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 Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NCS1828929406
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Encana Oil and Gas (USA) Inc.	OGRID: 28237
Contact Name: Paul Buck	Contact Telephone: (720) 876-3513
Contact email: paul.buck@encana.com	Incident #: #NCS1828929406
Contact mailing address: 370 17th Street, Suite 1700 Denver, CO 80202	

NMOCD
DEC 10 2018
DISTRICT III

Location of Release Source

Latitude 36.248561 Longitude -107.785596
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Nageezi 507/510 Lease Road	Site Type: Lease Road
Date Release Discovered: 10/9/2018	API# *(if applicable)* 30-045-35855

Unit Letter	Section	Township	Range	County
A	9	23N	9W	San Juan

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe) Flowback water	Volume/Weight Released (provide units): 60 bbls	Volume/Weight Recovered (provide units) 4 bbls

Cause of Release: A truck with flowback water rolled after leaving site. 60 barrels was released from the truck and 4 barrels was recovered via vac truck. The remaining water soaked into the road.

25

State of New Mexico
Oil Conservation Division

Incident ID	NCS1828929406
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Paul Buck Title: Manager, Field Enviornmental

Signature: Paul Buck Date: 12/6/2018

email: paul.buck@encana.com Telephone: (720) 876-3513

OCD Only

Received by: OCD Date: 12/10/18

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Cory Date: 1/8/19

Printed Name: Cory Title: Environmental Spec.

LT Environmental, Inc.
848 East Second Avenue
Durango, Colorado 81301
970.385.1096

December 6, 2018

Mr. Cory Smith
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Closure Request
Nageezi Unit 507H/510 Lease Road
Incident Number #NCS1828929406
San Juan County, New Mexico

Dear Mr. Smith:

LT Environmental, Inc. (LTE), on behalf of CNJ Oil Field Services, Inc. (CNJ), presents the following letter report detailing confirmation soil sampling activities at the Nageezi Unit 507H and 510 Lease Road (Site) located in Sections 3 and 4, Township 23 North, Range 9 West, in San Juan County, New Mexico (Figure 1). The Nageezi Unit 507H is operated by Encana Oil & Gas USA Inc (Encana). The purpose of the confirmation sampling was to confirm that impacted soil has been remediated following a flowback fluid release. Based on the results of confirmation samples, CNJ on behalf of Encana is requesting no further action for this release.

BACKGROUND

On October 9, 2018, while exiting the Nageezi Unit 507H wellpad, a tanker truck containing flowback fluid rolled off the access road and released 60 barrels (bbls) of fluid from the damaged tank onto the ground. Earthen berms were built to contain the fluid release, and free-standing liquid was removed with a vacuum truck; approximately 4 bbls of flowback fluid were recovered. Encana reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 on October 11, 2018 and was assigned Incident Number #NCS1828929406 (Attachment 1). CNJ, the owner of the tanker truck, initiated excavation activities once fluid recovery had been performed. Approximately 9 yards of soil was excavated from the release path.

LTE applied Table 1, the *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC) to determine remediation action levels. Depth to groundwater at the Site is estimated to be between 50 feet and 100 feet below ground surface (bgs) based on the elevation difference of approximately 60 feet from the Site to an unnamed second order tributary of Kimbeto Wash, located approximately 1,045 feet northwest of the release. The nearest permitted water well is SJ 00001, located approximately 2.45 miles east of the Site, with a depth to groundwater of 630 feet bgs

and a total depth of 695 feet bgs. The closest significant watercourse to the Site is an unnamed second order tributary of Kimbeto Wash, located approximately 1,045 feet to the northwest. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within an unstable area, 100-year floodplain, or overlying a subsurface mine. Based on these criteria, the following NMOCD Table 1 closure criteria apply:

Benzene	10 milligrams per kilogram (mg/kg)
Total benzene, toluene, ethylbenzene, and total xylenes (BTEX)	50 mg/kg
Total petroleum hydrocarbons (TPH)	2,500 mg/kg
DRO+GRO	1,000 mg/kg
Chloride	10,000 mg/kg

SOIL SAMPLING

On October 18, 2018, an LTE scientist collected five composite soil samples (AL1 through AL4 and RP COMP) to confirm that impacted soil has been remediated. Each composite sample consisted of five discrete samples collected from a depth of 0.5 feet bgs. The soil sample locations, depicted on Figure 2, were based on information provided in the initial Form C-141 and field observations. No visible staining was observed at the Site. A slight degraded hydrocarbon odor was observed in the vicinity of the soil samples. Soil samples were screened for volatile aromatic hydrocarbons using a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp. The soil samples were collected and placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler, method of analysis, and immediately placed on ice. The soil samples were shipped at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico, for analysis of BTEX by United States Environmental Protection Agency (USEPA) Method 8021B, TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) by USEPA Method 8015M/D, and chloride by USEPA Method 300.

ANALYTICAL RESULTS

Laboratory analytical results for all soil samples indicated that BTEX, combined DRO and GRO, TPH, and chlorides concentrations were compliant with the NMOCD site-specific closure criteria.

Off pad chloride impacts do not exceed 600 mg/kg. Laboratory analytical results are summarized in Table 1, and the laboratory analytical report is included as Attachment 2.

CONCLUSIONS

Confirmation soil sampling activities indicate that BTEX, combined DRO and GRO, TPH, and chloride concentrations are compliant with NMOCD site-specific remediation action levels and off pad chloride impacts do not exceed 600 mg/kg. CNJ on behalf of Encana requests no further action for this release. Restoration, reclamation and revegetation activities will comply with 19.15.29.13 NMAC.

If you have any questions or comments, please do not hesitate to contact Devin Hencmann at (970) 385-1096 or dhencmann@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Josh Adams
Staff Geologist

Devin Hencmann
Project Geologist

Attachments:

Figure 1	Site Location Map
Figure 2	Site Map
Table 1	Soil Analytical Results
Attachment 1	Laboratory Analytical Report
Attachment 2	Photo Log

FIGURES

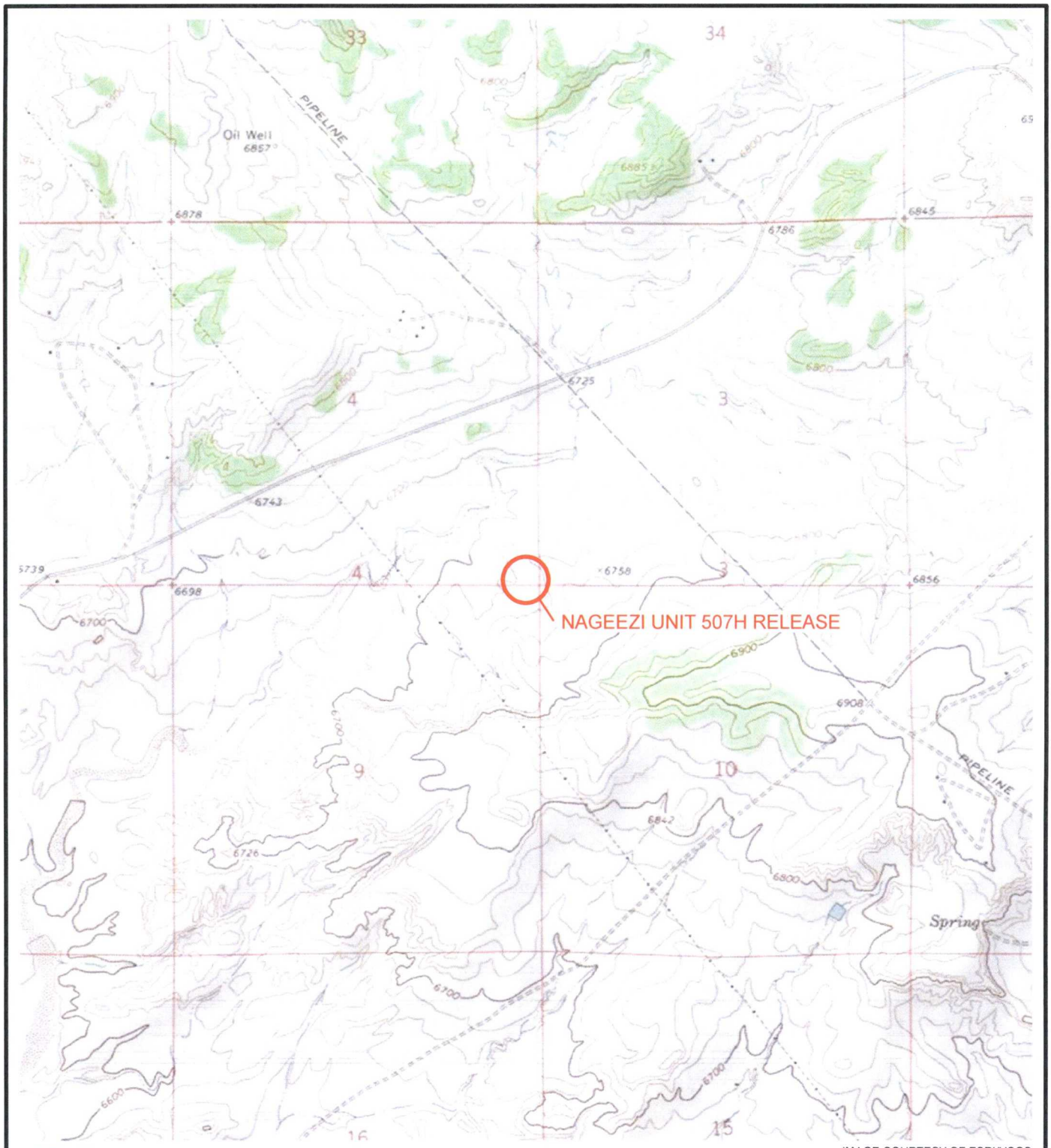


IMAGE COURTESY OF ESRI/USGS

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

NEW MEXICO

FIGURE 1
SITE LOCATION MAP
NAGEEZI UNIT 507H/510 LEASE ROAD
SEC 3 & 4-T23N-R9W
SAN JUAN COUNTY, NEW MEXICO
CNJ OILFIELD SERVICES, LLC

P:\CNJ Oilfield Services\GIS\MXD\091118001_NU 507H\091118001_FIG01_SL_2018.mxd

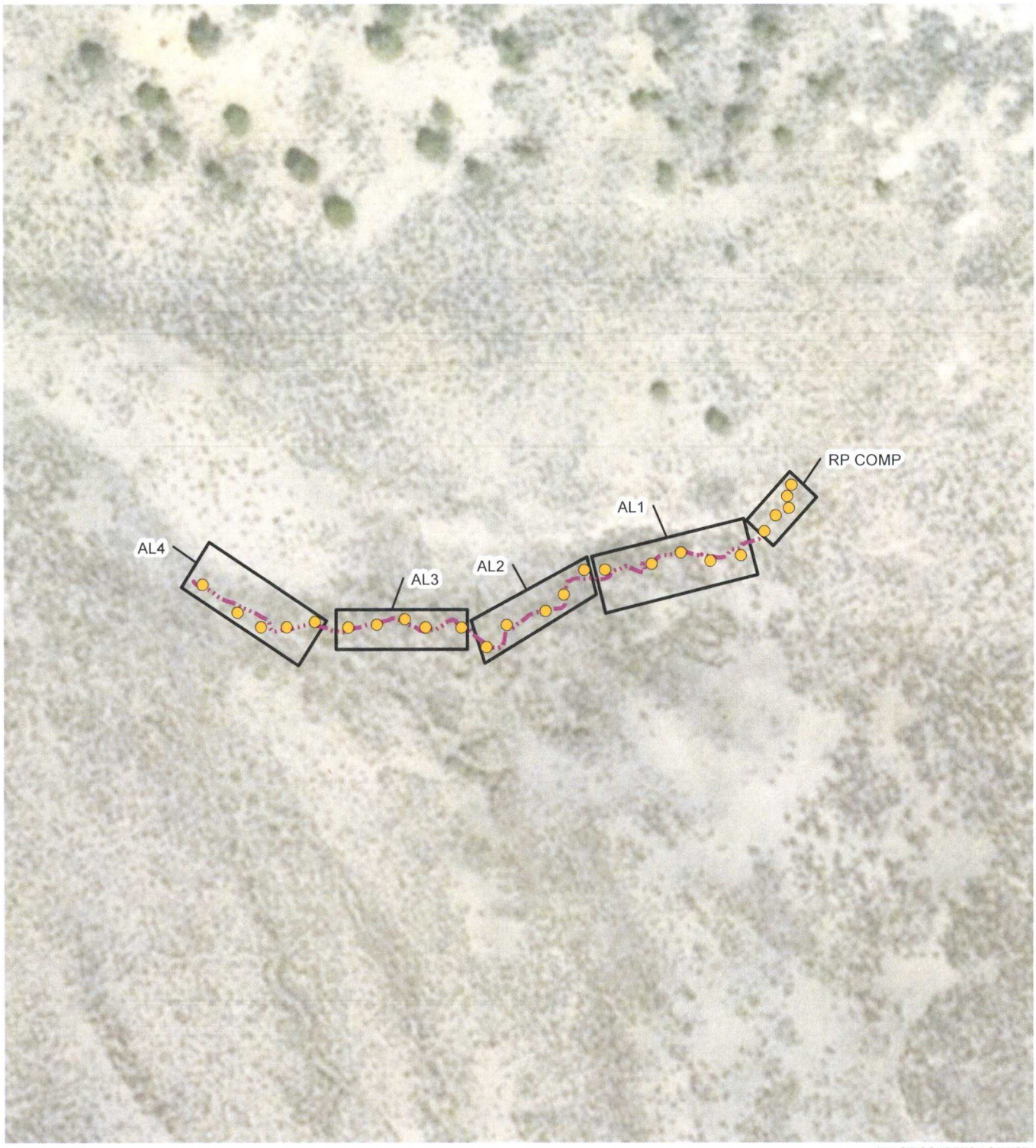


IMAGE COURTESY OF ESRI

LEGEND

- COMPOSITE SAMPLE LOCATION
- SPILL PATH
- COMPOSITE SOIL SAMPLE

0 100 200

Feet

N

FIGURE 2
SITE MAP
NAGEEZI UNIT 507H/510 LEASE ROAD
SEC 3 & 4-T23N-R9W
SAN JUAN COUNTY, NEW MEXICO
CNJ OILFIELD SERVICES, LLC

P:\CNJ Oilfield Services\GIS\MXD\091118001_NU 507H\091118001_FIG02_SITE_2018.mxd

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

NAGEEZI UNIT 507H / 510 LEASE ROAD
SAN JUAN COUNTY, NEW MEXICO
CNJ OIL FIELD SERVICES

Sample ID	Date	PID Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzne (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-MRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
AL1	10/18/2018	1.9	<0.024	<0.047	<0.047	<0.095	<0.213	<9.7	<4.7	<48	<62.4	190
AL2	10/18/2018	1.6	<0.024	<0.047	<0.047	<0.095	<0.213	<9.8	<4.7	<49	<63.5	350
AL3	10/18/2018	3.6	<0.024	<0.049	<0.049	<0.097	<0.219	<10	<4.9	<50	<64.9	550
AL4	10/18/2018	2.0	<0.024	<0.048	<0.048	<0.097	<0.217	<9.7	<4.8	<49	<63.5	560
RP COMP	10/18/2018	1.0	<0.024	<0.049	<0.049	<0.097	<0.219	110	<4.9	270	380	410
NMOCD Remediation Action Standard			10	NA	NA	NA	50	DRO+GRO 1,000		NA	2,500	10,000

Notes:
BTEX - benzene, toluene, ethylbenzene, xylenes (total)
DRO - diesel range organics
GRO - gasoline range organics
mg/kg - milligram per kilogram
MRO - motor oil range organics
PID - photo-ionization detector
ppm - parts per million
TPH - total petroleum hydrocarbons
BOLD indicates result exceeds applicable standard
< - indicates results is below laboratory detection limit

ATTACHMENT 1: LABORATORY 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

October 29, 2018

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

RE: NU 507H OrderNo.: 1810B02

Dear Devin Hencmann:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/19/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1810B02**
Date Reported: **10/29/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE
Client Sample ID: AL-1
Project: NU 507H
Collection Date: 10/18/2018 11:45:00 AM
Lab ID: 1810B02-001 **Matrix:** SOIL
Received Date: 10/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	190	30		mg/Kg	20	10/24/2018 5:01:46 PM	41166
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/23/2018 7:30:46 PM	41126
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/23/2018 7:30:46 PM	41126
Surr: DNOP	92.9	50.6-138		%Rec	1	10/23/2018 7:30:46 PM	41126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2018 3:29:12 PM	41123
Surr: BFB	89.6	15-316		%Rec	1	10/23/2018 3:29:12 PM	41123
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/24/2018 12:02:29 PM	41123
Toluene	ND	0.047		mg/Kg	1	10/24/2018 12:02:29 PM	41123
Ethylbenzene	ND	0.047		mg/Kg	1	10/24/2018 12:02:29 PM	41123
Xylenes, Total	ND	0.095		mg/Kg	1	10/24/2018 12:02:29 PM	41123
Surr: 4-Bromofluorobenzene	93.0	80-120		%Rec	1	10/24/2018 12:02:29 PM	41123

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: NU 507H
Lab ID: 1810B02-002 **Matrix:** SOIL

Client Sample ID: AL-2
Collection Date: 10/18/2018 11:47:00 AM
Received Date: 10/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	350	30		mg/Kg	20	10/24/2018 5:14:10 PM	41166
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/24/2018 2:38:58 PM	41126
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/24/2018 2:38:58 PM	41126
Surr: DNOP	112	50.6-138		%Rec	1	10/24/2018 2:38:58 PM	41126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/23/2018 3:52:41 PM	41123
Surr: BFB	88.2	15-316		%Rec	1	10/23/2018 3:52:41 PM	41123
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/24/2018 12:26:00 PM	41123
Toluene	ND	0.047		mg/Kg	1	10/24/2018 12:26:00 PM	41123
Ethylbenzene	ND	0.047		mg/Kg	1	10/24/2018 12:26:00 PM	41123
Xylenes, Total	ND	0.095		mg/Kg	1	10/24/2018 12:26:00 PM	41123
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	10/24/2018 12:26:00 PM	41123

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: NU 507H
Lab ID: 1810B02-003 **Matrix:** SOIL

Client Sample ID: AL-3
Collection Date: 10/18/2018 11:49:00 AM
Received Date: 10/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	550	30		mg/Kg	20	10/24/2018 5:26:34 PM	41166
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/24/2018 3:03:13 PM	41126
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/24/2018 3:03:13 PM	41126
Surr: DNOP	105	50.6-138		%Rec	1	10/24/2018 3:03:13 PM	41126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2018 4:16:12 PM	41123
Surr: BFB	89.4	15-316		%Rec	1	10/23/2018 4:16:12 PM	41123
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/24/2018 12:49:33 PM	41123
Toluene	ND	0.049		mg/Kg	1	10/24/2018 12:49:33 PM	41123
Ethylbenzene	ND	0.049		mg/Kg	1	10/24/2018 12:49:33 PM	41123
Xylenes, Total	ND	0.097		mg/Kg	1	10/24/2018 12:49:33 PM	41123
Surr: 4-Bromofluorobenzene	94.8	80-120		%Rec	1	10/24/2018 12:49:33 PM	41123

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: NU 507H
Lab ID: 1810B02-004 **Matrix:** SOIL

Client Sample ID: AL-4
Collection Date: 10/18/2018 11:51:00 AM
Received Date: 10/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	560	30		mg/Kg	20	10/24/2018 5:38:58 PM	41166
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/24/2018 3:27:32 PM	41126
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/24/2018 3:27:32 PM	41126
Surr: DNOP	109	50.6-138		%Rec	1	10/24/2018 3:27:32 PM	41126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/23/2018 4:39:33 PM	41123
Surr: BFB	89.1	15-316		%Rec	1	10/23/2018 4:39:33 PM	41123
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/24/2018 1:13:08 PM	41123
Toluene	ND	0.048		mg/Kg	1	10/24/2018 1:13:08 PM	41123
Ethylbenzene	ND	0.048		mg/Kg	1	10/24/2018 1:13:08 PM	41123
Xylenes, Total	ND	0.097		mg/Kg	1	10/24/2018 1:13:08 PM	41123
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	10/24/2018 1:13:08 PM	41123

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: NU 507H
Lab ID: 1810B02-005 **Matrix:** SOIL

Client Sample ID: RP Comp
Collection Date: 10/18/2018 11:53:00 AM
Received Date: 10/19/2018 7:55:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	410	30		mg/Kg	20	10/25/2018 2:41:18 PM	41192
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	110	9.6		mg/Kg	1	10/24/2018 3:51:52 PM	41126
Motor Oil Range Organics (MRO)	270	48		mg/Kg	1	10/24/2018 3:51:52 PM	41126
Surr: DNOP	108	50.6-138		%Rec	1	10/24/2018 3:51:52 PM	41126
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/23/2018 5:02:52 PM	41123
Surr: BFB	88.1	15-316		%Rec	1	10/23/2018 5:02:52 PM	41123
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/24/2018 1:36:43 PM	41123
Toluene	ND	0.049		mg/Kg	1	10/24/2018 1:36:43 PM	41123
Ethylbenzene	ND	0.049		mg/Kg	1	10/24/2018 1:36:43 PM	41123
Xylenes, Total	ND	0.097		mg/Kg	1	10/24/2018 1:36:43 PM	41123
Surr: 4-Bromofluorobenzene	92.2	80-120		%Rec	1	10/24/2018 1:36:43 PM	41123

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#: **1810B02**

29-Oct-18

Client: LTE

Project: NU 507H

Sample ID	**MB-41166**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**41166**		RunNo:	**55124**				
Prep Date:	**10/24/2018**	Analysis Date:	**10/24/2018**		SeqNo:	**1833634**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-41166**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**41166**		RunNo:	**55124**				
Prep Date:	**10/24/2018**	Analysis Date:	**10/24/2018**		SeqNo:	**1833635**	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			

Sample ID	**MB-41192**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**41192**		RunNo:	**55181**				
Prep Date:	**10/25/2018**	Analysis Date:	**10/25/2018**		SeqNo:	**1835006**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-41192**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**41192**		RunNo:	**55181**				
Prep Date:	**10/25/2018**	Analysis Date:	**10/25/2018**		SeqNo:	**1835007**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	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 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#: **1810B02**

29-Oct-18

Client: LTE
Project: NU 507H

Sample ID **LCS-41126**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **41126**			RunNo: **55097**					
Prep Date: **10/22/2018**	Analysis Date: **10/23/2018**			SeqNo: **1831743**		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	87.6	70	130			
Surr: DNOP	4.3		5.000		86.0	50.6	138			

Sample ID **MB-41126**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **41126**			RunNo: **55097**					
Prep Date: **10/22/2018**	Analysis Date: **10/23/2018**			SeqNo: **1831744**		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	9.7		10.00		97.5	50.6	138			

Sample ID **LCS-41169**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **41169**			RunNo: **55161**					
Prep Date: **10/24/2018**	Analysis Date: **10/25/2018**			SeqNo: **1834332**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		98.4	50.6	138			

Sample ID **MB-41169**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **41169**			RunNo: **55161**					
Prep Date: **10/24/2018**	Analysis Date: **10/25/2018**			SeqNo: **1834333**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.0	50.6	138			

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#: **1810B02**

29-Oct-18

Client: LTE
Project: NU 507H

Sample ID **MB-41123**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **41123**	RunNo: **55089**							
Prep Date: **10/22/2018**	Analysis Date: **10/23/2018**	SeqNo: **1831661**	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		89.0	15	316			

Sample ID **LCS-41123**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **41123**	RunNo: **55089**							
Prep Date: **10/22/2018**	Analysis Date: **10/23/2018**	SeqNo: **1831662**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	75.9	131			
Surr: BFB	1100		1000		106	15	316			

Sample ID **MB-41152**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **41152**	RunNo: **55137**							
Prep Date: **10/23/2018**	Analysis Date: **10/24/2018**	SeqNo: **1833245**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.3	15	316			

Sample ID **LCS-41152**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **41152**	RunNo: **55137**							
Prep Date: **10/23/2018**	Analysis Date: **10/24/2018**	SeqNo: **1833246**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		105	15	316			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **G55137**	RunNo: **55137**							
Prep Date:	Analysis Date: **10/24/2018**	SeqNo: **1833261**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		92.1	15	316			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **G55137**	RunNo: **55137**							
Prep Date:	Analysis Date: **10/24/2018**	SeqNo: **1833262**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	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 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#: **1810B02**

29-Oct-18

Client: LTE

Project: NU 507H

Sample ID **MB-41123**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **41123**	RunNo: **55089**
Prep Date: **10/22/2018**	Analysis Date: **10/23/2018**	SeqNo: **1831681** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.3	80	120			

Sample ID **LCS-41123**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **41123**	RunNo: **55089**
Prep Date: **10/22/2018**	Analysis Date: **10/23/2018**	SeqNo: **1831682** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.8	77.3	128			
Toluene	0.95	0.050	1.000	0	95.4	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	95.0	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.3	81.6	129			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.2	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 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: 1810B02 | RcptNo: 1

Received By: Jazzmine Burkhead 10/19/2018 7:55:00 AM

Completed By: Anne Thorne 10/19/2018 2:57:40 PM Anne Thorne

Reviewed By: JO 10/22/18

Labeled by: JAB 10/22/18

Chain of Custody

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

Log In

3	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5	Sample(s) in proper container(s)?	Yes ☑	No ☐	
6	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9	VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10	Were any sample containers received broken?	Yes ☐	No ☑	
11	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13	Is it clear what analyses were requested?	Yes ☑	No ☐	
14	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: JAB 10/22/18

Special Handling (if applicable)

15	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: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: LTE

Mailing Address: 348 E. 2nd Ave

Phone #: 970-385-1095

email or Fax#: dherrmann@ltenv.com

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

Accreditation
☐ NELAP ☐ Other

☒ EDD (Type) PDF

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: NM 507H

Project #:

Project Manager: Devin Herrmann

Sampler: Josh Adams

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 810802	Analysis Request: 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)	Chlorides (300.0)	HOLD (see Remarks)	Air Bubbles (Y or N)
10-8-18	1145	Soil	AL-1	(1) 4oz	cool	201	X		X									X		
	1147		AL-2			202	X		X									X		
	1149		AL-3			203	X		X									X		
	1151		AL-4			204	X		X									X		
	1153		RP comp			205	X		X									X		
↓	1200	↓	Background	↓	↓	206													X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-8-18	1312			10/8/18	1312
10/8/18	1836			10/9/18	07:55

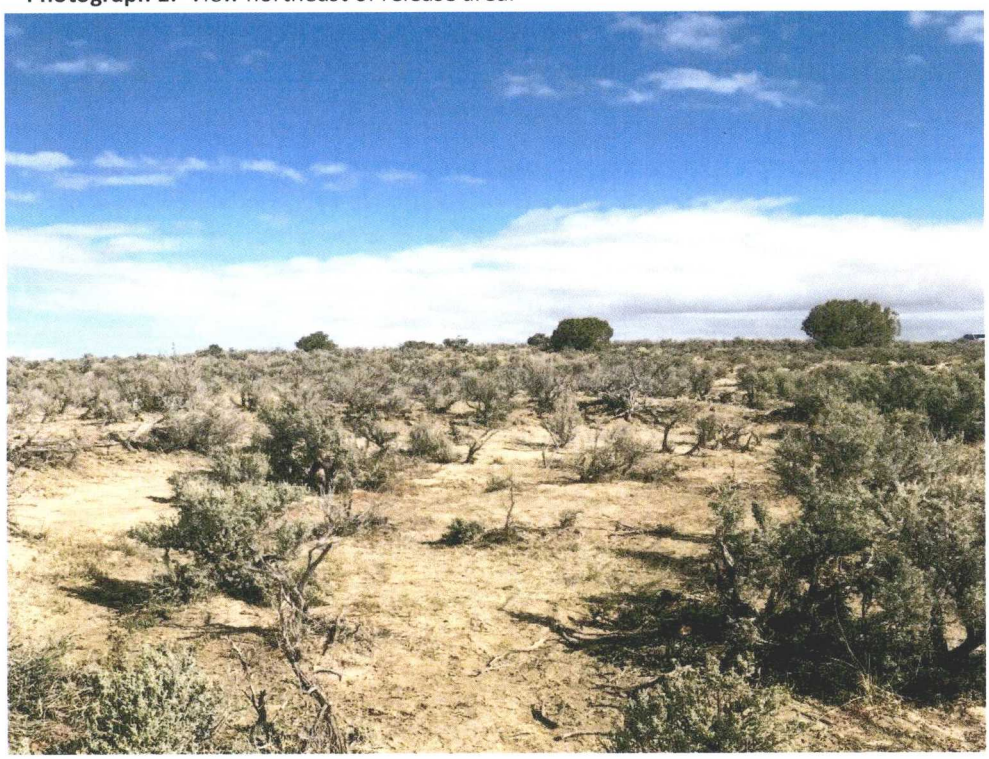
Remarks: cc: dherrmann@ltenv.com
Hold background sample until notification.
Courier

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: PHOTO LOG

PHOTOGRAPHIC LOG

Photograph 1: View northeast of release area.



Photograph 2: View west of release area.