

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

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 to
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Hilcorp Energy Company	Contact Lindsay Dumas
Address 1111 Travis St. Houston, TX 77002	Telephone No. (281)794-9159
Facility Name: San Juan 28-5 Unit 88	Facility Type: Gas Well

Surface Owner Private	Mineral Owner Private	API No. 3003920475
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LOCATION OF RELEASE

Unit Letter M	Section 15	Township 28N	Range 05W	Feet from the 990'	North/South Line South	Feet from the 800'	East/West Line West	County Rio Arriba
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Latitude **36.6566658** Longitude **-107.3528671**

NATURE OF RELEASE

Type of Release Condensate & Produced Water	Volume of Release 27.3bbl & 9.6bbbls	Volume Recovered 0
Source of Release Production Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 03/28/17 @ 10:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD (Cory Smith)	
By Whom? Lisa Hunter	Date and Hour 03/29/17 @ 1:38 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
N/A

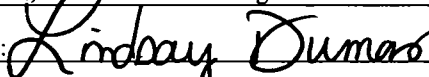
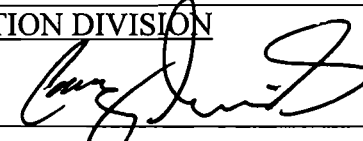

Describe Cause of Problem and Remedial Action Taken.*

During routine tank gauging of Production Tank it was discovered product was missing. Further examination found condensate in rain and snow soaked ground within the bermed area around the tank. Well was shut in. Remaining tank fluid was pulled.

Describe Area Affected and Cleanup Action Taken.*

Release assessment was completed by third party environmental company and analytical results were below the NMOCD regulatory standards – no further action required. Analytical results and sampling maps are attached for review. No further remediation required.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: 	
Title: Environmental Specialist	Approval Date: 1/26/18	Expiration Date:
E-mail Address: Ldumas@hilcorp.com	Conditions of Approval: 	Attached <input type="checkbox"/>
Date: 11/8/17	Phone: (281)794-9159	

* Attach Additional Sheets If Necessary

#NMF 1710935741

OIL CONS. DIV DIST. 3

NOV 13 2017

33

Lindsay Dumas

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Thursday, October 19, 2017 4:01 PM
To: Lindsay Dumas
Cc: Fields, Vanessa, EMNRD
Subject: RE: San Juan 28-5 #88 Closure Sampling

Lindsay,

OCD Approves HilCorps request for Alternative Closure please include this approval in your final C-141.

Thank you,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Lindsay Dumas [mailto:ldumas@hilcorp.com]
Sent: Thursday, October 19, 2017 8:32 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Subject: RE: San Juan 28-5 #88 Closure Sampling

Good Morning – The San Juan 28-5 #88 excavation was sampled 10/17/17. The current excavation includes a shallow rectangular area approximately 2-2.5 ft deep with two test holes. The base of the excavation was split into North & South sections. One 5-point composite was sampled from the North half, 3 from 6-8 inches below base surface, one from the northeast wall, and one from the east wall. The south half was managed similarly; 3 from the base, one from the south wall and one from the southeast wall. There were two test holes, the northwest and the southwest corners of the excavation. A 5-point composite including base and walls was collected from each test hole, at approximately 16 ft.

Reviewing the labs, all samples came back below NMOCD action level, except for the SW test hole that came back at 106ppm. Hilcorp believes this does not pose a risk to human health or the environment and is requesting alternative closure approval.

Please let me know if you have any questions.

Kind regards,

Lindsay Dumas
Environmental Specialist
832-839-4585 (Office)
281-794-9159 (Mobile)



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

October 23, 2017

Lindsay Dumas
Hilcorp Energy
9A Road 5793
Farmington, NM 87401
TEL: (832) 839-4585
FAX

RE: San Juan 28-5 #88

OrderNo.: 1710951

Dear Lindsay Dumas:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/18/2017 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 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 1710951

Date Reported: 10/23/2017

CLIENT: Hilcorp Energy

Client Sample ID: North Base/Comp

Project: San Juan 28-5 #88

Collection Date: 10/17/2017 9:00:00 AM

Lab ID: 1710951-001

Matrix: SOIL

Received Date: 10/18/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	14	9.7		mg/Kg	1	10/18/2017 10:00:44 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/18/2017 10:00:44 AM
Surr: DNOP	115	70-130		%Rec	1	10/18/2017 10:00:44 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/18/2017 9:39:52 AM
Surr: BFB	150	15-316		%Rec	1	10/18/2017 9:39:52 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/18/2017 9:39:52 AM
Toluene	ND	0.047		mg/Kg	1	10/18/2017 9:39:52 AM
Ethylbenzene	ND	0.047		mg/Kg	1	10/18/2017 9:39:52 AM
Xylenes, Total	ND	0.093		mg/Kg	1	10/18/2017 9:39:52 AM
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	10/18/2017 9:39:52 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	47	30		mg/Kg	20	10/18/2017 11:49:44 AM

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1710951

Date Reported: 10/23/2017

CLIENT: Hilcorp Energy**Client Sample ID:** South Base Comp**Project:** San Juan 28-5 #88**Collection Date:** 10/17/2017 9:05:00 AM**Lab ID:** 1710951-002**Matrix:** SOIL**Received Date:** 10/18/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/18/2017 10:22:46 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/18/2017 10:22:46 AM
Surr: DNOP	91.0	70-130		%Rec	1	10/18/2017 10:22:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/18/2017 10:03:10 AM
Surr: BFB	93.1	15-316		%Rec	1	10/18/2017 10:03:10 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	10/18/2017 10:03:10 AM
Toluene	ND	0.038		mg/Kg	1	10/18/2017 10:03:10 AM
Ethylbenzene	ND	0.038		mg/Kg	1	10/18/2017 10:03:10 AM
Xylenes, Total	ND	0.075		mg/Kg	1	10/18/2017 10:03:10 AM
Surr: 4-Bromofluorobenzene	96.6	66.6-132		%Rec	1	10/18/2017 10:03:10 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	52	30		mg/Kg	20	10/18/2017 12:02:09 PM

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1710951

Date Reported: 10/23/2017

CLIENT: Hilcorp Energy**Client Sample ID:** NW Corner Hole**Project:** San Juan 28-5 #88**Collection Date:** 10/17/2017 9:50:00 AM**Lab ID:** 1710951-003**Matrix:** SOIL**Received Date:** 10/18/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	46	9.5		mg/Kg	1	10/18/2017 10:44:34 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/18/2017 10:44:34 AM
Surr: DNOP	95.4	70-130		%Rec	1	10/18/2017 10:44:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	10/18/2017 10:26:33 AM
Surr: BFB	126	15-316		%Rec	5	10/18/2017 10:26:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.088		mg/Kg	5	10/18/2017 10:26:33 AM
Toluene	ND	0.18		mg/Kg	5	10/18/2017 10:26:33 AM
Ethylbenzene	ND	0.18		mg/Kg	5	10/18/2017 10:26:33 AM
Xylenes, Total	ND	0.35		mg/Kg	5	10/18/2017 10:26:33 AM
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	5	10/18/2017 10:26:33 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	ND	30		mg/Kg	20	10/18/2017 12:14:34 PM

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1710951

Date Reported: 10/23/2017

CLIENT: Hilcorp Energy**Client Sample ID:** SW Corner Hole**Project:** San Juan 28-5 #88**Collection Date:** 10/17/2017 9:55:00 AM**Lab ID:** 1710951-004**Matrix:** SOIL**Received Date:** 10/18/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	62	9.3		mg/Kg	1	10/18/2017 11:07:00 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/18/2017 11:07:00 AM
Surr: DNOP	93.3	70-130		%Rec	1	10/18/2017 11:07:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	44	18		mg/Kg	5	10/18/2017 10:50:06 AM
Surr: BFB	218	15-316		%Rec	5	10/18/2017 10:50:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.092		mg/Kg	5	10/18/2017 10:50:06 AM
Toluene	ND	0.18		mg/Kg	5	10/18/2017 10:50:06 AM
Ethylbenzene	ND	0.18		mg/Kg	5	10/18/2017 10:50:06 AM
Xylenes, Total	0.48	0.37		mg/Kg	5	10/18/2017 10:50:06 AM
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	5	10/18/2017 10:50:06 AM
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	50	30		mg/Kg	20	10/18/2017 12:26:59 PM

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

Qualifiers:	<ul style="list-style-type: none">• Value exceeds Maximum Contaminant Level.D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceededND Not Detected at the Reporting LimitPQL Practical Quantitative LimitS % Recovery outside of range due to dilution or matrix	<ul style="list-style-type: none">B Analyte detected in the associated Method BlankE Value above quantitation rangeJ Analyte detected below quantitation limitsP Sample pH Not In RangeRL Reporting Detection LimitW Sample container temperature is out of limit as specified
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710951

23-Oct-17

Client: Hilcorp Energy
Project: San Juan 28-5 #88

Sample ID	MB-34478	SampType:	mbk	TestCode:	EPA Method 300.0: Anlons					
Client ID:	PBS	Batch ID:	34478	RunNo:	46444					
Prep Date:	10/18/2017	Analysis Date:	10/18/2017	SeqNo:	1480600	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-34478	SampType:	lcs	TestCode:	EPA Method 300.0: Anlons					
Client ID:	LCSS	Batch ID:	34478	RunNo:	46444					
Prep Date:	10/18/2017	Analysis Date:	10/18/2017	SeqNo:	1480601	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710951

23-Oct-17

Client: Hilcorp Energy
Project: San Juan 28-5 #88

Sample ID	LCS-34470		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	34470		RunNo:	46434				
Prep Date:	10/18/2017		Analysis Date:	10/18/2017		SeqNo:	1479227		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	43	10	50.00	0	86.9	73.2	114				
Surr: DNOP	4.7		5.000		93.5	70	130				

Sample ID	MB-34470	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	34470		RunNo:	46434				
Prep Date:	10/18/2017	Analysis Date:	10/18/2017		SeqNo:	1479228	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	70	130			

Sample ID	1710951-001AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	North Base/Comp		Batch ID: 34470		RunNo: 46434					
Prep Date:	10/18/2017		Analysis Date: 10/18/2017		SeqNo: 1479445		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.7	48.73	14.05	78.6	55.8	122			
Surr: DNOP	4.8		4.873		97.5	70	130			

Sample ID	1710951-001AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	North Base/Comp		Batch ID: 34470		RunNo: 46434					
Prep Date:	10/18/2017		Analysis Date: 10/18/2017		SeqNo: 1479446		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	9.4	46.77	14.05	96.9	55.8	122	12.6	20	
Surr: DNOP	4.5		4.677		96.1	70	130	0	0	

Sample ID	LCS-34445		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 34445		RunNo: 46434					
Prep Date:	10/17/2017		Analysis Date: 10/18/2017		SeqNo: 1479447		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.5	70	130			

Sample ID	MB-34445		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	34445		RunNo:	46434				
Prep Date:	10/17/2017		Analysis Date:	10/18/2017		SeqNo:	1479448		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710951

23-Oct-17

Client: Hilcorp Energy
Project: San Juan 28-5 #88

Sample ID	MB-34445	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	34445	RunNo:	46434					
Prep Date:	10/17/2017	Analysis Date:	10/18/2017	SeqNo:	1479448	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sur: DNOP	10		10.00		99.6	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 |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710951

23-Oct-17

Client: Hilcorp Energy
Project: San Juan 28-5 #88

Sample ID	MB-34440	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	34440	RunNo:	46441					
Prep Date:	10/17/2017	Analysis Date:	10/18/2017	SeqNo:	1480009	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	960		1000		95.9	15	316			

Sample ID	LCS-34440	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	34440	RunNo:	46441					
Prep Date:	10/17/2017	Analysis Date:	10/18/2017	SeqNo:	1480010	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	118	75.9	131			
Surr: BFB	1100		1000		109	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710951

23-Oct-17

Client: Hilcorp Energy

Project: San Juan 28-5 #88

Sample ID	MB-34440		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 34440		RunNo: 46441					
Prep Date:	10/17/2017		Analysis Date: 10/18/2017		SeqNo: 1480047		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-34440		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 34440		RunNo: 46441					
Prep Date:	10/17/2017		Analysis Date: 10/18/2017		SeqNo: 1480048		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.9	77.3	128			
Toluene	0.96	0.050	1.000	0	96.4	79.2	125			
Ethylbenzene	0.99	0.050	1.000	0	99.5	80.7	127			
Xylenes, Total	3.0	0.10	3.000	0	99.7	81.6	129			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

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



Hall Environmental Analysis Laboratory
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: HILCORP ENERGY

Work Order Number: 1710951

RcptNo: 1

Received By: Anne Thorne

10/18/2017 7:10:00 AM

Anne Thorne

Completed By: Anne Thorne

10/18/2017 7:18:09 AM

Anne Thorne

Reviewed By: ENM

10/18/17

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°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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.0	Good	Yes			

Client: Hilcorp-
9A Road 5793 Farmington NM
Mailing Address: PO Box 4700
Farmington NM 87401
Phone #: 832-839-4585
email or Fax#: LDumas@Hilcorp.com
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Sample 1: Main title

Sample 1: Main title

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

	X	X	X	X	BTEX + MTBE + TMBE (8021)
					BTEX + MTBE + TPH (Gas only)
	X	X	X	X	TPH 8015B (GRO / DRO / MRO)
					TPH (Method 418.1)
					EDB (Method 504.1)
					PAH's (8310 or 8270 SIMS)
					RCRA 8 Metals
					Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)
					8081 Pesticides / 8082 PCB's
					8260B (VOA)
					8270 (Semi-VOA)
	X	X	X	X	Chlorides
					Air Bubbles (Y or N)

18/7
0710

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

TABLE 1
SOIL ANALYTICAL RESULTS

SAN JUAN 28-5 #88 SUBSURFACE INVESTIGATION
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY

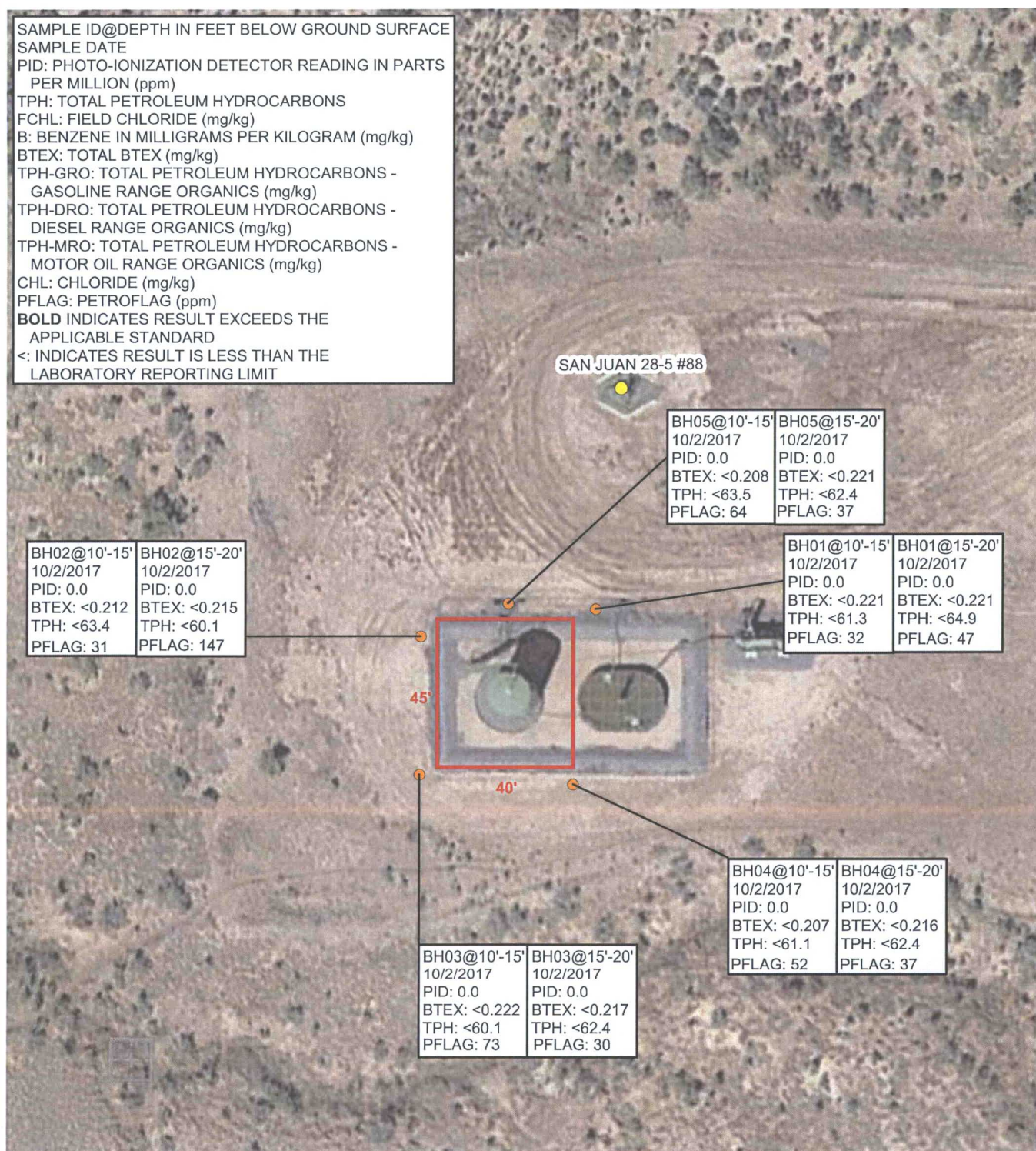
Borehole ID	Depth (feet bgs)	PID (ppm)	PetroFlag (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-MRO (mg/kg)	Total TPH (mg/kg)
BH01	0-5	0.0	--	--	--	--	--	--	--	--	--	--
	5-10	0.0	--	--	--	--	--	--	--	--	--	--
	10-15	0.0	32	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<9.4	<47	<61.3
	15-20	0.0	47	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<10	<50	<64.9
BH02	0-5	0.0	--	--	--	--	--	--	--	--	--	--
	5-10	0.0	--	--	--	--	--	--	--	--	--	--
	10-15	0.0	31	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.7	<49	<63.4
	15-20	0.0	147	<0.024	<0.048	<0.048	<0.095	<0.215	<4.8	<9.3	<46	<60.1
BH03	0-5	0.0	--	--	--	--	--	--	--	--	--	--
	5-10	0.0	--	--	--	--	--	--	--	--	--	--
	10-15	0.0	73	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<9.2	<46	<60.1
	15-20	0.0	30	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	<9.6	<48	<62.4
BH04	0-5	0.0	--	--	--	--	--	--	--	--	--	--
	5-10	0.0	--	--	--	--	--	--	--	--	--	--
	10-15	0.0	52	<0.023	<0.046	<0.046	<0.092	<0.207	<4.6	<9.5	<47	<61.1
	15-20	0.0	37	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.6	<48	<62.4
BH05	0-5	0.0	--	--	--	--	--	--	--	--	--	--
	5-10	0.0	--	--	--	--	--	--	--	--	--	--
	10-15	0.0	64	<0.023	<0.046	<0.046	<0.093	<0.208	<4.6	<9.9	<49	<63.5
	15-20	0.0	37	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<9.5	<48	<62.4
NMOCD Closure Criteria (Ranking - 20)				10	NE	NE	NE	50	NE	NE	NE	100

Notes:

-- not analyzed
 < - indicates result is less than the stated laboratory reporting limit
 bgs - below ground surface
 BTEX - benzene, toluene, ethylbenzene, and total xylenes
 mg/kg - milligrams per kilogram
 NMOCD - New Mexico Oil Conservation Division
 ppm - parts per million
 TPH-DRO - total petroleum hydrocarbons diesel range organics
 TPH-GRO - total petroleum hydrocarbons gasoline range organics
 TPH-MRO - total petroleum hydrocarbons motor oil range organics



SAMPLE ID@DEPTH IN FEET BELOW GROUND SURFACE
 SAMPLE DATE
 PID: PHOTO-IONIZATION DETECTOR READING IN PARTS
 PER MILLION (ppm)
 TPH: TOTAL PETROLEUM HYDROCARBONS
 FCHL: FIELD CHLORIDE (mg/kg)
 B: BENZENE IN MILLIGRAMS PER KILOGRAM (mg/kg)
 BTEX: TOTAL BTEX (mg/kg)
 TPH-GRO: TOTAL PETROLEUM HYDROCARBONS -
 GASOLINE RANGE ORGANICS (mg/kg)
 TPH-DRO: TOTAL PETROLEUM HYDROCARBONS -
 DIESEL RANGE ORGANICS (mg/kg)
 TPH-MRO: TOTAL PETROLEUM HYDROCARBONS -
 MOTOR OIL RANGE ORGANICS (mg/kg)
 CHL: CHLORIDE (mg/kg)
 PFLAG: PETROFLAG (ppm)
BOLD INDICATES RESULT EXCEEDS THE
 APPLICABLE STANDARD
 <: INDICATES RESULT IS LESS THAN THE
 LABORATORY REPORTING LIMIT



LEGEND

- SOIL BORING
- BOREHOLE
- WELLHEAD
- APPROXIMATE EXISTING EXCAVATION EXTENT

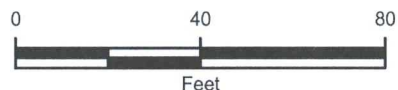


IMAGE COURTESY OF GOOGLE EARTH 2016

FIGURE 2
 SITE MAP, SAMPLE LOCATIONS, AND RESULTS
 SAN JUAN 28-5 #88
 SWSW SEC 15-T28N-R5W
 RIO ARriba COUNTY, NEW MEXICO
 HILCORP ENERGY COMPANY





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

October 05, 2017

Danny Burns
LTE
2243 Main Ave Suite 3
Durango, CO 81301
TEL: (970) 946-1093
FAX

RE: San Juan 28-5 #88

OrderNo.: 1710049

Dear Danny Burns:

Hall Environmental Analysis Laboratory received 10 sample(s) on 10/3/2017 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 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 1710049

Date Reported: 10/5/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** LTE**Client Sample ID:** BH01 @ 10-15'**Project:** San Juan 28-5 #88**Collection Date:** 10/2/2017 10:00:00 AM**Lab ID:** 1710049-001**Matrix:** SOIL**Received Date:** 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/4/2017 1:39:29 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/4/2017 1:39:29 PM
Surr: DNOP	82.2	70-130		%Rec	1	10/4/2017 1:39:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2017 9:06:55 PM
Surr: BFB	89.8	54-150		%Rec	1	10/4/2017 9:06:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	10/4/2017 9:06:55 PM
Toluene	ND	0.049		mg/Kg	1	10/4/2017 9:06:55 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2017 9:06:55 PM
Xylenes, Total	ND	0.098		mg/Kg	1	10/4/2017 9:06:55 PM
Surr: 4-Bromofluorobenzene	96.6	66.6-132		%Rec	1	10/4/2017 9:06:55 PM

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE**Client Sample ID:** BH01 @ 15-20'**Project:** San Juan 28-5 #88**Collection Date:** 10/2/2017 10:10:00 AM**Lab ID:** 1710049-002**Matrix:** SOIL**Received Date:** 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2017 2:45:45 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/4/2017 2:45:45 PM
Surr: DNOP	101	70-130		%Rec	1	10/4/2017 2:45:45 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2017 9:30:19 PM
Surr: BFB	87.5	54-150		%Rec	1	10/4/2017 9:30:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	10/4/2017 9:30:19 PM
Toluene	ND	0.049		mg/Kg	1	10/4/2017 9:30:19 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2017 9:30:19 PM
Xylenes, Total	ND	0.098		mg/Kg	1	10/4/2017 9:30:19 PM
Surr: 4-Bromofluorobenzene	93.5	66.6-132		%Rec	1	10/4/2017 9:30:19 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE

Client Sample ID: BH02 @ 10-15'

Project: San Juan 28-5 #88

Collection Date: 10/2/2017 11:00:00 AM

Lab ID: 1710049-003

Matrix: SOIL

Received Date: 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/4/2017 3:08:01 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/4/2017 3:08:01 PM
Surr: DNOP	102	70-130		%Rec	1	10/4/2017 3:08:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2017 9:53:45 PM
Surr: BFB	86.2	54-150		%Rec	1	10/4/2017 9:53:45 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/4/2017 9:53:45 PM
Toluene	ND	0.047		mg/Kg	1	10/4/2017 9:53:45 PM
Ethylbenzene	ND	0.047		mg/Kg	1	10/4/2017 9:53:45 PM
Xylenes, Total	ND	0.094		mg/Kg	1	10/4/2017 9:53:45 PM
Surr: 4-Bromofluorobenzene	92.9	66.6-132		%Rec	1	10/4/2017 9:53:45 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE

Client Sample ID: BH02 @ 15-20'

Project: San Juan 28-5 #88

Collection Date: 10/2/2017 11:10:00 AM

Lab ID: 1710049-004

Matrix: SOIL

Received Date: 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/4/2017 3:30:06 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/4/2017 3:30:06 PM
Surr: DNOP	101	70-130		%Rec	1	10/4/2017 3:30:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/4/2017 10:17:10 PM
Surr: BFB	87.4	54-150		%Rec	1	10/4/2017 10:17:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/4/2017 10:17:10 PM
Toluene	ND	0.048		mg/Kg	1	10/4/2017 10:17:10 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/4/2017 10:17:10 PM
Xylenes, Total	ND	0.095		mg/Kg	1	10/4/2017 10:17:10 PM
Surr: 4-Bromofluorobenzene	94.0	66.6-132		%Rec	1	10/4/2017 10:17:10 PM

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE**Client Sample ID: BH03 @ 10-15'****Project: San Juan 28-5 #88****Collection Date: 10/2/2017 12:00:00 PM****Lab ID: 1710049-005****Matrix: SOIL****Received Date: 10/3/2017 7:10:00 AM**

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/4/2017 3:52:19 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/4/2017 3:52:19 PM
Surr: DNOP	108	70-130		%Rec	1	10/4/2017 3:52:19 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2017 10:40:29 PM
Surr: BFB	90.0	54-150		%Rec	1	10/4/2017 10:40:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	10/4/2017 10:40:29 PM
Toluene	ND	0.049		mg/Kg	1	10/4/2017 10:40:29 PM
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2017 10:40:29 PM
Xylenes, Total	ND	0.099		mg/Kg	1	10/4/2017 10:40:29 PM
Surr: 4-Bromofluorobenzene	98.3	66.6-132		%Rec	1	10/4/2017 10:40:29 PM

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

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

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE**Client Sample ID:** BH03 @ 15-20'**Project:** San Juan 28-5 #88**Collection Date:** 10/2/2017 12:10:00 PM**Lab ID:** 1710049-006**Matrix:** SOIL**Received Date:** 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/4/2017 4:14:18 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/4/2017 4:14:18 PM
Surr: DNOP	91.4	70-130		%Rec	1	10/4/2017 4:14:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/4/2017 11:03:47 PM
Surr: BFB	89.4	54-150		%Rec	1	10/4/2017 11:03:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/4/2017 11:03:47 PM
Toluene	ND	0.048		mg/Kg	1	10/4/2017 11:03:47 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/4/2017 11:03:47 PM
Xylenes, Total	ND	0.097		mg/Kg	1	10/4/2017 11:03:47 PM
Surr: 4-Bromofluorobenzene	96.0	66.6-132		%Rec	1	10/4/2017 11:03:47 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE

Client Sample ID: BH04 @ 10-15'

Project: San Juan 28-5 #88

Collection Date: 10/2/2017 1:30:00 PM

Lab ID: 1710049-007

Matrix: SOIL

Received Date: 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/4/2017 4:36:29 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/4/2017 4:36:29 PM
Surr: DNOP	77.1	70-130		%Rec	1	10/4/2017 4:36:29 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/4/2017 11:27:07 PM
Surr: BFB	86.7	54-150		%Rec	1	10/4/2017 11:27:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/4/2017 11:27:07 PM
Toluene	ND	0.046		mg/Kg	1	10/4/2017 11:27:07 PM
Ethylbenzene	ND	0.046		mg/Kg	1	10/4/2017 11:27:07 PM
Xylenes, Total	ND	0.092		mg/Kg	1	10/4/2017 11:27:07 PM
Surr: 4-Bromofluorobenzene	94.4	66.6-132		%Rec	1	10/4/2017 11:27:07 PM

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

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

Analytical Report

Lab Order 1710049

Date Reported: 10/5/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** LTE**Client Sample ID:** BH04 @ 15-20'**Project:** San Juan 28-5 #88**Collection Date:** 10/2/2017 1:40:00 PM**Lab ID:** 1710049-008**Matrix:** SOIL**Received Date:** 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/4/2017 4:58:51 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/4/2017 4:58:51 PM
Surr: DNOP	93.4	70-130		%Rec	1	10/4/2017 4:58:51 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/4/2017 11:50:28 PM
Surr: BFB	90.6	54-150		%Rec	1	10/4/2017 11:50:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	10/4/2017 11:50:28 PM
Toluene	ND	0.048		mg/Kg	1	10/4/2017 11:50:28 PM
Ethylbenzene	ND	0.048		mg/Kg	1	10/4/2017 11:50:28 PM
Xylenes, Total	ND	0.096		mg/Kg	1	10/4/2017 11:50:28 PM
Surr: 4-Bromofluorobenzene	95.0	66.6-132		%Rec	1	10/4/2017 11:50:28 PM

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1710049

Date Reported: 10/5/2017

CLIENT: LTE

Client Sample ID: BH05 @ 10-15'

Project: San Juan 28-5 #88

Collection Date: 10/2/2017 3:10:00 PM

Lab ID: 1710049-009

Matrix: SOIL

Received Date: 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/4/2017 5:21:06 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/4/2017 5:21:06 PM
Surr: DNOP	98.1	70-130		%Rec	1	10/4/2017 5:21:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/5/2017 12:13:50 AM
Surr: BFB	87.9	54-150		%Rec	1	10/5/2017 12:13:50 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	10/5/2017 12:13:50 AM
Toluene	ND	0.046		mg/Kg	1	10/5/2017 12:13:50 AM
Ethylbenzene	ND	0.046		mg/Kg	1	10/5/2017 12:13:50 AM
Xylenes, Total	ND	0.093		mg/Kg	1	10/5/2017 12:13:50 AM
Surr: 4-Bromofluorobenzene	95.5	66.6-132		%Rec	1	10/5/2017 12:13:50 AM

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

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

Analytical Report

Lab Order 1710049

Date Reported: 10/5/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** LTE**Client Sample ID:** BH05 @ 15-20'**Project:** San Juan 28-5 #88**Collection Date:** 10/2/2017 3:20:00 PM**Lab ID:** 1710049-010**Matrix:** SOIL**Received Date:** 10/3/2017 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/4/2017 5:43:27 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/4/2017 5:43:27 PM
Surr: DNOP	96.2	70-130		%Rec	1	10/4/2017 5:43:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/5/2017 1:47:31 AM
Surr: BFB	87.6	54-150		%Rec	1	10/5/2017 1:47:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	10/5/2017 1:47:31 AM
Toluene	ND	0.049		mg/Kg	1	10/5/2017 1:47:31 AM
Ethylbenzene	ND	0.049		mg/Kg	1	10/5/2017 1:47:31 AM
Xylenes, Total	ND	0.098		mg/Kg	1	10/5/2017 1:47:31 AM
Surr: 4-Bromofluorobenzene	92.8	66.6-132		%Rec	1	10/5/2017 1:47:31 AM

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710049

05-Oct-17

Client: LTE
Project: San Juan 28-5 #88

Sample ID	LCS-34211	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	34211	RunNo:	46082					
Prep Date:	10/3/2017	Analysis Date:	10/4/2017	SeqNo:	1465764	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	92.1	73.2	114			
Surr: DNOP	4.6		5.000		92.4	70	130			

Sample ID	MB-34211	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	34211	RunNo:	46082					
Prep Date:	10/3/2017	Analysis Date:	10/4/2017	SeqNo:	1465765	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		87.3	70	130			

Sample ID	1710049-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	BH01 @ 10-15'	Batch ID:	34211	RunNo:	46080					
Prep Date:	10/3/2017	Analysis Date:	10/4/2017	SeqNo:	1466106	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	49.95	0	92.6	55.8	122			
Surr: DNOP	5.0		4.995		99.4	70	130			

Sample ID	1710049-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	BH01 @ 10-15'	Batch ID:	34211	RunNo:	46080					
Prep Date:	10/3/2017	Analysis Date:	10/4/2017	SeqNo:	1466296	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.2	46.00	0	90.1	55.8	122	11.0	20	
Surr: DNOP	4.6		4.600		99.6	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710049

05-Oct-17

Client: LTE
Project: San Juan 28-5 #88

Sample ID	MB-34210		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	PBS		Batch ID:	34210		RunNo:	46084			
Prep Date:	10/3/2017		Analysis Date:	10/4/2017		SeqNo:	1466652		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		87.6	54	150			

Sample ID	LCS-34210		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	LCSS		Batch ID:	34210		RunNo:	46084			
Prep Date:	10/3/2017		Analysis Date:	10/4/2017		SeqNo:	1466653		Units: %Rec	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	54	150			

Sample ID	MB-34201		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	PBS		Batch ID:	34201		RunNo:	46084			
Prep Date:	10/3/2017		Analysis Date:	10/4/2017		SeqNo:	1466658		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.7	54	150			

Sample ID	LCS-34201		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	LCSS		Batch ID:	34201		RunNo:	46084			
Prep Date:	10/3/2017		Analysis Date:	10/4/2017		SeqNo:	1466659		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	76.4	125			
Surr: BFB	990		1000		99.4	54	150			

Sample ID	1710049-002AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	BH01 @ 15-20'		Batch ID:	34201		RunNo:	46084			
Prep Date:	10/3/2017		Analysis Date:	10/4/2017		SeqNo:	1466667		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.7	23.58	0	141	77.8	128			S
Surr: BFB	970		943.4		103	54	150			

Sample ID	1710049-002AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	BH01 @ 15-20'		Batch ID:	34201		RunNo:	46084			
Prep Date:	10/3/2017		Analysis Date:	10/4/2017		SeqNo:	1466668		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.51	0	133	77.8	128	2.29	20	S
Surr: BFB	1000		980.4		105	54	150	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710049

05-Oct-17

Client: LTE
Project: San Juan 28-5 #88

Sample ID	MB-34210		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 34210	RunNo: 46084						
Prep Date:	10/3/2017		Analysis Date: 10/4/2017	SeqNo: 1466686		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	66.6	132			

Sample ID	LCS-34210		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: 34210	RunNo: 46084						
Prep Date:	10/3/2017		Analysis Date: 10/4/2017	SeqNo: 1466687		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	66.6	132			

Sample ID	MB-34201		SampType: MBLK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS		Batch ID: 34201	RunNo: 46084						
Prep Date:	10/3/2017		Analysis Date: 10/4/2017	SeqNo: 1466753		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.5	66.6	132			

Sample ID	LCS-34201		SampType: LCS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS		Batch ID: 34201	RunNo: 46084						
Prep Date:	10/3/2017		Analysis Date: 10/4/2017	SeqNo: 1466754		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	66.6	132			

Sample ID	1710049-001AMS		SampType: MS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	BH01 @ 10-15'		Batch ID: 34201	RunNo: 46084						
Prep Date:	10/3/2017		Analysis Date: 10/4/2017	SeqNo: 1466762		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9881	0	107	80.9	132			
Toluene	1.1	0.049	0.9881	0.01102	107	79.8	136			
Ethylbenzene	1.1	0.049	0.9881	0	112	79.4	140			
Xylenes, Total	3.3	0.099	2.964	0.01959	112	78.5	142			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1710049

05-Oct-17

Client: LTE

Project: San Juan 28-5 #88

Sample ID	1710049-001AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BH01 @ 10-15'	Batch ID:	34201	RunNo:	46084					
Prep Date:	10/3/2017	Analysis Date:	10/4/2017	SeqNo:	1466762	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9881		101	66.6	132			

Sample ID	1710049-001AMSD	SampType:	MSD	TestCode: EPA Method 8021B: Volatiles						
Client ID:	BH01 @ 10-15'	Batch ID:	34201	RunNo: 46084						
Prep Date:	10/3/2017	Analysis Date:	10/4/2017	SeqNo: 1466763		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9775	0	111	80.9	132	2.37	20	
Toluene	1.1	0.049	0.9775	0.01102	110	79.8	136	2.30	20	
Ethylbenzene	1.1	0.049	0.9775	0	116	79.4	140	2.52	20	
Xylenes, Total	3.4	0.098	2.933	0.01959	116	78.5	142	1.85	20	
Surr: 4-Bromofluorobenzene	0.97		0.9775		99.3	66.6	132	0	0	

Qualifiers:

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



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: LTE

Work Order Number: 1710049

RcptNo: 1

Received By: Anne Thorne

10/3/2017 7:10:00 AM

Anne Thorne

Completed By: Anne Thorne

10/3/2017 7:54:35 AM

Anne Thorne

Reviewed By: *[Signature]*

10/3/17

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°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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	1.0	Good	Yes			

Chain-of-Custody Record

Client: **LT Environmental Inc**

Mailing Address: **848 E 3rd
Durango CO 81301**

Phone #: **970-385-1096**

email or Fax#: **dburns@henv.com**

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☒ EDD (Type) **PDF**

Turn-Around Time:

Results by
EOD 10-5-17

☐ Standard ☒ Rush

Project Name:

San Juan 28-5 #88

Project #:

0178 17003

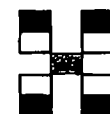
Project Manager:

**LTE- Danny Burns/A. Ager
Hilcorp - Lindsay Dumas**

Sampler: **D. Burns**

On Ice: ☒ Yes ☐ No

Sample Temperature: **5**



**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 8015B (GRO/DRO/MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
10-2-17	10:00	S	BH01@10-15'	1-4oz	cool	701	X	X	X									
	10:10		BH01@15-20'			702	X	X	X									
	11:00		BH02@10-15'			703	X	X	X									
	11:10		BH02@15-20'			704	X	X	X									
	12:00		BH03@10-15'			705	X	X	X									
	12:10		BH03@15-20'			706	X	X	X									
	13:30		BH04@10-15'			707	X	X	X									
	13:40		BH04@15-20'			708	X	X	X									
	15:10		BH05@10-15'			709	X	X	X									
	15:20		BH05@15-20'			710	X	X	X									

Date: 10-2-17 Time: 17:30 Relinquished by: **[Signature]**

Received by: **[Signature]** Date: 10/2/17 Time: 1730

Remarks: cc: dburns@henv.com; aager@henv.com
ldumas@hilcorp.com

Date: 10/2/17 Time: 1840 Relinquished by: **[Signature]**

Received by: **[Signature]** Date: 10/3/17 Time: 0710

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