APPROVED
By Olivia Yu at 9:57 am, Oct 13, 2017

September 25, 2017 Reference No. 11135250-03

Ms. Olivia Yu
New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, NM 88240

NMOCD grants closure to 1RP-4481.

Dear Ms. Yu:

Re: Closure Request
Trunk M (1RP-4481)
ETC Field Services LLC
Site Location: Unit I, Sec. 1, T 23-S, R 36-E
(Lat 32.33176N°, Long -103.21104W°)
Lea County, New Mexico

On behalf of ETC Field Services LLC (ETC), GHD Services, Inc. (GHD) is requesting that no further action status be granted for the Trunk M (hereafter referred to as the "Site").

In an Assessment Report dated May 8, 2017 (attached) GHD recommended the following scope items be completed following delineation of the soil impacts in order to achieve no further action;

- Excavating the area indicated on Figure 2 (Assessment Report) to a depth of 4 ft. bgs with placement of a 20-mil liner.
- Backfilling of the excavation with clean fill material and wheel compacting to grade.
- Fertilizing and reseeding of the disturbed area with an appropriate seed mix. BLM #2 Grass Mix #1 was used.

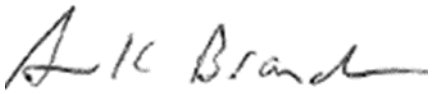
The work scope was approved by Ms. Yu with the New Mexico Oil Conservation Division on May 31, 2017. As of the date of this letter, the above scope items have been completed and are documented in the attached completion photos and final C-141 for the Site; therefore, No Further Action is being requested.

GHD
6121 Indian School Road NE Suite 200 Albuquerque New Mexico 87110 USA
T 505 884 0672 **F** 505 884 4932 **W** www.ghd.com

Your timely response to this requested is greatly appreciated. Should you have any questions, or require additional information regarding this submittal, please feel free to contact myself or Bernie Bockisch at (505) 884-0672 or Bernard.Bockisch@ghd.com.

Sincerely,

GHD



Alan Brandon
Senior Project Manager

Bernard Bockisch
Albuquerque Operations Manager

AB/mc/03

Form C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Energy Transfer Partners	Contact: Dean D. Ericson
Address: 600 N. Marienfeld Street, Ste. 700	Telephone No.: 432-238-2142
Facility Name: Trunk M (1RP-4481)	Facility Type: Pipeline

Surface Owner: ~~New Mexico~~ Strain-King Ranch	Mineral Owner:	API No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
~~I~~ K	1	23S	36E	615	North	227	East	Lea

Latitude 32.33176N **Longitude** -103.21104W

NATURE OF RELEASE

Type of Release: Natural Gas/Condensate	Volume of Release: 10 BBLs/397.575 Mscf	Volume Recovered: None
Source of Release: Hole in pipeline	Date and Hour of Occurrence 10/11/2016 11:00	Date and Hour of Discovery 10/11/2016 11:00
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? NA	
By Whom? NA	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*
A watercourse was not affected.

APPROVED
By Olivia Yu at 9:58 am, Oct 13, 2017

Describe Cause of Problem and Remedial Action Taken.*
Due to external corrosion a section of 20" steel pipeline, a hole developed which caused a release of gas and condensate. This section of pipeline is scheduled for replacement during November 2016.

Describe Area Affected and Cleanup Action Taken.*
The area affected was approximately 20'x15'x4'. The contaminated soil was excavated to a depth of 4 feet below ground surface and a 20-mil liner was placed in the excavation prior to backfilling.

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: Dean D. Ericson	OIL CONSERVATION DIVISION
Printed Name: Dean D. Ericson	Approved by Environmental Specialist:
Title: Sr. Environmental Specialist	Approval Date: 10/13/2017 Expiration Date: xx/xx/xxxx
E-mail Address: dean.ericson@energytransfer.com	Conditions of Approval: Attached ☐
Date: September 26, 2017 Phone: 432-238-2142	

* Attach Additional Sheets If Necessary

1RP-4481

Photo Log

Photo 1 - Liner placement

Photo 2 - Liner placement

Site Photographs

Photo 3 - Backfilled area

Photo 4 - Backfilled area

Photo 5 - Reseeding

Photo 6 - Irrigating seeded area

Remediation Summary Report

May 8, 2017

Reference No. 11135250-3

Mr. Dean Ericson
ETC Field Services LLC
600 N. Marienfeld
Suite 700
Midland, TX 79701

APPROVED
By Olivia Yu at 11:47 am, May 31, 2017

NMOCD approves the delineation workplan and proposed remediation activities for 1RP-4481 with these conditions: 1) documentation of depth to groundwater search and distance to surface waterbodies/sources. 2) Include all field data and documentation of laboratory analyses.

Dear Mr. Ericson:

Re: Remediation Summary Report
Trunk M (1 RP-4481)
ETC Field Services LLC
Site Location: Sec. 1, T 23-S, R 36-E
(Lat 32.33176N°, Long -103.21104W°)
Lea County, New Mexico

GHD Services, Inc. (GHD) is pleased to present this report for the above referenced site. The Trunk M (hereafter referred to as the "Site") is located within Section 1, Township 23 South, Range 36 East, in Lea County, New Mexico (see Figure 1). The property is privately owned.

On October 25, 2016, a release of approximately 10 barrels (bbls) of natural gas/condensate was reported to the State of New Mexico Oil Conservation Division (NMOCD) via Form C-141. A leaking 20-inch steel pipeline was the cause of the release. Contaminated soils were excavated and stockpiled on site and the excavation backfilled (see Figure 2). NMOCD release number 1RP 4481 was assigned.

1. Recommended Remediation Action Limits

Based on information available from the United States Geologic Survey National Water Information System, the depth to groundwater at the Site is approximately 105 feet (ft) below ground surface (bgs). This is based on a water well that is located approximately 0.5 mile northeast of the Site (see Appendix A, Water Well Report for depth to water). Additionally, there are no well head protection areas or surface water bodies within 1,000 ft of the Site. Therefore, the preliminary total ranking score is 0 (see table below).

Based on this score, the applicable NMOCD Site specific Recommended Remediation Action Limits (RRALs) are 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and xylenes (BTEX), 5,000 mg/kg for total petroleum hydrocarbons (TPH), and 500 mg/kg for chlorides.

New Mexico Oil Conservation Division Site Assessment	
Ranking Criteria	Score
Depth to Ground Water (>100 ft bgs)	0
Wellhead Protection Area (> 1000 ft from water source, > 200 ft from domestic source)	0
Distance to Surface Body Water (>1000 ft)	0
Ranking Criteria Total Score	**0***
*Because the ranking criteria total score is 20, NMOCD established RRALs are 10 mg/kg for benzene, 50 mg/kg for total BTEX, 5,000 mg/kg for total TPH and 500 ppm for chlorides[1].	

1. NMOCD Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993

2. Assessment Activities

The impacted area had been initially excavated to a depth of approximately 5 ft bgs and soil samples were collected by ETC Field Services LLC personnel for laboratory analysis. A sample (Btm Hole) was collected from the bottom of the excavation at a depth of approximately 5 ft bgs on October 21, 2016. The sample was submitted to Xenco Laboratories in Midland, Texas for BTEX by EPA Method 8260B, TPH by EPA Method 8015B, and chloride by EPA Method 300. A copy of the laboratory analytical report is attached in Appendix B.

The sample did not contain a benzene concentration above the laboratory reporting limit (LRL) of 0.005 mg/kg. The sample contained a total BTEX concentration of 0.539 mg/kg, a total TPH concentration of 3,787 mg/kg, and a chloride concentration of 1,790 mg/kg (Table 1). The excavation was subsequently backfilled. Impacted soil was disposed of at a regulated facility.

Excavation activities to assess the horizontal and vertical extent of impacted soil occurred on March 30, 2017 by GHD. Field screening of soil for petroleum hydrocarbons and chloride was performed to assess the horizontal and vertical extent of contaminated soil in the release area as indicated by ETC Field Services LLC representative. Field screening of the soil was performed using the PetroFLAG Hydrocarbon Analysis System and HACH chloride field kit. Excavation activities were performed by Diamondback Disposal Services, Inc. of Hobbs, New Mexico and observed by GHD.

Once field screening indicated soil concentrations were near or below the RRAL, soil samples were collected and submitted to Cardinal Laboratories in Hobbs, New Mexico for laboratory analysis. The samples were analyzed for BTEX by EPA Method 8021, TPH by EPA Method 8015 full range, and chlorides by EPA Method 300 (Table 1). Laboratory analytical data can be found in Appendix B.

None of the submitted samples contained concentrations above the laboratory reporting limits for BTEX and TPH. Chloride concentrations ranged from below the laboratory reporting limit to 200 mg/kg. The sample collected from test pit No. 2 at 19 ft bgs (in the area of the original excavation) contained a chloride concentration of 200 mg/kg which is below the RRAL.

3. Summary and Recommendations

Confirmatory soil samples were collected from test pits excavated in the release area (see Figure 2) and submitted for laboratory analysis. Based on the laboratory results, the horizontal and vertical extent of impacted soil has been assessed. However, the presence of chloride concentrations observed in the original bottom hole sample (Btm Hole collected on October 21, 2016) indicated the presence of chloride above the RRAL. Based on this, GHD recommends the following:

- Excavating the area indicated on Figure 2 to a depth of four ft bgs. A 20 mil polyethylene liner should be placed at this depth.
- Following placement of the liner, the excavation should be backfilled with clean fill material and wheel compacting to grade. The excavated material will be sampled and if below the site RRALs, will be used as backfill.
- Fertilizing and reseeding of the disturbed area with an appropriate seed.

Following completion of the above activities, a request for no further action will be made for the Site. Should you have any questions, or require additional information regarding this submittal, please feel free to contact myself or Bernie Bockisch at (505) 884-0672 or Bernard.Bockisch@ghd.com.

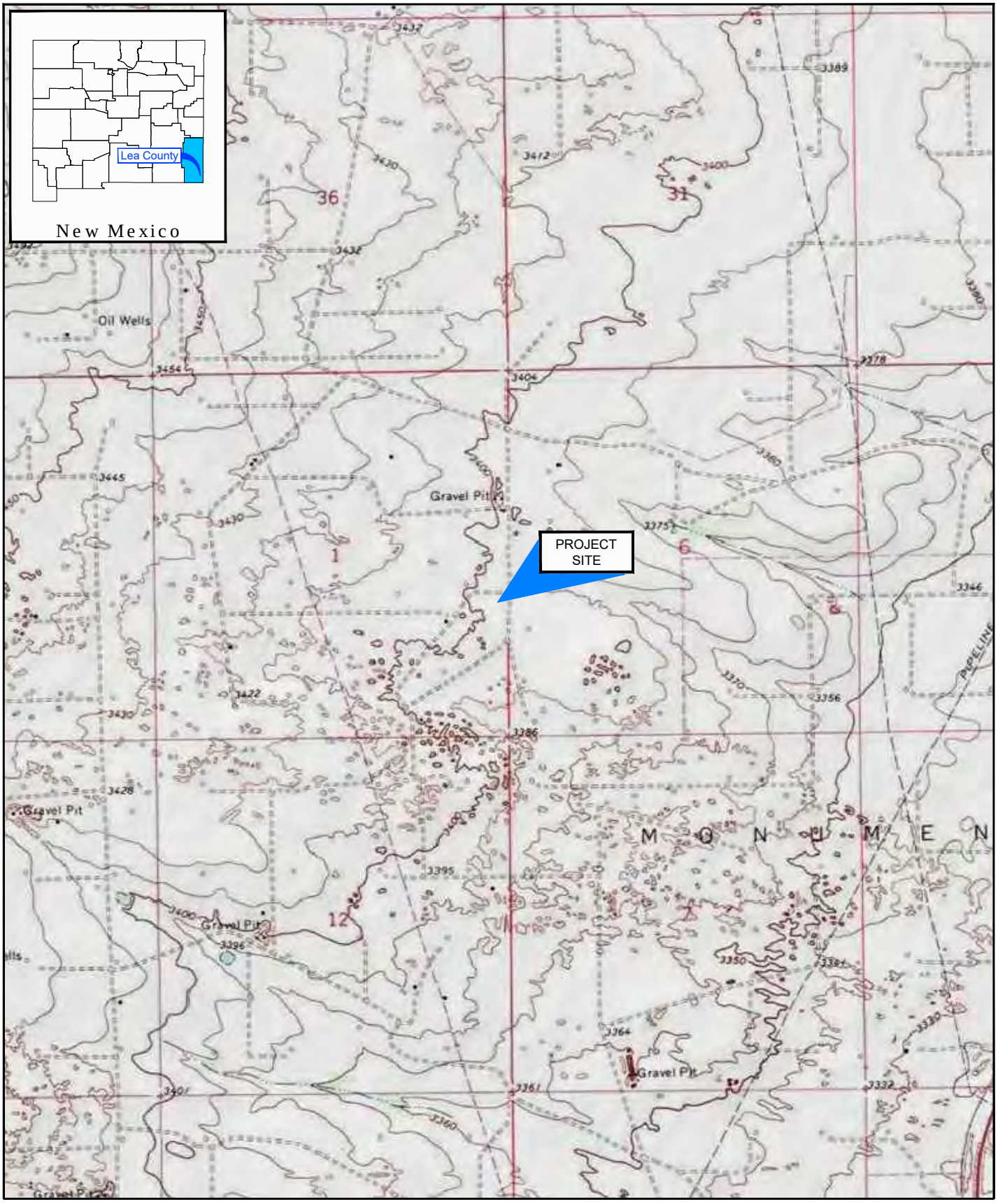
Sincerely,

GHD

Alan Brandon
Senior Project Manager

Bernard Bockisch
New Mexico Operations Manager

AB/mc/01



Source: USGS 7.5 Minute Quad "Rattle Snake Canyon and East Lake, New Mexico"

Lat/Long: 32.33176° North, 103.21104° West

0 1000 2000ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

GHD

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
TRUNK M

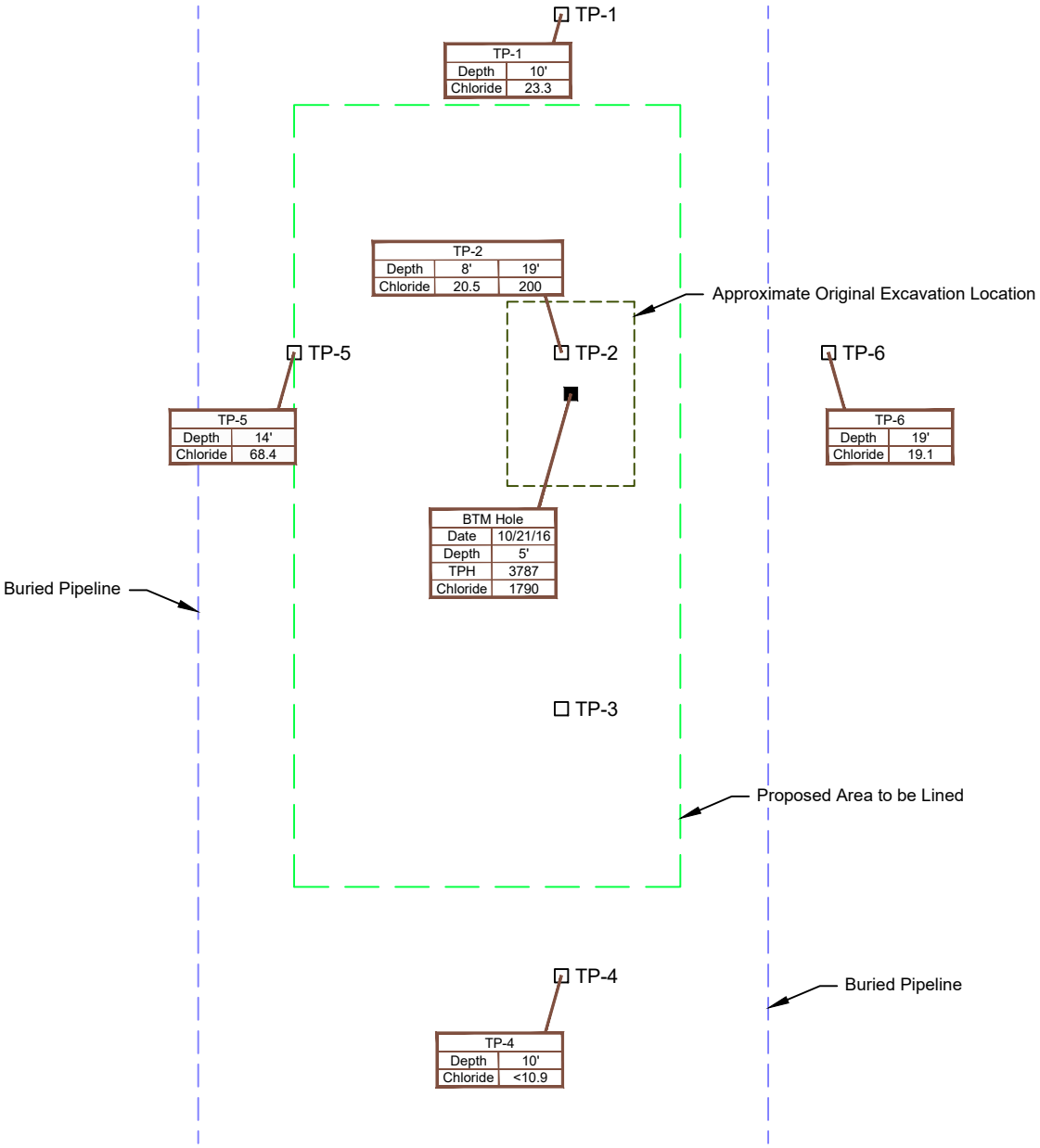
11135250-03

Apr 5, 2017

SITE LOCATION MAP

FIGURE 1

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-03(000)GN-DL001.dwg



LEGEND	
☐	Test Pit Location
	Original Excavation Limits
	Proposed Lined Area
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes Concentration
TPH	Total Petroleum Hydrocarbons Concentration

NOTES:

1. All site locations are approximate.
2. All BTEX and TPH constituents were below laboratory reporting limit.
3. Sample results are in milligrams per kilogram (mg/kg).

0 5 10ft

Approximate Scale

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
TRUNK M

11135250-03

May 8, 2017

SOIL SAMPLE LOCATION

FIGURE 2

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-03(000)GN-DL001.dwg

Table 1

ETC Field Services LLC - Trunk-M Pipeline
Section 1, Township 23 South, Range 36 East
Lea County, New Mexico
Soil Analytical Results Summary

Sample ID	Date	Sample Depth	Chlorides	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	TPH	TPH	TPH	Total TPH
		(ft.)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (C6-C10)	DRO (C10-C28)	EXT DRO (C28-C36)	GRO/DRO
									(mg/kg)	(mg/kg)		(mg/kg)
NMOCD Remediation Action Levels			250	10	NE	NE	NE	50	NE	NE	NE	5,000
	EXCAVATION SAMPLES											
*Btm Hole	10/21/2016	5	**1,790**	<0.005	0.134	0.125	0.28	0.539	427	3,360.0		**3,787.0**
*Wst Pile	10/21/2016	--	1,910	0.107	0.781	0.414	0.784	2.086	580	8,240.0		8,820.0
S-1113520-3-033017-TP-1-10'	3/30/2017	10	23.3	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<30
S-1113520-3-033017-TP-2-8'	3/30/2017	8	20.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
S-1113520-3-033017-TP-2-19'	3/30/2017	19	200	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<30
S-1113520-3-033017-TP-4-10'	3/30/2017	10	<10.9	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<30
S-1113520-3-033017-TP-5-14'	3/30/2017	14	68	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<30
S-1113520-3-033017-TP-6-19'	3/30/2017	19	19	<0.050	<0.050	<0.050	<0.150	<0.300	<10	<10	<10	<30

Note: Concentrations that are bold exceed the NMOCD Remediation Action Level
** Samples taken by ETC Field Services*
NE = Not Established
mg/Kg = milligrams per Kilogram
-- = Not Applicable
NA = Not Analyzed

USGS science for a changing world

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

Please see news on new formats
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321952103120701

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 321952103120701 23S.37E.06.14423

Lea County, New Mexico
Latitude 32°20'06", Longitude 103°12'10" NAD27
Land-surface elevation 3,377.40 feet above NGVD29
The depth of the well is 112 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
1953-12-03		D	102.91			2		U		
1965-10-21		D	105.64			2	P	U		
1968-03-05		D	102.58			2		U		
1971-01-12		D	102.38			2		U		
1976-01-15		D	102.02			2		U		
1981-03-24		D	102.42			2		U		
1986-03-19		D	102.18			2		U		
1991-05-16		D	103.95			2		U		
1996-02-22		D	105.24			2		S		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	P	Site was being pumped.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown
Measuring agency		Not determined

Section	Code	Description
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility Plug-Ins FOIA Privacy Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2017-03-06 17:52:51 EST
0.44 0.4 nadww02

Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation

Lat/Long: 32.33176° North, 103.21104° West

0 100 300ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

ETC FIELD SERVICES
LEA COUNTY, NEW MEXICO
TRUNK M

SURFACE WATER BODY WELL HEAD MAP

11135250-03

Sep 27, 2017

FIGURE 3

CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-03(000)GN-DL001.dwg

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 13, 2017

BERNARD BUCKISCH

GHD SERVICES, INC.

6121 INDIAN SCHOOL RD, NE STE. 200

ALBUQUERQUE, NM 87110

RE: TRUNK M

Enclosed are the results of analyses for samples received by the laboratory on 03/30/17 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1113520-3-033017-TP-2-8'	H700848-01	Soil	30-Mar-17 10:55	30-Mar-17 16:45
S-1113520-3-033017-TP-2-19'	H700848-02	Soil	30-Mar-17 12:50	30-Mar-17 16:45
S-1113520-3-033017-TP-4-10'	H700848-03	Soil	30-Mar-17 13:10	30-Mar-17 16:45
S-1113520-3-033017-TP-5-14'	H700848-04	Soil	30-Mar-17 15:05	30-Mar-17 16:45
S-1113520-3-033017-TP-1-10'	H700848-05	Soil	30-Mar-17 13:50	30-Mar-17 16:45
S-1113520-3-033017-TP-6-19'	H700848-06	Soil	30-Mar-17 15:35	30-Mar-17 16:45

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

S-1113520-3-033017-TP-2-8'

H700848-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Green Analytical Laboratories										
Soluble (DI Water Extraction)										
Chloride	**20.5**		11.3	mg/kg dry	10	B704078	JDA	12-Apr-17	EPA300.0	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

S-1113520-3-033017-TP-2-19'

H700848-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*98.4 %*	*72-148*		*7040302*	MS	*04-Apr-17*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10	<10.0		10.0	mg/kg	1	7033106	MS	01-Apr-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7033106	MS	01-Apr-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7033106	MS	01-Apr-17	8015B	
Surrogate: 1-Chlorooctane			*81.7 %*	*25.1-158*		*7033106*	MS	*01-Apr-17*	*8015B*	
Surrogate: 1-Chlorooctadecane			*85.3 %*	*26.8-170*		*7033106*	MS	*01-Apr-17*	*8015B*	
Green Analytical Laboratories										
Soluble (DI Water Extraction)										
Chloride	**200**		10.9	mg/kg dry	10	B704078	JDA	13-Apr-17	EPA300.0	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

S-1113520-3-033017-TP-4-10'

H700848-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*97.4 %*	*72-148*		*7040302*	MS	*04-Apr-17*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
Surrogate: 1-Chlorooctane			*102 %*	*25.1-158*		*7033109*	MS	*31-Mar-17*	*8015B*	
Surrogate: 1-Chlorooctadecane			*112 %*	*26.8-170*		*7033109*	MS	*31-Mar-17*	*8015B*	
Green Analytical Laboratories										
Soluble (DI Water Extraction)										
Chloride	<10.9		10.9	mg/kg dry	10	B704078	JDA	13-Apr-17	EPA300.0	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

S-1113520-3-033017-TP-5-14'

H700848-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*96.8 %*	*72-148*		*7040302*	MS	*04-Apr-17*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
Surrogate: 1-Chlorooctane			*101 %*	*25.1-158*		*7033109*	MS	*31-Mar-17*	*8015B*	
Surrogate: 1-Chlorooctadecane			*105 %*	*26.8-170*		*7033109*	MS	*31-Mar-17*	*8015B*	
Green Analytical Laboratories										
Soluble (DI Water Extraction)										
Chloride	**68.4**		11.2	mg/kg dry	10	B704078	JDA	13-Apr-17	EPA300.0	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

S-1113520-3-033017-TP-1-10'

H700848-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*96.4 %*	*72-148*		*7040302*	MS	*04-Apr-17*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
Surrogate: 1-Chlorooctane			*87.2 %*	*25.1-158*		*7033109*	MS	*31-Mar-17*	*8015B*	
Surrogate: 1-Chlorooctadecane			*91.5 %*	*26.8-170*		*7033109*	MS	*31-Mar-17*	*8015B*	
Green Analytical Laboratories										
Soluble (DI Water Extraction)										
Chloride	**23.3**		10.9	mg/kg dry	10	B704078	JDA	13-Apr-17	EPA300.0	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

S-1113520-3-033017-TP-6-19'

H700848-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Volatile Organic Compounds by EPA Method 8021										
Benzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7040302	MS	04-Apr-17	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			*97.1 %*	*72-148*		*7040302*	MS	*04-Apr-17*	*8021B*	
Petroleum Hydrocarbons by GC FID										
GRO C6-C10	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7033109	MS	31-Mar-17	8015B	
Surrogate: 1-Chlorooctane			*102 %*	*25.1-158*		*7033109*	MS	*31-Mar-17*	*8015B*	
Surrogate: 1-Chlorooctadecane			*107 %*	*26.8-170*		*7033109*	MS	*31-Mar-17*	*8015B*	
Green Analytical Laboratories										
Soluble (DI Water Extraction)										
Chloride	**19.1**		11.2	mg/kg dry	10	B704078	JDA	13-Apr-17	EPA300.0	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

Volatile Organic Compounds by EPA Method 8021 - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7040302 - Volatiles										
Blank (7040302-BLK1)				Prepared & Analyzed: 03-Apr-17						
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	*ND*		mg/kg	*0.0500*		*98.7*	*72-148*			
LCS (7040302-BS1)				Prepared & Analyzed: 03-Apr-17						
Benzene	1.89	0.050	mg/kg	2.00		94.5	79.5-124			
Toluene	1.80	0.050	mg/kg	2.00		90.1	75.5-127			
Ethylbenzene	1.82	0.050	mg/kg	2.00		91.0	77.7-125			
Total Xylenes	5.16	0.150	mg/kg	6.00		86.1	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	*0.0484*		mg/kg	*0.0500*		*96.8*	*72-148*			
LCS Dup (7040302-BSD1)				Prepared & Analyzed: 03-Apr-17						
Benzene	1.89	0.050	mg/kg	2.00		94.4	79.5-124	0.154	6.5	
Toluene	1.80	0.050	mg/kg	2.00		90.0	75.5-127	0.131	7.02	
Ethylbenzene	1.82	0.050	mg/kg	2.00		90.9	77.7-125	0.0702	7.83	
Total Xylenes	5.16	0.150	mg/kg	6.00		86.0	70.9-124	0.0541	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	*0.0492*		mg/kg	*0.0500*		*98.3*	*72-148*			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7033106 - General Prep - Organics										
Blank (7033106-BLK1)				Prepared & Analyzed: 31-Mar-17						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*46.1*		mg/kg	*50.0*		*92.1*	*25.1-158*			
Surrogate: 1-Chlorooctadecane	*52.7*		mg/kg	*50.0*		*105*	*26.8-170*			
LCS (7033106-BS1)				Prepared & Analyzed: 31-Mar-17						
GRO C6-C10	187	10.0	mg/kg	200		93.6	78.6-112			
DRO >C10-C28	194	10.0	mg/kg	200		97.1	76.7-124			
Total TPH C6-C28	381	10.0	mg/kg	400		95.3	78.5-117			
Surrogate: 1-Chlorooctane	*52.6*		mg/kg	*50.0*		*105*	*25.1-158*			
Surrogate: 1-Chlorooctadecane	*53.9*		mg/kg	*50.0*		*108*	*26.8-170*			
LCS Dup (7033106-BSD1)				Prepared & Analyzed: 31-Mar-17						
GRO C6-C10	195	10.0	mg/kg	200		97.4	78.6-112	4.04	13	
DRO >C10-C28	201	10.0	mg/kg	200		101	76.7-124	3.65	15.5	
Total TPH C6-C28	396	10.0	mg/kg	400		99.0	78.5-117	3.84	13.6	
Surrogate: 1-Chlorooctane	*55.1*		mg/kg	*50.0*		*110*	*25.1-158*			
Surrogate: 1-Chlorooctadecane	*55.2*		mg/kg	*50.0*		*110*	*26.8-170*			
Batch 7033109 - General Prep - Organics										
Blank (7033109-BLK1)				Prepared & Analyzed: 31-Mar-17						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	*52.4*		mg/kg	*50.0*		*105*	*25.1-158*			
Surrogate: 1-Chlorooctadecane	*63.9*		mg/kg	*50.0*		*128*	*26.8-170*			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

Petroleum Hydrocarbons by GC FID - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7033109 - General Prep - Organics										
LCS (7033109-BS1)				Prepared & Analyzed: 31-Mar-17						
GRO C6-C10	219	10.0	mg/kg	200		109	78.6-112			
DRO >C10-C28	215	10.0	mg/kg	200		108	76.7-124			
Total TPH C6-C28	434	10.0	mg/kg	400		108	78.5-117			
Surrogate: 1-Chlorooctane	*54.0*		mg/kg	*50.0*		*108*	*25.1-158*			
Surrogate: 1-Chlorooctadecane	*58.4*		mg/kg	*50.0*		*117*	*26.8-170*			
LCS Dup (7033109-BSD1)				Prepared & Analyzed: 31-Mar-17						
GRO C6-C10	226	10.0	mg/kg	200		113	78.6-112	3.41	13	BS1
DRO >C10-C28	224	10.0	mg/kg	200		112	76.7-124	4.08	15.5	
Total TPH C6-C28	450	10.0	mg/kg	400		113	78.5-117	3.74	13.6	
Surrogate: 1-Chlorooctane	*56.5*		mg/kg	*50.0*		*113*	*25.1-158*			
Surrogate: 1-Chlorooctadecane	*61.2*		mg/kg	*50.0*		*122*	*26.8-170*			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

GHD SERVICES, INC. 6121 INDIAN SCHOOL RD, NE STE. 200 ALBUQUERQUE NM, 87110	Project: TRUNK M Project Number: 1113520-3 Project Manager: BERNARD BUCKISCH Fax To:	Reported: 13-Apr-17 16:13

Soluble (DI Water Extraction) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B704078 - General Prep - Wet Chem										
Blank (B704078-BLK1)				Prepared: 10-Apr-17 Analyzed: 12-Apr-17						
Chloride	ND	1.00	mg/kg wet							
LCS (B704078-BS1)				Prepared: 10-Apr-17 Analyzed: 12-Apr-17						
Chloride	235	10.0	mg/kg wet	250		94.1	85-115			
LCS Dup (B704078-BSD1)				Prepared: 10-Apr-17 Analyzed: 12-Apr-17						
Chloride	234	10.0	mg/kg wet	250		93.6	85-115	0.469	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: GHD Services, Inc
Project Manager: Bernard Bockisch
Address: 6121 Indian School Rd, NE STE 200
City: Albuquerque State: NM Zip: 87110
Phone #: 505-884-0672 Fax #:
Project #: 11135-20-3 Project Owner:
Project Name: Trunk M
Project Location:
Sampler Name: Alan Brandon

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	TIME	BTEX 8021	TPH 8015 full range	Chloride 300
H700848													3/30/17	1055			X
1	S-113520-3-0330 033017-TP-2-8'	G	1			X							3/30/17	1250	X	X	X
2	S-113520-3-033017-TP-2-19'	G	2			X							3/30/17	1310	X	X	X
3	S-113520-3-033017-TP-4-10'	G	2			X							3/30/17	1505	X	X	X
4	S-113520-3-033017-TP-5-14'	G	2			X							3/30/17	1350	X	X	X
5	S-113520-3-033017-TP-1-10'	G	2			X							3/30/17	1535	X	X	X
6	S-113520-3-033017-TP-6-19'	G	2			X											

Relinquished By: Date: 3/30/17 Time: 1445
Received By:
Relinquished By: Date: 3-30-17 Time: 4:45
Received By: Tamara Oldaker
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 2.9°C
Sample Condition: Cool [x] Yes [ ] No; Intact [x] Yes [ ] No
CHECKED BY: (Initials) T.D.H.S

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Analytical Report 539075

for

Energy Transfer- Midland

Project Manager: Johnnie Bradford

Trunk-M

26-OCT-16

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Table of Contents

26-OCT-16

Project Manager: **Johnnie Bradford**
Energy Transfer- Midland
600 N Marienfield Ste 700
Midland, TX 79701

Reference: XENCO Report No(s): **539075**
Trunk-M
Project Address: NM

Johnnie Bradford:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 539075. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 539075 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 539075

Energy Transfer- Midland, Midland, TX

Trunk-M

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Btm Hole	S	10-21-16 09:08	5 ft	539075-001
Wst Pile	S	10-21-16 09:15		539075-002

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 539075

Energy Transfer- Midland, Midland, TX

Project Name: Trunk-M

Project Id:
Contact: Johnnie Bradford
Project Location: NM

Date Received in Lab: Fri Oct-21-16 03:56 pm
Report Date: 26-OCT-16
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	539075-001		539075-002					
	Field Id:	Btm Hole		Wst Pile					
	Depth:	5 ft							
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-21-16 09:08		Oct-21-16 09:15					
TCLP BTEX by SW 8260B SUB: TX104704215	***Extracted:***	Oct-24-16 14:30		Oct-24-16 14:32					
	Analyzed:	Oct-24-16 15:55		Oct-24-16 16:33					
	Units/RL:	mg/L	RL	mg/L	RL				
Benzene		ND	0.00500	0.107	0.00500				
Toluene		0.134	0.00500	0.781	0.00500				
Ethylbenzene		0.125	0.00500	0.414	0.00500				
m,p-Xylenes		0.204	0.0100	0.561	0.0100				
o-Xylene		0.0756	0.00500	0.223	0.00500				
TCLP Mercury by SW 7470A SUB: TX104704215	***Extracted:***	Oct-25-16 08:20		Oct-25-16 08:20					
	Analyzed:	Oct-25-16 16:13		Oct-25-16 16:15					
	Units/RL:	mg/L	RL	mg/L	RL				
Mercury		ND	0.000200	ND	0.000200				
TCLP Metals by SW846 6010B SUB: TX104704215	***Extracted:***	Oct-25-16 10:00		Oct-25-16 10:00					
	Analyzed:	Oct-25-16 17:54		Oct-25-16 18:16					
	Units/RL:	mg/L	RL	mg/L	RL				
Arsenic		0.0621	0.0500	0.0583	0.0500				
Barium		0.808	0.0500	0.650	0.0500				
Cadmium		ND	0.0250	ND	0.0250				
Chromium		ND	0.0500	ND	0.0500				
Lead		ND	0.0500	ND	0.0500				
Selenium		ND	0.100	ND	0.100				
Silver		ND	0.100	ND	0.100				

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 539075

Energy Transfer- Midland, Midland, TX

Project Name: Trunk-M

Project Id:
Contact: Johnnie Bradford
Project Location: NM

Date Received in Lab: Fri Oct-21-16 03:56 pm
Report Date: 26-OCT-16
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	539075-001		539075-002					
	Field Id:	Btm Hole		Wst Pile					
	Depth:	5- ft							
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-21-16 09:08		Oct-21-16 09:15					
Inorganic Anions by EPA 300/300.1	***Extracted:***	Oct-24-16 15:30		Oct-24-16 15:30					
	Analyzed:	Oct-25-16 10:57		Oct-24-16 16:05					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		1790	25.0	1910	25.0				
TPH by SW 8015B	***Extracted:***	Oct-21-16 16:30		Oct-21-16 16:30					
	Analyzed:	Oct-21-16 18:19		Oct-21-16 18:50					
	Units/RL:	mg/kg	RL	mg/kg	RL				
C6-C10 Gasoline Range Hydrocarbons		427	74.8	580	150				
C10-C28 Diesel Range Hydrocarbons		3360	74.8	8240	150				
Total TPH		3790	74.8	8820	150				

Kelsey Brooks
Project Manager

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Trunk-M

Work Orders : 539075,

Project ID:

Lab Batch #: 3002491 **Sample:** 539075-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/21/16 18:19

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.7	108	70-135	
o-Terphenyl	55.6	49.9	111	70-135	

Lab Batch #: 3002491 **Sample:** 539075-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/21/16 18:50

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.7	109	70-135	
o-Terphenyl	55.2	49.9	111	70-135	

Lab Batch #: 3002604 **Sample:** 539075-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L **Date Analyzed:** 10/24/16 15:55

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0506	0.0500	101	75-131	
1,2-Dichloroethane-D4	0.0451	0.0500	90	63-144	
Toluene-D8	0.0484	0.0500	97	80-117	

Lab Batch #: 3002604 **Sample:** 539075-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/L **Date Analyzed:** 10/24/16 16:33

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0511	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0469	0.0500	94	63-144	
Toluene-D8	0.0491	0.0500	98	80-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Trunk-M

Work Orders : 539075,

Project ID:

Lab Batch #: 3002491 **Sample:** 715247-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/21/16 10:45

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	59.3	50.0	119	70-135	

Lab Batch #: 3002604 **Sample:** 715321-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/24/16 13:21

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0500	0.0500	100	75-131	
1,2-Dichloroethane-D4	0.0482	0.0500	96	63-144	
Toluene-D8	0.0475	0.0500	95	80-117	

Lab Batch #: 3002491 **Sample:** 715247-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/21/16 11:12

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

Lab Batch #: 3002604 **Sample:** 715321-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/24/16 11:15

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0484	0.0500	97	75-131	
1,2-Dichloroethane-D4	0.0527	0.0500	105	63-144	
Toluene-D8	0.0501	0.0500	100	80-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Trunk-M

Work Orders : 539075,

Project ID:

Lab Batch #: 3002491 **Sample:** 715247-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/21/16 11:42

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	55.4	50.0	111	70-135	

Lab Batch #: 3002604 **Sample:** 715321-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L **Date Analyzed:** 10/24/16 11:34

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0480	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0523	0.0500	105	63-144	
Toluene-D8	0.0500	0.0500	100	80-117	

Lab Batch #: 3002491 **Sample:** 539006-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/16 13:15

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.9	122	70-135	
o-Terphenyl	58.8	50.0	118	70-135	

Lab Batch #: 3002604 **Sample:** 539076-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/L **Date Analyzed:** 10/24/16 17:13

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0483	0.0500	97	75-131	
1,2-Dichloroethane-D4	0.0530	0.0500	106	63-144	
Toluene-D8	0.0497	0.0500	99	80-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Trunk-M

Work Orders : 539075,

Project ID:

Lab Batch #: 3002491 **Sample:** 539006-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/22/16 13:41

TPH by SW 8015B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	99.8	120	70-135	
o-Terphenyl	57.3	49.9	115	70-135	

Lab Batch #: 3002604 **Sample:** 539076-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/L **Date Analyzed:** 10/24/16 17:32

TCLP BTEX by SW 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Dibromofluoromethane	0.0495	0.0500	99	75-131	
1,2-Dichloroethane-D4	0.0522	0.0500	104	63-144	
Toluene-D8	0.0499	0.0500	100	80-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Trunk-M

Work Order #: 539075 **Project ID:**

Analyst: MNR **Date Prepared:** 10/24/2016 **Date Analyzed:** 10/24/2016

Lab Batch ID: 3002600 **Sample:** 715301-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	249	100	250	248	99	0	90-110	20	

Analyst: JTR **Date Prepared:** 10/24/2016 **Date Analyzed:** 10/24/2016

Lab Batch ID: 3002604 **Sample:** 715321-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00500	0.500	0.534	107	0.500	0.515	103	4	66-142	20	
Toluene	<0.00500	0.500	0.551	110	0.500	0.534	107	3	59-139	20	
Ethylbenzene	<0.00500	0.500	0.545	109	0.500	0.523	105	4	75-125	20	
m,p-Xylenes	<0.0100	1.00	1.10	110	1.00	1.07	107	3	75-125	20	
o-Xylene	<0.00500	0.500	0.546	109	0.500	0.554	111	1	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Trunk-M

Work Order #: 539075 **Project ID:**

Analyst: DEP **Date Prepared:** 10/25/2016 **Date Analyzed:** 10/25/2016

Lab Batch ID: 3002664 **Sample:** 715313-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00205	103	0.00200	0.00205	103	0	80-120	20	

Analyst: DEP **Date Prepared:** 10/25/2016 **Date Analyzed:** 10/25/2016

Lab Batch ID: 3002675 **Sample:** 715344-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals by SW846 6010B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	<0.0100	1.00	1.00	100	1.00	1.02	102	2	80-120	20	
Barium	<0.0100	1.00	0.960	96	1.00	0.972	97	1	80-120	20	
Cadmium	<0.00500	1.00	0.917	92	1.00	0.934	93	2	80-120	20	
Chromium	<0.0100	1.00	1.00	100	1.00	1.02	102	2	80-120	20	
Lead	<0.0100	1.00	0.972	97	1.00	0.985	99	1	80-120	20	
Selenium	<0.0200	1.00	0.931	93	1.00	0.956	96	3	80-120	20	
Silver	<0.0200	0.500	0.454	91	0.500	0.455	91	0	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Trunk-M

Work Order #: 539075 **Project ID:**

Analyst: ARM **Date Prepared:** 10/21/2016 **Date Analyzed:** 10/21/2016

Lab Batch ID: 3002491 **Sample:** 715247-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW 8015B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	937	94	1000	981	98	5	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.0	1000	944	94	1000	989	99	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Trunk-M

Work Order # : 539075 **Project ID:**

Lab Batch ID: 3002600 **QC- Sample ID:** 538987-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/24/2016 **Date Prepared:** 10/24/2016 **Analyst:** MNR

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	67.0	250	304	95	250	307	96	1	90-110	20	

Lab Batch ID: 3002600 **QC- Sample ID:** 539075-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/25/2016 **Date Prepared:** 10/24/2016 **Analyst:** MNR

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1790	1250	2960	94	1250	2960	94	0	90-110	20	

Lab Batch ID: 3002604 **QC- Sample ID:** 539076-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/24/2016 **Date Prepared:** 10/24/2016 **Analyst:** JTR

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP BTEX by SW 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00500	0.500	0.515	103	0.500	0.512	102	1	66-142	20	
Toluene	0.0396	0.500	0.557	103	0.500	0.553	103	1	59-139	20	
Ethylbenzene	0.0278	0.500	0.534	101	0.500	0.518	98	3	75-125	20	
m,p-Xylenes	0.0564	1.00	1.10	104	1.00	1.08	102	2	75-125	20	
o-Xylene	0.0247	0.500	0.524	100	0.500	0.539	103	3	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Trunk-M

Work Order # : 539075 **Project ID:**

Lab Batch ID: 3002664 **QC- Sample ID:** 538436-005 S **Batch #:** 1 **Matrix:** Solid

Date Analyzed: 10/25/2016 **Date Prepared:** 10/25/2016 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00202	101	0.00200	0.00203	102	0	75-125	20	

Lab Batch ID: 3002664 **QC- Sample ID:** 538454-003 S **Batch #:** 1 **Matrix:** Solid

Date Analyzed: 10/25/2016 **Date Prepared:** 10/25/2016 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Mercury	<0.000200	0.00200	0.00169	85	0.00200	0.00166	83	2	75-125	20	

Lab Batch ID: 3002675 **QC- Sample ID:** 539075-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/25/2016 **Date Prepared:** 10/25/2016 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals by SW846 6010B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Arsenic	0.0621	5.00	5.31	105	5.00	5.29	105	0	80-120	20	
Barium	0.808	5.00	5.66	97	5.00	5.67	97	0	80-120	20	
Cadmium	<0.0250	5.00	4.74	95	5.00	4.76	95	0	80-120	20	
Chromium	<0.0500	5.00	4.99	100	5.00	5.04	101	1	80-120	20	
Lead	<0.0500	5.00	4.81	96	5.00	4.84	97	1	80-120	20	
Selenium	<0.100	5.00	4.97	99	5.00	5.00	100	1	80-120	20	
Silver	<0.100	2.50	2.34	94	2.50	2.35	94	0	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Trunk-M

Work Order # : 539075 **Project ID:**

Lab Batch ID: 3002491 **QC- Sample ID:** 539006-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/22/2016 **Date Prepared:** 10/21/2016 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW 8015B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	999	983	98	998	1000	100	2	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.0	999	974	97	998	1000	100	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas, Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

www.xenco.com

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

Xenco Quote #

Xenco Job # 539075

Client / Reporting Information

Company Name / Branch: Energy Transfer Company Field Services

Company Address: 600 N. Marienfeld Ste 700 Midland, Tx 79701

Email: Johnnie.bradford@energytransfer.com

Phone No: 432-250-5542

Project Contact: Johnnie Bradford

Samplers's Name: Johnnie Bradford

Project Information

Project Name/Number: Trunk-M

Project Location: NM.

Invoice To: SAME

PO Number: None

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	None/Ice	TCLP - BTEX	TCLP - RCRA 8 Metals	TPH	Chlorides	Field Comments
1	BTMHOLE	5'	10/21/2016	0908	S	1								✓	✓	✓	✓	✓	
2	WSTPILE	←	←	0915	S	1								✓	✓	✓	✓	✓	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [x] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Johnnie Bradford	10/21/2016 1554				2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice

Temp: IR ID:R-8
CF:+ 0.1 7.9 8.0C
Corrected Temp:

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless prev

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Energy Transfer- Midland

Date/ Time Received: 10/21/2016 03:56:00 PM

Work Order #: 539075

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	8	
#2 *Shipping container in good condition?	N/A	
#3 *Samples received on ice?	Yes	
#4 *Custody Seal present on shipping container/ cooler?	N/A	
#5 *Custody Seals intact on shipping container/ cooler?	N/A	
#6 Custody Seals intact on sample bottles?	N/A	
#7 *Custody Seals Signed and dated?	N/A	
#8 *Chain of Custody present?	Yes	
#9 Sample instructions complete on Chain of Custody?	Yes	
#10 Any missing/extra samples?	No	
#11 Chain of Custody signed when relinquished/ received?	Yes	
#12 Chain of Custody agrees with sample label(s)?	Yes	
#13 Container label(s) legible and intact?	Yes	
#14 Sample matrix/ properties agree with Chain of Custody?	Yes	
#15 Samples in proper container/ bottle?	Yes	
#16 Samples properly preserved?	Yes	
#17 Sample container(s) intact?	Yes	
#18 Sufficient sample amount for indicated test(s)?	Yes	
#19 All samples received within hold time?	Yes	
#20 Subcontract of sample(s)?	Yes	Houston
#21 VOC samples have zero headspace (less than 1/4 inch bubble)?	N/A	
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	N/A	
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	N/A	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
Jessica Kramer
Date: 10/21/2016

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks
Date: 10/24/2016