

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Burlington Resources Oil & Gas Company	Contact Lindsay Dumas	
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 599-4089	
Facility Name: San Juan 28-6 149M	Facility Type: Gas	
Surface Owner BLM	Mineral Owner SF-079050-C	API No. 3003926251

LOCATION OF RELEASE

Unit Letter O	Section 27	Township 28N	Range 6W	Feet from the 1120	North/South Line FSL	Feet from the 1845	East/West Line FEL	County Rio Arriba
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Latitude **36.628261** Longitude **-107.45151**

NATURE OF RELEASE

Type of Release Hydrocarbon	Volume of Release 7.45 bbl	Volume Recovered 25 gal
Source of Release Oil/Production Tank	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 4/13/2015 3:00 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

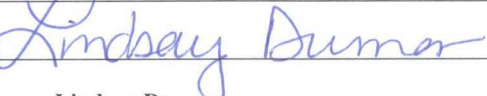

Describe Cause of Problem and Remedial Action Taken.*

MSO found liquid on the ground around production tank. Leak appears to be from bottom of tank. Well was shut in and remaining oil in tank was transported to different tank.

Describe Area Affected and Cleanup Action Taken.*

54 c/yds of soil was transported to IEI Land Farm and 54 c/yds of clean soil was transported from Aztec Machine Co., 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.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Lindsay Dumas	Approved by Environmental Specialist: 	
Title: Field Environmental Specialist	Approval Date: 7/24/15	Expiration Date:
E-mail Address: Lindsay.Dumas@conocophillips.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/18/2015	Phone: (505) 599-4089	

* Attach Additional Sheets If Necessary

#NCS 1517349609



May 5, 2015

Lindsay Dumas
ConocoPhillips
San Juan Business Unit
5525 Highway 64
Farmington, New Mexico 87401

**RE: Release Assessment and Confirmation Soil Sampling Report
San Juan 28-6 #149M
Rio Arriba County, New Mexico**

Via electronic mail to:
SJBUE-Team@ConocoPhillips.com

Dear Ms. Dumas:

On April 16, 2015, LT Environmental, Inc. (LTE) completed a release assessment at the ConocoPhillips (CoP) San Juan 28-6 #149M natural gas production well located in Rio Arriba County, New Mexico (Site). The purpose of the investigation was to delineate the extent of impacted soil following the release of approximately 7.45 barrels of natural gas condensate from an on-site aboveground storage tank (AST). Based on results of the release assessment, CoP excavated impacted soil and LTE returned to the Site on May 1, 2015 to collect confirmation soil samples.

1.0 Site Information

The Site is located southeast of Navajo City, New Mexico, on the southern end of Devils Spring Mesa in the uplands of Encierro Canyon as depicted on Figure 1. Surrounding land use consists of rural natural gas production and federal rangeland.

1.1 Location

Location:	SWSE, Section 27, T28N, R6W, Rio Arriba County, New Mexico
Wellhead Location:	36.628057, -107.451805
Release Location:	36.628267, -107.451513
Land Jurisdiction:	Bureau of Land Management (BLM)

A topographic location map and aerial site map are included as Figures 1 and 2, respectively.



1.2 NMOCD Ranking

In accordance with the New Mexico Oil Conservation Division (NMOCD) release protocols, remediation action levels were established per the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), prior to the subsurface investigation. The release was assigned a total NMOCD ranking score of 10 based on the following ranking criteria:

- *The depth to groundwater is greater than 100 feet below ground surface (bgs):* A cathodic protection well is located approximately 835 feet southeast of the Site at the San Juan 28-6 Unit #29A production well. Groundwater was identified in the cathodic protection well at 200 feet bgs. The cathodic protection well is approximately 50 feet lower in elevation than the Site. (0 points)
- *The distance to the nearest water source is greater than 1,000 feet and the nearest domestic water source is greater than 200 feet:* The nearest permitted water well is located approximately 3,808 feet north of the Site and the nearest spring is located approximately 2.43 miles northwest of the Site. (0 points)
- *The distance to the nearest surface water body is between 200 feet and 1,000 feet:* A third-order tributary to Encierro Canyon is approximately 257 feet east of the Site. (10 points)

Based on the site setting, the applicable remediation action levels are 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/kg for total petroleum hydrocarbons (TPH).

1.3 Assessment

LTE was initially contacted by Lindsay Dumas of COP on April 13, 2015, and on April 16, 2015, Devin Henemann, an LTE geologist, conducted the release assessment. LTE visually identified a small area of stained soil around the natural gas condensate AST and mapped the extent of stained soil with a Trimble GeoXT Global Positioning System (GPS). The location of the AST and extent of the release as observed on the ground surface is depicted on Figure 2.

LTE used a hand auger to advance a total of four boreholes (BH-1, BH-2, BH-5, and BH-9) within the area of stained soil, three boreholes (BH-3, BH-4, and BH-6) outside of the stained soil but within the bermed area, two boreholes (BH-7 and BH-8) outside of the bermed area, and two boreholes (BH-9 and BH-10) within the AST wedding cake secondary containment. Borehole BH-9 extended beneath the secondary containment to assess soil under the AST. The total depths of the soil borings ranged from between 1 foot and 4 feet bgs. Borehole locations are depicted on Figures 2 and 3.

2.0 Soil Sampling

During borehole advancement, LTE logged and described continuous soil samples using the Unified Soil Classification System (USCS). The intervals from immediately beneath the ground



surface and every one foot thereafter were screened for volatile aromatic hydrocarbons (VOCs) as well as any soil that was stained or had a hydrocarbon odor.

A total of four soil samples were collected for confirmation laboratory analysis. When field screening indicated impacted soil was present in boreholes, LTE collected confirmation soil samples from the bottom-most interval of impacted soil. This occurred at auger refusal in BH-2, BH-5, and BH-9 and at 1 foot bgs in BH-1. The remaining borehole locations were not selected for confirmation sampling based on visual, olfactory, and field screening observations indicating the absence of hydrocarbon impact.

2.1 Field Screening

Field screening was conducted with a photo-ionization detector (PID) equipped with a 10.6 electron volt lamp in accordance with the NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) to delineate the extent of impacted soil by measuring the VOC vapor in the head space of soil samples. Prior to conducting fieldwork, the PID was calibrated with 100 parts per million (ppm) isobutylene gas.

2.2 Laboratory Analysis

All confirmation soil samples were collected in pre-cleaned glass jars, labeled with location, date, time, sampler, and method of analysis and immediately placed on ice. The samples were hand delivered at 4 degrees Celsius (°C) under strict chain-of-custody procedures to Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico, for analysis within the required holding times of:

- BTEX by United States Environmental Protection Agency (EPA) Method 8021B; and
- TPH-gasoline range organics (GRO) and TPH-diesel range organics (DRO) by EPA Method 8015B.

3.0 Field and Laboratory Results

Soil primarily consisted of silty sand to clayey fine sand that was 2 feet to 4 feet thick underlain by a weathered sandstone that could not be penetrated by the hand auger. The higher clay content was observed in northern boreholes BH-5, BH-6, BH-7, and BH-9. The soil boring logs are included as Attachment A.

On April 16, 2015, field screening results for VOCs indicated impacted soil was restricted to the area beneath visual staining evident on the ground surface. The highest field screening results (greater than 1,000 parts per million [ppm]) were observed in BH-2 and BH-5. Borehole BH-9 was advanced through the wedding cake secondary containment to investigate soil under the AST. Although field screening results did not exceed 1,000 ppm in that borehole, VOCs up to 328 ppm were identified at 2 feet bgs. Field screening of soil samples collected from BH-10 did not exceed



0 ppm, indicating the release did not saturate the entire wedding cake containment. No boreholes advanced outside of the stained soil contained field screening results exceeding 10 ppm.

Laboratory analytical results indicated BTEX and TPH concentrations in soil samples BH-1 at 1 foot bgs and BH-9 at 4 feet bgs were below the laboratory reporting limits or detected at only minor concentrations. Laboratory analytical results for soil samples BH-2 at 3.5 feet bgs and BH-5 at 4 feet bgs contained detectable concentrations of BTEX and TPH, but the concentrations were in compliance with NMOCD standards. Laboratory analytical results for the release assessment are summarized in Table 1 and presented on Figure 3. The full laboratory analytical report is included as Attachment 2.

4.0 Removal of Impacted Soil

Field screening and laboratory analytical results were used to delineate depth of impacted soil. CoP removed the AST and associated wedding cake secondary containment to excavate soil in the stained area to approximately 4 feet bgs. The final excavation was approximately 18 feet long by 18 feet wide as depicted on Figure 4. CoP transported approximately 54 cubic yards of soil from the excavation and wedding cake secondary containment to the Envirotech Landfarm in Hilltop, New Mexico for disposal.

On May 1, 2015, Mike Wicker of LTE collected composite soil samples from the sidewalls and floor of the excavation by depositing five aliquots of soil into plastic bags, thoroughly mixing the contents and sampling into four-ounce glass jars. Soil samples were stored on ice and delivered to Hall following strict chain-of-custody procedures. The soil samples were analyzed for BTEX by EPA Method 8021B and TPH-GRO and TPH-DRO by USEPA Method 8015D within required holding times.

Laboratory analytical results from the excavation soil samples indicate no BTEX or TPH concentrations were detected in soil from the sidewalls and the floor of the excavation except 27 mg/kg of DRO in the south sidewall sample. Laboratory analytical results are listed in Table 2 and presented on Figure 4. The complete laboratory report is included in Attachment A.

5.0 Conclusions and Recommendations

On April 16, 2015, LTE conducted a release assessment of impacted soil in response to a release of approximately 7.45 barrels of natural gas condensate from an AST at the San Juan 28-6 #149M natural gas production well. Remediation action levels for releases are determined by the NMOCD ranking score per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993), and the Site was assigned a rank of 10.



Field screening and analytical results indicated the release was mostly contained in the northwestern half of the wedding cake containment. Outside of the wedding cake containment, impacted soil was restricted to an area of visually stained soil within the berm. Vertical migration of liquids did not exceed 4 feet bgs. CoP removed approximately 54 cubic yards of impacted soil, including the contents of the wedding cake containment. Since BTEX and TPH concentrations in confirmation samples collected from the excavation floor and sidewalls on May 1, 2015 did not exceed applicable NMOCD standards, no further work is recommended.

LTE appreciates the opportunity to provide environmental services to CoP. If you have any questions regarding this report, please contact us at (970) 385-1096.

Sincerely,

LT ENVIRONMENTAL, INC.

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

Devin Hencmann
Project Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

Ashley L. Ager
Senior Geologist/Office Manager

Attachments (7):

Figure 1 – Site Location Map

Figure 2 – Site Map

Figure 3 – Release Assessment Soil Sampling Results

Figure 4 – Excavation Soil Sampling Results

Table 1 – Laboratory Analytical Results

Attachment 1 – Borehole Logs

Attachment 2 - Laboratory Analytical Reports

FIGURES

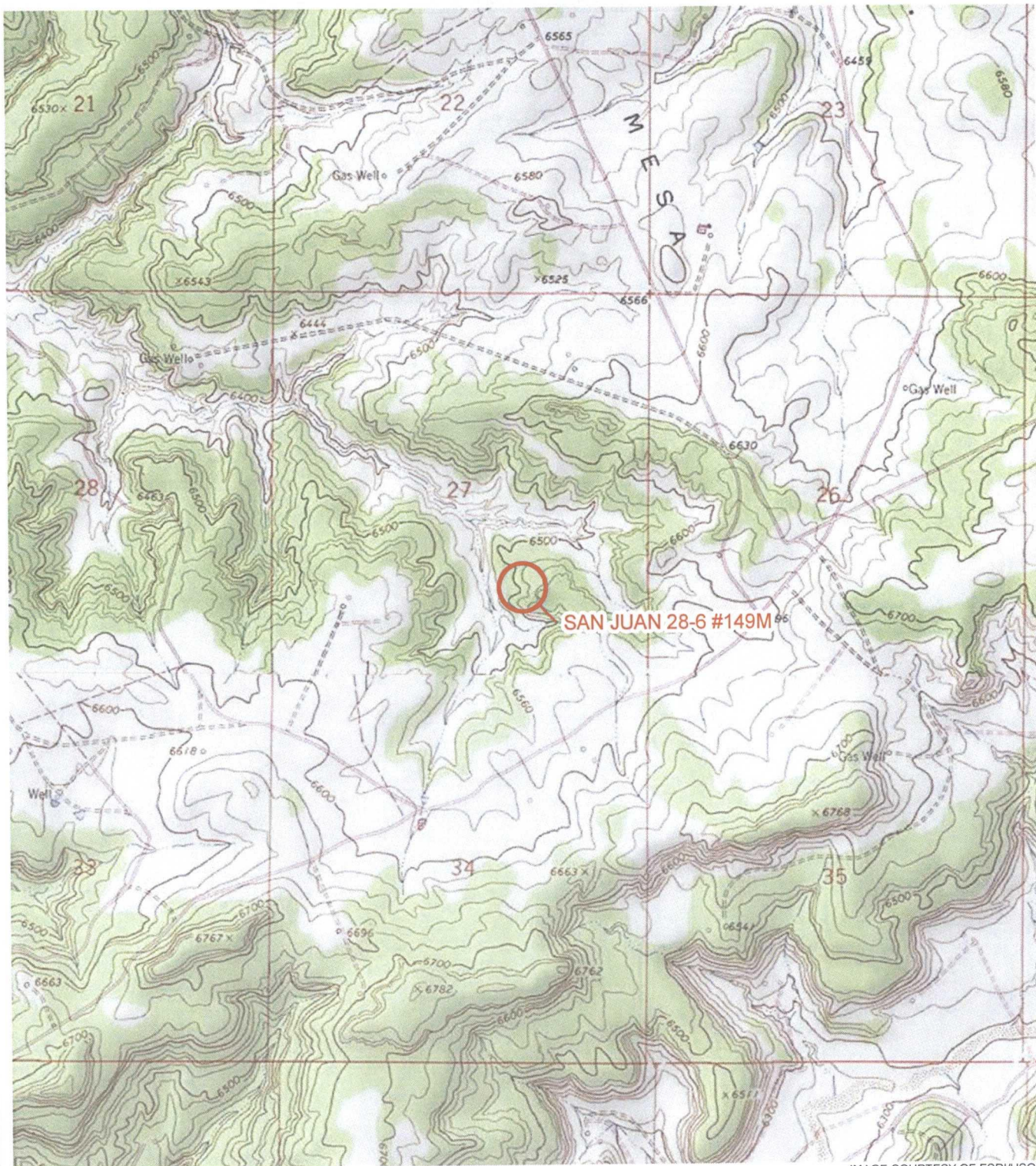


IMAGE COURTESY OF ESRI/USGS

LEGEND

 SITE LOCATION



NEW MEXICO

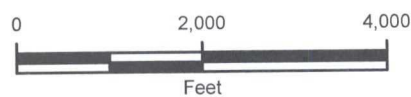


FIGURE 1
SITE LOCATION MAP
SAN JUAN 28-6 #149M
RIO ARRIBA COUNTY, NEW MEXICO

CONOCOPHILLIPS





IMAGE COURTESY OF GOOGLE EARTH, 2013

LEGEND

- BOREHOLE
- STAINED SOIL

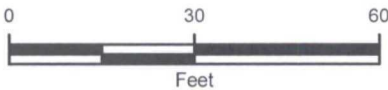


FIGURE 2
SITE MAP
 SAN JUAN 28-6 #149M
 RIO ARriba COUNTY, NEW MEXICO

CONOCOPHILLIPS



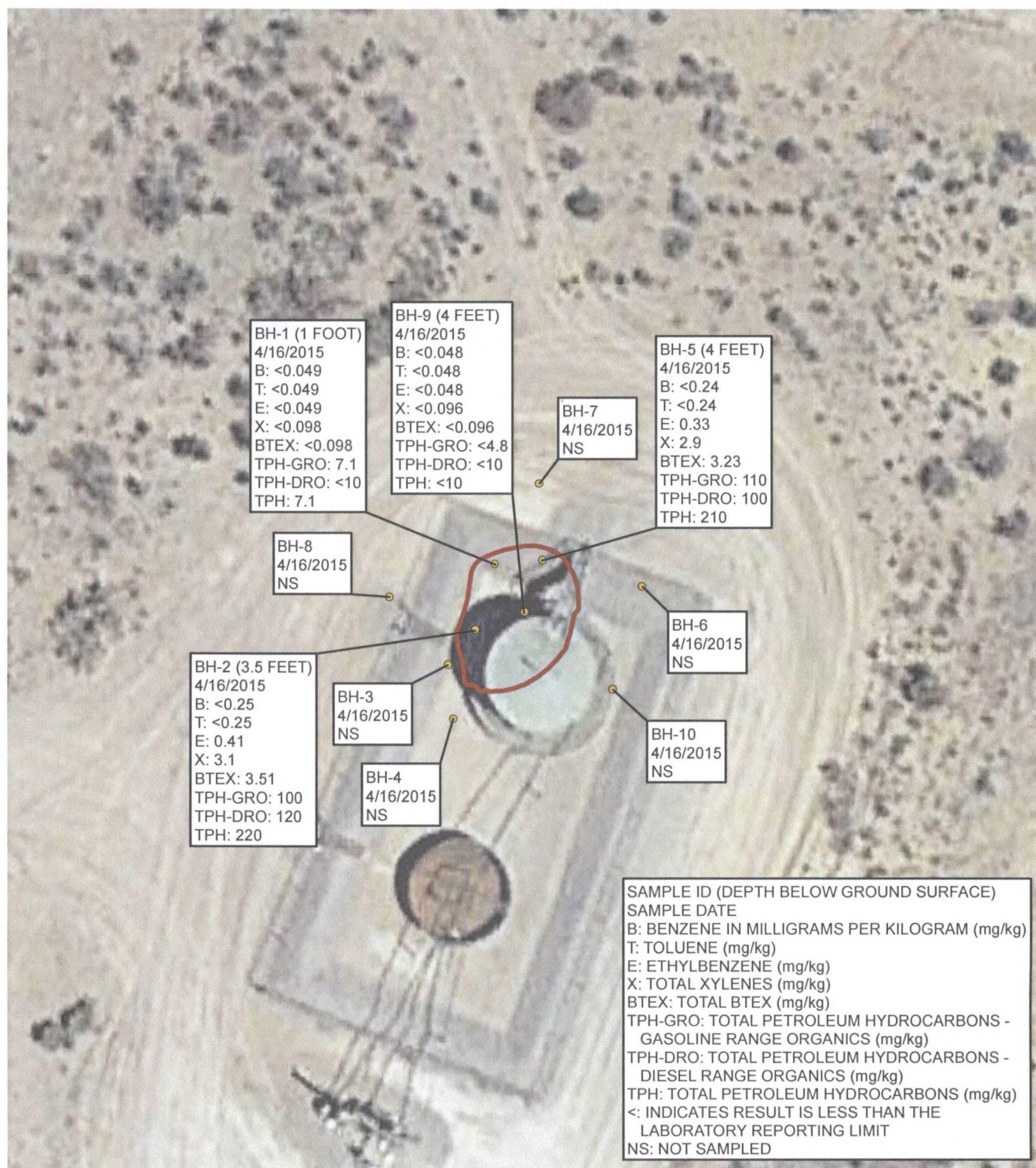


IMAGE COURTESY OF GOOGLE EARTH, 2013

LEGEND

● BOREHOLE

◻ ESTIMATED IMPACTED SOIL AREA

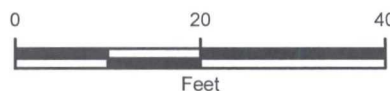


FIGURE 3
RELEASE ASSESSMENT
SOIL SAMPLING RESULTS
SAN JUAN 28-6 #149M
RIO ARriba COUNTY, NEW MEXICO
CONOCOPHILLIPS



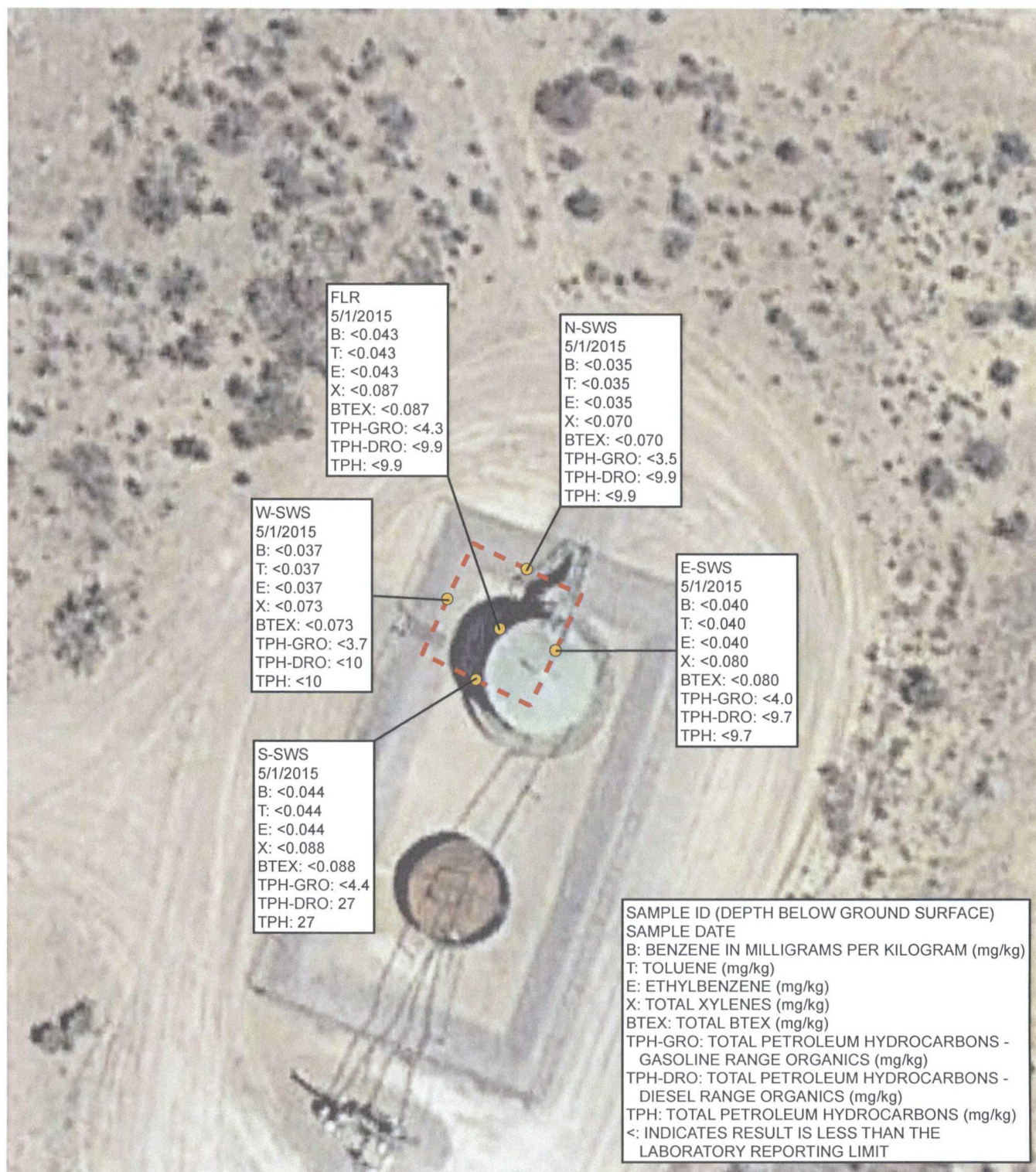


IMAGE COURTESY OF GOOGLE EARTH, 2013

LEGEND

- COMPOSITE SOIL SAMPLE
- EXCAVATION EXTENT

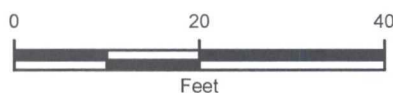


FIGURE 4
EXCAVATION SOIL SAMPLING RESULTS
SAN JUAN 28-6 #149M
RIO ARRIBA COUNTY, NEW MEXICO

CONOCOPHILLIPS



TABLES

TABLE 1

RELEASE ASSESSMENT SOIL ANALYTICAL RESULTS
SAN JUAN 28-6 #149M
CONOCOPHILLIPS

Soil Sample Identification	Sample Date	Vapor (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
BH-1 (1 foot)	4/16/2015	172	<0.049	<0.049	<0.049	<0.098	<0.098	7.1	<10	7.1
BH-2 (3.5 feet)	4/16/2015	1,315	<0.25	<0.25	0.41	3.1	3.51	100	120	220
BH-5 (4 feet)	4/16/2015	1,986	<0.24	<0.24	0.33	2.9	3.23	110	100.00	210
BH-9 (4 feet)	4/16/2015	50.0	<0.048	<0.48	<0.048	<0.096	<0.096	<4.8	<10	<10
NMOCD Standards			10	NE	NE	NE	50	NE	NE	1,000

NOTES:

BTEX - benzene, toluene, ethylbenzene, total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

NE - Not Established

NMOCD - New Mexico Oil Conservation Division

ppm - parts per million

TPH - total petroleum hydrocarbons

< - indicates result is less than the stated laboratory reporting limit



TABLE 2

EXCAVATION SOIL ANALYTICAL RESULTS
SAN JUAN 28-6 #149M
CONOCOPHILLIPS

Soil Sample Identification	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)
N-SWS	5/1/2015	<0.035	<0.035	<0.035	<0.070	<0.070	<3.5	<9.9	<9.9
S-SWS	5/1/2015	<0.044	<0.044	<0.044	<0.088	<0.088	<4.4	27	27
E-SWS	5/1/2015	<0.040	<0.040	<0.040	<0.080	<0.080	<4.0	<9.7	<9.7
W-SWS	5/1/2015	<0.037	<0.037	<0.037	<0.073	<0.073	<3.7	<10	<10
FLR	5/1/2015	<0.043	<0.043	<0.043	<0.087	<0.087	<4.3	<9.9	<9.9
NMOCD Standards		10	NE	NE	NE	50	NE	NE	1,000

NOTES:

BTEX - benzene, toluene, ethylbenzene, total xylenes

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

NE - Not Established

NMOCD - New Mexico Oil Conservation Division

TPH - total petroleum hydrocarbons

< - indicates result is less than the stated laboratory reporting limit



ATTACHMENT A
BOREHOLE LOGS





Compliance • Engineering • Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-1

Date:

4-16-15

Project:

San Juan 286 149M

Project Number:

062015001

Logged By:

Devin Heremann

Drilled By:

Devin Heremann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.628266
-107.451555

Elevation:

6511 ft

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

2.25'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Straining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
Ø	Wet	172	odor no visible	BH-1	0	0-1'	SM	light Brown, silt + sand 40% silt, 50% fine sand 10% med sand	
Ø	Damp	15.9	Ø		1	1-2'	SM	same as above	
Ø	Damp		Ø		2	2-2.25'	SM	same as above	
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance « Engineering « Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-2

Date:

4-16-15

Project:

San Juan 286 ±144

Project Number:

06205001

Logged By:

Devin Hennemann

Drilled By:

Devin Hennemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.628259
-107.451562

Elevation:
6511ft

Detector: PID

Drilling Method:
Hand Auger

Sampling Method:
Hand Auger

Hole Diameter: 2"

Total Depth: 35'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
Ø	wet		no v.s. bk strong odor		0	0-1'	SM	light brown, silty sand 40% silt, 50% fine sand 10% med sand	
Ø	wet	4,143	no v.s. bk strong odor		1	1-2'	SM	same as above	
mod.	wet	3,860	no v.s. bk strong odor		2	2-2.5'	SM	hit cobble, move over 1'	
hwd	wet	4,020	odor		3	2.5-2.75'	SM	light brown, silty sand 30% silt, 60% fine sand 10% med sand	
hwd	Damp	1,515	odor			2.75-3'	SM		
Refusal	Damp	1,315	odor	BH-2 3.5'		3-3.5'		weathered sandstone	
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance « Engineering « Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-3

Date:

4-16-15

Project:

San Juan 28-6149M

Project Number:

062015001

Logged By:

Devin Henemann

Drilled By:

Devin Henemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.628252

-107.451559

Elevation:

6511 ft

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

2'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

NA

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
none	Dry	0.0	Ø		0	0-1'	SM	dark Brown, silty sand 40% silt, 40% fine sand, 40% med sand	
none	Dry	7.6	Ø		1	1-2'	SM	Same as above	
mod Refuse	Dry	6.8	Ø		2	2'	SM	light brown, silty sand 30% silt, 50% fine sand 20% med sand	
					3			Bottom of Bore hole on weathered sandstone encountered	
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance • Engineering • Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-4

Date:

4-16-15

Project:

San Juan 28-6 149M

Project Number:

062015001

Logged By:

Devin Hencmann

Drilled By:

Devin Hencmann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.622236
-107.451536

Elevation:

6511ft

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

2.25

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
Ø	Damp	0.0	Ø		0	0-1'	SM	Silty sand, light Brown 35% s. ll, 45% fine sand, 20% med sand	
Ø	Dry	0.0	Ø		1	1-2'	SM	Silt + sand, Brown 308 silty 40% fine sand, 308 med sand	
Refusal	Dry	0.0	Ø		2	2.25		Weathered sand stone	
					3				
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance « Engineering « Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-5

Date:

4-16-15

Project:

San Juan 28-6 #149M

Project Number:

062015001

Logged By:

Devin Henemann

Drilled By:

Devin Henemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.628304

Elevation:

6511ft

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

4'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
Ø	Damp	3196	no visible staining odor		0	0-1'	SM	Silty Sand, light Brown 30% silt, 50% fine sand 20% med sand	
Ø	Damp	2782	odor		1	1-2'	SM	same as above	
Ø	Dry	21516	odor		2	2-3'	ML	clayey fine sand, Brown 25% clay, 10% silt, 50% fine sand 15% med sand	
Ø	Dry	1986	odor		3	3-4'	ML	same as above	
Refusal				BH-5 4'	4	4'		Weathered Sandstone	
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance « Engineering » Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

B4-6

Date:

4-16-15

Project:

San Juan 28-6 149M

Project Number:

062015001

Logged By:

Devin Henemann

Drilled By:

Devin Henemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long:

Elevation:

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

3.5'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
Ø	Damp	0.0	Ø		0	0-1'	SM	5.1H Sand, Brown, 35% silt, 45% fine sand 20% med sand	
Ø	Damp	0.0	Ø		1	1-2'	ML	clayey fine sand, Brown 20% clay, 60% fine sand, 10% silt 10% med sand	
Ø	Dry	0.0	Ø		2	2-3'	ML	same as above	
					3	3.5'		Weathered Sandstone	
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance • Engineering • Remediation
LT Environmental, Inc.
 2243 Main Avenue, Suite 3
 Durango, Colorado 81301

Boring/Well Number:

BH-7

Date:

4-16-15

Project:

San Juan 28-6 149M

Project Number:

062015001

Logged By:

Devin Henemann

Drilled By:

Devin Henemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.628339
-107.451491

Elevation:

5212 ft

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

3'

Casing Type:

-

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

-

Seal:

-

Grout:

-

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
✓	Dry	0.0	φ		0	0-1'	SM	Silty Sand, Brown 30% silt, 50% fine sand, 20% med sand	
φ	Dry	0.0	φ		1	1-2'	ML	Clayey Silt, Dark Brown 25% clay, 40% silt, 25% fine sand 10% med sand	
φ	Dry	0.0	φ		2	2-3'	ML	Same as above	
φ Refusal	Dry	0.0	φ		3	3'		Weathered Sandstone	
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance « Engineering « Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-8

Date:

4-16-15

Project:

San Juan 28-6149M

Project Number:

062015001

Logged By:

Devin Henemann

Drilled By:

Devin Henemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.629329
-107.451515

Elevation:
6512 ft

Detector:
PID

Drilling Method:
Hand Auger

Sampling Method:
Hand Auger

Hole Diameter: 2"
Total Depth: 3'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:
NA

Gravel Pack:

Seal:

Grout:

Comments:

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
none	Dry	0.0	Ø		0	0-1'	SM	Silty Sand, Dark brown 40% silt, 40% fine sand, 20% med sand	
none	Dry	0.0	Ø		1	1-2'	SM	Same as above	
none	Dry	0.0	Ø		2	2-3'	SM	Same as above	
none Refusal	Dry	0.0	Ø		3	3'		weathered sand stone	
					4				
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance • Engineering • Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-9

Date:

4-16-15

Project:

San Juan 28-6 #179M

Project Number:

062015001

Logged By:

Devin Henemann

Drilled By:

Devin Henemann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long: 36.628289

-107.451534

Elevation:

6511ft

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

4'

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Below Tank Bottom inside containment logged from natural surface

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
Ø	Wet	212	slight odor		0	0-1'	SM	Silty sand, light brown 40% silt, 50% fine sand, 10% med sand	
Ø	Dry		slight odor		1	1-2'	ML	clayey fine sand, Brown 30% clay, 10% silt, 55% fine sand	
Ø	Dry	328	slight odor		2	2-3'	ML	5% med sand	
Ø	Dry	50	none	BH-9 4'	3	3-4'	ML	same as above	
Ø Refusal					4	4'		weathered sandstone	
					5				
					6				
					7				
					8				
					9				
					10				
					11				



Compliance, Engineering, Remediation
LT Environmental, Inc.
2243 Main Avenue, Suite 3
Durango, Colorado 81301

Boring/Well Number:

BH-10

Date:

4-16-15

Project:

San Juan 28-6 #149M

Project Number:

062015001

Logged By:

Devin Heremann

Drilled By:

Devin Heremann

BORING LOG/MONITORING WELL COMPLETION DIAGRAM

Lat/Long:

Elevation:

6512

Detector:

PID

Drilling Method:

Hand Auger

Sampling Method:

Hand Auger

Hole Diameter:

2"

Total Depth:

1' BGS

Casing Type:

Casing Diameter:

Casing Length:

Slot Size:

Slot Length:

Depth to Water:

Gravel Pack:

Seal:

Grout:

Comments:

Bore inside of tank secondary containment logged Below Ground Surface

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks
Ø	Dry	0.0	none		0	to		Soil inside secondary containment had no staining, no odor, 0.0 ppm on PID
Ø	Damp	0.0	none		1	0-1'	SM	silty sand, Brown, 30% silt, 50% fine sand, 20% med sand
					2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
					11			
					12			

ATTACHMENT B
LABORATORY ANALYTICAL REPORTS





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

April 23, 2015

Ashley Ager

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL: (970) 946-1093

FAX

RE: San Juan 28-6 #149M

OrderNo.: 1504766

Dear Ashley Ager:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/17/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
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: 1504766

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

4/17/2015 6:55:00 AM

Completed By: Ashley Gallegos

4/17/2015 11:38:15 AM

Reviewed By:

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Turn-Around Time:

lient: LTE environmental

☒ Standard ☐ Rush

Project Name:

Mailing Address: 7743 M. 1. A Suite 3

San Juan 28-6 #149M

Jurango, CO 81301

Project #:

Phone #: 970 385 1096

Project Manager:

mail or Fax#: aaas@itenv.com

IA/QC Package:

Ashley Aser

☐ Standard ☐ Level 4 (Full Validation)

Sampler: Devin Hennemann

accreditation


On Ice: ☒ Yes ☐ No

☐ NELAP ☐ Other

Sample Temperature: 1, 0

EDD (Type)

[illegible]

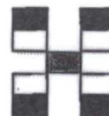
Date:	Time:	Relinquished by:
11/6/15	11/6/15	

Received by:	Date	Time
Mustu / beth	4/16/15	1615

Remarks:	No MRO
----------	--------

Date:	Time:	Relinquished by:
11/15/82	4:24	Christine Walker

Received by: Date 04/17/15 Time 0655



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MtBE (8021)	X	X	X	X
BTEX + MTBE + TPH (Gas only)				
TPH 8015B (GRO / DRO)	X	X	X	X
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)				



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

May 05, 2015

Devin Henchmann

LTE

2243 Main Ave Suite 3

Durango, CO 81301

TEL: (970) 946-1093

FAX

RE: San Juan 28-6 149M

OrderNo.: 1505063

Dear Devin Henchmann:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/2/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505063

Date Reported: 5/5/2015

CLIENT: LTE

Client Sample ID: N-SWS

Project: San Juan 28-6 149M

Collection Date: 5/1/2015 9:10:00 AM

Lab ID: 1505063-001

Matrix: MEOH (SOIL)

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/4/2015 11:13:48 AM	19021
Surr: DNOP	95.4	57.9-140		%REC	1	5/4/2015 11:13:48 AM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	5/4/2015 10:06:07 AM	19008
Surr: BFB	94.1	80-120		%REC	1	5/4/2015 10:06:07 AM	19008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	5/4/2015 10:06:07 AM	19008
Toluene	ND	0.035		mg/Kg	1	5/4/2015 10:06:07 AM	19008
Ethylbenzene	ND	0.035		mg/Kg	1	5/4/2015 10:06:07 AM	19008
Xylenes, Total	ND	0.070		mg/Kg	1	5/4/2015 10:06:07 AM	19008
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	5/4/2015 10:06:07 AM	19008

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

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

Analytical Report

Lab Order 1505063

Date Reported: 5/5/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: S-SWS

Project: San Juan 28-6 149M

Collection Date: 5/1/2015 9:15:00 AM

Lab ID: 1505063-002

Matrix: MEOH (SOIL)

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	27	9.8		mg/Kg	1	5/4/2015 11:40:35 AM	19021
Surr: DNOP	97.6	57.9-140		%REC	1	5/4/2015 11:40:35 AM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	5/4/2015 10:34:52 AM	19008
Surr: BFB	90.3	80-120		%REC	1	5/4/2015 10:34:52 AM	19008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	5/4/2015 10:34:52 AM	19008
Toluene	ND	0.044		mg/Kg	1	5/4/2015 10:34:52 AM	19008
Ethylbenzene	ND	0.044		mg/Kg	1	5/4/2015 10:34:52 AM	19008
Xylenes, Total	ND	0.088		mg/Kg	1	5/4/2015 10:34:52 AM	19008
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/4/2015 10:34:52 AM	19008

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

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

Analytical Report

Lab Order 1505063

Date Reported: 5/5/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: E-SWS

Project: San Juan 28-6 149M

Collection Date: 5/1/2015 9:20:00 AM

Lab ID: 1505063-003

Matrix: MEOH (SOIL)

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/4/2015 12:07:10 PM	19021
Surr: DNOP	93.9	57.9-140		%REC	1	5/4/2015 12:07:10 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	5/4/2015 11:03:31 AM	19008
Surr: BFB	92.4	80-120		%REC	1	5/4/2015 11:03:31 AM	19008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	5/4/2015 11:03:31 AM	19008
Toluene	ND	0.040		mg/Kg	1	5/4/2015 11:03:31 AM	19008
Ethylbenzene	ND	0.040		mg/Kg	1	5/4/2015 11:03:31 AM	19008
Xylenes, Total	ND	0.080		mg/Kg	1	5/4/2015 11:03:31 AM	19008
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/4/2015 11:03:31 AM	19008

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

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

Analytical ReportLab Order **1505063**Date Reported: **5/5/2015****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** LTE**Client Sample ID:** W-SWS**Project:** San Juan 28-6 149M**Collection Date:** 5/1/2015 10:00:00 AM**Lab ID:** 1505063-004**Matrix:** MEOH (SOIL)**Received Date:** 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/4/2015 12:33:59 PM	19021
Surr: DNOP	99.1	57.9-140		%REC	1	5/4/2015 12:33:59 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	5/4/2015 11:32:13 AM	19008
Surr: BFB	94.0	80-120		%REC	1	5/4/2015 11:32:13 AM	19008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	5/4/2015 11:32:13 AM	19008
Toluene	ND	0.037		mg/Kg	1	5/4/2015 11:32:13 AM	19008
Ethylbenzene	ND	0.037		mg/Kg	1	5/4/2015 11:32:13 AM	19008
Xylenes, Total	ND	0.073		mg/Kg	1	5/4/2015 11:32:13 AM	19008
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	5/4/2015 11:32:13 AM	19008

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

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

Analytical Report

Lab Order 1505063

Date Reported: 5/5/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** LTE**Client Sample ID:** FLR**Project:** San Juan 28-6 149M**Collection Date:** 5/1/2015 9:30:00 AM**Lab ID:** 1505063-005**Matrix:** MEOH (SOIL)**Received Date:** 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/4/2015 1:00:46 PM	19021
Surr: DNOP	70.9	57.9-140		%REC	1	5/4/2015 1:00:46 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	5/4/2015 12:00:59 PM	19008
Surr: BFB	110	80-120		%REC	1	5/4/2015 12:00:59 PM	19008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	5/4/2015 12:00:59 PM	19008
Toluene	ND	0.043		mg/Kg	1	5/4/2015 12:00:59 PM	19008
Ethylbenzene	ND	0.043		mg/Kg	1	5/4/2015 12:00:59 PM	19008
Xylenes, Total	ND	0.087		mg/Kg	1	5/4/2015 12:00:59 PM	19008
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	5/4/2015 12:00:59 PM	19008

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505063

05-May-15

Client: LTE
Project: San Juan 28-6 149M

Sample ID	MB-19021	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19021	RunNo:	25918					
Prep Date:	5/4/2015	Analysis Date:	5/4/2015	SeqNo:	768279	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		98.1	57.9	140			

Sample ID	LCS-19021	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19021	RunNo:	25918					
Prep Date:	5/4/2015	Analysis Date:	5/4/2015	SeqNo:	768718	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	105	67.8	130			
Surr: DNOP	4.8		5.000		95.6	57.9	140			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505063

05-May-15

Client: LTE
Project: San Juan 28-6 149M

Sample ID	MB-19008	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19008	RunNo:	25928					
Prep Date:	5/1/2015	Analysis Date:	5/4/2015	SeqNo:	768762	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	910		1000		90.7	80	120			

Sample ID	LCS-19008	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19008	RunNo:	25928					
Prep Date:	5/1/2015	Analysis Date:	5/4/2015	SeqNo:	768763	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	102	64	130			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505063

05-May-15

Client: LTE
Project: San Juan 28-6 149M

Sample ID	MB-19008		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19008		RunNo:	25928			
Prep Date:	5/1/2015		Analysis Date:	5/4/2015		SeqNo:	768844		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID	LCS-19008		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19008		RunNo:	25928			
Prep Date:	5/1/2015		Analysis Date:	5/4/2015		SeqNo:	768845		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	112	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	111	78.8	124			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit



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: 1505063

RcptNo: 1

Received by/date:

[Signature]

05/02/15

Logged By: Lindsay Mangin

5/2/2015 8:30:00 AM

[Signature]

Completed By: Lindsay Mangin

5/2/2015 10:38:51 AM

[Signature]

Reviewed By:

MA 05/04/15

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			

Client: LT Environmental, Inc
Devin Hencmann
 Mailing Address: 2243 Main Ave #3
Durango, CO 81301
 Phone #: (970) 385-1096
 email or Fax#: DHencmann@LTEnv.com
 QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
 Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time: Some Day

☐ Standard ☒ Rush 5-4-15

Project Name: San Juan 28-6 149M

Project #:
062015001

Project Manager:

Devin Heumann

Sampler: Michael Wicker

Sample Temperature: 31.0

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
5-1-15	11:45	<i>[Signature]</i>	<i>Christine Walters</i>	5/1/15	1145
Date:	Time:	Relinquished by:	Received by:	Date	Time
5/1/15	1944	<i>Christine Walters</i>	<i>[Signature]</i>	05/02/15	0830



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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.

Analytical ReportLab Order **1504766**Date Reported: **4/23/2015****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** LTE**Client Sample ID:** BH-1 1 Foot**Project:** San Juan 28-6 #149M**Collection Date:** 4/16/2015 9:26:00 AM**Lab ID:** 1504766-001**Matrix:** SOIL**Received Date:** 4/17/2015 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/21/2015 8:49:14 PM	18760
Surr: DNOP	95.9	57.9-140		%REC	1	4/21/2015 8:49:14 PM	18760
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	7.1	4.9		mg/Kg	1	4/21/2015 10:36:17 PM	18764
Surr: BFB	118	80-120		%REC	1	4/21/2015 10:36:17 PM	18764
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/21/2015 10:36:17 PM	18764
Toluene	ND	0.049		mg/Kg	1	4/21/2015 10:36:17 PM	18764
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2015 10:36:17 PM	18764
Xylenes, Total	ND	0.098		mg/Kg	1	4/21/2015 10:36:17 PM	18764
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/21/2015 10:36:17 PM	18764

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504766

Date Reported: 4/23/2015

CLIENT: LTE

Client Sample ID: BH-5 4 Feet

Project: San Juan 28-6 #149M

Collection Date: 4/16/2015 11:27:00 AM

Lab ID: 1504766-002

Matrix: SOIL

Received Date: 4/17/2015 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	100	10		mg/Kg	1	4/21/2015 9:53:07 PM	18760
Surr: DNOP	96.3	57.9-140		%REC	1	4/21/2015 9:53:07 PM	18760
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	110	24		mg/Kg	5	4/21/2015 11:04:52 PM	18764
Surr: BFB	176	80-120	S	%REC	5	4/21/2015 11:04:52 PM	18764
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.24		mg/Kg	5	4/21/2015 11:04:52 PM	18764
Toluene	ND	0.24		mg/Kg	5	4/21/2015 11:04:52 PM	18764
Ethylbenzene	0.33	0.24		mg/Kg	5	4/21/2015 11:04:52 PM	18764
Xylenes, Total	2.9	0.48		mg/Kg	5	4/21/2015 11:04:52 PM	18764
Surr: 4-Bromofluorobenzene	107	80-120		%REC	5	4/21/2015 11:04:52 PM	18764

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

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

Analytical Report

Lab Order 1504766

Date Reported: 4/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH-2 3.5 Feet

Project: San Juan 28-6 #149M

Collection Date: 4/16/2015 10:30:00 AM

Lab ID: 1504766-003

Matrix: SOIL

Received Date: 4/17/2015 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	120	10		mg/Kg	1	4/21/2015 10:14:32 PM	18760
Surr: DNOP	92.7	57.9-140		%REC	1	4/21/2015 10:14:32 PM	18760
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	100	25		mg/Kg	5	4/21/2015 11:33:38 PM	18764
Surr: BFB	177	80-120	S	%REC	5	4/21/2015 11:33:38 PM	18764
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.25		mg/Kg	5	4/21/2015 11:33:38 PM	18764
Toluene	ND	0.25		mg/Kg	5	4/21/2015 11:33:38 PM	18764
Ethylbenzene	0.41	0.25		mg/Kg	5	4/21/2015 11:33:38 PM	18764
Xylenes, Total	3.1	0.50		mg/Kg	5	4/21/2015 11:33:38 PM	18764
Surr: 4-Bromofluorobenzene	109	80-120		%REC	5	4/21/2015 11:33:38 PM	18764

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

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

Analytical Report

Lab Order 1504766

Date Reported: 4/23/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: LTE

Client Sample ID: BH-9 4 Feet

Project: San Juan 28-6 #149M

Collection Date: 4/16/2015 1:05:00 PM

Lab ID: 1504766-004

Matrix: SOIL

Received Date: 4/17/2015 6:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/21/2015 10:35:51 PM	18760
Surr: DNOP	90.4	57.9-140		%REC	1	4/21/2015 10:35:51 PM	18760
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/22/2015 12:02:22 AM	18764
Surr: BFB	91.3	80-120		%REC	1	4/22/2015 12:02:22 AM	18764
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/22/2015 12:02:22 AM	18764
Toluene	ND	0.048		mg/Kg	1	4/22/2015 12:02:22 AM	18764
Ethylbenzene	ND	0.048		mg/Kg	1	4/22/2015 12:02:22 AM	18764
Xylenes, Total	ND	0.096		mg/Kg	1	4/22/2015 12:02:22 AM	18764
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	4/22/2015 12:02:22 AM	18764

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504766

23-Apr-15

Client: LTE

Project: San Juan 28-6 #149M

Sample ID	MB-18792	SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	18792		RunNo:	25632				
Prep Date:	4/21/2015	Analysis Date:	4/21/2015		SeqNo:	759849	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		84.8	57.9	140			

Sample ID	MB-18760		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 18760		RunNo: 25632					
Prep Date:	4/18/2015		Analysis Date: 4/21/2015		SeqNo: 759850		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.1		10.00		81.0	57.9	140			

Sample ID	LCS-18792		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18792		RunNo: 25632					
Prep Date:	4/21/2015		Analysis Date: 4/21/2015		SeqNo: 759851		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.5	57.9	140			

Sample ID	LCS-18760		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18760		RunNo: 25632					
Prep Date:	4/18/2015		Analysis Date: 4/21/2015		SeqNo: 759852		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.4	67.8	130			
Surr: DNOP	4.9		5.000		97.1	57.9	140			

Sample ID	1504766-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	BH-1 1 Foot		Batch ID: 18760		RunNo: 25632					
Prep Date:	4/18/2015		Analysis Date: 4/21/2015		SeqNo: 760129		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	49.85	0	96.8	29.2	176			
Surr: DNOP	5.0		4.985		101	57.9	140			

Sample ID	1504766-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	BH-1 1 Foot		Batch ID: 18760		RunNo: 25632					
Prep Date:	4/18/2015		Analysis Date: 4/21/2015		SeqNo: 760130		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	49.90	0	113	29.2	176	15.8	23	
Surr: DNOP	5.0		4.990		101	57.9	140	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504766

23-Apr-15

Client: LTE

Project: San Juan 28-6 #149M

Sample ID	LCS-18786		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18786		RunNo: 25664					
Prep Date:	4/20/2015		Analysis Date: 4/22/2015		SeqNo: 761215		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		107	57.9	140			

Sample ID	MB-18786		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 18786		RunNo: 25664					
Prep Date:	4/20/2015		Analysis Date: 4/22/2015		SeqNo: 761222		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		87.6	57.9	140			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504766

23-Apr-15

Client: LTE
Project: San Juan 28-6 #149M

Sample ID	MB-18764		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 18764		RunNo: 25643					
Prep Date:	4/20/2015		Analysis Date: 4/21/2015		SeqNo: 760143		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	870		1000		86.9	80	120			

Sample ID	LCS-18764		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 18764		RunNo: 25643					
Prep Date:	4/20/2015		Analysis Date: 4/21/2015		SeqNo: 760144		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	64	130			
Surr: BFB	990		1000		98.9	80	120			

Sample ID	1504766-001AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BH-1 1 Foot		Batch ID: 18764		RunNo: 25643					
Prep Date:	4/20/2015		Analysis Date: 4/21/2015		SeqNo: 760172		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	37	4.9	24.58	7.116	121	47.9	144			
Surr: BFB	1400		983.3		139	80	120			S

Sample ID	1504766-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	BH-1 1 Foot		Batch ID: 18764		RunNo: 25643					
Prep Date:	4/20/2015		Analysis Date: 4/21/2015		SeqNo: 760173		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.78	7.116	75.4	47.9	144	35.4	29.9	R
Surr: BFB	1000		991.1		102	80	120	0	0	

Sample ID	MB-18803		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 18803		RunNo: 25665					
Prep Date:	4/21/2015		Analysis Date: 4/22/2015		SeqNo: 761162		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.0	80	120			

Sample ID	LCS-18803		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 18803		RunNo: 25665					
Prep Date:	4/21/2015		Analysis Date: 4/22/2015		SeqNo: 761163		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.4	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504766

23-Apr-15

Client: LTE
Project: San Juan 28-6 #149M

Sample ID	MB-18764	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 18764			RunNo: 25643					
Prep Date:	4/20/2015	Analysis Date: 4/21/2015			SeqNo: 760213		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.1	80	120			

Sample ID	LCS-18764	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 18764			RunNo: 25643					
Prep Date:	4/20/2015	Analysis Date: 4/21/2015			SeqNo: 760214		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	110	76.6	128			
Toluene	1.0	0.050	1.000	0	105	75	124			
Ethylbenzene	1.1	0.050	1.000	0	110	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	109	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	1504766-002AMS	SampType: MS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	BH-5 4 Feet	Batch ID: 18764			RunNo: 25643					
Prep Date:	4/20/2015	Analysis Date: 4/21/2015			SeqNo: 760221		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.24	0.9588	0.02827	82.0	69.2	126			
Toluene	0.94	0.24	0.9588	0.1639	80.7	65.6	128			
Ethylbenzene	1.3	0.24	0.9588	0.3319	98.7	65.5	138			
Xylenes, Total	6.2	0.48	2.876	2.883	114	63	139			
Surr: 4-Bromofluorobenzene	5.3		4.794		111	80	120			

Sample ID	1504766-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles						
Client ID:	BH-5 4 Feet	Batch ID:	18764	RunNo:	25643						
Prep Date:	4/20/2015	Analysis Date:	4/21/2015	SeqNo:	760222	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.0	0.24	0.9560	0.02827	105	69.2	126	23.2	18.5	R	
Toluene	1.1	0.24	0.9560	0.1639	100	65.6	128	18.0	20.6		
Ethylbenzene	1.3	0.24	0.9560	0.3319	105	65.5	138	4.22	20.1		
Xylenes, Total	5.6	0.48	2.868	2.883	94.5	63	139	9.90	21.1		
Surr: 4-Bromofluorobenzene	5.2		4.780		109	80	120	0	0		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504766

23-Apr-15

Client: LTE
Project: San Juan 28-6 #149M

Sample ID	MB-18803		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 18803		RunNo: 25665					
Prep Date:	4/21/2015		Analysis Date: 4/22/2015		SeqNo: 761191		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	80	120			

Sample ID	LCS-18803		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 18803		RunNo: 25665					
Prep Date:	4/21/2015		Analysis Date: 4/22/2015		SeqNo: 761192		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
RL Reporting Detection Limit