

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	NCS1828940855
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Logos Resources, LLC.	OGRID: 28237
Contact Name: Larissa Farrell	Contact Telephone: (505) 787-2027
Contact email: lfarrell@logosresourcesllc.com	Incident #: # NCS1828940855
Contact mailing address: 2010 Afton Place Farmington, NM 87401	

Location of Release Source

Latitude 36.861310 Longitude -107.338558
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Rosa UT 272A	Site Type: Oil and Gas well
Date Release Discovered: 10/1/2018	API# (if applicable) 30-039-24808

Unit Letter	Section	Township	Range	County
L	35	31N	5W	Rio Arriba

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 14.4 bbls	Volume Recovered (bbls) 14 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: Produced water tank over filled releasing produced water into the secondary containment. The secondary containment is not lined. Water hauler recovered approximately 14 bbls of fluid.

22

Incident ID	NCS1828940855
District RP	
Facility ID	
Application ID	

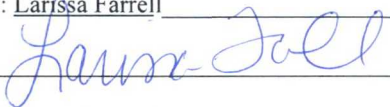
Closure

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: Larissa Farrell Title: Manager, Environmental/Regulatory Technician
 Signature:  Date: 12-5-18
 email: lfarrell@logosresourcesllc.com Telephone: (505) 787-2027

OCD Only

Received by: Vanessa Fields Date: 12/16/2018

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:  Date: 12/13/2018
 Printed Name: Vanessa Fields Title: Environmental Specialist

December 4, 2018

Ms. Vanessa Fields
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

**RE: Closure Request
Rosa UT 272A
Incident Number # NCS1828940855
LOGOS Resources II, LLC
Rio Arriba County, New Mexico**

Dear Ms. Fields:

LT Environmental, Inc. (LTE), on behalf of Logos Resources II, LLC (Logos), presents the following letter report detailing confirmation soil sampling activities at the Rosa Unit 272A (Site) located in Section 35, Township 31 North, Range 5 West, in Rio Arriba County, New Mexico (Figure 1). The purpose of the sampling event was to confirm that impacted soil had been removed and remaining soil did not exceed New Mexico Oil Conservation Division (NMOCD) site-specific closure criteria following a produced water release. Based on the results of confirmation samples, Logos is requesting no further action for this release.

BACKGROUND

On October 1, 2018, the on-site produced water tank was overfilled, causing the release of approximately 14.4 barrels (bbls) of produced water into the unlined secondary containment. The fluid subsequently permeated through the containment and pooled outside the berm on the north side of the tank. A vacuum truck was dispatched to the Site and free-standing liquid was recovered; approximately 14 bbls of produced water were recovered. Logos reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 on October 16, 2018 and was assigned Incident Number #NCS1828940855 (Attachment 1). Logos scraped surficial soil and gravel within the secondary containment and applied gypsum and new gravel within the containment. It is estimated that a total of 5.7 cubic yards of gravel and soil were removed from the secondary containment.

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 greater than 100 feet below ground surface (bgs) based on the elevation difference of approximately 222 feet





between the Site and Cabresto Wash, located approximately 5,326 feet northwest of the release. The nearest permitted water well is SJ 03556, located approximately 3.29 miles southwest of the Site, with a depth to groundwater of 250 feet bgs and a total depth of 450 feet bgs. The closest significant watercourse to the Site is an unnamed third-order tributary to Cabresto Wash, located approximately 560 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 in milligrams per kilogram (mg/kg) apply:

- | | |
|--|--------------|
| • Benzene | 10 mg/kg |
| • Total benzene, toluene, ethylbenzene, and total xylenes (BTEX) | 50 mg/kg |
| • Total petroleum hydrocarbons (TPH) | 2,500 mg/kg |
| • Gasoline range organics (GRO) + diesel range organics (DRO) | 1,000 mg/kg |
| • Chloride | 20,000 mg/kg |

SOIL SAMPLING

On October 18, 2018, an LTE scientist collected two composite soil samples (COMP 1 - Inside and COMP 2 - Out) to confirm that impacted soil has been remediated and remaining soil is below NMOCD site-specific closure criteria. Each composite sample consisted of five discrete samples. Discrete samples collected outside the containment (COMP 2 – Out) were collected from a depth of 0 to 0.5 feet bgs. Discrete samples collected inside the containment (COMP 1 – Inside) were collected from a depth of 0.5 feet bgs to ensure soil was collected from beneath the newly applied gypsum and gravel. The soil sample locations, depicted on Figure 2, were based on information provided in the initial Form C-141 and field observations. No 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 chloride concentrations were compliant with the NMOCD site-specific closure criteria. 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 GRO and DRO, TPH, and chloride concentrations are compliant with NMOCD site-specific remediation action levels. Logos requests no further action for this release. An updated NMOCD Form C-141 is included as Attachment 1.

LTE appreciates the opportunity to provide this Closure Request to the NMOCD. If you have any questions or comments regarding this request, do not hesitate to contact us at (970) 385-1096 or via electronic mail at dhencmann@ltenv.com or Larissa Farrell at (505) 787-2027 or at lfarrell@logosresourcesllc.com.

Sincerely,

LT ENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'Josh Adams'.

Josh Adams
Staff Geologist

A handwritten signature in black ink, appearing to read 'Devin Hencmann'.

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 Photographic Log





FIGURES

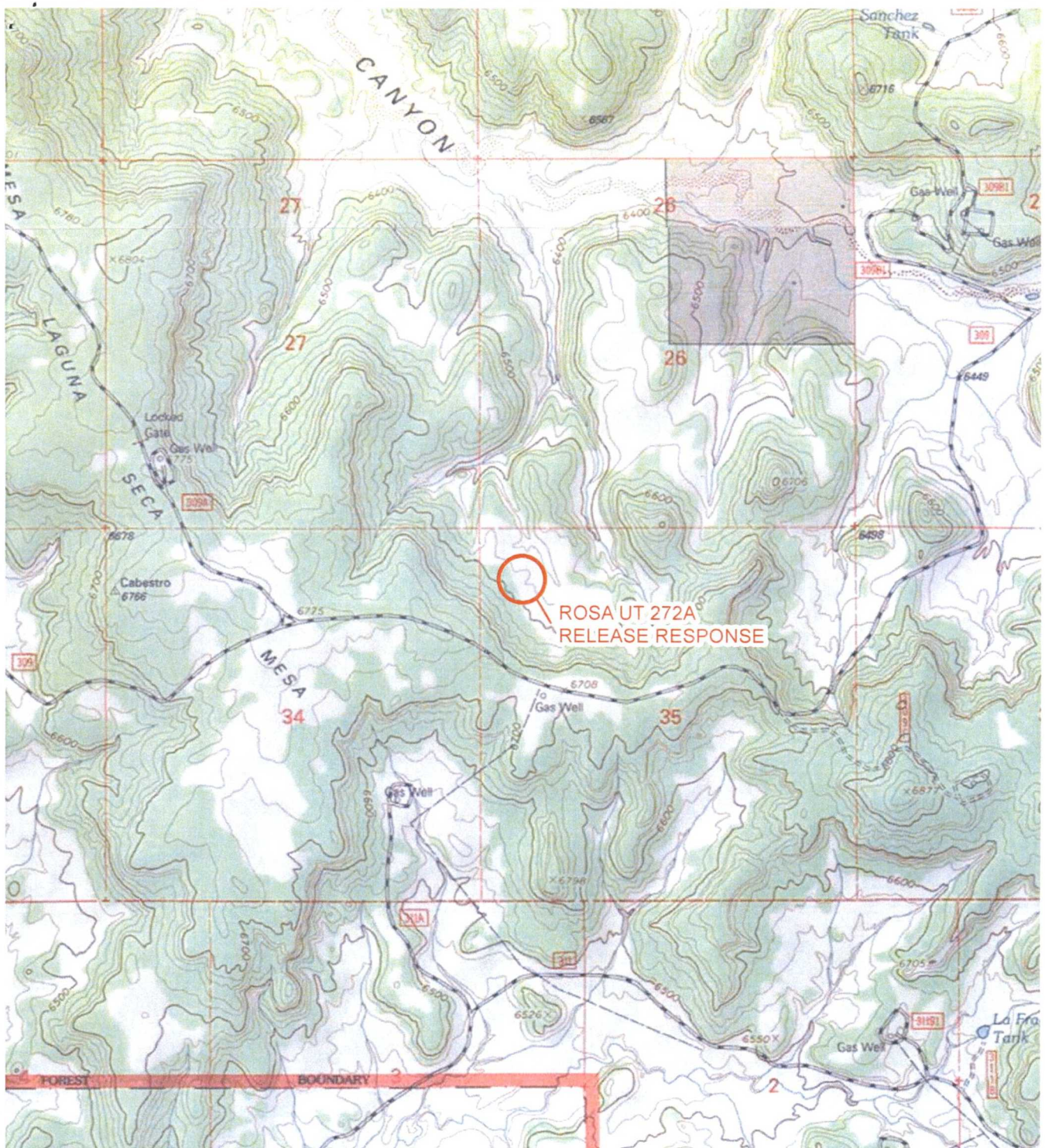


IMAGE COURTESY OF ESRI/USGS

LEGEND

○ SITE LOCATION

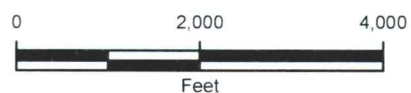
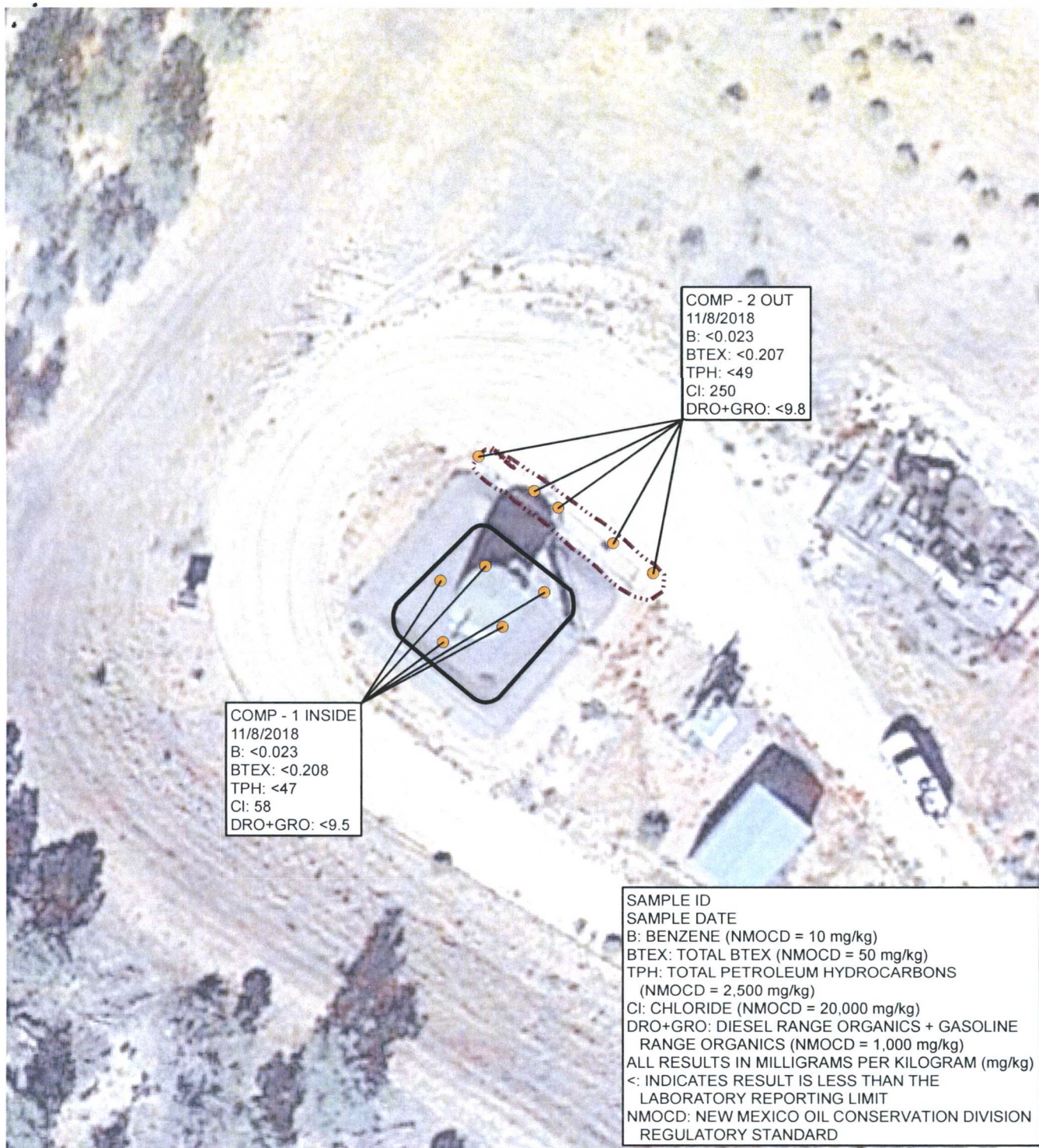


FIGURE 1
SITE LOCATION MAP
ROSA UT 272A RELEASE RESPONSE
RIO ARRIBA COUNTY, NEW MEXICO

LOGOS RESOURCES II, LLC





LEGEND

- COMPOSITE SOIL SAMPLE
- BERM AREA
- SPILL EXTENT OUTSIDE BERM

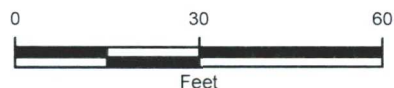


FIGURE 2
 SITE MAP
 ROSA UT 272A RELEASE RESPONSE
 RIO ARriba COUNTY, NEW MEXICO

LOGOS RESOURCES II, LLC





TABLES

TABLE 1
SOIL ANALYTICAL RESULTS

ROSA UT 272A
RIO ARriba COUNTY, NEW MEXICO
LOGOS RESOURCES II, LLC.

Sample ID	Date	PID Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (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)
COMP-1 INSIDE	11/8/2018	0.0	<0.023	<0.046	<0.046	<0.093	<0.208	<9.5	<4.6	<47	<47	58
COMP-2 OUT	11/8/2018	0.0	<0.023	<0.046	<0.046	<0.092	<0.207	<9.8	<4.6	<49	<49	250
NMOCD Remediation Action Standard			10	NA	NA	NA	50	DRO+GRO 1,000		NA	2,500	20,000

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
< - indicates results is below laboratory detection limit





ATTACHMENT 1: LABORATORY ANALYTICAL REPORT



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

November 16, 2018

Devin Hencmann

LTE

848 East 2nd Avenue

Durango, CO 81301

TEL: (970) 946-1093

FAX

RE: Rosa 272A

OrderNo.: 1811594

Dear Devin Hencmann:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/9/2018 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1811594

Date Reported: 11/16/2018

CLIENT: LTE

Client Sample ID: Comp-1 Inside

Project: Rosa 272A

Collection Date: 11/8/2018 1:34:00 PM

Lab ID: 1811594-001

Matrix: SOIL

Received Date: 11/9/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	58	10		mg/Kg	20	11/14/2018 2:01:08 PM	41529
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/13/2018 9:34:47 PM	41483
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/13/2018 9:34:47 PM	41483
Surr: DNOP	116	50.6-138		%Rec	1	11/13/2018 9:34:47 PM	41483
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/13/2018 12:24:24 PM	41477
Surr: BFB	101	73.8-119		%Rec	1	11/13/2018 12:24:24 PM	41477
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/13/2018 12:24:24 PM	41477
Toluene	ND	0.046		mg/Kg	1	11/13/2018 12:24:24 PM	41477
Ethylbenzene	ND	0.046		mg/Kg	1	11/13/2018 12:24:24 PM	41477
Xylenes, Total	ND	0.093		mg/Kg	1	11/13/2018 12:24:24 PM	41477
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	11/13/2018 12:24:24 PM	41477

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1811594

Date Reported: 11/16/2018

CLIENT: LTE

Client Sample ID: Comp-2 Out

Project: Rosa 272A

Collection Date: 11/8/2018 1:36:00 PM

Lab ID: 1811594-002

Matrix: SOIL

Received Date: 11/9/2018 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	250	10		mg/Kg	20	11/14/2018 2:13:33 PM	41529
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: Irm
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/13/2018 9:58:50 PM	41483
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/13/2018 9:58:50 PM	41483
Surr: DNOP	102	50.6-138		%Rec	1	11/13/2018 9:58:50 PM	41483
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/13/2018 12:47:52 PM	41477
Surr: BFB	101	73.8-119		%Rec	1	11/13/2018 12:47:52 PM	41477
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	11/13/2018 12:47:52 PM	41477
Toluene	ND	0.046		mg/Kg	1	11/13/2018 12:47:52 PM	41477
Ethylbenzene	ND	0.046		mg/Kg	1	11/13/2018 12:47:52 PM	41477
Xylenes, Total	ND	0.092		mg/Kg	1	11/13/2018 12:47:52 PM	41477
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	11/13/2018 12:47:52 PM	41477

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1811594

16-Nov-18

Client: LTE
Project: Rosa 272A

Sample ID	MB-41529		SampType:	mbk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	41529		RunNo:	55639				
Prep Date:	11/14/2018		Analysis Date:	11/14/2018		SeqNo:	1854874		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-41529		SampType:	lcs		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	41529		RunNo:	55639				
Prep Date:	11/14/2018		Analysis Date:	11/14/2018		SeqNo:	1854875		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	93.6	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 Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1811594

16-Nov-18

Client: LTE
Project: Rosa 272A

Sample ID: LCS-41483	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 41483	RunNo: 55607								
Prep Date: 11/12/2018	Analysis Date: 11/13/2018	SeqNo: 1851929	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.1	70	130			
Surr: DNOP	5.1		5.000		102	50.6	138			

Sample ID: MB-41483	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 41483	RunNo: 55607								
Prep Date: 11/12/2018	Analysis Date: 11/13/2018	SeqNo: 1851930	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	11		10.00		106	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 Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1811594

16-Nov-18

Client: LTE
Project: Rosa 272A

Sample ID	MB-41477	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	41477	RunNo:	55614					
Prep Date:	11/12/2018	Analysis Date:	11/13/2018	SeqNo:	1852097	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	990		1000		99.2	73.8	119			

Sample ID	LCS-41477	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	41477	RunNo:	55614					
Prep Date:	11/12/2018	Analysis Date:	11/13/2018	SeqNo:	1852098	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	80.1	123			
Surr: BFB	1200		1000		120	73.8	119			S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1811594

16-Nov-18

Client: LTE
Project: Rosa 272A

Sample ID	MB-41477		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 41477		RunNo: 55614					
Prep Date:	11/12/2018		Analysis Date: 11/13/2018		SeqNo: 1852115		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		113	80	120			

Sample ID	LCS-41477		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 41477		RunNo: 55614					
Prep Date:	11/12/2018		Analysis Date: 11/13/2018		SeqNo: 1852116		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.0	80	120			
Toluene	0.96	0.050	1.000	0	95.6	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.3	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Qualifiers:

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



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

Sample Log-In Check List

Client Name: LTE

Work Order Number: 1811594

RcptNo: 1

Received By: Victoria Zellar

11/9/2018 8:00:00 AM

Victoria Zellar

Completed By: Ashley Gallegos

11/12/2018 11:29:54 AM

Ag

Reviewed By:

ENM

11/12/18

labeled by IO 11/12/18

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 $>0^{\circ}\text{C}$ 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 ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
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 ☐

of preserved
bottles checked
for pH:

IO
11/12/18

(≤ 2 or > 12 unless noted)

Adjusted?

Checked by:

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>LTE</u>	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Mailing Address: <u>848 E 2nd Ave</u>	Project Name: <u>Rosa 272A</u>	
Phone #: <u>970-385-1096</u>	Project #: <u>076218011</u>	
email or Fax#: <u>dhencmann@ltenv.com</u>	Project Manager: <u>Devin Hencmann</u>	
QA/QC Package:		
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation	Sampler: <u>Josh Adams</u>	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input checked="" type="checkbox"/> EDD (Type) <u>OPF</u>	Sample Temperature: <u>5.2</u>	

☒ Standard ☐ Rush

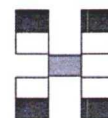
Rosa 272A

076218011

Devin Hencmann

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.2



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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.

Jadams@tenu.com



ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG



Photograph 1: View of release area inside of berm.



Photograph 2: View release area outside of berm.