



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)

November 20, 2014

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

RE: Dagger Draw Gas System Howell Ranch-4 Mile Draw Leak

OrderNo.: 1411679

Dear Kerry Egan:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/18/2014 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

**Analytical Report**Lab Order **1411679**Date Reported: **11/20/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Agave Energy Company**Client Sample ID:** HR 4M #1**Project:** Dagger Draw Gas System Howell Ranch-**Collection Date:** 11/14/2014 10:00:00 AM**Lab ID:** 1411679-001**Matrix:** SOIL**Received Date:** 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/18/2014 3:43:48 PM	16439
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/18/2014 3:43:48 PM	16439
Surr: DNOP	88.4	63.5-128		%REC	1	11/18/2014 3:43:48 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/19/2014 1:22:51 PM	16433
Surr: BFB	92.8	80-120		%REC	1	11/19/2014 1:22:51 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 12:54:39 PM	16438

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Analytical Report**

Lab Order 1411679

Date Reported: 11/20/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Agave Energy Company**Client Sample ID:** HR 4M #2**Project:** Dagger Draw Gas System Howell Ranch-**Collection Date:** 11/14/2014 10:00:00 AM**Lab ID:** 1411679-002**Matrix:** SOIL**Received Date:** 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/18/2014 4:14:02 PM	16439
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/18/2014 4:14:02 PM	16439
Surr: DNOP	95.5	63.5-128		%REC	1	11/18/2014 4:14:02 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/19/2014 1:51:36 PM	16433
Surr: BFB	92.0	80-120		%REC	1	11/19/2014 1:51:36 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 1:31:53 PM	16438

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1411679

Date Reported: 11/20/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Agave Energy Company

Client Sample ID: HR 4M #3

Project: Dagger Draw Gas System Howell Ranch-

Collection Date: 11/14/2014 11:00:00 AM

Lab ID: 1411679-003

Matrix: SOIL

Received Date: 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/18/2014 4:44:15 PM	16439
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/18/2014 4:44:15 PM	16439
Surr: DNOP	97.0	63.5-128		%REC	1	11/18/2014 4:44:15 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/19/2014 2:20:17 PM	16433
Surr: BFB	94.7	80-120		%REC	1	11/19/2014 2:20:17 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 1:44:18 PM	16438

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
	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
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Agave Energy Company

Client Sample ID: HR 4M #4

Project: Dagger Draw Gas System Howell Ranch-

Collection Date: 11/14/2014 1:00:00 PM

Lab ID: 1411679-004

Matrix: SOIL

Received Date: 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	23	10		mg/Kg	1	11/18/2014 5:14:15 PM	16439
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/18/2014 5:14:15 PM	16439
Surr: DNOP	100	63.5-128		%REC	1	11/18/2014 5:14:15 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/19/2014 2:49:01 PM	16433
Surr: BFB	101	80-120		%REC	1	11/19/2014 2:49:01 PM	16433
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	11/19/2014 2:49:01 PM	16433
Toluene	ND	0.049		mg/Kg	1	11/19/2014 2:49:01 PM	16433
Ethylbenzene	ND	0.049		mg/Kg	1	11/19/2014 2:49:01 PM	16433
Xylenes, Total	ND	0.098		mg/Kg	1	11/19/2014 2:49:01 PM	16433
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	11/19/2014 2:49:01 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 1:56:42 PM	16438

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Analytical Report**

Lab Order 1411679

Date Reported: 11/20/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Agave Energy Company**Client Sample ID:** HR 4M #5**Project:** Dagger Draw Gas System Howell Ranch-**Collection Date:** 11/14/2014 1:00:00 PM**Lab ID:** 1411679-005**Matrix:** SOIL**Received Date:** 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/18/2014 5:44:13 PM	16439
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/18/2014 5:44:13 PM	16439
Surr: DNOP	92.5	63.5-128		%REC	1	11/18/2014 5:44:13 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/19/2014 1:34:40 PM	16433
Surr: BFB	92.8	80-120		%REC	1	11/19/2014 1:34:40 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 2:09:07 PM	16438

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
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
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

**Analytical Report**

Lab Order 1411679

Date Reported: 11/20/2014

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Agave Energy Company**Client Sample ID:** HR 4M #6**Project:** Dagger Draw Gas System Howell Ranch-**Collection Date:** 11/14/2014 2:00:00 PM**Lab ID:** 1411679-006**Matrix:** SOIL**Received Date:** 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/18/2014 6:14:16 PM	16439
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/18/2014 6:14:16 PM	16439
Surr: DNOP	115	63.5-128		%REC	1	11/18/2014 6:14:16 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/19/2014 2:02:22 PM	16433
Surr: BFB	93.6	80-120		%REC	1	11/19/2014 2:02:22 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 2:21:32 PM	16438

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1411679

Date Reported: 11/20/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Agave Energy Company

Client Sample ID: HR 4M #7

Project: Dagger Draw Gas System Howell Ranch-

Collection Date: 11/14/2014 3:00:00 PM

Lab ID: 1411679-007

Matrix: SOIL

Received Date: 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	45	9.8		mg/Kg	1	11/18/2014 6:44:38 PM	16439
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	11/18/2014 6:44:38 PM	16439
Surr: DNOP	97.6	63.5-128		%REC	1	11/18/2014 6:44:38 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/19/2014 2:30:05 PM	16433
Surr: BFB	97.1	80-120		%REC	1	11/19/2014 2:30:05 PM	16433
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.047		mg/Kg	1	11/19/2014 2:30:05 PM	16433
Toluene	ND	0.047		mg/Kg	1	11/19/2014 2:30:05 PM	16433
Ethylbenzene	ND	0.047		mg/Kg	1	11/19/2014 2:30:05 PM	16433
Xylenes, Total	ND	0.094		mg/Kg	1	11/19/2014 2:30:05 PM	16433
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	11/19/2014 2:30:05 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 2:33:58 PM	16438

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
	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
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Agave Energy Company

Client Sample ID: HR 4M #8

Project: Dagger Draw Gas System Howell Ranch-

Collection Date: 11/14/2014 4:00:00 PM

Lab ID: 1411679-008

Matrix: SOIL

Received Date: 11/18/2014 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/18/2014 7:14:20 PM	16439
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/18/2014 7:14:20 PM	16439
Surr: DNOP	114	63.5-128		%REC	1	11/18/2014 7:14:20 PM	16439
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/19/2014 2:57:12 PM	16433
Surr: BFB	95.6	80-120		%REC	1	11/19/2014 2:57:12 PM	16433
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGP</b>
Chloride	ND	30		mg/Kg	20	11/18/2014 2:46:22 PM	16438

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
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
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411679

20-Nov-14

**Client:** Agave Energy Company  
**Project:** Dagger Draw Gas System Howell Ranch-4 Mile

Sample ID <b>MB-16438</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>16438</b>	RunNo: <b>22639</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/18/2014</b>	SeqNo: <b>667700</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID <b>LCS-16438</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>16438</b>	RunNo: <b>22639</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/18/2014</b>	SeqNo: <b>667701</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.8	90	110			

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411679

20-Nov-14

**Client:** Agave Energy Company  
**Project:** Dagger Draw Gas System Howell Ranch-4 Mile

Sample ID <b>MB-16439</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>16439</b>	RunNo: <b>22594</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/18/2014</b>	SeqNo: <b>667292</b>			Units: <b>mg/Kg</b>					
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	7.5		10.00		75.0	63.5	128			

Sample ID <b>LCS-16439</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>16439</b>	RunNo: <b>22594</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/18/2014</b>	SeqNo: <b>667293</b>			Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.6	68.6	130			
Surr: DNOP	4.3		5.000		85.9	63.5	128			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1411679  
20-Nov-14

**Client:** Agave Energy Company  
**Project:** Dagger Draw Gas System Howell Ranch-4 Mile

Sample ID: <b>MB-16433</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>16433</b>	RunNo: <b>22632</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/19/2014</b>	SeqNo: <b>667913</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	80	120			

Sample ID: <b>LCS-16433</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>16433</b>	RunNo: <b>22632</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/19/2014</b>	SeqNo: <b>667914</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.1	65.8	139			
Surr: BFB	990		1000		98.7	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1411679  
20-Nov-14

**Client:** Agave Energy Company  
**Project:** Dagger Draw Gas System Howell Ranch-4 Mile

Sample ID: <b>MB-16433</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>16433</b>	RunNo: <b>22632</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/19/2014</b>	SeqNo: <b>667969</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: <b>LCS-16433</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>16433</b>	RunNo: <b>22632</b>								
Prep Date: <b>11/18/2014</b>	Analysis Date: <b>11/19/2014</b>	SeqNo: <b>667970</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.3	80	120			
Toluene	0.94	0.050	1.000	0	94.3	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87105  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: AGAVE ENERGY COMP

Work Order Number: 1411679

RcptNo: 1

Received by/date: [Signature] 11/18/14

Logged By: Ashley Gallegos 11/18/2014 10:20:00 AM [Signature]

Completed By: Ashley Gallegos 11/18/2014 10:32:14 AM [Signature]

Reviewed By: [Signature]

### Chain of Custody

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

### Log In

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
Not required
- 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? Yes  No   
(Note discrepancies on chain of custody)
- 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? 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)

- 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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	9.2	Good	Yes			

Client: Agave Energy Company

Mailing Address: PO BOX 158  
Artesia, NM 88211  
Phone #: (575) 513-8988  
email or Fax#: KEgan@yatespetroleum.com

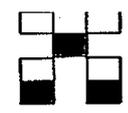
QA/QC Package:  
 Standard  Level 4 (Full Validation)

Accreditation:  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Standard  Rush

Project Name: Dagger Draw Gas System:  
Howell Ranch-4 Mile Draw Leak  
Project #:  
Project Manager:

Sampler: Kerry Egan  
On Ice:  Yes  No  
Sample Temperature: 9.2



# 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	HEAL No	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
11/14/14	10AM	Soil	HR 4M #1	Jar (1)	Temp (cool)	-001		x						x					
11/14/14	10AM	Soil	HR 4M #2	Jar (1)	Temp (cool)	-002		x						x					
11/14/14	11AM	Soil	HR 4M #3	Jar (1)	Temp (cool)	-003		x						x					
11/14/14	1PM	Soil	HR 4M #4	Jar (1)	Temp (cool)	-004		x						x					
11/14/14	1PM	Soil	HR 4M #5	Jar (1)	Temp (cool)	-005		x						x					
11/14/14	2PM	Soil	HR 4M #6	Jar (1)	Temp (cool)	-006		x						x					
11/14/14	3PM	Soil	HR 4M #7	Jar (1)	Temp (cool)	-007		x						x					
11/14/14	4PM	Soil	HR 4M #8	Jar (1)	Temp (cool)	-008		x						x					

Date: 11/17/14  
Time: \_\_\_\_\_  
Relinquished by: *Kerry Egan*

Received by: *[Signature]*  
Date: 11/18/14  
Time: 1020

Remarks: 1) For Anions analyses, I only need Cl- concentration.  
Rush analyses Per Kerry Egan, add BTEX to -004 and -007 on 11/19/14  
KMS

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 noted on the analytical report.