeqNo: 1253872		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	58	4.9	24.46	31.84	106	61.3	150	1.25	20	
Surr: BFB	1400		978.5		145	68.3	144	0	0	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701589

17-Jan-17

Client: Agave Energy Company

Project: Grace 8"

Sample ID	<b>MB-29695</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>29695</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/14/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253911</b>	Units:	<b>mg/Kg</b>	
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	0.94		1.000		93.8	80	120			

Sample ID	<b>LCS-29695</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>29695</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/14/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253912</b>	Units:	<b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	106	75.2	115			
Toluene	0.95	0.050	1.000	0	95.5	80.7	112			
Ethylbenzene	0.92	0.050	1.000	0	91.5	78.9	117			
Xylenes, Total	2.7	0.10	3.000	0	91.0	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID	<b>1701589-002AMS</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>Grace #2</b>		Batch ID:	<b>29695</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/14/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253915</b>	Units:	<b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9843	0	111	61.5	138			
Toluene	1.0	0.049	0.9843	0.01776	101	71.4	127			
Ethylbenzene	1.0	0.049	0.9843	0	102	70.9	132			
Xylenes, Total	3.0	0.098	2.953	0.05637	100	76.2	123			
Surr: 4-Bromofluorobenzene	0.95		0.9843		96.5	80	120			

Sample ID	<b>1701589-002AMSD</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8021B: Volatiles</b>			
Client ID:	<b>Grace #2</b>		Batch ID:	<b>29695</b>		RunNo:	<b>40013</b>			
Prep Date:	<b>1/14/2017</b>		Analysis Date:	<b>1/15/2017</b>		SeqNo:	<b>1253916</b>	Units:	<b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9737	0	113	61.5	138	0.939	20	
Toluene	1.0	0.049	0.9737	0.01776	103	71.4	127	1.04	20	
Ethylbenzene	0.99	0.049	0.9737	0	102	70.9	132	0.819	20	
Xylenes, Total	3.0	0.097	2.921	0.05637	101	76.2	123	0.232	20	
Surr: 4-Bromofluorobenzene	0.95		0.9737		97.2	80	120	0	0	

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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

## Sample Log-In Check List

Client Name: AGAVE ENERGY COMP

Work Order Number: 1701589

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/14/2017 9:00:00 AM

Completed By: Lindsay Mangin

1/14/2017 9:53:59 AM

Reviewed By: NB

1/14/17

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

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

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good	Yes			





[www.hallenvironmental.com](http://www.hallenvironmental.com)

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

<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush by 1/16/2017 Project Name: Grace 8"						
Project #:						
Project Manager: Kerry Egan						
Sampler: Kerry Egan						
On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						
Sample Temperature: 5.3						
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/17	9:00 AM	Soil	Grace #1	4 oz. jar	Ice/Cool	1701589-001
			#2			-002
			#3			-003
te:	Time:	Relinquished by:		Received by:		Date
12/17	10:00 AM	Kerry Egan				01/14/17 0900
te:	Time:	Relinquished by:		Received by:		Date

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



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

January 31, 2017

Kerry Egan  
Agave Energy Company  
P.O. Box 158  
Artesia, NM 88211  
TEL: (575) 513-8988  
FAX

RE: Grace

OrderNo.: 1701976

Dear Kerry Egan:

Hall Environmental Analysis Laboratory received 12 sample(s) on 1/24/2017 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](http://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.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #1

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-001

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 11:51:53 AM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/25/2017 8:58:31 PM	29849
Surr: BFB	78.0	70-130		%Rec	1	1/25/2017 8:58:31 PM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/25/2017 5:40:12 PM	29850
Surr: DNOP	98.8	70-130		%Rec	1	1/25/2017 5:40:12 PM	29850
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	1/25/2017 8:58:31 PM	29849
Toluene	ND	0.047		mg/Kg	1	1/25/2017 8:58:31 PM	29849
Ethylbenzene	ND	0.047		mg/Kg	1	1/25/2017 8:58:31 PM	29849
Xylenes, Total	ND	0.094		mg/Kg	1	1/25/2017 8:58:31 PM	29849
Surr: 1,2-Dichloroethane-d4	91.7	70-130		%Rec	1	1/25/2017 8:58:31 PM	29849
Surr: 4-Bromofluorobenzene	82.8	70-130		%Rec	1	1/25/2017 8:58:31 PM	29849
Surr: Dibromofluoromethane	94.0	70-130		%Rec	1	1/25/2017 8:58:31 PM	29849
Surr: Toluene-d8	103	70-130		%Rec	1	1/25/2017 8:58:31 PM	29849

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #2

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-002

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 12:29:08 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/26/2017 1:21:22 AM	29849
Surr: BFB	74.9	70-130		%Rec	1	1/26/2017 1:21:22 AM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/25/2017 5:12:55 PM	29850
Surr: DNOP	87.5	70-130		%Rec	1	1/25/2017 5:12:55 PM	29850
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	1/26/2017 1:21:22 AM	29849
Toluene	ND	0.048		mg/Kg	1	1/26/2017 1:21:22 AM	29849
Ethylbenzene	ND	0.048		mg/Kg	1	1/26/2017 1:21:22 AM	29849
Xylenes, Total	ND	0.096		mg/Kg	1	1/26/2017 1:21:22 AM	29849
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%Rec	1	1/26/2017 1:21:22 AM	29849
Surr: 4-Bromofluorobenzene	80.2	70-130		%Rec	1	1/26/2017 1:21:22 AM	29849
Surr: Dibromofluoromethane	92.8	70-130		%Rec	1	1/26/2017 1:21:22 AM	29849
Surr: Toluene-d8	101	70-130		%Rec	1	1/26/2017 1:21:22 AM	29849

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #3

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-003

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 1:06:21 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/26/2017 1:51:03 AM	29849
Surr: BFB	77.3	70-130		%Rec	1	1/26/2017 1:51:03 AM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/25/2017 4:45:37 PM	29850
Surr: DNOP	89.6	70-130		%Rec	1	1/25/2017 4:45:37 PM	29850
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	1/26/2017 1:51:03 AM	29849
Toluene	ND	0.050		mg/Kg	1	1/26/2017 1:51:03 AM	29849
Ethylbenzene	ND	0.050		mg/Kg	1	1/26/2017 1:51:03 AM	29849
Xylenes, Total	ND	0.10		mg/Kg	1	1/26/2017 1:51:03 AM	29849
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	1/26/2017 1:51:03 AM	29849
Surr: 4-Bromofluorobenzene	79.2	70-130		%Rec	1	1/26/2017 1:51:03 AM	29849
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	1/26/2017 1:51:03 AM	29849
Surr: Toluene-d8	99.9	70-130		%Rec	1	1/26/2017 1:51:03 AM	29849

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #4

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-004

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 1:18:46 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/26/2017 2:20:09 AM	29849
Surr: BFB	74.7	70-130		%Rec	1	1/26/2017 2:20:09 AM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	14	9.4		mg/Kg	1	1/25/2017 4:18:41 PM	29850
Surr: DNOP	90.3	70-130		%Rec	1	1/25/2017 4:18:41 PM	29850
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	1/26/2017 2:20:09 AM	29849
Toluene	ND	0.049		mg/Kg	1	1/26/2017 2:20:09 AM	29849
Ethylbenzene	ND	0.049		mg/Kg	1	1/26/2017 2:20:09 AM	29849
Xylenes, Total	ND	0.098		mg/Kg	1	1/26/2017 2:20:09 AM	29849
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%Rec	1	1/26/2017 2:20:09 AM	29849
Surr: 4-Bromofluorobenzene	79.6	70-130		%Rec	1	1/26/2017 2:20:09 AM	29849
Surr: Dibromofluoromethane	98.0	70-130		%Rec	1	1/26/2017 2:20:09 AM	29849
Surr: Toluene-d8	98.2	70-130		%Rec	1	1/26/2017 2:20:09 AM	29849

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #5

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-005

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 1:31:10 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/26/2017 2:49:33 AM	29849
Surr: BFB	74.3	70-130		%Rec	1	1/26/2017 2:49:33 AM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/25/2017 3:51:41 PM	29850
Surr: DNOP	88.5	70-130		%Rec	1	1/25/2017 3:51:41 PM	29850
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	1/26/2017 2:49:33 AM	29849
Toluene	ND	0.049		mg/Kg	1	1/26/2017 2:49:33 AM	29849
Ethylbenzene	ND	0.049		mg/Kg	1	1/26/2017 2:49:33 AM	29849
Xylenes, Total	ND	0.099		mg/Kg	1	1/26/2017 2:49:33 AM	29849
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	1/26/2017 2:49:33 AM	29849
Surr: 4-Bromofluorobenzene	77.9	70-130		%Rec	1	1/26/2017 2:49:33 AM	29849
Surr: Dibromofluoromethane	95.0	70-130		%Rec	1	1/26/2017 2:49:33 AM	29849
Surr: Toluene-d8	98.9	70-130		%Rec	1	1/26/2017 2:49:33 AM	29849

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #6

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-006

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 1:43:35 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/26/2017 3:18:46 AM	29849
Surr: BFB	79.6	70-130		%Rec	1	1/26/2017 3:18:46 AM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/25/2017 11:19:58 AM	29856
Surr: DNOP	89.2	70-130		%Rec	1	1/25/2017 11:19:58 AM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	1/26/2017 3:18:46 AM	29849
Toluene	ND	0.050		mg/Kg	1	1/26/2017 3:18:46 AM	29849
Ethylbenzene	ND	0.050		mg/Kg	1	1/26/2017 3:18:46 AM	29849
Xylenes, Total	ND	0.10		mg/Kg	1	1/26/2017 3:18:46 AM	29849
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%Rec	1	1/26/2017 3:18:46 AM	29849
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	1/26/2017 3:18:46 AM	29849
Surr: Dibromofluoromethane	100	70-130		%Rec	1	1/26/2017 3:18:46 AM	29849
Surr: Toluene-d8	102	70-130		%Rec	1	1/26/2017 3:18:46 AM	29849

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

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



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #7

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-007

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 1:55:59 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/26/2017 3:47:40 AM	29849
Surr: BFB	72.9	70-130		%Rec	1	1/26/2017 3:47:40 AM	29849
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	21	9.5		mg/Kg	1	1/25/2017 12:41:35 PM	29856
Surr: DNOP	90.7	70-130		%Rec	1	1/25/2017 12:41:35 PM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	1/26/2017 3:47:40 AM	29849
Toluene	ND	0.048		mg/Kg	1	1/26/2017 3:47:40 AM	29849
Ethylbenzene	ND	0.048		mg/Kg	1	1/26/2017 3:47:40 AM	29849
Xylenes, Total	ND	0.097		mg/Kg	1	1/26/2017 3:47:40 AM	29849
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	1	1/26/2017 3:47:40 AM	29849
Surr: 4-Bromofluorobenzene	74.4	70-130		%Rec	1	1/26/2017 3:47:40 AM	29849
Surr: Dibromofluoromethane	96.3	70-130		%Rec	1	1/26/2017 3:47:40 AM	29849
Surr: Toluene-d8	102	70-130		%Rec	1	1/26/2017 3:47:40 AM	29849

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #8

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-008

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 2:08:23 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/25/2017 3:07:51 PM	29854
Surr: BFB	80.7	70-130		%Rec	1	1/25/2017 3:07:51 PM	29854
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	15	9.9		mg/Kg	1	1/25/2017 1:08:42 PM	29856
Surr: DNOP	90.7	70-130		%Rec	1	1/25/2017 1:08:42 PM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	1/25/2017 3:07:51 PM	29854
Toluene	ND	0.047		mg/Kg	1	1/25/2017 3:07:51 PM	29854
Ethylbenzene	ND	0.047		mg/Kg	1	1/25/2017 3:07:51 PM	29854
Xylenes, Total	ND	0.095		mg/Kg	1	1/25/2017 3:07:51 PM	29854
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%Rec	1	1/25/2017 3:07:51 PM	29854
Surr: 4-Bromofluorobenzene	81.8	70-130		%Rec	1	1/25/2017 3:07:51 PM	29854
Surr: Dibromofluoromethane	95.9	70-130		%Rec	1	1/25/2017 3:07:51 PM	29854
Surr: Toluene-d8	100	70-130		%Rec	1	1/25/2017 3:07:51 PM	29854

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #9

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-009

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 2:20:47 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/25/2017 3:37:07 PM	29854
Surr: BFB	75.9	70-130		%Rec	1	1/25/2017 3:37:07 PM	29854
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/25/2017 1:35:39 PM	29856
Surr: DNOP	92.2	70-130		%Rec	1	1/25/2017 1:35:39 PM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	1/25/2017 3:37:07 PM	29854
Toluene	ND	0.047		mg/Kg	1	1/25/2017 3:37:07 PM	29854
Ethylbenzene	ND	0.047		mg/Kg	1	1/25/2017 3:37:07 PM	29854
Xylenes, Total	ND	0.094		mg/Kg	1	1/25/2017 3:37:07 PM	29854
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%Rec	1	1/25/2017 3:37:07 PM	29854
Surr: 4-Bromofluorobenzene	78.7	70-130		%Rec	1	1/25/2017 3:37:07 PM	29854
Surr: Dibromofluoromethane	91.3	70-130		%Rec	1	1/25/2017 3:37:07 PM	29854
Surr: Toluene-d8	101	70-130		%Rec	1	1/25/2017 3:37:07 PM	29854

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701976**

Date Reported: **1/31/2017**

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #10

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-010

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 2:33:11 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	15	4.8		mg/Kg	1	1/25/2017 4:06:15 PM	29854
Surr: BFB	79.4	70-130		%Rec	1	1/25/2017 4:06:15 PM	29854
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	25	9.8		mg/Kg	1	1/25/2017 2:29:56 PM	29856
Surr: DNOP	81.8	70-130		%Rec	1	1/25/2017 2:29:56 PM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	0.29	0.024		mg/Kg	1	1/25/2017 4:06:15 PM	29854
Toluene	ND	0.048		mg/Kg	1	1/25/2017 4:06:15 PM	29854
Ethylbenzene	0.052	0.048		mg/Kg	1	1/25/2017 4:06:15 PM	29854
Xylenes, Total	0.44	0.095		mg/Kg	1	1/25/2017 4:06:15 PM	29854
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%Rec	1	1/25/2017 4:06:15 PM	29854
Surr: 4-Bromofluorobenzene	81.5	70-130		%Rec	1	1/25/2017 4:06:15 PM	29854
Surr: Dibromofluoromethane	91.4	70-130		%Rec	1	1/25/2017 4:06:15 PM	29854
Surr: Toluene-d8	102	70-130		%Rec	1	1/25/2017 4:06:15 PM	29854

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #11

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-011

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 2:45:37 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	6.8	5.0		mg/Kg	1	1/25/2017 4:35:30 PM	29854
Surr: BFB	80.0	70-130		%Rec	1	1/25/2017 4:35:30 PM	29854
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/25/2017 2:57:18 PM	29856
Surr: DNOP	93.1	70-130		%Rec	1	1/25/2017 2:57:18 PM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	1/25/2017 4:35:30 PM	29854
Toluene	0.14	0.050		mg/Kg	1	1/25/2017 4:35:30 PM	29854
Ethylbenzene	ND	0.050		mg/Kg	1	1/25/2017 4:35:30 PM	29854
Xylenes, Total	0.18	0.099		mg/Kg	1	1/25/2017 4:35:30 PM	29854
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%Rec	1	1/25/2017 4:35:30 PM	29854
Surr: 4-Bromofluorobenzene	80.8	70-130		%Rec	1	1/25/2017 4:35:30 PM	29854
Surr: Dibromofluoromethane	92.8	70-130		%Rec	1	1/25/2017 4:35:30 PM	29854
Surr: Toluene-d8	105	70-130		%Rec	1	1/25/2017 4:35:30 PM	29854

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

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

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1701976

Date Reported: 1/31/2017

**CLIENT:** Agave Energy Company

**Client Sample ID:** Grace #12

**Project:** Grace

**Collection Date:** 1/20/2017 10:30:00 AM

**Lab ID:** 1701976-012

**Matrix:** SOIL

**Received Date:** 1/24/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	30		mg/Kg	20	1/27/2017 2:58:01 PM	29934
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/25/2017 5:04:39 PM	29854
Surr: BFB	77.3	70-130		%Rec	1	1/25/2017 5:04:39 PM	29854
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>MAB</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/25/2017 3:24:29 PM	29856
Surr: DNOP	95.4	70-130		%Rec	1	1/25/2017 3:24:29 PM	29856
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	1/25/2017 5:04:39 PM	29854
Toluene	ND	0.048		mg/Kg	1	1/25/2017 5:04:39 PM	29854
Ethylbenzene	ND	0.048		mg/Kg	1	1/25/2017 5:04:39 PM	29854
Xylenes, Total	ND	0.097		mg/Kg	1	1/25/2017 5:04:39 PM	29854
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%Rec	1	1/25/2017 5:04:39 PM	29854
Surr: 4-Bromofluorobenzene	77.8	70-130		%Rec	1	1/25/2017 5:04:39 PM	29854
Surr: Dibromofluoromethane	93.8	70-130		%Rec	1	1/25/2017 5:04:39 PM	29854
Surr: Toluene-d8	102	70-130		%Rec	1	1/25/2017 5:04:39 PM	29854

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	MB-29934		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29934		RunNo:	40365				
Prep Date:	1/27/2017		Analysis Date:	1/27/2017		SeqNo:	1265328		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29934		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29934		RunNo: 40365					
Prep Date:	1/27/2017		Analysis Date: 1/27/2017		SeqNo: 1265329		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	90	110			

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	MB-29856		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29856		RunNo: 40259					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262378		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.9		10.00		88.9	70	130			

Sample ID	LCS-29850		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29850		RunNo: 40260					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262381		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.6	63.8	116			
Surr: DNOP	5.0		5.000		100	70	130			

Sample ID	MB-29850		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29850		RunNo: 40260					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262382		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	LCS-29856		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29856		RunNo: 40259					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262383		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	103	63.8	116			
Surr: DNOP	4.8		5.000		96.0	70	130			

Sample ID	1701976-006AMS	SampType: MS			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Grace #6	Batch ID: 29856			RunNo: 40259					
Prep Date:	1/24/2017	Analysis Date: 1/25/2017			SeqNo: 1262495		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.5	47.48	0	107	51.6	130			
Surr: DNOP	4.7		4.748		98.7	70	130			

Sample ID	1701976-006AMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	Grace #6		Batch ID:	29856		RunNo:	40259				
Prep Date:	1/24/2017		Analysis Date:	1/25/2017		SeqNo:	1262496		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

### Qualifiers:

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



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	1701976-006AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Grace #6	Batch ID:	29856	RunNo:	40259					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262496	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.9	49.31	0	108	51.6	130	4.85	20	
Surr: DNOP	4.8		4.931		97.4	70	130	0	0	

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	<b>mb-29849</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>29849</b>		RunNo:	<b>40289</b>			
Prep Date:	<b>1/24/2017</b>		Analysis Date:	<b>1/26/2017</b>		SeqNo:	<b>1262946</b>		Units: <b>mg/Kg</b>	
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: 1,2-Dichloroethane-d4	0.49		0.5000		97.2	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		80.6	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.4	70	130			
Surr: Toluene-d8	0.49		0.5000		98.4	70	130			

Sample ID	<b>lcs-29849</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>29849</b>		RunNo:	<b>40289</b>			
Prep Date:	<b>1/24/2017</b>		Analysis Date:	<b>1/25/2017</b>		SeqNo:	<b>1262948</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.8	70	130			
Toluene	0.97	0.050	1.000	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.4	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		79.6	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.4	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID	<b>1701976-001ams</b>		SampType:	<b>MS</b>		TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>			
Client ID:	<b>Grace #1</b>		Batch ID:	<b>29849</b>		RunNo:	<b>40289</b>			
Prep Date:	<b>1/24/2017</b>		Analysis Date:	<b>1/25/2017</b>		SeqNo:	<b>1262954</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.023	0.9141	0	87.5	61.9	146			
Toluene	0.88	0.046	0.9141	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.44		0.4570		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.4570		80.5	70	130			
Surr: Dibromofluoromethane	0.44		0.4570		95.6	70	130			
Surr: Toluene-d8	0.47		0.4570		103	70	130			

Sample ID	<b>1701976-001amsd</b>		SampType:	<b>MSD</b>		TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>			
Client ID:	<b>Grace #1</b>		Batch ID:	<b>29849</b>		RunNo:	<b>40289</b>			
Prep Date:	<b>1/24/2017</b>		Analysis Date:	<b>1/26/2017</b>		SeqNo:	<b>1262955</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	0.9960	0	87.3	61.9	146	8.33	20	
Toluene	0.92	0.050	0.9960	0	92.1	70	130	3.81	20	

### Qualifiers:

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	1701976-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	Grace #1	Batch ID:	29849	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/26/2017	SeqNo:	1262955	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.4980		96.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.39		0.4980		79.3	70	130	0	0	
Surr: Dibromofluoromethane	0.49		0.4980		99.1	70	130	0	0	
Surr: Toluene-d8	0.50		0.4980		101	70	130	0	0	

Sample ID	mb-29854	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	29854	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262962	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.050								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.7	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.5000		82.3	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.3	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID	lcs-29854	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	29854	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262963	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.0	70	130			
Toluene	1.0	0.050	1.000	0	99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.5000		81.2	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.5	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID	1701976-008ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	Grace #8	Batch ID:	29854	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262965	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9588	0	94.8	61.9	146			
Toluene	0.98	0.048	0.9588	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.4794		96.2	70	130			

### Qualifiers:

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	1701976-008ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	Grace #8	Batch ID:	29854	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262965	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.38		0.4794		78.3	70	130			
Surr: Dibromofluoromethane	0.46		0.4794		95.3	70	130			
Surr: Toluene-d8	0.48		0.4794		100	70	130			

Sample ID	1701976-008amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	Grace #8	Batch ID:	29854	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262966	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9515	0	95.2	61.9	146	0.356	20	
Toluene	0.98	0.048	0.9515	0	103	70	130	0.0140	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4757		98.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.39		0.4757		81.2	70	130	0	0	
Surr: Dibromofluoromethane	0.45		0.4757		95.6	70	130	0	0	
Surr: Toluene-d8	0.49		0.4757		103	70	130	0	0	

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	mb-29849		SampType: MBLK		TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS		Batch ID: 29849		RunNo: 40289					
Prep Date:	1/24/2017		Analysis Date: 1/26/2017		SeqNo: 1262973		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	380		500.0		76.2	70	130			

Sample ID	lcs-29849		SampType: LCS		TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS		Batch ID: 29849		RunNo: 40289					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262974		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	62.9	123			
Surr: BFB	400		500.0		79.1	70	130			

Sample ID	mb-29854		SampType: MBLK		TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS		Batch ID: 29854		RunNo: 40289					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262982		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	400		500.0		79.6	70	130			

Sample ID	lcs-29854		SampType: LCS		TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS		Batch ID: 29854		RunNo: 40289					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262983		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.4	62.9	123			
Surr: BFB	400		500.0		79.9	70	130			

Sample ID	1701976-009ams	SampType: MS			TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	Grace #9	Batch ID: 29854			RunNo: 40289					
Prep Date:	1/24/2017	Analysis Date: 1/25/2017			SeqNo: 1262986		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	23.90	2.210	102	52.3	132			
Surr: BFB	370		478.0		77.2	70	130			

Sample ID	1701976-009amsd		SampType: MSD		TestCode: EPA Method 8015D Mod: Gasoline Range					
Client ID:	Grace #9		Batch ID: 29854		RunNo: 40289					
Prep Date:	1/24/2017		Analysis Date: 1/25/2017		SeqNo: 1262987		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

### Qualifiers:

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701976

31-Jan-17

Client: Agave Energy Company

Project: Grace

Sample ID	1701976-009amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	Grace #9	Batch ID:	29854	RunNo:	40289					
Prep Date:	1/24/2017	Analysis Date:	1/25/2017	SeqNo:	1262987	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	24.13	2.210	92.0	52.3	132	8.93	20	
Surr: BFB	390		482.6		80.2	70	130	0	0	

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified



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: AGAVE ENERGY COMP

Work Order Number: 1701976

RcptNo: 1

Received by/date: LA 1/24/17

Logged By: Andy Jansson 1/24/2017 9:40:00 AM

Completed By: Andy Jansson 1/24/17

Reviewed By: LA 01/24/17

### Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

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

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
( $<2$  or  $>12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

