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

OIL CONS. DIV DIST. 3
OCT 23 2017

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Hilcorp Energy Company	Contact Jennifer Deal
Address 9a CR 5793	Telephone No. (505) 324-5128
Facility Name Sarah M. Hedges #1	Facility Type Gas Well

Surface Owner Private	Mineral Owner	API No. 30-045-60040

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	23	31N	12W	1700	South	1130	East	San Juan County

Latitude 36.8817215 **Longitude** -108.062561 NAD83

NATURE OF RELEASE

Type of Release Produced Water/Hydrocarbon	Volume of Release 37.3 BBLs	Volume Recovered none
Source of Release Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 8/8/2017 @ 8:40am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith & Vanessa Fields	
By Whom? Paul Keloff	Date and Hour 8/8/2017 @ 1:35pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Operator noticed produced water and condensate in the berm coming from a hole in the manway weld which appears to be a result of corrosion. Operator plugged the hole with Plug n'Dike until further repair can occur.

Describe Area Affected and Cleanup Action Taken.*
Excavation was approximately 47'x47'x16' Deep. Approximately 1309 c/yds of soil was transported to IEI Land Farm and Approximately 1309 c/yds of clean soil was transported from Halo Services, and placed in the excavation site. Analytical results were below the regulatory standards – no further action required. The soil sampling report is attached for review.

Hilcorp Energy Company will begin delineation by excavation starting the week of 8/14 to assess the soil

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: Jennifer Deal	OIL CONSERVATION DIVISION
Printed Name: Jennifer Deal	Approved by Environmental Specialist:
Title: Environmental Specialist	Approval Date: 2/26/18 Expiration Date:
E-mail Address: jdeal@hilcorp.com	Conditions of Approval: — Attached ☐
Date: 10/17/2017 Phone: (505) 324-5128	

* Attach Additional Sheets If Necessary #NCS 1722049031

56

LT Environmental, Inc.
848 East 2nd Avenue
Durango, Colorado 81301
T 970.385.1096 / F 303.433.1432

October 13, 2017

Ms. Jennifer Deal
Environmental Specialist
Hilcorp Energy Company
9A Road 5793
Farmington, New Mexico 87401

RE: Remediation Report and Request for Closure
Hilcorp Energy Company
Sarah M. Hedges #1
San Juan County, New Mexico
NESE Section 23, Township 31N Range 12W

Dear Ms. Deal:

LT Environmental, Inc. (LTE), on behalf of Hilcorp Energy Company (Hilcorp), presents this report documenting soil investigation and remediation activities at the Sarah M. Hedges #1 natural gas production well (Site). A release occurred that consisted of 37.3 barrels (bbl) of produced water and condensate resulting from a corrosion in the manway weld of an on-site production tank. This report describes soil delineation efforts and excavation activities that remediated the Site to applicable state regulatory standards.

SITE DESCRIPTION AND HISTORY

The Site is in the northeast quarter of the southeast quarter of Section 23, Township 31 North, and Range 12 West in San Juan County, New Mexico (Figure 1). The nearest groundwater monitoring well is located approximately 4,335 feet southeast of the Site. Although there is no groundwater data available in that well, other nearby permitted water wells indicate groundwater is between 85 and 90 feet below ground surface (bgs). The nearest surface water body is Hedges Arroyo, which is approximately 190 feet west of the Site. Based on the proximity of Hedges Arroyo and depth to groundwater, the New Mexico Oil Conservation Division (NMOCD) ranking criteria triggers the following remediation action levels: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX (benzene, toluene, ethylbenzene, and xylenes), and 100 mg/kg for (TPH).

On August 8, 2017, Hilcorp personnel discovered a corrosion hole in the manway weld of a 300-bbl production tank, which resulted in the release of approximately 37.3 bbl of produced water and condensate. The following day, Hilcorp reported the release to the NMOCD on an initial *C-141 Release Notification and Corrective Action Form*. In response to the release, Hilcorp contractors removed the aboveground and below ground tanks to complete excavation activities.

INITIAL EXCAVATION SAMPLING

LTE and Hilcorp directed excavation activities by field screening composite soil samples for volatile organic compounds (VOCs) with a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp per methods in accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases*, August 13, 1993. On August 18, 2017, LTE personnel were onsite to field screen the north, east, south, west, and floor of the excavation. Based on field screening results, 5-point composite soil samples CS-North, CS-East, CS-South, and CS-West were collected from the walls of the excavation. Composite sampling consisted of thoroughly mixing separate aliquots of soil in a 1-gallon Ziploc® bag and placing the mixed soil directly into a pre-cleaned 4-ounce glass jar. The jar was labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples, at 4 degrees Celsius (°C), were hand delivered to a laboratory courier under strict chain-of-custody procedures for delivery to Hall Environmental Analytical Laboratory Sciences (HEAL) of Albuquerque, New Mexico, for analysis of BTEX by United States Environmental Protection Agency (EPA) Method 8021 and TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-motor oil range organics (MRO) by EPA Method 8015.

Laboratory analytical results (Table 1) from the excavation sampling indicated that concentrations of BTEX and TPH in CS-North and CS-East were below the laboratory reporting limits and compliant with the NMOCD site-specific standards. Composite soil sample CS-South exhibited BTEX and TPH concentrations of 63 milligrams per kilogram (mg/kg) and 1,074 mg/kg, respectfully and CS-West exhibited BTEX and TPH concentration of 50 mg/kg and 820 mg/kg, respectfully. Therefore, Hilcorp requested a site investigation be completed to the south and west of the release to delineate soil impacts and evaluate remediation options. The complete HEAL laboratory analytical reports are included as Attachment 1.

SITE INVESTIGATION

On August 30 and 31, 2017, LTE advanced soil borings BH-1 through BH-7 to the south and west of the release location. A site map with soil boring and soil sample locations are depicted on Figure 2. Soil boring BH-1 was advanced with a hand auger and refusal was encountered at 16 feet below ground surface (bgs). Soil borings BH-2 through BH-7 were advanced using a hollow-stem auger. Soil borings ranged in depth from 16 feet to 35 feet bgs. Lithology at the Site was generally a silty sand from 0 feet to 15 feet bgs and a sandy silt from 15 feet to 35 feet bgs. The soil boring logs are included as Attachment 2.

Samples were collected with a split-spoon at 5-foot intervals and field screened for VOCs. The soil samples with the highest field screening values, BH-2 at 25 feet bgs (981.3 parts per million [ppm]), BH-4 at 25 feet bgs (1,337 ppm), and BH-6 at 30 feet bgs (856.3 ppm), were submitted for confirmation laboratory analysis. Additionally, soil samples BH-2 at 30 feet bgs, BH-4 at 30 feet bgs, and BH-6 at 35 feet bgs were collected from the bottom of soil borings to document

vertical delineation. The samples were handled as described above and delivered to HEAL for analysis of BTEX by EPA Method 8021 and TPH-GRO, TPH-DRO, TPH-MRO by EPA Method 8015.

Samples were collected from soil borings BH-5 and BH-7 and placed on hold for laboratory analysis in the event that samples from soil boring BH-2, BH-4, or BH-6 were not in compliance with the NMOCD site-specific standards. No sample was analyzed from soil boring BH-3, as visual observations and field screening results indicated no hydrocarbon impacts. Laboratory analytical results indicated soil collected from soil borings BH-2, BH-4, and BH-6 were compliant with the NMOCD site-specific standards. Therefore, no additional samples were analyzed from soil borings BH-5 or BH-7.

CLOSURE EXCAVATION SAMPLING

Based on field and laboratory results from the initial excavation sampling and site investigation, Hilcorp increased the excavation extent to the south and west, and advanced the depth of the excavation to approximately 23 feet bgs (Figure 2). On September 26, 2017, LTE collected three 5-point composite soil samples from the new excavation sidewalls (S Wall Sample, SW Wall Sample, and W Wall Sample), one 6-point composite soil sample from the floor of the excavation (Floor Sample), and, as requested by on-site NMOCD personnel, a discrete soil sample (Grab Sample) from a small area of staining on the floor near the south wall. On October 4, 2017, Hilcorp advanced a pothole immediately east of the excavation to 13 feet bgs where refusal was encountered. Pothole sample East Side was collected from 12 feet to 13 feet bgs. The excavation samples were submitted under the same preparation guidelines and laboratory analyses listed above.

CLOSURE SAMPLING RESULTS

Laboratory analytical results indicate soil samples collected from the north and east walls of the excavation on August 18, 2017 and samples collected from the floor, south wall, southwest wall, and west wall on September 26, 2017 were compliant with the NMOCD site-specific standards for benzene, total BTEX, and TPH. The discrete Grab Sample analytical results indicated a TPH concentration of 290 mg/kg. Laboratory analytical results for the soil sample collected from the pothole east of the excavation indicated no concentrations of benzene, total BTEX, or TPH exceeded the NMOCD site-specific standard.

NO FURTHER ACTION REQUEST

Field and laboratory analytical results indicated the final extend of the excavation walls, the composite soil sample of the base of the excavation, and the pothole sample east of the excavation are compliant with the NMOCD site-specific standards for benzene, total BTEX, and TPH. The Grab Sample collected within the excavation exceeded the NMOCD site-specific standard for

TPH; however, the sample represented only a small area of residual impact at 23 feet bgs that is unlikely to migrate to nearby receptors, particularly because the elevated concentrations occur at depth and all other source material has been removed. Based on these results, LTE recommends Hilcorp request that No Further Action be required for the Site.

LTE appreciates the opportunity to provide this report to Hilcorp. If you have any questions or comments, do not hesitate to contact me at (970) 385-1096 or via email at wtoews@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Michael A. Wicker
Staff Geologist

Ashley Ager
Senior Geologist

Attachments:

Figure 1 – Site Location Map
Figure 2 – Site Map, Sample Locations
Table 1 – Soil Analytical Results
Attachment 1 – Laboratory Analytical Reports
Attachment 2 – Soil Boring Logs

FIGURES

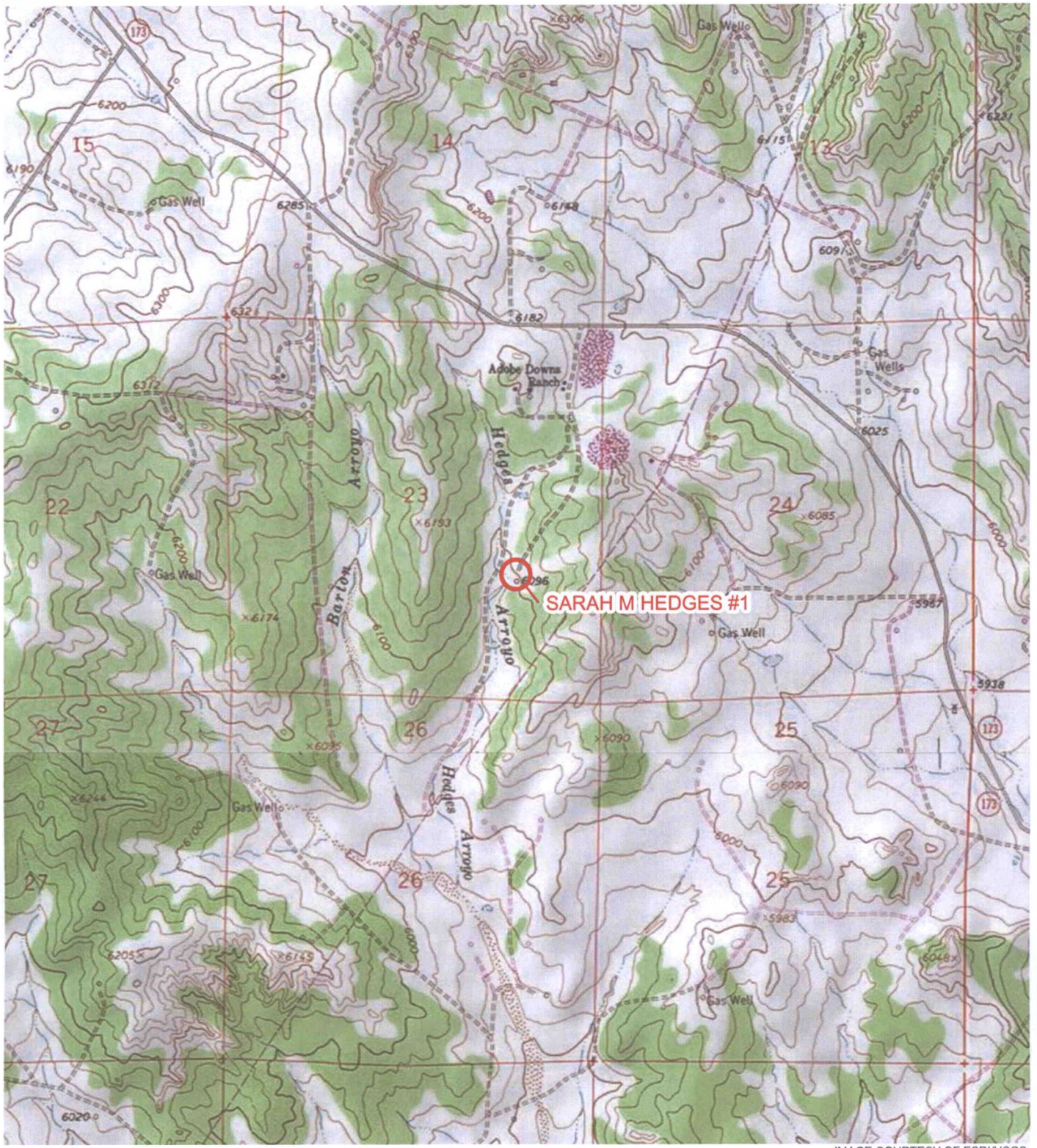

IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

FIGURE 1
SITE LOCATION MAP
SARAH M HEDGES #1
NESE SEC 23-T31N-R12W
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

P:\Hilcorp\GIS\MXD\017817002_SARAH M HEDGES\062017002_FIG01_SL.mxd

FIGURE 2
SITE MAP
SARAH M HEDGES #1
NESE SEC 23-T31N-R12W
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

P:\Hilcorp\GIS\MXD\017817002_SARAH M HEDGES\017817002_FIG02_SITE.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

SARAH M. HEDGES #1
SAN JUAN COUNTY, NEW MEXICO
HILCORP ENERGY COMPANY

Soil Sample Identification	Sample Date	Field Headspace (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	TPH (mg/kg)
CS-North	8/18/2017	14.6	<0.019	<0.037	<0.037	<0.074	<0.074	<3.7	<9.9	<49	<49
CS-South	8/18/2017	1,553	0.23	11	4.3	47	**63**	980	94	<49	**1,074**
CS-East	8/18/2017	94.6	<0.016	<0.033	<0.033	<0.066	<0.066	<3.3	<9.7	<48	<48
CS-West	8/18/2017	1,664	0.052	2.8	3.5	44	**50**	790	30	<50	**820**
BH-2 @ 25'	8/31/2017	981.3	<0.025	<0.050	<0.050	<0.10	<0.10	12	<9.4	<47	12
BH-2 @ 30'	8/31/2017	372.5	<0.024	<0.047	<0.047	0.12	0.120	7.8	<9.5	<47	7.8
BH-4 @ 25'	8/31/2017	1,337	<0.024	<0.048	<0.048	0.22	0.22	10	<9.4	<47	10
BH-4 @ 30'	8/31/2017	38.3	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.9	<49	<49
BH-6 @ 30'	8/31/2017	856.3	<0.025	<0.050	<0.050	<0.099	<0.099	16	13	<49	29
BH-6 @ 35'	8/31/2017	70.7	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<10	<51	<51
Floor Sample	9/26/2017	0.0	<0.020	<0.040	<0.040	<0.081	<0.081	<4.0	<10	<50	<50
Grab Sample	9/26/2017	1,907	<0.088	<0.18	0.40	1.4	1.8	120	170	<50	**290**
S Wall Sample	9/26/2017	0.0	<0.018	<0.037	<0.037	<0.073	<0.073	<3.7	<9.8	<49	<49
SW Wall Sample	9/26/2017	0.0	<0.020	<0.041	<0.041	<0.081	<0.081	<4.1	<9.8	<49	<49
W Wall Sample	9/26/2017	0.0	<0.021	<0.042	<0.042	<0.084	<0.084	<4.2	<9.6	<48	<48
East Side	10/4/2017	0.0	<0.020	<0.040	<0.040	<0.080	<0.080	<4.0	<9.4	<47	<47
NMOCD Ranking Criteria		**NE**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**

NOTES:
< - indicates result is less than the stated laboratory reporting limit
Bold - indicates result exceeds stated NMOCD standard
BTEX - benzene, toluene, ethylbenzene, total xylenes
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligrams per kilogram
MRO - motor oil range organics
NE - Not Established
NMOCD - New Mexico Oil Conservation Division
ppm - parts per million
TPH - total petroleum hydrocarbons

ATTACHMENT 1

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 25, 2017

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

RE: Sarah M Hedges #001 OrderNo.: 1708B70

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/19/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges #001
Lab ID: 1708B70-001 **Matrix:** SOIL

Client Sample ID: CS-West
Collection Date: 8/18/2017 3:21:00 PM
Received Date: 8/19/2017 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	30	10		mg/Kg	1	8/21/2017 11:46:45 AM	33469
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/21/2017 11:46:45 AM	33469
Surr: DNOP	93.0	70-130		%Rec	1	8/21/2017 11:46:45 AM	33469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	790	82		mg/Kg	20	8/21/2017 12:14:04 PM	G45098
Surr: BFB	266	54-150	S	%Rec	20	8/21/2017 12:14:04 PM	G45098
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.052	0.021		mg/Kg	1	8/21/2017 9:51:50 AM	B45098
Toluene	2.8	0.041		mg/Kg	1	8/21/2017 9:51:50 AM	B45098
Ethylbenzene	3.5	0.041		mg/Kg	1	8/21/2017 9:51:50 AM	B45098
Xylenes, Total	44	1.6		mg/Kg	20	8/21/2017 12:14:04 PM	B45098
Surr: 4-Bromofluorobenzene	122	66.6-132		%Rec	20	8/21/2017 12:14:04 PM	B45098

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges #001
Lab ID: 1708B70-002 **Matrix:** SOIL

Client Sample ID: CS-North
Collection Date: 8/18/2017 3:15:00 PM
Received Date: 8/19/2017 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/21/2017 12:14:51 PM	33469
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/21/2017 12:14:51 PM	33469
Surr: DNOP	87.5	70-130		%Rec	1	8/21/2017 12:14:51 PM	33469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	8/21/2017 12:37:44 PM	G45098
Surr: BFB	97.2	54-150		%Rec	1	8/21/2017 12:37:44 PM	G45098
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	8/21/2017 12:37:44 PM	B45098
Toluene	ND	0.037		mg/Kg	1	8/21/2017 12:37:44 PM	B45098
Ethylbenzene	ND	0.037		mg/Kg	1	8/21/2017 12:37:44 PM	B45098
Xylenes, Total	ND	0.074		mg/Kg	1	8/21/2017 12:37:44 PM	B45098
Surr: 4-Bromofluorobenzene	105	66.6-132		%Rec	1	8/21/2017 12:37:44 PM	B45098

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: CS-East
Project: Sarah M Hedges #001
Collection Date: 8/18/2017 3:18:00 PM
Lab ID: 1708B70-003
Matrix: SOIL
Received Date: 8/19/2017 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/21/2017 12:42:41 PM	33469
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/21/2017 12:42:41 PM	33469
Surr: DNOP	90.9	70-130		%Rec	1	8/21/2017 12:42:41 PM	33469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	8/21/2017 10:39:10 AM	G45098
Surr: BFB	97.4	54-150		%Rec	1	8/21/2017 10:39:10 AM	G45098
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.016		mg/Kg	1	8/21/2017 10:39:10 AM	B45098
Toluene	ND	0.033		mg/Kg	1	8/21/2017 10:39:10 AM	B45098
Ethylbenzene	ND	0.033		mg/Kg	1	8/21/2017 10:39:10 AM	B45098
Xylenes, Total	ND	0.066		mg/Kg	1	8/21/2017 10:39:10 AM	B45098
Surr: 4-Bromofluorobenzene	104	66.6-132		%Rec	1	8/21/2017 10:39:10 AM	B45098

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

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 Quanitative 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: CS-South
Project: Sarah M Hedges #001
Collection Date: 8/18/2017 3:24:00 PM
Lab ID: 1708B70-004
Matrix: SOIL
Received Date: 8/19/2017 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	94	9.8		mg/Kg	1	8/21/2017 1:10:25 PM	33469
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/21/2017 1:10:25 PM	33469
Surr: DNOP	91.7	70-130		%Rec	1	8/21/2017 1:10:25 PM	33469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	980	21		mg/Kg	5	8/21/2017 11:02:54 AM	G45098
Surr: BFB	737	54-150	S	%Rec	5	8/21/2017 11:02:54 AM	G45098
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.23	0.10		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Toluene	11	0.21		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Ethylbenzene	4.3	0.21		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Xylenes, Total	47	0.41		mg/Kg	5	8/21/2017 11:02:54 AM	B45098
Surr: 4-Bromofluorobenzene	156	66.6-132	S	%Rec	5	8/21/2017 11:02:54 AM	B45098

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 Quanitative 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#: **1708B70**

25-Aug-17

Client: LTE

Project: Sarah M Hedges #001

Sample ID **LCS-33469**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **33469**	RunNo: **45091**
Prep Date: **8/21/2017**	Analysis Date: **8/21/2017**	SeqNo: **1427503** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	73.2	114			
Surr: DNOP	4.6		5.000		91.2	70	130			

Sample ID **MB-33469**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **33469**	RunNo: **45091**
Prep Date: **8/21/2017**	Analysis Date: **8/21/2017**	SeqNo: **1427504** 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	8.8		10.00		87.7	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 Quanitative 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#: **1708B70**

25-Aug-17

Client: LTE

Project: Sarah M Hedges #001

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1427987** 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	930		1000		93.1	54	150			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1427988** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.2	76.4	125			
Surr: BFB	1000		1000		101	54	150			

Sample ID **1708B70-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CS-North**	Batch ID: **G45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1427989** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.7	18.59	1.182	89.8	77.8	128			
Surr: BFB	770		743.5		103	54	150			

Sample ID **1708B70-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CS-North**	Batch ID: **G45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1427990** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.7	18.59	1.182	87.8	77.8	128	2.06	20	
Surr: BFB	760		743.5		103	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 Quanitative 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#: **1708B70**

25-Aug-17

Client: LTE

Project: Sarah M Hedges #001

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1428010** 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	1.1		1.000		105	66.6	132			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1428011** 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	90.4	80	120			
Toluene	0.92	0.050	1.000	0	91.8	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	66.6	132			

Sample ID **1708B70-003AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-East**	Batch ID: **B45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1428012** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.64	0.016	0.6562	0	96.8	80.9	132			
Toluene	0.64	0.033	0.6562	0	97.7	79.8	136			
Ethylbenzene	0.63	0.033	0.6562	0	95.9	79.4	140			
Xylenes, Total	1.9	0.066	1.969	0.01839	97.2	78.5	142			
Surr: 4-Bromofluorobenzene	0.70		0.6562		107	66.6	132			

Sample ID **1708B70-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-East**	Batch ID: **B45098**	RunNo: **45098**
Prep Date:	Analysis Date: **8/21/2017**	SeqNo: **1428013** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.61	0.016	0.6562	0	93.2	80.9	132	3.83	20	
Toluene	0.62	0.033	0.6562	0	94.2	79.8	136	3.58	20	
Ethylbenzene	0.61	0.033	0.6562	0	92.9	79.4	140	3.22	20	
Xylenes, Total	1.9	0.066	1.969	0.01839	94.2	78.5	142	3.13	20	
Surr: 4-Bromofluorobenzene	0.70		0.6562		106	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 Quanitative 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

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: 1708B70 | RcptNo: 1

Received By: Anne Thorne 8/19/2017 11:00:00 AM

Completed By: Anne Thorne 8/19/2017 11:10:23 AM

Reviewed By: JC 8-21-17

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° 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: ☐ 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	1.8	Good	Yes			

Chain-of-Custody Record

Client: Ashley Ager
LT Environmental, Inc
Mailing Address: 848 E 2nd Ave
Durango, CO 81301
Phone #: (970) 385-1096
email or Fax#: AAger@LTEnv.com
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☑ Rush Same Day Afternoon 8/21/2017
Project Name: Sarah M Hedges #001
Project #: 017817002
Project Manager: Ashley Ager
Sampler: Michael A Wicker
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.8

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 # (8/18/17 Meoh Kit)	Preservative Type	HEAL No. 1708B70	BTEX + MBE + TMBs (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)
8/18/17	1521	Soil	CS-West	1.4oz	Cool	001	X		X									
	1515		CS-North			002												
	1518		CS-East			003												
	1524		CS-South			004												

Date: 8-18-17 Time: 1554 Relinquished by: [signature]
Received by: [signature] Date 8/18/17 Time 1554

Date: 8/18/17 Time: 2050 Relinquished by: [signature]
Received by: [signature] Date 08/19/17 Time 1100

Remarks: Please CC: MWicker@LTEnv.com
Please do TPH-GRO/DRO/MRO
BTEX

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.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

September 19, 2017

Ashley Ager
LT Environmental
10 42nd St E #1301
Williston, ND 58801
TEL: (701) 609-5436
FAX

RE: Sarah M Hedges 001 OrderNo.: 1709034

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 10 sample(s) on 9/1/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1709034**
Date Reported: **9/19/2017**

CLIENT: LT Environmental
Project: Sarah M Hedges 001
Lab ID: 1709034-001 **Matrix:** SOIL

Client Sample ID: BH-4 @ 25'
Collection Date: 8/31/2017 4:10:00 PM
Received Date: 9/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2017 11:14:46 AM	33701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2017 11:14:46 AM	33701
Surr: DNOP	86.3	70-130		%Rec	1	9/6/2017 11:14:46 AM	33701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	10	4.8		mg/Kg	1	9/5/2017 9:16:20 PM	33682
Surr: BFB	98.9	54-150		%Rec	1	9/5/2017 9:16:20 PM	33682
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/5/2017 9:16:20 PM	33682
Toluene	ND	0.048		mg/Kg	1	9/5/2017 9:16:20 PM	33682
Ethylbenzene	ND	0.048		mg/Kg	1	9/5/2017 9:16:20 PM	33682
Xylenes, Total	0.22	0.097		mg/Kg	1	9/5/2017 9:16:20 PM	33682
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	9/5/2017 9:16:20 PM	33682

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LT Environmental
Project: Sarah M Hedges 001
Lab ID: 1709034-002 **Matrix:** SOIL

Client Sample ID: BH-4 @ 30'
Collection Date: 8/31/2017 4:15:00 PM
Received Date: 9/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/6/2017 11:42:39 AM	33701
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2017 11:42:39 AM	33701
Surr: DNOP	82.3	70-130		%Rec	1	9/6/2017 11:42:39 AM	33701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2017 9:40:10 PM	33682
Surr: BFB	78.3	54-150		%Rec	1	9/5/2017 9:40:10 PM	33682
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	9/5/2017 9:40:10 PM	33682
Toluene	ND	0.047		mg/Kg	1	9/5/2017 9:40:10 PM	33682
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2017 9:40:10 PM	33682
Xylenes, Total	ND	0.093		mg/Kg	1	9/5/2017 9:40:10 PM	33682
Surr: 4-Bromofluorobenzene	118	66.6-132		%Rec	1	9/5/2017 9:40:10 PM	33682

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LT Environmental
Project: Sarah M Hedges 001
Lab ID: 1709034-005 **Matrix:** SOIL

Client Sample ID: BH-2 @ 25'
Collection Date: 8/31/2017 4:30:00 PM
Received Date: 9/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2017 12:10:41 PM	33701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2017 12:10:41 PM	33701
Surr: DNOP	81.9	70-130		%Rec	1	9/6/2017 12:10:41 PM	33701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	12	5.0		mg/Kg	1	9/5/2017 10:04:01 PM	33682
Surr: BFB	147	54-150		%Rec	1	9/5/2017 10:04:01 PM	33682
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/5/2017 10:04:01 PM	33682
Toluene	ND	0.050		mg/Kg	1	9/5/2017 10:04:01 PM	33682
Ethylbenzene	ND	0.050		mg/Kg	1	9/5/2017 10:04:01 PM	33682
Xylenes, Total	ND	0.10		mg/Kg	1	9/5/2017 10:04:01 PM	33682
Surr: 4-Bromofluorobenzene	125	66.6-132		%Rec	1	9/5/2017 10:04:01 PM	33682

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LT Environmental
Project: Sarah M Hedges 001
Lab ID: 1709034-006 **Matrix:** SOIL

Client Sample ID: BH-2 @ 30'
Collection Date: 8/31/2017 4:35:00 PM
Received Date: 9/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/6/2017 12:38:40 PM	33701
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2017 12:38:40 PM	33701
Surr: DNOP	76.5	70-130		%Rec	1	9/6/2017 12:38:40 PM	33701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.8	4.7		mg/Kg	1	9/5/2017 10:27:53 PM	33682
Surr: BFB	112	54-150		%Rec	1	9/5/2017 10:27:53 PM	33682
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/5/2017 10:27:53 PM	33682
Toluene	ND	0.047		mg/Kg	1	9/5/2017 10:27:53 PM	33682
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2017 10:27:53 PM	33682
Xylenes, Total	0.12	0.094		mg/Kg	1	9/5/2017 10:27:53 PM	33682
Surr: 4-Bromofluorobenzene	124	66.6-132		%Rec	1	9/5/2017 10:27:53 PM	33682

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LT Environmental
Project: Sarah M Hedges 001
Lab ID: 1709034-007 **Matrix:** SOIL

Client Sample ID: BH-6 @ 30'
Collection Date: 8/31/2017 4:40:00 PM
Received Date: 9/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	13	9.8		mg/Kg	1	9/6/2017 1:06:47 PM	33701
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/6/2017 1:06:47 PM	33701
Surr: DNOP	76.9	70-130		%Rec	1	9/6/2017 1:06:47 PM	33701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	16	5.0		mg/Kg	1	9/13/2017 10:25:33 AM	33823
Surr: BFB	164	54-150	S	%Rec	1	9/13/2017 10:25:33 AM	33823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/13/2017 10:25:33 AM	33823
Toluene	ND	0.050		mg/Kg	1	9/13/2017 10:25:33 AM	33823
Ethylbenzene	ND	0.050		mg/Kg	1	9/13/2017 10:25:33 AM	33823
Xylenes, Total	ND	0.099		mg/Kg	1	9/13/2017 10:25:33 AM	33823
Surr: 4-Bromofluorobenzene	111	66.6-132		%Rec	1	9/13/2017 10:25:33 AM	33823

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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LT Environmental
Project: Sarah M Hedges 001
Lab ID: 1709034-008 **Matrix:** SOIL

Client Sample ID: BH-6 @ 35'
Collection Date: 8/31/2017 4:45:00 PM
Received Date: 9/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/6/2017 1:35:01 PM	33701
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	9/6/2017 1:35:01 PM	33701
Surr: DNOP	82.0	70-130		%Rec	1	9/6/2017 1:35:01 PM	33701
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/13/2017 10:49:01 AM	33823
Surr: BFB	99.5	54-150		%Rec	1	9/13/2017 10:49:01 AM	33823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/13/2017 10:49:01 AM	33823
Toluene	ND	0.047		mg/Kg	1	9/13/2017 10:49:01 AM	33823
Ethylbenzene	ND	0.047		mg/Kg	1	9/13/2017 10:49:01 AM	33823
Xylenes, Total	ND	0.095		mg/Kg	1	9/13/2017 10:49:01 AM	33823
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	9/13/2017 10:49:01 AM	33823

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 Quanitative 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#: **1709034**

19-Sep-17

Client: LT Environmental

Project: Sarah M Hedges 001

Sample ID **MB-33701**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **33701**	RunNo: **45428**
Prep Date: **9/5/2017**	Analysis Date: **9/6/2017**	SeqNo: **1439205** 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	8.6		10.00		86.4	70	130			

Sample ID **LCS-33701**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **33701**	RunNo: **45428**
Prep Date: **9/5/2017**	Analysis Date: **9/6/2017**	SeqNo: **1439474** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.6	73.2	114			
Surr: DNOP	4.5		5.000		90.3	70	130			

Sample ID **1709005-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **33701**	RunNo: **45428**
Prep Date: **9/5/2017**	Analysis Date: **9/6/2017**	SeqNo: **1440007** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.2	46.00	0	86.7	55.8	122			
Surr: DNOP	3.7		4.600		80.9	70	130			

Sample ID **1709005-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **33701**	RunNo: **45428**
Prep Date: **9/5/2017**	Analysis Date: **9/6/2017**	SeqNo: **1440008** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.7	48.59	0	90.8	55.8	122	10.1	20	
Surr: DNOP	4.1		4.859		83.9	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 Quanitative 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#: **1709034**

19-Sep-17

Client: LT Environmental

Project: Sarah M Hedges 001

Sample ID	MB-33682	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439055	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	820		1000		82.4	54	150			

Sample ID	LCS-33682	SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439056	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.3	76.4	125			
Surr: BFB	910		1000		90.9	54	150			

Sample ID	1709047-002AMS	SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	BatchQC	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439059	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.7	23.72	0	75.7	77.8	128			S
Surr: BFB	840		948.8		88.8	54	150			

Sample ID	1709047-002AMSD	SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	BatchQC	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439060	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	4.8	24.02	0	61.0	77.8	128	20.3	20	RS
Surr: BFB	850		960.6		88.3	54	150	0	0	

Sample ID	MB-33823	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446394	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	1000		1000		101	54	150			

Sample ID	LCS-33823	SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446395	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
PQL	Practical Quanitative 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#: **1709034**

19-Sep-17

Client: LT Environmental

Project: Sarah M Hedges 001

Sample ID	LCS-33823	SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446395	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	116	76.4	125			
Surr: BFB	1100		1000		110	54	150			

Sample ID	1709034-008AMS	SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	BH-6 @ 35'	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446396	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	35	4.8	24.02	0	145	77.8	128			S
Surr: BFB	1100		960.6		116	54	150			

Sample ID	1709034-008AMSD	SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	BH-6 @ 35'	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446397	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	4.8	23.88	0	141	77.8	128	3.57	20	S
Surr: BFB	1100		955.1		115	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 Quanitative 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#: **1709034**

19-Sep-17

Client: LT Environmental
Project: Sarah M Hedges 001

Sample ID	MB-33682	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439078	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	1.3		1.000		128	66.6	132			

Sample ID	LCS-33682	SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439079	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	113	80	120			
Toluene	1.1	0.050	1.000	0	113	80	120			
Ethylbenzene	1.1	0.050	1.000	0	112	80	120			
Xylenes, Total	3.4	0.10	3.000	0	115	80	120			
Surr: 4-Bromofluorobenzene	1.3		1.000		128	66.6	132			

Sample ID	1709047-001AMS	SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BatchQC	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439081	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.024	0.9488	0	93.5	80.9	132			
Toluene	0.94	0.047	0.9488	0.009605	97.6	79.8	136			
Ethylbenzene	0.95	0.047	0.9488	0.01008	98.5	79.4	140			
Xylenes, Total	2.8	0.095	2.846	0.01582	99.2	78.5	142			
Surr: 4-Bromofluorobenzene	1.2		0.9488		123	66.6	132			

Sample ID	1709047-001AMSD	SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BatchQC	Batch ID:	33682		RunNo:	45408				
Prep Date:	9/1/2017	Analysis Date:	9/5/2017		SeqNo:	1439082	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9833	0	94.1	80.9	132	4.26	20	
Toluene	0.96	0.049	0.9833	0.009605	97.0	79.8	136	2.88	20	
Ethylbenzene	0.97	0.049	0.9833	0.01008	97.3	79.4	140	2.31	20	
Xylenes, Total	2.9	0.098	2.950	0.01582	98.7	78.5	142	3.06	20	
Surr: 4-Bromofluorobenzene	1.2		0.9833		120	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 Quanitative 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#: **1709034**

19-Sep-17

Client: LT Environmental
Project: Sarah M Hedges 001

Sample ID	MB-33823	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446401	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	1.1		1.000		109	66.6	132			

Sample ID	LCS-33823	SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446402	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	114	80	120			
Toluene	1.1	0.050	1.000	0	110	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.5	0.10	3.000	0	115	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	66.6	132			

Sample ID	1709034-007AMS	SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BH-6 @ 30'	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446403	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.024	0.9407	0	129	80.9	132			
Toluene	1.2	0.047	0.9407	0	130	79.8	136			
Ethylbenzene	1.3	0.047	0.9407	0	136	79.4	140			
Xylenes, Total	3.9	0.094	2.822	0.05223	136	78.5	142			
Surr: 4-Bromofluorobenzene	1.1		0.9407		113	66.6	132			

Sample ID	1709034-007AMSD	SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BH-6 @ 30'	Batch ID:	33823		RunNo:	45592				
Prep Date:	9/12/2017	Analysis Date:	9/13/2017		SeqNo:	1446404	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.3	0.024	0.9662	0	131	80.9	132	4.36	20	
Toluene	1.3	0.048	0.9662	0	130	79.8	136	2.89	20	
Ethylbenzene	1.3	0.048	0.9662	0	138	79.4	140	3.90	20	
Xylenes, Total	4.0	0.097	2.899	0.05223	137	78.5	142	2.98	20	
Surr: 4-Bromofluorobenzene	1.1		0.9662		112	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 Quanitative 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

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 ENVIRONMENTAL Work Order Number: 1709034 RcptNo: 1

Received By: Erin Melendrez 9/1/2017 8:00:00 AM

Completed By: Ashley Gallegos 9/1/2017 11:25:13 AM

Reviewed By: 9/1/17

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° 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: ☐ 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	3.4	Good	Yes			

Chain-of-Custody Record

Client: Ashley Ager
LTEnvironmental, Inc
Mailing Address: 848 E. 2nd Ave
Durango, CO 81301
Phone #: (970) 385-1096
email or Fax#: AAger@LTEnv.com
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____
Project Name: Sarah M Hedges #001
Project #: 017817002
Project Manager: Ashley Ager
Sampler: Michael A. Wicker
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.4

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. 1709034	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)
8-31-17	1610	Soil	BH-4@25'	1,4-oz	Cool	-001	X		X									
	1615		BH-4@30'			-002												
	1620		BH-5@25'*			-003												
	1625		BH-5@30'*			-004												
	1630		BH-2@25'			-005												
	1635		BH-2@30'			-006												
	1640		BH-6@30'			-007												
	1645		BH-6@35			-008												
	1650		BH-7@30*			-009												
	1655		BH-7@35*			-010												

Date	Time	Relinquished by	Received by	Date	Time
8-31-17	1742		Mat Wade	8/31/17	1742
8/31/17	1856	Mat Wade		09/01/17	0800

Remarks: Please CC: MWicker@LTEnv.com
HOLD all samples, LTE to call 9/1/2017
Per M.H Hold BH-5 & BH-7

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.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 28, 2017

Ashley Ager
LTE
848 East 2nd Avenue
Durango, CO 81301
TEL: (970) 946-1093
FAX

RE: Sarah M Hedges 1 OrderNo.: 1709E84

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/27/2017 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1709E84**
Date Reported: **9/28/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges 1
Lab ID: 1709E84-001 **Matrix:** SOIL

Client Sample ID: Floor Sample
Collection Date: 9/26/2017 2:25:00 PM
Received Date: 9/27/2017 7:20:00 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	9/27/2017 9:23:37 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2017 9:23:37 AM
Surr: DNOP	97.8	70-130		%Rec	1	9/27/2017 9:23:37 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/27/2017 11:07:35 AM
Surr: BFB	94.7	54-150		%Rec	1	9/27/2017 11:07:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.020		mg/Kg	1	9/27/2017 11:07:35 AM
Toluene	ND	0.040		mg/Kg	1	9/27/2017 11:07:35 AM
Ethylbenzene	ND	0.040		mg/Kg	1	9/27/2017 11:07:35 AM
Xylenes, Total	ND	0.081		mg/Kg	1	9/27/2017 11:07:35 AM
Surr: 4-Bromofluorobenzene	102	66.6-132		%Rec	1	9/27/2017 11:07:35 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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges 1
Lab ID: 1709E84-002 **Matrix:** SOIL

Client Sample ID: Grab Sample
Collection Date: 9/26/2017 2:30:00 PM
Received Date: 9/27/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	170	9.9		mg/Kg	1	9/27/2017 9:48:02 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/27/2017 9:48:02 AM
Surr: DNOP	99.1	70-130		%Rec	1	9/27/2017 9:48:02 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	120	18		mg/Kg	5	9/27/2017 1:29:26 PM
Surr: BFB	472	54-150	S	%Rec	5	9/27/2017 1:29:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.088		mg/Kg	5	9/27/2017 1:29:26 PM
Toluene	ND	0.18		mg/Kg	5	9/27/2017 1:29:26 PM
Ethylbenzene	0.40	0.18		mg/Kg	5	9/27/2017 1:29:26 PM
Xylenes, Total	1.4	0.35		mg/Kg	5	9/27/2017 1:29:26 PM
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	5	9/27/2017 1:29:26 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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges 1
Lab ID: 1709E84-003 **Matrix:** SOIL

Client Sample ID: S Wall Sample
Collection Date: 9/26/2017 2:35:00 PM
Received Date: 9/27/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/27/2017 10:12:21 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2017 10:12:21 AM
Surr: DNOP	100	70-130		%Rec	1	9/27/2017 10:12:21 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	9/27/2017 11:54:57 AM
Surr: BFB	106	54-150		%Rec	1	9/27/2017 11:54:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.018		mg/Kg	1	9/27/2017 11:54:57 AM
Toluene	ND	0.037		mg/Kg	1	9/27/2017 11:54:57 AM
Ethylbenzene	ND	0.037		mg/Kg	1	9/27/2017 11:54:57 AM
Xylenes, Total	ND	0.073		mg/Kg	1	9/27/2017 11:54:57 AM
Surr: 4-Bromofluorobenzene	114	66.6-132		%Rec	1	9/27/2017 11:54:57 AM

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

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 Quanitative 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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges 1
Lab ID: 1709E84-004 **Matrix:** SOIL

Client Sample ID: SW Wall Sample
Collection Date: 9/26/2017 2:40:00 PM
Received Date: 9/27/2017 7:20:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/27/2017 10:36:59 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/27/2017 10:36:59 AM
Surr: DNOP	100	70-130		%Rec	1	9/27/2017 10:36:59 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/27/2017 12:18:39 PM
Surr: BFB	111	54-150		%Rec	1	9/27/2017 12:18:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.020		mg/Kg	1	9/27/2017 12:18:39 PM
Toluene	ND	0.041		mg/Kg	1	9/27/2017 12:18:39 PM
Ethylbenzene	ND	0.041		mg/Kg	1	9/27/2017 12:18:39 PM
Xylenes, Total	ND	0.081		mg/Kg	1	9/27/2017 12:18:39 PM
Surr: 4-Bromofluorobenzene	120	66.6-132		%Rec	1	9/27/2017 12:18:39 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 Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Project: Sarah M Hedges 1
Lab ID: 1709E84-005 **Matrix:** SOIL

Client Sample ID: W Wall Sample
Collection Date: 9/26/2017 2:48:00 PM
Received Date: 9/27/2017 7:20:00 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	9/27/2017 11:01:16 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2017 11:01:16 AM
Surr: DNOP	102	70-130		%Rec	1	9/27/2017 11:01:16 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/27/2017 12:42:15 PM
Surr: BFB	107	54-150		%Rec	1	9/27/2017 12:42:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.021		mg/Kg	1	9/27/2017 12:42:15 PM
Toluene	ND	0.042		mg/Kg	1	9/27/2017 12:42:15 PM
Ethylbenzene	ND	0.042		mg/Kg	1	9/27/2017 12:42:15 PM
Xylenes, Total	ND	0.084		mg/Kg	1	9/27/2017 12:42:15 PM
Surr: 4-Bromofluorobenzene	116	66.6-132		%Rec	1	9/27/2017 12:42:15 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 Quanitative 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#: **1709E84**

28-Sep-17

Client: LTE

Project: Sarah M Hedges 1

Sample ID **LCS-34095**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **34095**	RunNo: **45918**
Prep Date: **9/27/2017**	Analysis Date: **9/27/2017**	SeqNo: **1459257** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.3	73.2	114			
Surr: DNOP	4.6		5.000		92.2	70	130			

Sample ID **MB-34095**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **34095**	RunNo: **45918**
Prep Date: **9/27/2017**	Analysis Date: **9/27/2017**	SeqNo: **1459258** 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	9.9		10.00		98.8	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 Quanitative 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#: **1709E84**

28-Sep-17

Client: LTE

Project: Sarah M Hedges 1

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G45929**	RunNo: **45929**
Prep Date:	Analysis Date: **9/27/2017**	SeqNo: **1460005** 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	1100		1000		106	54	150			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G45929**	RunNo: **45929**
Prep Date:	Analysis Date: **9/27/2017**	SeqNo: **1460006** 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	76.4	125			
Surr: BFB	1200		1000		121	54	150			

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 Quanitative 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#: **1709E84**

28-Sep-17

Client: LTE

Project: Sarah M Hedges 1

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B45929**	RunNo: **45929**
Prep Date:	Analysis Date: **9/27/2017**	SeqNo: **1460023** 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	1.1		1.000		112	66.6	132			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B45929**	RunNo: **45929**
Prep Date:	Analysis Date: **9/27/2017**	SeqNo: **1460024** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.8	80	120			
Toluene	0.93	0.050	1.000	0	92.5	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.2	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	66.6	132			

Sample ID **1709E84-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Floor Sample**	Batch ID: **B45929**	RunNo: **45929**
Prep Date:	Analysis Date: **9/27/2017**	SeqNo: **1460025** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.020	0.8078	0	103	80.9	132			
Toluene	0.84	0.040	0.8078	0	104	79.8	136			
Ethylbenzene	0.91	0.040	0.8078	0	113	79.4	140			
Xylenes, Total	2.9	0.081	2.423	0.01585	118	78.5	142			
Surr: 4-Bromofluorobenzene	0.97		0.8078		120	66.6	132			

Sample ID **1709E84-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **Floor Sample**	Batch ID: **B45929**	RunNo: **45929**
Prep Date:	Analysis Date: **9/27/2017**	SeqNo: **1460026** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.020	0.8078	0	104	80.9	132	1.20	20	
Toluene	0.85	0.040	0.8078	0	105	79.8	136	0.965	20	
Ethylbenzene	0.93	0.040	0.8078	0	115	79.4	140	1.47	20	
Xylenes, Total	2.9	0.081	2.423	0.01585	117	78.5	142	0.193	20	
Surr: 4-Bromofluorobenzene	1.0		0.8078		125	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 Quanitative 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

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: 1709E84 | RcptNo: 1

Received By: Anne Thorne 9/27/2017 7:20:00 AM

Completed By: Anne Thorne 9/27/2017 7:40:55 AM

Reviewed By: 9/27/17

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° 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: ☐ 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	1.4	Good	Yes			

Chain-of-Custody Record

Client: LT environmental

Mailing Address: 848 E 2nd Ave

Durango CO 81301

Phone #: 970-385-1096

email or Fax#: aager@ltenv.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: Same Day

☐ Standard ☒ Rush ASAP

Project ~~Name: #~~ : # 017817002

Project ~~#:~~ Name: Sarah M Hedges #1

Project Manager: Ashley Ager

Sampler: Alex Crooms

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.4

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. 1709E84	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)
9/20	1425	Soil	Floor Sample	1402 jar	cool	001	X		X													
	1430		grab sample			002																
	1435		S wall Sample			003																
	1440		SW wall Sample			004																
↓	1448	↓	W Wall Sample	↓	↓	005	↓		↓													

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
9/20	1610			9/20/17	1610	
9/21/17	2011			09/21/17	0720	

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.

ATTACHMENT 2

SOIL BORING LOGS

Compliance ᵥ Engineering ᵥ Remediation
LT Environmental, Inc.
848 E. 2nd Ave
Durango, Colorado 81301

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-1		Project: Sarah M Hedges #001	
Date: 8/30/2017		Project Number: 17817002	
Logged By: Josh Adams		Drilled By: Josh Adams	
Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hand Auger	Sampling Method: Hand Auger
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 4-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 14-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				**Light brown, 10% fine**	
	Dry	0.0	None	1	2					
					4					
					6			SM	orange brown, a lot of FeO Staining	
	M	0.0	None	2	8					
					10				Light Brown with Caliche 20% fine	
					12					
	M	0.0	None	3	14					
									Refusal @ 14'	

Compliance ᴍ Engineering ᴍ Remediation
LT Environmental, Inc.
848 E. 2nd Ave
Durango, Colorado 81301

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-2		Project: Sarah M Hedges #001	
Date: 8/31/2017		Project Number: 017817002	
Logged By: Michael A. Wicker		Drilled By: Geomat	
Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hollow-Stem	Sampling Method: Split-Spoon
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 6.25-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 30-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				**Silty Sand**, loose, lt. brown, 30% f.-med. grained sand	
					2					
					4					
	Dry	0.7			6					
					8					
	Dry	0.3			10				- Loose-med. Dense, increase in silt content	
					12					
					14					
	Dry	0.0			16					
					18					
	Dry	0.0			20				- Brown, caliche	
					22					
				BH-2 @25' 1630	24					
	Dry	981.3			26				**Silt w/ Sand**, gray staining, soft-med. stiff	
				BH-2 @30' 1635	28					
	Dry	372.5			30					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-3	Project: Sarah M Hedges #001
Date: 8/31/2017	Project Number: 17817002
Logged By: Josh Adams	Drilled By: Geomat

Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hollow-Stem	Sampling Method: Split-Spoon
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 6.25-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 30-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	None	1	0 2 4	0-5			**Light brown, 10% fine**	
	M	0.0	None	2	6 8 10	5-10			orange brown, a lot of FeO Staining	
	M	0.1	None	3	12 14 16				Light Brown with Caliche 20% fine	
	M	15.3	None	4	18 20	15- 20			dark brown, more silt	
					22				dark brown fat clay band of black fine grained shale	20.5' to 21'
	M	5.4	Grey		24				grey sand with 25% fines	
		TD			26 28 30				SAA	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-4		Project: Sarah M Hedges #001	
Date: 8/30 - 8/31/2017		Project Number: 17817002	
Logged By: Josh Adams / Michael A. Wicker		Drilled By: Geomat	
Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hollow-Stem	Sampling Method: Split-Spoon
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 6.25-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 30-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	0.0	No		0				**Light brown sand with silt unconsolidated (20%)**	
					2					
					4					
					6					
					8					
	M		NO		10				Orange-brown silty sand	
					12					
					14				Brown sand W/ Silt (30%)	
		5.4			16				Dark brown silt w/sand (40%)	
					18					
					20					
					22				V. hard, silt w/sand (60% silt) redish brown	
				BH-4 @ 25' 1610	24					
		1337			26				Gray-black staining	
				BH-4 @ 30' 1615	28					
		38.3			30				wet-dry (shoe wet, soil dry)	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-5		Project: Sarah M Hedges #001	
Date: 8/31/2017		Project Number: 17817002	
Logged By: Michael A. Wicker		Drilled By: Geomat	
Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hollow-Stem	Sampling Method: Split-Spoon
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 6.25-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 30-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				**Sand w/ Silt**, light brown, 30% sand Fine-med grained	
	Dry	0.4			2					
					4					
	Dry	0.3			6					
					8					
					10					
					12					
	Dry	0.3			14				**Silty Sand**, 75% silt	
					16					
					18					
	Dry	2.4			20				- gray, redish brown, caliche	
					22					
				BH-5 @ 25' 1620	24					
	Dry	457.3			26				- gray staining	
				BH-5 @ 30' 1625	28					
	Dry	47.3			30				- gray, light brown	

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-6		Project: Sarah M Hedges #001	
Date: 8/31/2017		Project Number: 17817002	
Logged By: Michael A. Wicker		Drilled By: Geomat	
Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hollow-Stem	Sampling Method: Split-Spoon
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 6.25-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 35-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0					
					2					
					4					
	Dry	0.3			6				**Sand w/ Silt**, 35% Fine-medium grained sand, Light brown	
					8					
					10					
	Dry	1.1			12					
					14					
	Dry	0.7			16					
					18					
	Dry	0.9			20				- increase in silt content, gray-reddish	
					22					
					24					
	Dry	20.3			26				- gray staining, slight odor	
				BH-6 @ 30' 1640	28					
	Dry	856.3			30				- gray staining	

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Boring/Well #	BH-6
Project:	Sarah M Hedges #001
Project #	17817002
Date	8/31/2017

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					30					
					32					
				BH-6 @ 35' 1645	34					
	Dry	70.7								
					36				**TD @ 35'**	
					38					
					40					
					42					
					44					
					46					
					48					
					50					
					52					
					54					
					56					
					58					
					60					
					62					
					64					
					66					
					68					
					70					
					72					
					74					

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BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Boring/Well Number: BH-7		Project: Sarah M Hedges #001	
Date: 8/31/2017		Project Number: 17817002	
Logged By: Michael A. Wicker		Drilled By: Geomat	
Elevation: 6103'	Detector: MiniRae Lite	Drilling Method: Hollow-Stem	Sampling Method: Split-Spoon
Gravel Pack: NA		Seal: NA	Grout: NA
Casing Type: NA		Diameter: NA / Length: NA	Hole Diameter: 6.25-inches / Depth to Liquid: NA
Screen Type: NA	Slot: NA	Diameter: NA / Length: NA	Total Depth: 35-feet / Depth to Water: NA

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				**Sand w/ silt**, light brown loose 60% fine-med grained sand	
					2					
					4					
	Dry	0.6			6					
					8					
					10					
	Dry	1.7			12				**Well Graded Sand**, fine to coarse grained sand light brown	
					14					
	Dry	0.4			16				**Sand w/ Silt**, light brown-reddish loose fine to medium grained sand (40%)	
					18				Caliche	
					20					
	Dry	0.8			22				**Silty Sand**, 25% fine-medium grained sand, caliche, loose	
					24					
	Dry	0.7			26				- Reddish, caliche FeO	
				BH-7 @ 30' 1650	28					
	Dry	474.4			30				- Consolidated silt	

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Boring/Well #	BH-7
Project:	Sarah M Hedges #001
Project #	17817002
Date	8/31/2017

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Recovery	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	4.0		BH-7 @ 35' 1655	30 32 34					
					36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74				**TD @ 35'**	