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APPROVED

By Olivia Yu at 7:58 am, Oct 10, 2017

**NMOCD grants backfill
approval for 1RP-4500.**

September 19, 2017

Olivia Yu
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1625 French Drive
Hobbs, NM 88240

Re: Remediation Summary and Backfill Request
Trunk M Release (1RP-4500)
GPS: N 32.31741° W 103.21097°
Unit Letter "I", Section 12, Township 23 South, Range 36 East, NMPM
Lea County, New Mexico

Dear Ms. Yu,

TRC Environmental Corporation (TRC), on behalf of ETC Field Services, LLC (ETC) has prepared this Remediation Summary and Backfill Request Report (Report) for the Trunk M Release Site (Release Site). The purpose of this Report is to provide documentation of remediation activities designed to advance the Trunk M Release Site toward an NMOCD approved Site Closure Status. The legal description of the Release Site is Unit Letter "I", Section 12, Township 23 South, Range 36 East, in Lea County, New Mexico. The GPS coordinates for the site are N 32.31741° W 103.21097°. The subject property is owned by Strain-King Ranch, LLC. A Site Location Map, Site Details and Soil Sample Locations Map, and Site Details and Confirmation Soil Sample Locations Map are provided as Figure 1, Figure 2, and Figure 3, respectively. Release Site photographs are attached to this Report.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 12, Township 23 South, Range 36 East. A reference map utilized by the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office indicates groundwater should be encountered at approximately one hundred ten (110) feet below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

Based on the NMOCD Site Classification criteria, the Release Site soil remediation levels are 10 mg/Kg for benzene, 50 mg/Kg for benzene, toluene, ethylbenzene and xylenes (BTEX), and 5,000 mg/Kg for total petroleum hydrocarbons (TPH). Per NMOCD request, chloride remediation levels for the Release Site will be 600 mg/Kg.

On December 7, 2016, Terracon, on behalf of ETC, performed an initial site assessment of the Release Site. During the site assessment, a Terracon representative collected eight (8) soil samples from the open excavation at the Release Site. A review of laboratory analytical results indicated the soil samples were below the NMOCD Site Classification Criteria for benzene, BTEX, TPH, and chloride concentrations, with the exception of soil samples WSW #2 @ 3', Floor #1 (6-6.5), and Floor #2 (7-7.5), which exhibited BTEX and/or chloride concentrations above NMOCD regulatory guidelines. The *Initial Release Assessment Report* provided by Terracon was attached to the "Soil Investigation Summary and Proposed Remediation Workplan" submitted under a separate cover.

On May 11, 2017, TRC, on behalf of ETC, utilized a backhoe to collect additional soil samples for laboratory analysis. In the vicinity of the previously collected soil sample Floor #1 (6-6.5'), a backhoe was utilized to vertically delineate the area. Two (2) soil samples (Floor-1a 9' and Floor-1a 15') were collected at approximately nine (9) feet and fifteen (15) feet bgs, respectively. The soil samples were submitted to Xenco Laboratories in Midland, Texas for determination of concentrations of BTEX using Method SW 846-8021B, TPH using Method SW 846-8015M, and chloride using Method E-300.1. The analytical results indicated benzene and BTEX concentrations for soil samples Floor-1a 9' and Floor-1a 15' were 0.00817 mg/Kg and less than the applicable laboratory Method Detection Limit (MDL), respectively, and below NMOCD regulatory guidelines. The laboratory results indicated TPH concentrations for soil sample Floor-1a 9' and Floor-1a 15' were 19.5 mg/Kg and less than the applicable laboratory MDL, respectively, and below NMOCD regulatory guidelines. Chloride concentrations for soil sample Floor-1a 9' and Floor-1a 15' were 144 mg/Kg and 113 mg/Kg, respectively, and below NMOCD regulatory guidelines.

In addition, in the vicinity of the previously collected soil sample Floor #2 (7-7.5'), a backhoe was utilized to collect vertical delineation soil samples Floor-2a 14' and Floor-2a 18', which were collected at approximately fourteen (14) feet bgs and approximately eighteen (18) feet bgs, respectively. The collected soil samples were submitted for BTEX, TPH, and chloride analysis. A review of laboratory analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL and NMOCD regulatory guidelines. The laboratory analytical results indicated TPH concentrations for soil samples Floor-2a 14' and Floor-2a 18' were less than the applicable laboratory MDL and 16.2 mg/Kg, respectively, and below NMOCD regulatory guidelines. A review of laboratory analytical results indicated chloride concentrations for soil samples Floor-2a 14' and Floor-2a 18' were 44.4 mg/Kg and 31.8 mg/Kg, respectively, and below NMOCD regulatory guidelines.

In addition, in the vicinity of the previously collected soil sample WSW #2 @ 3', two (2) soil samples (WSW-2a 6' and WSW-2a 8') were collected from the side wall of the open excavation. The soil samples were collected at approximately six (6) feet bgs and eight (8) feet bgs, respectively. The collected soil samples were submitted for BTEX, TPH, and chloride analysis. A review of laboratory analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL, with the exception of soil sample WSW-2a 8', which exhibited a benzene and BTEX concentration of 0.00391 mg/Kg, and below NMOCD regulatory guidelines. TPH concentrations for soil sample WSW-2a 6' and WSW-2a 8' were 2,395 mg/Kg and 22.3 mg/Kg, respectively, and below

NMOCD regulatory guidelines. Chloride concentrations for soil sample WSW-2a 6' and WSW-2a 8' were 526 mg/Kg and 208 mg/Kg, respectively, and below NMOCD regulatory guidelines.

Approximately five (5) feet west and parallel to the west wall of the open excavation, is an ETC sixteen (16) inch High Pressure (940 PSI) natural gas steel pipeline heading in a north to south direction. Due to safety concerns, horizontal delineation was not conducted within approximately eight (8) feet of the west wall of the open excavation. At approximately eight (8) feet west of soil sample WSW-2a, two (2) soil samples (WSW-3 3' and WSW-3 7') were collected at depths of approximately three (3) feet and approximately seven (7) feet bgs, respectively. The collected soil samples were submitted for BTEX, TPH, and chloride analysis. A review of laboratory analytical results indicated benzene, BTEX, TPH, and chloride analysis were below applicable laboratory MDL and NMOCD regulatory guidelines for soil sample WSW-3 3'. Soil sample WSW-3a 7' exhibited a benzene and a BTEX concentration of 0.00489 mg/Kg, a TPH concentration below applicable laboratory MDL, and a chloride concentration of 6.30 mg/Kg, which were collectively below NMOCD regulatory guidelines.

On May 31, 2017, TRC collected five (5) soil samples (Floor-1a 6', Floor-3 5', Floor-2a 7', WSW-2a 5', and WSW-4 5') from the floor in the vicinity of the original trenches (Floor-1a 6', Floor-3 5', and Floor-2a 7') and side walls of the open excavation and submitted for TPH, BTEX, and chloride analysis. Soil samples WSW-2a and WSW-4 5' were collected from a visibly stained area which is located on the west side wall of the open excavation approximately five (5) feet bgs, eighty (80) feet long, and parallel to the ETC High Pressure steel natural gas pipeline. A review of laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL for soil samples Floor-1a 6', Floor-3 5', and Floor-2a 7' to 4.89 mg/Kg for soil sample WSW-4 5' which indicated benzene concentrations were below NMOCD regulatory guidelines. A review of laboratory analytical results indicate BTEX concentrations were less than the laboratory MDL for the submitted samples and below NMOCD regulatory guidelines, with the exception of soil samples WSW-2a 5' and WSW-4 5', which exhibited BTEX concentrations of 93.4731 mg/Kg and 380.69 mg/Kg, respectively. TPH concentrations for the collected samples ranged from 656.7 mg/Kg for soil sample Floor-2a 7' to 34,300 mg/Kg for soil sample WSW-2a 5', which indicated TPH concentration for the collected soil samples were below NMOCD regulatory guidelines, with the exception of soil samples WSW-2a 5' (34,300 mg/Kg) and WSW-4 5' (16,060 mg/Kg). Chloride concentrations for the collected soil samples ranged from 42 mg/Kg for soil sample Floor-1a 6' to 4,890 mg/Kg for soil sample WSW-2a 5' which indicated chloride concentrations were above NMOCD regulatory guidelines, with the exception of soil samples Floor-1a 6' (42 mg/Kg) and Floor-2a 7' (209 mg/Kg).

On June 21 and 22, 2017, based on the laboratory analytical results and the visibly stained areas, TRC conducted additional delineation activities at the Release Site. Four (4) soil samples (Baseline-1 5' through Baseline-4 5') were collected approximately three (3) inches below the existing floor surface of the open excavation and submitted for TPH, BTEX, and chloride analysis. A review of laboratory analytical results indicated benzene and BTEX concentrations were below the laboratory MDL and NMOCD regulatory guidelines. TPH concentrations for the submitted soil samples ranged from less than the laboratory MDL for soil samples Baseline-2 5' and Baseline-3 5' to 53.3 mg/Kg for soil sample Baseline-1 5' which indicated TPH concentrations for the submitted soil samples were below NMOCD regulatory guidelines. Chloride concentrations for the submitted soil samples ranged from 59.3 mg/Kg for soil sample Baseline-3 5' to 2,500 mg/Kg for soil sample Baseline-1 5', which indicated chloride concentrations were below NMOCD regulatory guidelines for soil sample Baseline-2 5' (77.9 mg/Kg) and Baseline-3 5'.

In addition, six (6) trenches (East Trench, NW Trench, NE Trench, SW Trench, SE Trench, and West Trench) were advanced within the vicinity of the open excavation. Each trench was advanced to depths ranging from six (6) feet bgs to nine (9) feet bgs to confirm the vertical and horizontal extent of impact did not exceed the side walls of the open excavation. Two (2) soil samples (East Trench 2' and East Trench 6') were collected from the East Trench, which was located approximately fifteen (15) feet east of the open excavation. Two (2) soil samples (NW Trench 3' and NW Trench 9') were collected from the NW Trench, which was located on the west side of the north side wall of the open excavation. Two (2) soil samples (NE Trench 3' and NE Trench 9') were collected from the NE Trench, which was located on the east side of the north side wall of the open excavation. Two (2) soil samples (SW Trench 3' and SW Trench 9') were collected from the SW Trench, which was located on the west side of the south side wall of the open excavation. Two (2) soil samples (SE Trench 3' and SE Trench 9') were collected from the SE Trench, which is located on the east side of the south side wall of the open excavation. Two (2) soil samples (West Trench 3' and West Trench 9') were collected from the West Trench, which was located approximately five (5) feet west of the ETC High Pressure natural gas pipeline in the vicinity of the NW Trench. A total of twelve (12) soil samples were collected and submitted to the laboratory for TPH, BTEX, and chloride analysis. A review of the laboratory results indicated benzene, BTEX, and TPH concentrations were less than the laboratory MDL and NMOCD regulatory guidelines. Chloride concentrations ranged from less than the laboratory MDL for soil samples SW Trench 3', SW Trench 9', and SE Trench 3' to 81.5 mg/Kg for NE Trench 9', which indicated chloride concentrations were below NMOCD regulatory guidelines.

On July 26, 2017, an ETC Representative verbally requested and received permission from the landowner to leave in-situ the impacted material adjacent to the ETC High Pressure steel natural gas pipeline located approximately five (5) feet bgs and eighty (80) feet in length on the west sidewall of the open excavation.

On August 1, 2017, a representative of ETC submitted the "Soil Investigation Summary and Proposed Remediation Workplan" (Workplan) for NMOCD consideration. The Workplan summarized remedial activities to date and detailed a closure strategy designed to progress the Release Site toward an NMOCD approved closure status. On August 7, 2017, ETC and TRC met with the NMOCD to discuss the Workplan and received NMOCD approval to proceed with the activities outlined in the Workplan.

On August 8, 2017, TRC commenced excavation activities utilizing a backhoe. Chloride field screening, visual evidence, and olfactory evidence were utilized to guide excavation activities. Due to safety concerns, no excavation activities were conducted on the west side wall of the open excavation due to the presence of the ETC High Pressure steel natural gas line. The excavated area measured approximately one hundred (100 feet) in length, approximately fifty (50) feet in width, and ranged in depth from approximately six (6) feet to nine (9) feet bgs (Figure 3). Approximately three hundred and seventy five (375) cubic yards of excavated soil was temporarily stockpiled east of the excavation on a plastic liner, pending final disposition of the soil.

On August 17, 18, and 21, 2017, ten (10) soil samples (BH-1 6', BHG-2 7', BH-3 9', BH-4 9', Release Point-1 9', WW-1 8', SW-1 8', NW-1 5', EW-1 6', and EW-2 6') were collected from the floor and side walls of the excavated area. The soil samples were submitted to the laboratory and analyzed for concentrations of TPH, BTEX, and chloride concentrations. The laboratory analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL for all collected soil

samples. The analytical results indicated TPH concentrations ranged from less than the applicable laboratory MDL for soil samples BH-1 6', BH-3 9', BH-4 9', WW-1 8', EW-1 6', and EW-2 6' to 644 mg/Kg for soil sample NW-1 5'. A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines. Laboratory analytical results indicated chloride concentrations ranged from 21.9 mg/Kg for soil sample WW-1 8' to 361 mg/Kg for soil sample BH-3 9'. A review of laboratory analytical results indicated all submitted soil samples were below NMOCD regulatory guidelines and no additional excavation activities were warranted. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are attached to this report.

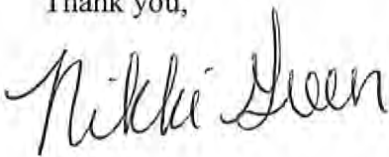
Based on the analytical results of soil samples collected on August 17, 18, and 21, 2017, ETC proposes the following field activities designed to advance the Trunk M Release Site towards NMOCD closure status:

- Pending NMOCD approval, ETC will transport the excavated soil under manifest to an NMOCD approved disposal facility.
- On completion of transport and disposal of the excavated soil, the excavated area will be backfilled with locally purchased non-impacted "like" soil. In addition, the backfilled area will be contoured to fit the surrounding area and reseeded with vegetation approved by the landowner.
- Prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD.

ETC is prepared to begin the activities outlined in this Remediation Summary and Backfill Request Report on NMOCD approval.

If you have any questions, or if additional information is required, please feel free to call me at 432-520-7720 (office) or 432-664-6699 (cell).

Thank you,



Nikki Green
Project Manager
TRC Environmental Corporation



Jeffrey Kindley, PG
Senior Project Manager
TRC Environmental Corporation

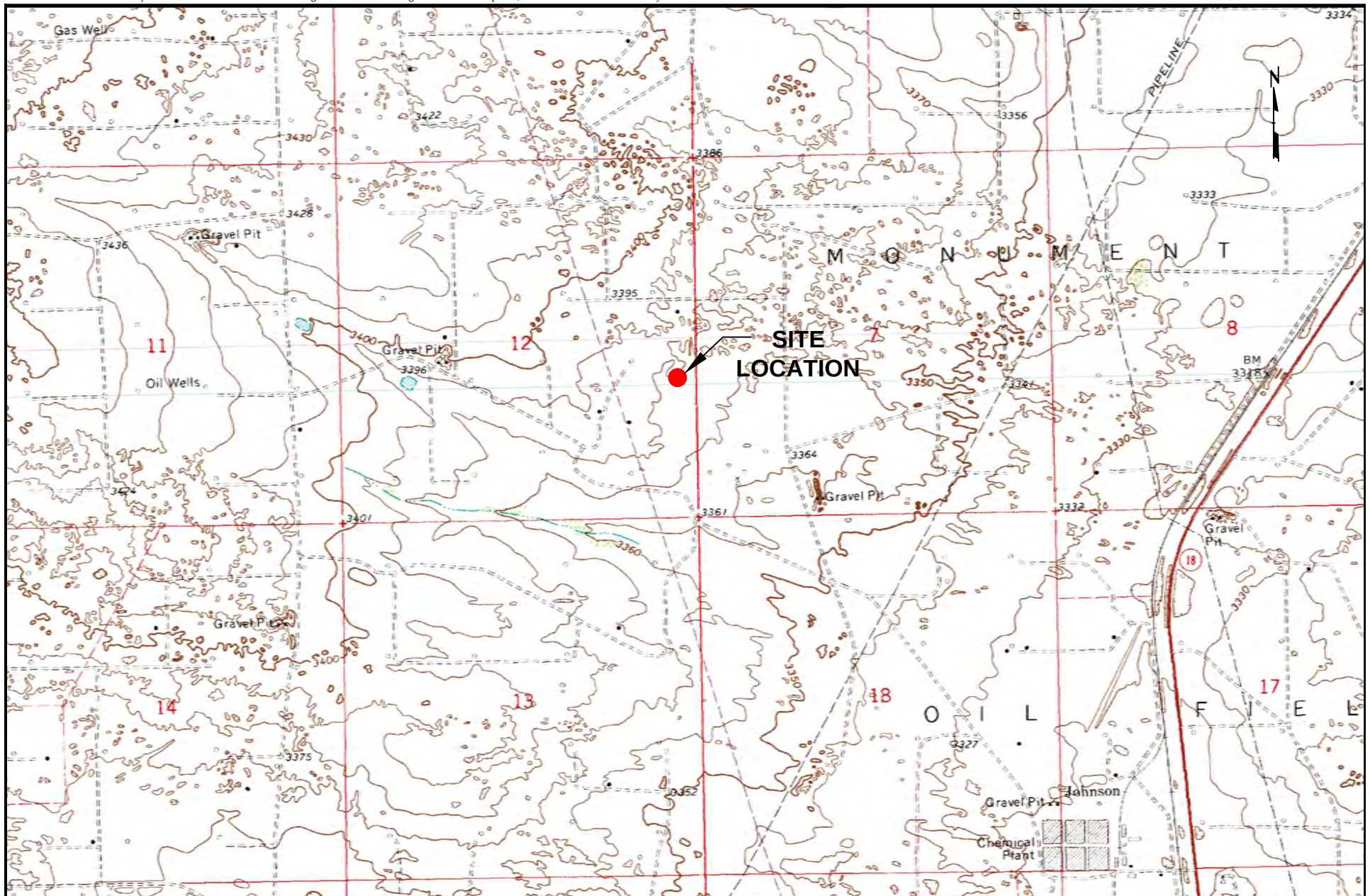
Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Details and Soil Sample Location Map
Figure 3 - Site Details and Confirmation Soil Sample Locations Map
Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil
Release Site Photographs
Laboratory Analytical Results
Release Notification and Corrective Action (Form C-141)

cc:

Rose Slade
ETC Field Services, LLC
800 East Sonterra Suite 2
San Antonio, TX 78258

File



LEGEND:

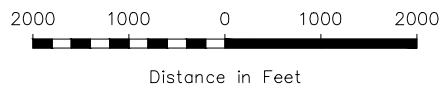


Figure 1

Site Location Map
ETC Field Services, LLC
Trunk M
Lea County, NM

Scale: 1" = 2000'

CAD By: TA

Checked By: NG

Draft: April 25, 2017

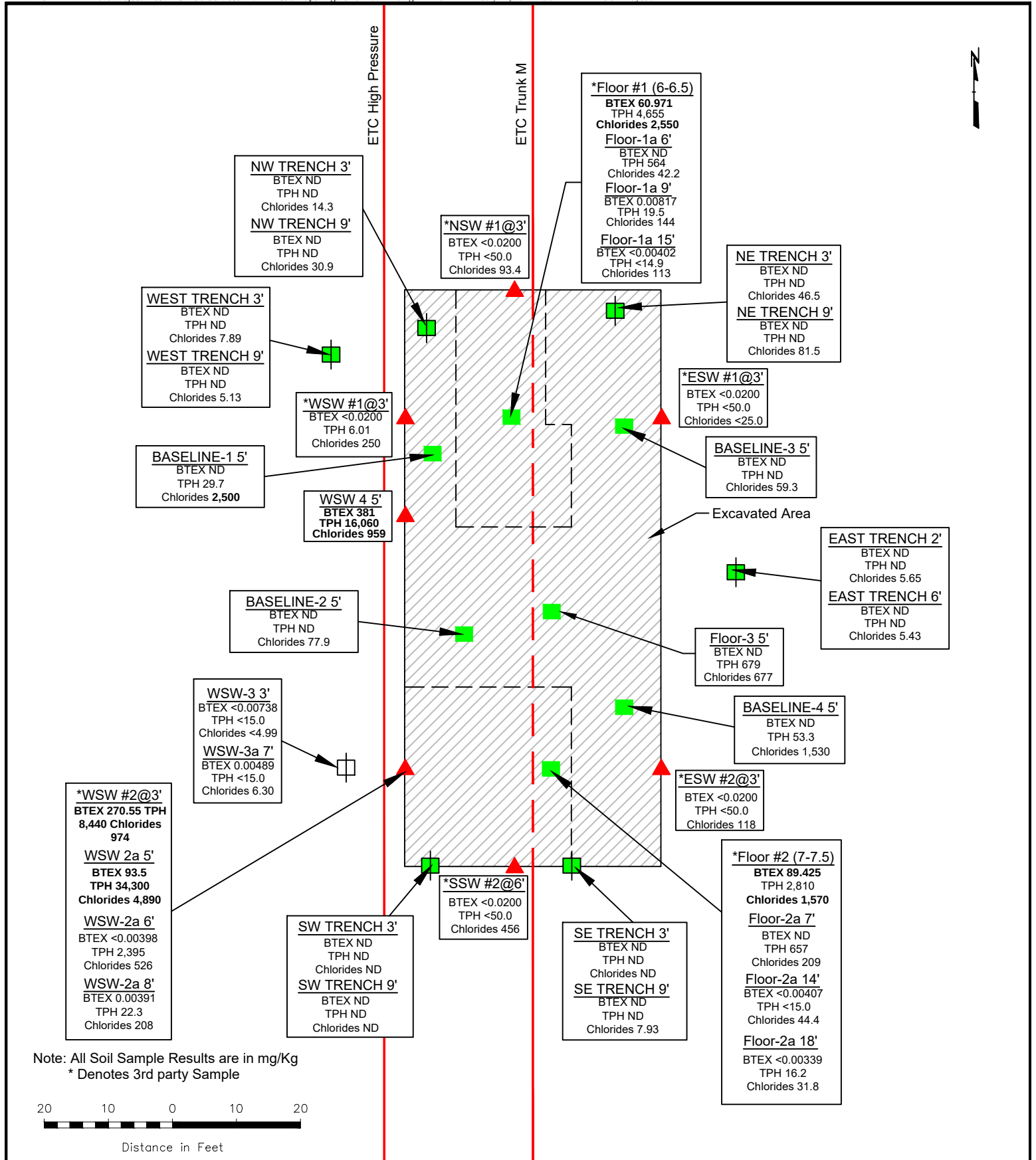
Lat. N 32.31741° , Long. W 103.21097°

NE1/4 SE1/4 Sec 12 T23S R36E

TRC Proj. No.: 274130



2057 Commerce Drive
Midland, Texas 79703
432.520.7720



LEGEND:

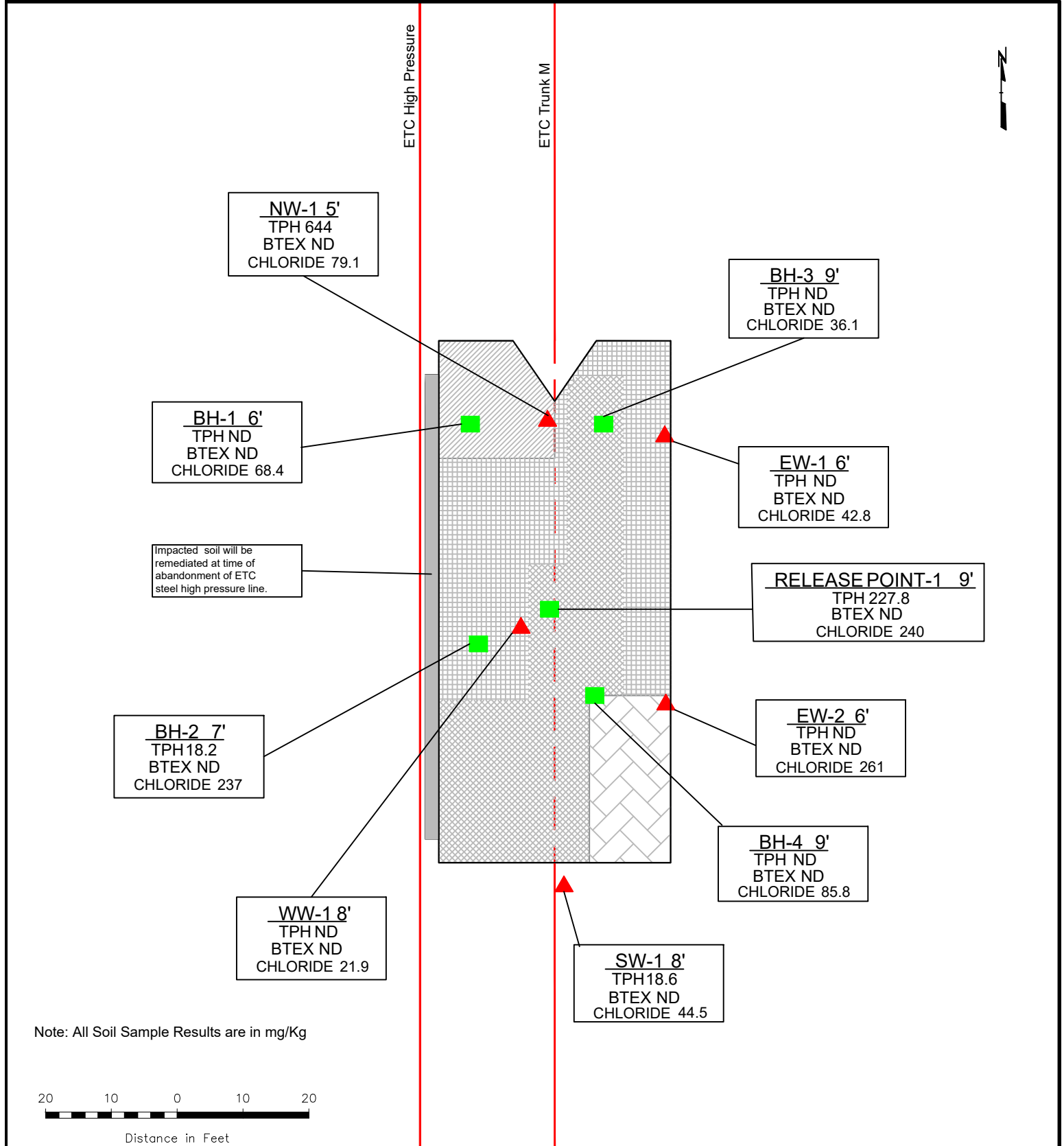
- Steel Pipeline
- ▲ Sidewall Soil Sample Location
- Floor Soil Sample Location
- Trench

Figure 2
 Site Details & Soil Sample
 Locations
 ETC Field Services, LLC
 Trunk M
 Lea County, NM

Scale: 1" = 20'

CAD By: TA	Checked By: NG
Draft: April 25, 2017	
Lat. N 32.31741°, Long. W 103.21097°	
NE1/4 SE1/4 Sec 12 T23S R36E	
TRC Proj. No.: 274130	

TRC
 2057 Commerce Drive
 Midland, Texas 79703
 432.520.7720



LEGEND:

- Steel Pipeline
- Sidewall Soil Sample Location
- Floor Soil Sample Location
- Excavated 4' bgs
- Excavated 9' bgs
- Excavated 7' bgs
- Excavated 6' bgs

Figure 3
Site Details & Confirmation
Soil Sample Locations Map
ETC Field Services, LLC
Trunk M
Lea County, NM

Scale: 1" = 20'

CAD By: JH

Checked By: NG

Draft: September 12, 2017

Lat. N 32.31741°, Long. W 103.21097°

NE1/4 SE1/4 Sec 12 T23S R36E

TRC Proj. No.: 274130



2057 Commerce Drive
Midland, Texas 79703
432.520.7720

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH, AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC

Trunk M

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	METHODS: SW 846-8021b						METHOD: SW 8015M				E 300.1
			BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NMOCD Site Classification Criteria			10					50				5,000	600
*NSW #1 @ 3'	12/06/16	Trench	<0.0200	<0.0200	<0.0200	<0.0200		<0.0200	<4.00	<50.0	<50.0	<50.0	93.4
*ESW #1 @ 3'	12/06/16	Trench	<0.0200	<0.0200	<0.0200	<0.0200		<0.0200	<4.00	<50.0	<50.0	<50.0	<25.0
*ESW #2 @ 3'	12/06/16	Trench	<0.0200	<0.0200	<0.0200	<0.0200		<0.0200	<4.00	<50.0	<50.0	<50.0	118
*SSW #2 @ 6'	12/06/16	Trench	<0.0200	<0.0200	<0.0200	<0.0200		<0.0200	<4.00	<50.0	<50.0	<50.0	456
*WSW #1 @ 3'	12/06/16	Trench	<0.0200	<0.0200	<0.0200	<0.0200		<0.0200	6.01	<50.0	<50.0	6.01	250
*WSW #2 @ 3'	12/06/16	Trench	5.85	56.0	66.7	142		270.55	4,160	4,280	<1000	8,440	974
*Floor #1 (6-6.5)	12/06/16	Trench	0.321	6.05	12.2	42.4		60.971	2,200	2,080	375	4,655	2,550
*Floor #2 (7-7.5)	12/06/16	Trench	0.725	14.5	25.6	48.6		89.425	1,760	1,050	<250	2,810	1,570
Floor-1a 9'	05/11/17	Trench	0.00817	<0.00373	<0.00373	<0.00746	<0.00373	0.00817	<15.0	19.5	<15.0	19.5	144
Floor-1a 15'	05/11/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<14.9	<14.9	<14.9	<14.9	113
Floor-2a 14'	05/11/17	Trench	<0.00203	<0.00203	<0.00203	<0.00407	<0.00203	<0.00407	<15.0	<15.0	<15.0	<15.0	44.4
Floor-2a 18'	05/11/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	16.2	<15.0	16.2	31.8
WSW-2a 6'	05/11/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	101	2,140	154	2,395	526
WSW-2a 8'	05/11/17	Trench	0.00391	<0.00199	<0.00199	<0.00398	<0.00199	0.00391	<15.0	22.3	<15.0	22.3	208
WSW-3 3'	05/11/17	Trench	<0.00369	<0.00369	<0.00369	<0.00738	<0.00369	<0.00738	<15.0	<15.0	<15.0	<15.0	<4.99
WSW-3a 7'	05/11/17	Trench	0.00489	<0.00200	<0.00200	<0.00399	<0.00200	0.00489	<15.0	<15.0	<15.0	<15.0	6.30
Floor-1a 6'	05/31/17	In-Situ	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	484	80.4	564.4	42
Floor-3 5'	05/31/17	In-Situ	<0.00357	<0.00357	<0.00357	<0.00714	<0.00357	<0.00714	<14.9	621	57.7	678.7	677
Floor-2a 7'	05/31/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	608	48.7	656.7	209
WSW-2a 5'	05/31/17	In-Situ	0.0731	13.0	23.1	42.6	14.7	93.4731	6,470	25,300	2,530	34,300	4,890
WSW-4 5'	05/31/17	In-Situ	4.89	59.8	89.6	160	66.4	380.69	4,900	10,100	1,060	16,060	959
Baseline-1 5'	06/21/17	In-Situ	<0.00197	<0.00197	<0.00197	<0.00394	<0.00197	<0.00394	<15.0	29.7	<15.0	29.7	2,500
Baseline-2 5'	06/22/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	77.9
Baseline-3 5'	06/21/17	In-Situ	<0.00198	<0.00198	<0.00198	<0.00395	<0.00198	<0.00395	<15.0	<15.0	<15.0	<15.0	59.3
Baseline-4 5'	06/21/17	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	53.3	<15.0	53.3	1,530
East Trench 2'	06/22/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	5.65
East Trench 6'	06/22/17	Trench	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<14.9	<14.9	<14.9	<14.9	5.43
NW Trench 3'	06/22/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<14.9	<14.9	<14.9	<14.9	14.3

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH, AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC

Trunk M

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	SOIL STATUS	METHODS: SW 846-8021b						METHOD: SW 8015M				E 300.1
			BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NMOCD Site Classification Criteria			10					50				5,000	600
NW Trench 9'	06/22/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	30.9
NE Trench 3'	06/22/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	<15.0	<15.0	<15.0	46.5
NE Trench 9'	06/22/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	81.5
SW Trench 3'	06/22/17	Trench	<0.00202	<0.00202	<0.00202	<0.00405	<0.00202	<0.00405	<15.0	<15.0	<15.0	<15.0	<4.95
SW Trench 9'	06/22/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	<4.97
SE Trench 3'	06/22/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	<4.96
SE Trench 9'	06/22/17	Trench	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00397	<15.0	<15.0	<15.0	<15.0	7.93
West Trench 3'	06/22/17	Trench	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<14.9	<14.9	<14.9	<14.9	7.89
West Trench 9'	06/22/17	Trench	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<15.0	<15.0	<15.0	<15.0	5.13
BH-1 6'	08/17/17	Trench	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	68.4
BH-2 7'	08/17/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	18.2	<15.0	18.2	237
BH-3 9'	08/21/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	361
BH-4 9'	08/18/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	85.8
Release Point-1 9'	08/21/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<14.9	193	34.8	227.8	240
WW-1 8'	08/18/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<14.9	<14.9	<14.9	<14.9	21.9
SW-1 8'	08/21/17	Trench	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	18.6	<15.0	18.6	44.5
NW-1 5'	08/21/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	486	158	644	79.1
EW-1 6'	08/21/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	<15.0	<15.0	<15.0	42.8
EW-2 6'	08/18/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	261

* - Soil samples were collected by a second party vendor assigned by ETC.

Photographic Documentation

Client: ETC Field Services, LLC
Project Name: Trunk M

Prepared by: TRC Environmental Corp.
Location: Lea County, NM

Photograph No. 1

Date:
May 1, 2017

Direction:
Southwest

Description:
View of the open
excavation.



Photograph No. 2

Date:
May 1, 2017

Direction:
Southeast

Description:
View of the open
excavation.



Photographic Documentation

Client: ETC Field Services, LLC
Project Name: Trunk M

Prepared by: TRC Environmental Corp.
Location: Lea County, NM

Photograph No. 3

Date:
June 23, 2017

Direction:
South

Description:
View of the open
excavation.



Photograph No. 4

Date:
June 23, 2017

Direction:
North

Description:
View of the open
excavation



Photographic Documentation

Client: ETC Field Services, LLC
Project Name: Trunk M

Prepared by: TRC Environmental Corp.
Location: Lea County, NM

Photograph No. 5

Date:
August 21, 2017

Direction:
South

Description:
View of the
excavated area.



Photograph No. 6

Date:
August 21, 2017

Direction:
North

Description:
View of excavated
area.





Certificate of Analysis Summary 553084

TRC Solutions, Inc, Midland, TX

Project Name: TRUNK M



Project Id: TRC#274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri May-12-17 01:13 pm
Report Date: 26-MAY-17
Project Manager: Liz Givens

<i>Analysis Requested</i>	<i>Lab Id:</i>	553084-001	553084-002	553084-003	553084-004	553084-005	553084-006
	<i>Field Id:</i>	Floor -1a 9'	Floor -1a 15'	Floor -2a 14'	Floor -2a 18'	WSW-2a 6'	WSW -2a 8'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-11-17 13:30	May-11-17 14:00	May-11-17 12:00	May-11-17 12:20	May-11-17 14:05	May-11-17 14:10
BTEX by EPA 8021B	<i>Extracted:</i>	May-16-17 15:00	May-16-17 07:00	May-16-17 07:00	May-16-17 07:00	May-16-17 07:00	May-16-17 15:00
	<i>Analyzed:</i>	May-17-17 01:08	May-16-17 08:48	May-16-17 09:05	May-16-17 09:37	May-16-17 13:27	May-17-17 06:17
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.00817 0.00373	<0.00201 0.00201	<0.00203 0.00203	<0.00200 0.00200	<0.00199 0.00199	0.00391 0.00199
Toluene		<0.00373 0.00373	<0.00201 0.00201	<0.00203 0.00203	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene		<0.00373 0.00373	<0.00201 0.00201	<0.00203 0.00203	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.00746 0.00746	<0.00402 0.00402	<0.00407 0.00407	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.00373 0.00373	<0.00201 0.00201	<0.00203 0.00203	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.00373 0.00373	<0.00201 0.00201	<0.00203 0.00203	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		0.00817 0.00373	<0.00201 0.00201	<0.00203 0.00203	<0.00200 0.00200	<0.00199 0.00199	0.00391 0.00199
Chloride by EPA 300	<i>Extracted:</i>	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45	May-20-17 16:45
	<i>Analyzed:</i>	May-20-17 17:05	May-20-17 18:28	May-20-17 18:36	May-20-17 18:43	May-20-17 18:51	May-20-17 19:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		144 4.92	113 4.93	44.4 4.97	31.8 4.95	526 5.00	208 4.98
TPH by SW8015 Mod	<i>Extracted:</i>	May-15-17 14:00	May-15-17 14:00	May-15-17 14:00	May-15-17 14:00	May-15-17 14:00	May-15-17 14:00
	<i>Analyzed:</i>	May-15-17 17:37	May-15-17 18:35	May-15-17 18:54	May-15-17 19:13	May-15-17 19:32	May-15-17 19:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	101 15.0	<15.0 15.0
Diesel Range Organics		19.5 15.0	<14.9 14.9	<15.0 15.0	16.2 15.0	2140 15.0	22.3 15.0
Oil Range Hydrocarbons		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	154 15.0	<15.0 15.0
Total TPH		19.5 15.0	<14.9 14.9	<15.0 15.0	16.2 15.0	2400 15.0	22.3 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager



Certificate of Analysis Summary 553084

TRC Solutions, Inc, Midland, TX

Project Name: TRUNK M



Project Id: TRC#274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri May-12-17 01:13 pm
Report Date: 26-MAY-17
Project Manager: Liz Givens

Analysis Requested	Lab Id:	553084-007	553084-008				
	Field Id:	WSW -3 3'	WSW -3a 7'				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	May-11-17 14:20	May-11-17 14:30				
BTEX by EPA 8021B	Extracted:	May-16-17 15:00	May-16-17 15:00				
	Analyzed:	May-17-17 09:50	May-17-17 00:52				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00369 0.00369	0.00489 0.00200				
Toluene		<0.00369 0.00369	<0.00200 0.00200				
Ethylbenzene		<0.00369 0.00369	<0.00200 0.00200				
m,p-Xylenes		<0.00738 0.00738	<0.00399 0.00399				
o-Xylene		<0.00369 0.00369	<0.00200 0.00200				
Total Xylenes		<0.00369 0.00369	<0.00200 0.00200				
Total BTEX		<0.00369 0.00369	0.00489 0.00200				
Chloride by EPA 300	Extracted:	May-20-17 16:45	May-20-17 16:45				
	Analyzed:	May-20-17 19:21	May-20-17 19:44				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		<4.99 4.99	6.30 4.98				
TPH by SW8015 Mod	Extracted:	May-15-17 14:00	May-15-17 14:00				
	Analyzed:	May-15-17 20:09	May-15-17 20:28				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0				
Diesel Range Organics		<15.0 15.0	<15.0 15.0				
Oil Range Hydrocarbons		<15.0 15.0	<15.0 15.0				
Total TPH		<15.0 15.0	<15.0 15.0				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Analytical Report 553084

for
TRC Solutions, Inc

Project Manager: Nikki Green

TRUNK M

TRC#274130

26-MAY-17

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)



26-MAY-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **553084**

TRUNK M

Project Address: Lea County, NM

Nikki Green:

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) 553084. 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. 553084 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

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Sample Cross Reference 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor -1a 9'	S	05-11-17 13:30		553084-001
Floor -1a 15'	S	05-11-17 14:00		553084-002
Floor -2a 14'	S	05-11-17 12:00		553084-003
Floor -2a 18'	S	05-11-17 12:20		553084-004
WSW-2a 6'	S	05-11-17 14:05		553084-005
WSW -2a 8'	S	05-11-17 14:10		553084-006
WSW -3 3'	S	05-11-17 14:20		553084-007
WSW -3a 7'	S	05-11-17 14:30		553084-008



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: TRUNK M

Project ID: TRC#274130
Work Order Number(s): 553084

Report Date: 26-MAY-17
Date Received: 05/12/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3017462 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Lab Sample ID 553084-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).

Benzene, m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 553084-002, -003, -004, -005.

The Laboratory Control Sample for Benzene, m,p-Xylenes is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3017621 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **Floor -1a 9'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-001

Date Collected: 05.11.17 13.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	144	4.92	mg/kg	05.20.17 17.05		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.15.17 14.00

Basis: Wet Weight

Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 17.37	U	1
Diesel Range Organics	C10C28DRO	19.5	15.0	mg/kg	05.15.17 17.37		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 17.37	U	1
Total TPH	PHC635	19.5	15.0	mg/kg	05.15.17 17.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.15.17 17.37	
o-Terphenyl	84-15-1	102	%	70-135	05.15.17 17.37	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **Floor -1a 9'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-001

Date Collected: 05.11.17 13.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00817	0.00373	mg/kg	05.17.17 01.08		1
Toluene	108-88-3	<0.00373	0.00373	mg/kg	05.17.17 01.08	U	1
Ethylbenzene	100-41-4	<0.00373	0.00373	mg/kg	05.17.17 01.08	U	1
m,p-Xylenes	179601-23-1	<0.00746	0.00746	mg/kg	05.17.17 01.08	U	1
o-Xylene	95-47-6	<0.00373	0.00373	mg/kg	05.17.17 01.08	U	1
Total Xylenes	1330-20-7	<0.00373	0.00373	mg/kg	05.17.17 01.08	U	1
Total BTEX		0.00817	0.00373	mg/kg	05.17.17 01.08		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	80	%	80-120	05.17.17 01.08		
1,4-Difluorobenzene	540-36-3	90	%	80-120	05.17.17 01.08		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **Floor -1a 15'** Matrix: Soil Date Received: 05.12.17 13.13
Lab Sample Id: 553084-002 Date Collected: 05.11.17 14.00
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 05.20.17 16.45 Basis: Wet Weight
Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	113	4.93	mg/kg	05.20.17 18.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 05.15.17 14.00 Basis: Wet Weight
Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	05.15.17 18.35	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	05.15.17 18.35	U	1
Oil Range Hydrocarbons	PHCG2835	<14.9	14.9	mg/kg	05.15.17 18.35	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	05.15.17 18.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	05.15.17 18.35		
o-Terphenyl	84-15-1	102	%	70-135	05.15.17 18.35		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **Floor -1a 15'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-002

Date Collected: 05.11.17 14.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 07.00

Basis: Wet Weight

Seq Number: 3017462

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.16.17 08.48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.16.17 08.48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.16.17 08.48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.16.17 08.48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.16.17 08.48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.16.17 08.48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.16.17 08.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	80-120	05.16.17 08.48		
4-Bromofluorobenzene	460-00-4	101	%	80-120	05.16.17 08.48		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **Floor -2a 14'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-003

Date Collected: 05.11.17 12.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.4	4.97	mg/kg	05.20.17 18.36		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.15.17 14.00

Basis: Wet Weight

Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 18.54	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	05.15.17 18.54	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 18.54	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.15.17 18.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.15.17 18.54	
o-Terphenyl	84-15-1	102	%	70-135	05.15.17 18.54	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **Floor -2a 14'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-003

Date Collected: 05.11.17 12.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 07.00

Basis: Wet Weight

Seq Number: 3017462

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00203	0.00203	mg/kg	05.16.17 09.05	U	1
Toluene	108-88-3	<0.00203	0.00203	mg/kg	05.16.17 09.05	U	1
Ethylbenzene	100-41-4	<0.00203	0.00203	mg/kg	05.16.17 09.05	U	1
m,p-Xylenes	179601-23-1	<0.00407	0.00407	mg/kg	05.16.17 09.05	U	1
o-Xylene	95-47-6	<0.00203	0.00203	mg/kg	05.16.17 09.05	U	1
Total Xylenes	1330-20-7	<0.00203	0.00203	mg/kg	05.16.17 09.05	U	1
Total BTEX		<0.00203	0.00203	mg/kg	05.16.17 09.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	80-120	05.16.17 09.05		
4-Bromofluorobenzene	460-00-4	102	%	80-120	05.16.17 09.05		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **Floor -2a 18'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-004

Date Collected: 05.11.17 12.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.8	4.95	mg/kg	05.20.17 18.43		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.15.17 14.00

Basis: Wet Weight

Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 19.13	U	1
Diesel Range Organics	C10C28DRO	16.2	15.0	mg/kg	05.15.17 19.13		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 19.13	U	1
Total TPH	PHC635	16.2	15.0	mg/kg	05.15.17 19.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.15.17 19.13	
o-Terphenyl	84-15-1	108	%	70-135	05.15.17 19.13	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **Floor -2a 18'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-004

Date Collected: 05.11.17 12.20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 07.00

Basis: Wet Weight

Seq Number: 3017462

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.16.17 09.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.16.17 09.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.16.17 09.37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.16.17 09.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.16.17 09.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.16.17 09.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.16.17 09.37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	80-120	05.16.17 09.37		
1,4-Difluorobenzene	540-36-3	89	%	80-120	05.16.17 09.37		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **WSW-2a 6'** Matrix: Soil Date Received: 05.12.17 13.13
Lab Sample Id: 553084-005 Date Collected: 05.11.17 14.05
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 05.20.17 16.45 Basis: Wet Weight
Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	526	5.00	mg/kg	05.20.17 18.51		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 05.15.17 14.00 Basis: Wet Weight
Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	101	15.0	mg/kg	05.15.17 19.32		1
Diesel Range Organics	C10C28DRO	2140	15.0	mg/kg	05.15.17 19.32		1
Oil Range Hydrocarbons	PHCG2835	154	15.0	mg/kg	05.15.17 19.32		1
Total TPH	PHC635	2400	15.0	mg/kg	05.15.17 19.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.15.17 19.32	
o-Terphenyl	84-15-1	80	%	70-135	05.15.17 19.32	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **WSW-2a 6'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-005

Date Collected: 05.11.17 14.05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 07.00

Basis: Wet Weight

Seq Number: 3017462

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.16.17 13.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.16.17 13.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.16.17 13.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.16.17 13.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.16.17 13.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.16.17 13.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.16.17 13.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	80-120	05.16.17 13.27		
1,4-Difluorobenzene	540-36-3	98	%	80-120	05.16.17 13.27		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **WSW -2a 8'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-006

Date Collected: 05.11.17 14.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	208	4.98	mg/kg	05.20.17 19.14		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.15.17 14.00

Basis: Wet Weight

Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 19.50	U	1
Diesel Range Organics	C10C28DRO	22.3	15.0	mg/kg	05.15.17 19.50		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 19.50	U	1
Total TPH	PHC635	22.3	15.0	mg/kg	05.15.17 19.50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.15.17 19.50	
o-Terphenyl	84-15-1	102	%	70-135	05.15.17 19.50	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **WSW -2a 8'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-006

Date Collected: 05.11.17 14.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00391	0.00199	mg/kg	05.17.17 06.17		1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.17.17 06.17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.17.17 06.17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.17.17 06.17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.17.17 06.17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.17.17 06.17	U	1
Total BTEX		0.00391	0.00199	mg/kg	05.17.17 06.17		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	80-120	05.17.17 06.17		
4-Bromofluorobenzene	460-00-4	96	%	80-120	05.17.17 06.17		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **WSW -3 3'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-007

Date Collected: 05.11.17 14.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	05.20.17 19.21	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.15.17 14.00

Basis: Wet Weight

Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 20.09	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	05.15.17 20.09	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 20.09	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.15.17 20.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.15.17 20.09	
o-Terphenyl	84-15-1	101	%	70-135	05.15.17 20.09	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX TRUNK M

Sample Id: **WSW -3 3'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-007

Date Collected: 05.11.17 14.20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00369	0.00369	mg/kg	05.17.17 09.50	U	1
Toluene	108-88-3	<0.00369	0.00369	mg/kg	05.17.17 09.50	U	1
Ethylbenzene	100-41-4	<0.00369	0.00369	mg/kg	05.17.17 09.50	U	1
m,p-Xylenes	179601-23-1	<0.00738	0.00738	mg/kg	05.17.17 09.50	U	1
o-Xylene	95-47-6	<0.00369	0.00369	mg/kg	05.17.17 09.50	U	1
Total Xylenes	1330-20-7	<0.00369	0.00369	mg/kg	05.17.17 09.50	U	1
Total BTEX		<0.00369	0.00369	mg/kg	05.17.17 09.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	80-120	05.17.17 09.50		
1,4-Difluorobenzene	540-36-3	104	%	80-120	05.17.17 09.50		



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **WSW -3a 7'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-008

Date Collected: 05.11.17 14.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 05.20.17 16.45

Basis: Wet Weight

Seq Number: 3017806

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.30	4.98	mg/kg	05.20.17 19.44		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 05.15.17 14.00

Basis: Wet Weight

Seq Number: 3017485

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 20.28	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	05.15.17 20.28	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 20.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	05.15.17 20.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.15.17 20.28	
o-Terphenyl	84-15-1	98	%	70-135	05.15.17 20.28	



Certificate of Analytical Results 553084



TRC Solutions, Inc, Midland, TX

TRUNK M

Sample Id: **WSW -3a 7'**

Matrix: Soil

Date Received: 05.12.17 13.13

Lab Sample Id: 553084-008

Date Collected: 05.11.17 14.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 05.16.17 15.00

Basis: Wet Weight

Seq Number: 3017621

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00489	0.00200	mg/kg	05.17.17 00.52		1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.17.17 00.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.17.17 00.52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.17.17 00.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.17.17 00.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.17.17 00.52	U	1
Total BTEX		0.00489	0.00200	mg/kg	05.17.17 00.52		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	05.17.17 00.52		
4-Bromofluorobenzene	460-00-4	93	%	80-120	05.17.17 00.52		

- 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

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(602) 437-0330	



QC Summary 553084

TRC Solutions, Inc TRUNK M

Analytical Method: Chloride by EPA 300

Seq Number: 3017806

MB Sample Id: 724934-1-BLK

Matrix: Solid

LCS Sample Id: 724934-1-BKS

Prep Method: E300P

Date Prep: 05.20.17

LCSD Sample Id: 724934-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	253	101	255	102	90-110	1	20	mg/kg	05.20.17 16:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3017806

Parent Sample Id: 553084-001

Matrix: Soil

MS Sample Id: 553084-001 S

Prep Method: E300P

Date Prep: 05.20.17

MSD Sample Id: 553084-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	144	246	413	109	413	109	90-110	0	20	mg/kg	05.20.17 17:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3017806

Parent Sample Id: 553084-005

Matrix: Soil

MS Sample Id: 553084-005 S

Prep Method: E300P

Date Prep: 05.20.17

MSD Sample Id: 553084-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	526	250	774	99	775	100	90-110	0	20	mg/kg	05.20.17 18:59	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3017485

MB Sample Id: 724731-1-BLK

Matrix: Solid

LCS Sample Id: 724731-1-BKS

Prep Method: TX1005P

Date Prep: 05.15.17

LCSD Sample Id: 724731-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	960	96	915	92	70-135	5	35	mg/kg	05.15.17 16:53	
Diesel Range Organics	<15.0	1000	935	94	909	91	70-135	3	35	mg/kg	05.15.17 16:53	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		113		110		70-135	%	05.15.17 16:53
o-Terphenyl	119		107		106		70-135	%	05.15.17 16:53



QC Summary 553084

TRC Solutions, Inc TRUNK M

Analytical Method: TPH by SW8015 Mod

Seq Number: 3017485

Parent Sample Id: 553084-001

Matrix: Soil

MS Sample Id: 553084-001 S

Prep Method: TX1005P

Date Prep: 05.15.17

MSD Sample Id: 553084-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	999	945	95	932	93	70-135	1	35	mg/kg	05.15.17 17:58	
Diesel Range Organics	19.5	999	939	92	927	91	70-135	1	35	mg/kg	05.15.17 17:58	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		105		70-135	%	05.15.17 17:58
o-Terphenyl	100		93		70-135	%	05.15.17 17:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3017462

MB Sample Id: 724719-1-BLK

Matrix: Solid

LCS Sample Id: 724719-1-BKS

Prep Method: SW5030B

Date Prep: 05.16.17

LCSD Sample Id: 724719-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0823	82	0.0852	84	70-130	3	35	mg/kg	05.16.17 07:10	
Toluene	<0.00200	0.100	0.0851	85	0.100	99	70-130	16	35	mg/kg	05.16.17 07:10	
Ethylbenzene	<0.00200	0.100	0.0960	96	0.0971	96	71-129	1	35	mg/kg	05.16.17 07:10	
m,p-Xylenes	<0.00401	0.200	0.191	96	0.206	102	70-135	8	35	mg/kg	05.16.17 07:10	
o-Xylene	<0.00200	0.100	0.0824	82	0.0939	93	71-133	13	35	mg/kg	05.16.17 07:10	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	119		111		100		80-120	%	05.16.17 07:10
4-Bromofluorobenzene	117		100		114		80-120	%	05.16.17 07:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3017621

MB Sample Id: 724725-1-BLK

Matrix: Solid

LCS Sample Id: 724725-1-BKS

Prep Method: SW5030B

Date Prep: 05.16.17

LCSD Sample Id: 724725-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0884	88	0.0888	89	70-130	0	35	mg/kg	05.16.17 15:59	
Toluene	<0.00202	0.101	0.0889	88	0.0944	94	70-130	6	35	mg/kg	05.16.17 15:59	
Ethylbenzene	<0.00202	0.101	0.100	99	0.0996	100	71-129	0	35	mg/kg	05.16.17 15:59	
m,p-Xylenes	<0.00403	0.202	0.202	100	0.201	100	70-135	0	35	mg/kg	05.16.17 15:59	
o-Xylene	<0.00202	0.101	0.0963	95	0.0964	96	71-133	0	35	mg/kg	05.16.17 15:59	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		106		118		80-120	%	05.16.17 15:59
4-Bromofluorobenzene	95		112		119		80-120	%	05.16.17 15:59



QC Summary 553084

TRC Solutions, Inc TRUNK M

Analytical Method: BTEX by EPA 8021B

Seq Number: 3017462

Parent Sample Id: 553084-002

Matrix: Soil

MS Sample Id: 553084-002 S

Prep Method: SW5030B

Date Prep: 05.16.17

MSD Sample Id: 553084-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0763	76	0.0616	62	70-130	21	35	mg/kg	05.16.17 07:43	X
Toluene	<0.00200	0.0998	0.0842	84	0.0720	72	70-130	16	35	mg/kg	05.16.17 07:43	
Ethylbenzene	<0.00200	0.0998	0.0822	82	0.0706	71	71-129	15	35	mg/kg	05.16.17 07:43	
m,p-Xylenes	<0.00399	0.200	0.162	81	0.120	60	70-135	30	35	mg/kg	05.16.17 07:43	X
o-Xylene	<0.00200	0.0998	0.0758	76	0.0757	76	71-133	0	35	mg/kg	05.16.17 07:43	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		109		80-120	%	05.16.17 07:43
4-Bromofluorobenzene	120		113		80-120	%	05.16.17 07:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3017621

Parent Sample Id: 553084-008

Matrix: Soil

MS Sample Id: 553084-008 S

Prep Method: SW5030B

Date Prep: 05.16.17

MSD Sample Id: 553084-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00489	0.0996	0.0767	72	0.0763	71	70-130	1	35	mg/kg	05.16.17 17:03	
Toluene	<0.00199	0.0996	0.0826	83	0.0823	82	70-130	0	35	mg/kg	05.16.17 17:03	
Ethylbenzene	<0.00199	0.0996	0.0880	88	0.0770	77	71-129	13	35	mg/kg	05.16.17 17:03	
m,p-Xylenes	<0.00398	0.199	0.177	89	0.155	78	70-135	13	35	mg/kg	05.16.17 17:03	
o-Xylene	<0.00199	0.0996	0.0850	85	0.0820	82	71-133	4	35	mg/kg	05.16.17 17:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		103		80-120	%	05.16.17 17:03
4-Bromofluorobenzene	119		119		80-120	%	05.16.17 17:03

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Nikki Green

Company Name: TRC Environmental Corporation

Company Address: 2057 Commerce Drive

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720

Sampler Signature: Nikki Green

Fax No:
e-mail: rose.slade@energytransfer.com
ngreen@trcsolutions.com

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Project Name: Trunk M

Project #: TRC #: 274130

Project Loc: Lea County, NM

PO #:

(lab use only)

ORDER #: 553084

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	Floor-1a 9'			5/11/2017	1330		1	X								Soil	X														X
	Floor-1a 15'			5/11/2017	1400		1	X								Soil	X														X
	Floor-2a 14'			5/11/2017	1200		1	X								Soil	X														X
	Floor-2a 18'			5/11/2017	1220		1	X								Soil	X														X
	WSW-2a 6'			5/11/2017	1405		1	X								Soil	X														X
	WSW-2a 8'			5/11/2017	1410		1	X								Soil	X														X
	WSW-3 3'			5/11/2017	1420		1	X								Soil	X														X
	WSW-3a 7'			5/11/2017	1430		1	X								Soil	X														X

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by: Nikki Green Date: 5/12/17 Time: 13:13 Received by: Monica Date: 5/12/17 Time: 13:13

Relinquished by: Nikki Green Date: 5/12/17 Time: 13:13 Received by: Monica Date: 5/12/17 Time: 13:13

Relinquished by: Nikki Green Date: 5/12/17 Time: 13:13 Received by: Monica Date: 5/12/17 Time: 13:13

Relinquished by: Nikki Green Date: 5/12/17 Time: 13:13 Received by: Monica Date: 5/12/17 Time: 13:13

Relinquished by: Nikki Green Date: 5/12/17 Time: 13:13 Received by: Monica Date: 5/12/17 Time: 13:13

Temp: <u>4.0</u> IR ID: R-9	Date	Time
CF: (0-6: 0.0°C) (6-23: +0.1°C)	Date	Time
Corrected Temp: <u>4.0</u>	Date	Time
Laboratory Comments:	Date	Time
Sample Containers Intact?		
VOCs Free of Headspace?		
Labels on container(s)		
Custody seals on container(s)		
Custody seals on cooler(s)		
Sample Hand Delivered		
by Courier?		
UPS		
DHL		
FedEx		
Lone Star		
Temperature Upon Receipt:		



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 05/12/2017 01:13:00 PM

Work Order #: 553084

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

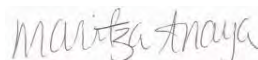
Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.6
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample 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)?	N/A
#21 VOC samples have zero headspace?	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:


Marithza Anaya

Date: 05/12/2017

Checklist reviewed by:


Holly Taylor

Date: 05/15/2017



Certificate of Analysis Summary 554389

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC#274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-01-17 02:05 pm
Report Date: 06-JUN-17
Project Manager: Liz Givens

Analysis Requested	Lab Id:	554389-001	554389-002	554389-003	554389-004	554389-005	
	Field Id:	Floor-1a 6'	Floor-3 5'	Floor-2a 7'	WSW-2a 5'	WSW-4 5'	
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	May-31-17 15:00	May-31-17 15:05	May-31-17 15:10	May-31-17 15:15	May-31-17 15:20	
BTEX by EPA 8021B	Extracted:	Jun-01-17 16:30	Jun-01-17 16:30	Jun-01-17 16:30	Jun-01-17 16:30	Jun-06-17 08:00	
	Analyzed:	Jun-02-17 10:40	Jun-02-17 11:28	Jun-02-17 11:12	Jun-02-17 12:15	Jun-06-17 10:54	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00357 0.00357	<0.00202 0.00202	0.0731 0.00199	4.89 0.497	
Toluene		<0.00200 0.00200	<0.00357 0.00357	<0.00202 0.00202	13.0 D 0.503	59.8 0.497	
Ethylbenzene		<0.00200 0.00200	<0.00357 0.00357	<0.00202 0.00202	23.1 D 0.503	89.6 0.497	
m,p-Xylenes		<0.00399 0.00399	<0.00714 0.00714	<0.00404 0.00404	42.6 D 1.01	160 0.994	
o-Xylene		<0.00200 0.00200	<0.00357 0.00357	<0.00202 0.00202	14.7 D 0.503	66.4 0.497	
Total Xylenes		<0.00200 0.00200	<0.00357 0.00357	<0.00202 0.00202	57.3 0.503	226 0.497	
Total BTEX		<0.00200 0.00200	<0.00357 0.00357	<0.00202 0.00202	93.5 0.00199	381 0.497	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brandi Ritcherson

Brandi Ritcherson
Project Manager



Certificate of Analysis Summary 554389

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC#274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Thu Jun-01-17 02:05 pm
Report Date: 06-JUN-17
Project Manager: Liz Givens

Analysis Requested	Lab Id:	554389-001	554389-002	554389-003	554389-004	554389-005		
	Field Id:	Floor-1a 6'	Floor-3 5'	Floor-2a 7'	WSW-2a 5'	WSW-4 5'		
	Depth:							
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL		
	Sampled:	May-31-17 15:00	May-31-17 15:05	May-31-17 15:10	May-31-17 15:15	May-31-17 15:20		
Chloride by EPA 300	Extracted:	Jun-02-17 14:38	Jun-02-17 14:38	Jun-02-17 14:38	Jun-02-17 14:38	Jun-02-17 14:38		
	Analyzed:	Jun-02-17 17:28	Jun-02-17 17:51	Jun-02-17 17:58	Jun-02-17 18:06	Jun-02-17 18:13		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		42.2 4.94	677 4.93	209 4.90	4890 24.7	959 4.99		
TPH by SW8015 Mod	Extracted:	Jun-02-17 16:00	Jun-02-17 16:00	Jun-02-17 16:00	Jun-02-17 16:00	Jun-02-17 16:00		
	Analyzed:	Jun-03-17 01:10	Jun-03-17 02:14	Jun-03-17 02:35	Jun-03-17 02:56	Jun-03-17 03:17		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C10 Gasoline Range Hydrocarbons		<15.0 15.0	<14.9 14.9	<15.0 15.0	6470 150	4900 74.9		
C10-C28 Diesel Range Organics		484 15.0	621 14.9	608 15.0	25300 150	10100 74.9		
C28-C35 Oil Range Hydrocarbons		80.4 15.0	57.7 14.9	48.7 15.0	2530 150	1060 74.9		
Total TPH		564 15.0	679 14.9	657 15.0	65700 150	31000 74.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brandi Ritcherson
Project Manager

Analytical Report 554389

**for
TRC Solutions, Inc**

Project Manager: Nikki Green

Trunk M

TRC#274130

06-JUN-17

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)



06-JUN-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **554389**

Trunk M

Project Address: Lea County, NM

Nikki Green:

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) 554389. 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. 554389 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,

Brandi Ritcherson

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Floor-1a 6'	S	05-31-17 15:00		554389-001
Floor-3 5'	S	05-31-17 15:05		554389-002
Floor-2a 7'	S	05-31-17 15:10		554389-003
WSW-2a 5'	S	05-31-17 15:15		554389-004
WSW-4 5'	S	05-31-17 15:20		554389-005



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Trunk M

Project ID: TRC#274130
Work Order Number(s): 554389

Report Date: 06-JUN-17
Date Received: 06/01/2017

Sample receipt non conformances and comments:

5/30/17: 1.001 corrected project name.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3018826 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 554389-004.

Batch: LBA-3019012 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Floor-1a 6'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-001

Date Collected: 05.31.17 15.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.02.17 14.38

Basis: Wet Weight

Seq Number: 3018839

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.2	4.94	mg/kg	06.02.17 17.28		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.02.17 16.00

Basis: Wet Weight

Seq Number: 3018832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C10 Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.03.17 01.10	U	1
C10-C28 Diesel Range Organics	C10C28DRO	484	15.0	mg/kg	06.03.17 01.10		1
C28-C35 Oil Range Hydrocarbons	PHCG2835	80.4	15.0	mg/kg	06.03.17 01.10		1
Total TPH	PHC635	564	15.0	mg/kg	06.03.17 01.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	06.03.17 01.10	
o-Terphenyl	84-15-1	102	%	70-135	06.03.17 01.10	



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Floor-1a 6'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-001

Date Collected: 05.31.17 15.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.01.17 16.30

Basis: Wet Weight

Seq Number: 3018826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.02.17 10.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.02.17 10.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.02.17 10.40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.02.17 10.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.02.17 10.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.02.17 10.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.02.17 10.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	83	%	80-120	06.02.17 10.40		
1,4-Difluorobenzene	540-36-3	110	%	80-120	06.02.17 10.40		



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Floor-3 5'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-002

Date Collected: 05.31.17 15.05

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.02.17 14.38

Basis: Wet Weight

Seq Number: 3018839

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	677	4.93	mg/kg	06.02.17 17.51		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.02.17 16.00

Basis: Wet Weight

Seq Number: 3018832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C10 Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	06.03.17 02.14	U	1
C10-C28 Diesel Range Organics	C10C28DRO	621	14.9	mg/kg	06.03.17 02.14		1
C28-C35 Oil Range Hydrocarbons	PHCG2835	57.7	14.9	mg/kg	06.03.17 02.14		1
Total TPH	PHC635	679	14.9	mg/kg	06.03.17 02.14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	06.03.17 02.14	
o-Terphenyl	84-15-1	95	%	70-135	06.03.17 02.14	



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Floor-3 5'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-002

Date Collected: 05.31.17 15.05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.01.17 16.30

Basis: Wet Weight

Seq Number: 3018826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00357	0.00357	mg/kg	06.02.17 11.28	U	1
Toluene	108-88-3	<0.00357	0.00357	mg/kg	06.02.17 11.28	U	1
Ethylbenzene	100-41-4	<0.00357	0.00357	mg/kg	06.02.17 11.28	U	1
m,p-Xylenes	179601-23-1	<0.00714	0.00714	mg/kg	06.02.17 11.28	U	1
o-Xylene	95-47-6	<0.00357	0.00357	mg/kg	06.02.17 11.28	U	1
Total Xylenes	1330-20-7	<0.00357	0.00357	mg/kg	06.02.17 11.28	U	1
Total BTEX		<0.00357	0.00357	mg/kg	06.02.17 11.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	06.02.17 11.28		
4-Bromofluorobenzene	460-00-4	86	%	80-120	06.02.17 11.28		



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Floor-2a 7'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-003

Date Collected: 05.31.17 15.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.02.17 14.38

Basis: Wet Weight

Seq Number: 3018839

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	209	4.90	mg/kg	06.02.17 17.58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.02.17 16.00

Basis: Wet Weight

Seq Number: 3018832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C10 Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.03.17 02.35	U	1
C10-C28 Diesel Range Organics	C10C28DRO	608	15.0	mg/kg	06.03.17 02.35		1
C28-C35 Oil Range Hydrocarbons	PHCG2835	48.7	15.0	mg/kg	06.03.17 02.35		1
Total TPH	PHC635	657	15.0	mg/kg	06.03.17 02.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.03.17 02.35	
o-Terphenyl	84-15-1	98	%	70-135	06.03.17 02.35	



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Floor-2a 7'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-003

Date Collected: 05.31.17 15.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.01.17 16.30

Basis: Wet Weight

Seq Number: 3018826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.02.17 11.12	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.02.17 11.12	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.02.17 11.12	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.02.17 11.12	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.02.17 11.12	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.02.17 11.12	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.02.17 11.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	80-120	06.02.17 11.12		
1,4-Difluorobenzene	540-36-3	86	%	80-120	06.02.17 11.12		



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **WSW-2a 5'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-004

Date Collected: 05.31.17 15.15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.02.17 14.38

Basis: Wet Weight

Seq Number: 3018839

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4890	24.7	mg/kg	06.02.17 18.06		5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.02.17 16.00

Basis: Wet Weight

Seq Number: 3018832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C10 Gasoline Range Hydrocarbons	PHC610	6470	150	mg/kg	06.03.17 02.56		10
C10-C28 Diesel Range Organics	C10C28DRO	25300	150	mg/kg	06.03.17 02.56		10
C28-C35 Oil Range Hydrocarbons	PHCG2835	2530	150	mg/kg	06.03.17 02.56		10
Total TPH	PHC635	65700	150	mg/kg	06.03.17 02.56		10

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
111-85-3	122	%	70-135	06.03.17 02.56	
84-15-1	110	%	70-135	06.03.17 02.56	



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **WSW-2a 5'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-004

Date Collected: 05.31.17 15.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.01.17 16.30

Basis: Wet Weight

Seq Number: 3018826

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0731	0.00199	mg/kg	06.02.17 12.15		1
Toluene	108-88-3	13.0	0.503	mg/kg	06.02.17 13.26	D	250
Ethylbenzene	100-41-4	23.1	0.503	mg/kg	06.02.17 13.26	D	250
m,p-Xylenes	179601-23-1	42.6	1.01	mg/kg	06.02.17 13.26	D	250
o-Xylene	95-47-6	14.7	0.503	mg/kg	06.02.17 13.26	D	250
Total Xylenes	1330-20-7	57.3	0.503	mg/kg	06.02.17 13.26		250
Total BTEX		93.5	0.00199	mg/kg	06.02.17 13.26		250
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	373	%	80-120	06.02.17 12.15	**	
1,4-Difluorobenzene	540-36-3	82	%	80-120	06.02.17 12.15		



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **WSW-4 5'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-005

Date Collected: 05.31.17 15.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.02.17 14.38

Basis: Wet Weight

Seq Number: 3018839

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	959	4.99	mg/kg	06.02.17 18.13		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.02.17 16.00

Basis: Wet Weight

Seq Number: 3018832

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C10 Gasoline Range Hydrocarbons	PHC610	4900	74.9	mg/kg	06.03.17 03.17		5
C10-C28 Diesel Range Organics	C10C28DRO	10100	74.9	mg/kg	06.03.17 03.17		5
C28-C35 Oil Range Hydrocarbons	PHCG2835	1060	74.9	mg/kg	06.03.17 03.17		5
Total TPH	PHC635	31000	74.9	mg/kg	06.03.17 03.17		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	06.03.17 03.17	
o-Terphenyl	84-15-1	83	%	70-135	06.03.17 03.17	



Certificate of Analytical Results 554389



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **WSW-4 5'**

Matrix: Soil

Date Received: 06.01.17 14.05

Lab Sample Id: 554389-005

Date Collected: 05.31.17 15.20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.06.17 08.00

Basis: Wet Weight

Seq Number: 3019012

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	4.89	0.497	mg/kg	06.06.17 10.54		250
Toluene	108-88-3	59.8	0.497	mg/kg	06.06.17 10.54		250
Ethylbenzene	100-41-4	89.6	0.497	mg/kg	06.06.17 10.54		250
m,p-Xylenes	179601-23-1	160	0.994	mg/kg	06.06.17 10.54		250
o-Xylene	95-47-6	66.4	0.497	mg/kg	06.06.17 10.54		250
Total Xylenes	1330-20-7	226	0.497	mg/kg	06.06.17 10.54		250
Total BTEX		381	0.497	mg/kg	06.06.17 10.54		250
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	80-120	06.06.17 10.54		
4-Bromofluorobenzene	460-00-4	107	%	80-120	06.06.17 10.54		

- 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 **SQL** 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

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Certified and approved by numerous States and Agencies.

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(432) 563-1800	(432) 563-1713
(602) 437-0330	



QC Summary 554389

TRC Solutions, Inc Trunk M

Analytical Method: Chloride by EPA 300

Seq Number: 3018839

MB Sample Id: 725536-1-BLK

Matrix: Solid

LCS Sample Id: 725536-1-BKS

Prep Method: E300P

Date Prep: 06.02.17

LCSD Sample Id: 725536-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	255	102	259	104	90-110	2	20	mg/kg	06.02.17 17:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3018839

Parent Sample Id: 554389-001

Matrix: Soil

MS Sample Id: 554389-001 S

Prep Method: E300P

Date Prep: 06.02.17

MSD Sample Id: 554389-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	42.2	247	294	102	305	106	90-110	4	20	mg/kg	06.02.17 17:35	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3018832

MB Sample Id: 725565-1-BLK

Matrix: Solid

LCS Sample Id: 725565-1-BKS

Prep Method: TX1005P

Date Prep: 06.02.17

LCSD Sample Id: 725565-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	980	98	1050	105	70-135	7	35	mg/kg	06.03.17 00:26	
C10-C28 Diesel Range Organics	<15.0	1000	1000	100	1020	102	70-135	2	35	mg/kg	06.03.17 00:26	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	102		101		121		70-135	%	06.03.17 00:26			
o-Terphenyl	105		100		121		70-135	%	06.03.17 00:26			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3018832

Parent Sample Id: 554389-001

Matrix: Soil

MS Sample Id: 554389-001 S

Prep Method: TX1005P

Date Prep: 06.02.17

MSD Sample Id: 554389-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	997	997	100	958	96	70-135	4	35	mg/kg	06.03.17 01:31	
C10-C28 Diesel Range Organics	484	997	1460	98	1400	92	70-135	4	35	mg/kg	06.03.17 01:31	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			113		94		70-135	%	06.03.17 01:31			
o-Terphenyl			100		88		70-135	%	06.03.17 01:31			

TRC Solutions, Inc
Trunk M

Analytical Method: BTEX by EPA 8021B

Seq Number: 3018826

MB Sample Id: 725560-1-BLK

Matrix: Solid

LCS Sample Id: 725560-1-BKS

Prep Method: SW5030B

Date Prep: 06.01.17

LCSD Sample Id: 725560-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0835	84	0.0800	79	70-130	4	35	mg/kg	06.01.17 23:02	
Toluene	<0.00200	0.100	0.0812	81	0.0732	72	70-130	10	35	mg/kg	06.01.17 23:02	
Ethylbenzene	<0.00200	0.100	0.0907	91	0.0827	82	71-129	9	35	mg/kg	06.01.17 23:02	
m,p-Xylenes	<0.00401	0.200	0.190	95	0.174	86	70-135	9	35	mg/kg	06.01.17 23:02	
o-Xylene	<0.00200	0.100	0.0885	89	0.0816	81	71-133	8	35	mg/kg	06.01.17 23:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		84		106		80-120	%	06.01.17 23:02
4-Bromofluorobenzene	86		92		103		80-120	%	06.01.17 23:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3019012

MB Sample Id: 725660-1-BLK

Matrix: Solid

LCS Sample Id: 725660-1-BKS

Prep Method: SW5030B

Date Prep: 06.06.17

LCSD Sample Id: 725660-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0955	96	0.105	105	70-130	9	35	mg/kg	06.06.17 07:20	
Toluene	<0.00199	0.0994	0.102	103	0.0982	98	70-130	4	35	mg/kg	06.06.17 07:20	
Ethylbenzene	<0.00199	0.0994	0.0902	91	0.0878	88	71-129	3	35	mg/kg	06.06.17 07:20	
m,p-Xylenes	<0.00398	0.199	0.199	100	0.192	96	70-135	4	35	mg/kg	06.06.17 07:20	
o-Xylene	<0.00199	0.0994	0.105	106	0.0913	91	71-133	14	35	mg/kg	06.06.17 07:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	86		88		90		80-120	%	06.06.17 07:20
4-Bromofluorobenzene	81		113		101		80-120	%	06.06.17 07:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3019012

Parent Sample Id: 554633-001

Matrix: Soil

MS Sample Id: 554633-001 S

Prep Method: SW5030B

Date Prep: 06.06.17

MSD Sample Id: 554633-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00204	0.102	0.0862	85	0.0789	77	70-130	9	35	mg/kg	06.06.17 08:26	
Toluene	<0.00204	0.102	0.0821	80	0.0788	77	70-130	4	35	mg/kg	06.06.17 08:26	
Ethylbenzene	<0.00204	0.102	0.0777	76	0.0743	73	71-129	4	35	mg/kg	06.06.17 08:26	
m,p-Xylenes	<0.00408	0.204	0.174	85	0.165	80	70-135	5	35	mg/kg	06.06.17 08:26	
o-Xylene	<0.00204	0.102	0.0879	86	0.0838	82	71-133	5	35	mg/kg	06.06.17 08:26	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		88		80-120	%	06.06.17 08:26
4-Bromofluorobenzene	111		102		80-120	%	06.06.17 08:26

TRC Solutions, Inc
Trunk M

Analytical Method: BTEX by EPA 8021B

Seq Number: 3018826

Parent Sample Id: 554125-001

Matrix: Soil

MS Sample Id: 554125-001 S

Prep Method: SW5030B

Date Prep: 06.01.17

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00358	0.179	0.111	62	70-130	mg/kg	06.01.17 23:34	X
Toluene	0.00399	0.179	0.0897	48	70-130	mg/kg	06.01.17 23:34	X
Ethylbenzene	0.00418	0.179	0.0811	43	71-129	mg/kg	06.01.17 23:34	X
m,p-Xylenes	0.0125	0.358	0.215	57	70-135	mg/kg	06.01.17 23:34	X
o-Xylene	0.00766	0.179	0.100	52	71-133	mg/kg	06.01.17 23:34	X

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		80-120	%	06.01.17 23:34
4-Bromofluorobenzene	114		80-120	%	06.01.17 23:34

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Nikki Green

Project Name: Trunk M

Company Name: TRC Environmental Corporation

Project #: TRC # 274130

Company Address: 2057 Commerce Drive

Project Loc: Lea County, NM

City/State/Zip: Midland, Texas 79703

PO #:

Telephone No: 432-520-7720

Fax No:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Nikki Green e-mail: rose.slade@energytransfer.com
ngreen@trcsolutions.com

(lab use only)

ORDER #: 554389

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	TPH: 418.1 <u>8015M</u> 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	<u>BTEX 8021B/5030 or BTEX 8260</u>	RCI	N.O.R.M.	Chlorides E 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT for Rose Slade
	Floor-1a 6'			5/31/2017	1500		1	X									Soil	X													X
	Floor-3 5'			5/31/2017	1505		1	X									Soil	X													X
	Floor-2a 7'			5/31/2017	1510		1	X									Soil	X													X
	WSW-2a 5'			5/31/2017	1515		1	X									Soil	X													X
	WSW-4 5'			5/31/2017	1520		1	X									Soil	X													X

Special Instructions:
Bill to Rose Slade at Energy Transfer.

Relinquished by: Nikki Green Date: 6-1-17 Time: 1330

Received by: Matthew Green

Date: 6-1-17 Time: 1330

Relinquished by: Matthew Green Date: 6-1-17 Time: 1405

Received by: Matthew Green

Date: 6-1-17 Time: 1330

Relinquished by: Matthew Green Date: 6-1-17 Time: 1405

Received by: Matthew Green

Date: 6-1-17 Time: 1330

Laboratory Comments:

Sample Containers Intact? Y
VOCs Free of Headspace? Y
Labels on container(s) Y
Custody seals on container(s) Y
Custody seals on cooler(s) Y
Sample Hand Delivered Y
by Sampler/Client Rep. ? Y
by Courier? Y UPS Y DHL Y FedEx Y Lone Star Y

Temperature Upon Receipt: 0.4 °C

Temp: 0.4 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 0.4



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/01/2017 02:05:00 PM

Work Order #: 554389

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)?	.4
#2 *Shipping container in good condition?	Yes
#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)?	N/A
#21 VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Marithza Anaya

Marithza Anaya

Date: 06/01/2017

Checklist reviewed by:

Holly Taylor

Holly Taylor

Date: 06/05/2017



Certificate of Analysis Summary 556211

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC# 274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Jun-23-17 03:33 pm
Report Date: 28-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	556211-001	556211-002	556211-003	556211-004	556211-005	556211-006
	Field Id:	East Trench 2'	East Trench 6'	NW Trench 3'	NW Trench 9'	NE Trench 3'	NE Trench 9'
	Depth:	2- ft	6- ft	3- ft	9- ft	3- ft	9- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-22-17 08:45	Jun-22-17 08:55	Jun-22-17 09:00	Jun-22-17 09:15	Jun-22-17 09:20	Jun-22-17 09:30
BTEX by EPA 8021B	Extracted:	Jun-27-17 15:00	Jun-27-17 17:45	Jun-27-17 17:45	Jun-27-17 17:45	Jun-27-17 17:45	Jun-27-17 17:45
	Analyzed:	Jun-28-17 02:59	Jun-28-17 07:47	Jun-28-17 08:03	Jun-28-17 08:19	Jun-28-17 08:35	Jun-28-17 08:51
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00398 0.00398	<0.00404 0.00404	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	Extracted:	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15
	Analyzed:	Jun-28-17 01:49	Jun-28-17 01:57	Jun-28-17 02:05	Jun-28-17 02:27	Jun-28-17 02:35	Jun-28-17 02:43
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5.65 4.92	5.43 4.93	14.3 4.93	30.9 4.98	46.5 4.94	81.5 4.92
TPH by SW8015 Mod	Extracted:	Jun-26-17 07:00	Jun-26-17 07:00	Jun-26-17 07:00	Jun-26-17 07:00	Jun-26-17 07:00	Jun-26-17 07:00
	Analyzed:	Jun-26-17 16:16	Jun-26-17 16:36	Jun-26-17 16:56	Jun-26-17 17:16	Jun-26-17 17:36	Jun-26-17 17:56
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics		<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons		<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	<14.9 14.9	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager



Certificate of Analysis Summary 556211

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC# 274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Jun-23-17 03:33 pm
Report Date: 28-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	556211-007	556211-008	556211-009	556211-010	556211-011	556211-012
	Field Id:	SW Trench 3'	SW Trench 9'	SE Trench 3'	SE Trench 9'	West Trench 3'	West Trench 9'
	Depth:	3- ft	9- ft	3- ft	9- ft	3- ft	9- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jun-22-17 09:35	Jun-22-17 09:45	Jun-22-17 10:20	Jun-22-17 10:30	Jun-22-17 11:00	Jun-22-17 11:30
BTEX by EPA 8021B	Extracted:	Jun-27-17 17:45	Jun-27-17 17:45	Jun-27-17 17:45	Jun-27-17 17:45	Jun-27-17 17:45	Jun-23-17 16:45
	Analyzed:	Jun-28-17 09:07	Jun-28-17 09:24	Jun-28-17 09:40	Jun-28-17 11:50	Jun-28-17 12:06	Jun-28-17 12:23
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes		<0.00405 0.00405	<0.00402 0.00402	<0.00398 0.00398	<0.00397 0.00397	<0.00403 0.00403	<0.00403 0.00403
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300	Extracted:	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15
	Analyzed:	Jun-28-17 02:50	Jun-28-17 02:58	Jun-28-17 03:05	Jun-28-17 03:28	Jun-28-17 03:36	Jun-28-17 03:59
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.95 4.95	<4.97 4.97	<4.96 4.96	7.93 4.99	7.89 5.00	5.13 4.99
TPH by SW8015 Mod	Extracted:	Jun-26-17 07:00	Jun-26-17 07:00	Jun-26-17 07:00	Jun-26-17 07:00	Jun-24-17 16:00	Jun-24-17 16:00
	Analyzed:	Jun-26-17 18:16	Jun-26-17 18:36	Jun-26-17 18:56	Jun-26-17 19:15	Jun-25-17 09:20	Jun-25-17 09:40
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Diesel Range Organics		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Oil Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0
Total TPH		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Analytical Report 556211

**for
TRC Solutions, Inc**

Project Manager: Nikki Green

Trunk M

TRC# 274130

28-JUN-17

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)



28-JUN-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **556211**

Trunk M

Project Address: Lea County, NM

Nikki Green:

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) 556211. 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. 556211 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East Trench 2'	S	06-22-17 08:45	2 ft	556211-001
East Trench 6'	S	06-22-17 08:55	6 ft	556211-002
NW Trench 3'	S	06-22-17 09:00	3 ft	556211-003
NW Trench 9'	S	06-22-17 09:15	9 ft	556211-004
NE Trench 3'	S	06-22-17 09:20	3 ft	556211-005
NE Trench 9'	S	06-22-17 09:30	9 ft	556211-006
SW Trench 3'	S	06-22-17 09:35	3 ft	556211-007
SW Trench 9'	S	06-22-17 09:45	9 ft	556211-008
SE Trench 3'	S	06-22-17 10:20	3 ft	556211-009
SE Trench 9'	S	06-22-17 10:30	9 ft	556211-010
West Trench 3'	S	06-22-17 11:00	3 ft	556211-011
West Trench 9'	S	06-22-17 11:30	9 ft	556211-012



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Trunk M

Project ID: TRC# 274130
Work Order Number(s): 556211

Report Date: 28-JUN-17
Date Received: 06/23/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3020931 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3021020 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **East Trench 2'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-001 Date Collected: 06.22.17 08.45 Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.65	4.92	mg/kg	06.28.17 01.49		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 16.16	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 16.16	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 16.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 16.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	06.26.17 16.16	
o-Terphenyl	84-15-1	100	%	70-135	06.26.17 16.16	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **East Trench 2'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-001

Date Collected: 06.22.17 08.45

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 15.00

Basis: Wet Weight

Seq Number: 3020931

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.28.17 02.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.28.17 02.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.28.17 02.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.28.17 02.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.28.17 02.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.28.17 02.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.28.17 02.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	80-120	06.28.17 02.59		
1,4-Difluorobenzene	540-36-3	91	%	80-120	06.28.17 02.59		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **East Trench 6'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-002 Date Collected: 06.22.17 08.55 Sample Depth: 6 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.43	4.93	mg/kg	06.28.17 01.57		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	06.26.17 16.36	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	06.26.17 16.36	U	1
Oil Range Hydrocarbons	PHCG2835	<14.9	14.9	mg/kg	06.26.17 16.36	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.26.17 16.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.26.17 16.36	
o-Terphenyl	84-15-1	105	%	70-135	06.26.17 16.36	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **East Trench 6'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-002

Date Collected: 06.22.17 08.55

Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.28.17 07.47	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.28.17 07.47	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.28.17 07.47	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.28.17 07.47	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.28.17 07.47	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.28.17 07.47	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.28.17 07.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	80-120	06.28.17 07.47		
4-Bromofluorobenzene	460-00-4	105	%	80-120	06.28.17 07.47		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NW Trench 3'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-003 Date Collected: 06.22.17 09.00 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.3	4.93	mg/kg	06.28.17 02.05		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	06.26.17 16.56	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	06.26.17 16.56	U	1
Oil Range Hydrocarbons	PHCG2835	<14.9	14.9	mg/kg	06.26.17 16.56	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.26.17 16.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	06.26.17 16.56	
o-Terphenyl	84-15-1	118	%	70-135	06.26.17 16.56	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NW Trench 3'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-003

Date Collected: 06.22.17 09.00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.28.17 08.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.28.17 08.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.28.17 08.03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.28.17 08.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.28.17 08.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.28.17 08.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.28.17 08.03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	80-120	06.28.17 08.03		
1,4-Difluorobenzene	540-36-3	91	%	80-120	06.28.17 08.03		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NW Trench 9'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-004 Date Collected: 06.22.17 09.15 Sample Depth: 9 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	30.9	4.98	mg/kg	06.28.17 02.27		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 17.16	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 17.16	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 17.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 17.16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	06.26.17 17.16		
o-Terphenyl	84-15-1	104	%	70-135	06.26.17 17.16		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NW Trench 9'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-004

Date Collected: 06.22.17 09.15

Sample Depth: 9 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.28.17 08.19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.28.17 08.19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.28.17 08.19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.28.17 08.19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.28.17 08.19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.28.17 08.19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.28.17 08.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	80-120	06.28.17 08.19		
1,4-Difluorobenzene	540-36-3	110	%	80-120	06.28.17 08.19		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NE Trench 3'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-005 Date Collected: 06.22.17 09.20 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.5	4.94	mg/kg	06.28.17 02.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 17.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 17.36	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 17.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 17.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.26.17 17.36	
o-Terphenyl	84-15-1	106	%	70-135	06.26.17 17.36	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NE Trench 3'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-005

Date Collected: 06.22.17 09.20

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.28.17 08.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.28.17 08.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.28.17 08.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.28.17 08.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.28.17 08.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.28.17 08.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.28.17 08.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	80-120	06.28.17 08.35		
1,4-Difluorobenzene	540-36-3	96	%	80-120	06.28.17 08.35		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NE Trench 9'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-006 Date Collected: 06.22.17 09.30 Sample Depth: 9 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.5	4.92	mg/kg	06.28.17 02.43		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 17.56	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 17.56	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 17.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 17.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.26.17 17.56	
o-Terphenyl	84-15-1	106	%	70-135	06.26.17 17.56	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NE Trench 9'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-006

Date Collected: 06.22.17 09.30

Sample Depth: 9 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.28.17 08.51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.28.17 08.51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.28.17 08.51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.28.17 08.51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.28.17 08.51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.28.17 08.51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.28.17 08.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	80-120	06.28.17 08.51		
1,4-Difluorobenzene	540-36-3	84	%	80-120	06.28.17 08.51		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SW Trench 3'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-007

Date Collected: 06.22.17 09.35

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.27.17 16.15

Basis: Wet Weight

Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	06.28.17 02.50	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.26.17 07.00

Basis: Wet Weight

Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 18.16	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 18.16	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 18.16	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 18.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.26.17 18.16	
o-Terphenyl	84-15-1	106	%	70-135	06.26.17 18.16	



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TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SW Trench 3'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-007

Date Collected: 06.22.17 09.35

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.28.17 09.07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.28.17 09.07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.28.17 09.07	U	1
m,p-Xylenes	179601-23-1	<0.00405	0.00405	mg/kg	06.28.17 09.07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.28.17 09.07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.28.17 09.07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.28.17 09.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	80-120	06.28.17 09.07		
4-Bromofluorobenzene	460-00-4	97	%	80-120	06.28.17 09.07		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SW Trench 9'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-008

Date Collected: 06.22.17 09.45

Sample Depth: 9 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.27.17 16.15

Basis: Wet Weight

Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	06.28.17 02.58	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.26.17 07.00

Basis: Wet Weight

Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 18.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 18.36	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 18.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 18.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	101	%	70-135	06.26.17 18.36		
o-Terphenyl	84-15-1	104	%	70-135	06.26.17 18.36		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SW Trench 9'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-008

Date Collected: 06.22.17 09.45

Sample Depth: 9 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.28.17 09.24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.28.17 09.24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.28.17 09.24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.28.17 09.24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.28.17 09.24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.28.17 09.24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.28.17 09.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	80-120	06.28.17 09.24		
1,4-Difluorobenzene	540-36-3	94	%	80-120	06.28.17 09.24		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SE Trench 3'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-009 Date Collected: 06.22.17 10.20 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	06.28.17 03.05	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 18.56	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 18.56	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 18.56	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 18.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	06.26.17 18.56	
o-Terphenyl	84-15-1	103	%	70-135	06.26.17 18.56	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SE Trench 3'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-009

Date Collected: 06.22.17 10.20

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.28.17 09.40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.28.17 09.40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.28.17 09.40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.28.17 09.40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.28.17 09.40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.28.17 09.40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.28.17 09.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	80-120	06.28.17 09.40		
1,4-Difluorobenzene	540-36-3	98	%	80-120	06.28.17 09.40		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SE Trench 9'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-010 Date Collected: 06.22.17 10.30 Sample Depth: 9 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.93	4.99	mg/kg	06.28.17 03.28		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.26.17 07.00 Basis: Wet Weight
Seq Number: 3021003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.26.17 19.15	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.26.17 19.15	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.26.17 19.15	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.26.17 19.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	06.26.17 19.15	
o-Terphenyl	84-15-1	105	%	70-135	06.26.17 19.15	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SE Trench 9'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-010

Date Collected: 06.22.17 10.30

Sample Depth: 9 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.28.17 11.50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.28.17 11.50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.28.17 11.50	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	06.28.17 11.50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.28.17 11.50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.28.17 11.50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.28.17 11.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	80-120	06.28.17 11.50		
4-Bromofluorobenzene	460-00-4	107	%	80-120	06.28.17 11.50		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **West Trench 3'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-011 Date Collected: 06.22.17 11.00 Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.89	5.00	mg/kg	06.28.17 03.36		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.24.17 16.00 Basis: Wet Weight
Seq Number: 3020771

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	06.25.17 09.20	U	1
Diesel Range Organics	C10C28DRO	<14.9	14.9	mg/kg	06.25.17 09.20	U	1
Oil Range Hydrocarbons	PHCG2835	<14.9	14.9	mg/kg	06.25.17 09.20	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	06.25.17 09.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	06.25.17 09.20	
o-Terphenyl	84-15-1	118	%	70-135	06.25.17 09.20	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **West Trench 3'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-011

Date Collected: 06.22.17 11.00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 17.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.28.17 12.06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.28.17 12.06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.28.17 12.06	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.28.17 12.06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.28.17 12.06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.28.17 12.06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.28.17 12.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	80-120	06.28.17 12.06		
1,4-Difluorobenzene	540-36-3	83	%	80-120	06.28.17 12.06		



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **West Trench 9'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556211-012 Date Collected: 06.22.17 11.30 Sample Depth: 9 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.13	4.99	mg/kg	06.28.17 03.59		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.24.17 16.00 Basis: Wet Weight
Seq Number: 3020771

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 09.40	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.25.17 09.40	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.25.17 09.40	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.25.17 09.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	06.25.17 09.40	
o-Terphenyl	84-15-1	102	%	70-135	06.25.17 09.40	



Certificate of Analytical Results 556211



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **West Trench 9'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556211-012

Date Collected: 06.22.17 11.30

Sample Depth: 9 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.23.17 16.45

Basis: Wet Weight

Seq Number: 3021020

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.28.17 12.23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.28.17 12.23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.28.17 12.23	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.28.17 12.23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.28.17 12.23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.28.17 12.23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.28.17 12.23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	80-120	06.28.17 12.23		
4-Bromofluorobenzene	460-00-4	104	%	80-120	06.28.17 12.23		

- 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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 9701 Harry Hines Blvd , Dallas, TX 75220
 5332 Blackberry Drive, San Antonio TX 78238
 1211 W Florida Ave, Midland, TX 79701
 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



QC Summary 556211

TRC Solutions, Inc Trunk M

Analytical Method: Chloride by EPA 300

Seq Number: 3020953

MB Sample Id: 726863-1-BLK

Matrix: Solid

LCS Sample Id: 726863-1-BKS

Prep Method: E300P

Date Prep: 06.27.17

LCSD Sample Id: 726863-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	251	100	90-110	2	20	mg/kg	06.28.17 01:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3020953

Parent Sample Id: 556210-002

Matrix: Soil

MS Sample Id: 556210-002 S

Prep Method: E300P

Date Prep: 06.27.17

MSD Sample Id: 556210-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	421	249	667	99	657	95	90-110	2	20	mg/kg	06.28.17 01:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3020953

Parent Sample Id: 556211-009

Matrix: Soil

MS Sample Id: 556211-009 S

Prep Method: E300P

Date Prep: 06.27.17

MSD Sample Id: 556211-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	272	110	271	109	90-110	0	20	mg/kg	06.28.17 03:13	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3020771

MB Sample Id: 726685-1-BLK

Matrix: Solid

LCS Sample Id: 726685-1-BKS

Prep Method: TX1005P

Date Prep: 06.24.17

LCSD Sample Id: 726685-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	992	99	1020	102	70-135	3	35	mg/kg	06.25.17 00:55	
Diesel Range Organics	<15.0	1000	1010	101	979	98	70-135	3	35	mg/kg	06.25.17 00:55	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		108		114		70-135	%	06.25.17 00:55
o-Terphenyl	122		100		107		70-135	%	06.25.17 00:55

TRC Solutions, Inc
Trunk M

Analytical Method: TPH by SW8015 Mod

Seq Number: 3021003

MB Sample Id: 726785-1-BLK

Matrix: Solid

LCS Sample Id: 726785-1-BKS

Prep Method: TX1005P

Date Prep: 06.26.17

LCSD Sample Id: 726785-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	1030	103	1030	103	70-135	0	35	mg/kg	06.26.17 10:55	
Diesel Range Organics	<15.0	1000	1050	105	1040	104	70-135	1	35	mg/kg	06.26.17 10:55	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	107		101		102		70-135	%	06.26.17 10:55			
o-Terphenyl	115		100		99		70-135	%	06.26.17 10:55			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3020771

Parent Sample Id: 555795-001

Matrix: Soil

MS Sample Id: 555795-001 S

Prep Method: TX1005P

Date Prep: 06.24.17

MSD Sample Id: 555795-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	997	1060	106	974	98	70-135	8	35	mg/kg	06.25.17 01:58	
Diesel Range Organics	<15.0	997	998	100	987	99	70-135	1	35	mg/kg	06.25.17 01:58	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			107		100		70-135	%	06.25.17 01:58			
o-Terphenyl			101		98		70-135	%	06.25.17 01:58			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3021003

Parent Sample Id: 556209-001

Matrix: Soil

MS Sample Id: 556209-001 S

Prep Method: TX1005P

Date Prep: 06.26.17

MSD Sample Id: 556209-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	998	1030	103	1020	102	70-135	1	35	mg/kg	06.26.17 11:56	
Diesel Range Organics	53.3	998	1050	100	1040	99	70-135	1	35	mg/kg	06.26.17 11:56	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			107		101		70-135	%	06.26.17 11:56			
o-Terphenyl			99		96		70-135	%	06.26.17 11:56			

TRC Solutions, Inc
Trunk M

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020931

MB Sample Id: 726847-1-BLK

Matrix: Solid

LCS Sample Id: 726847-1-BKS

Prep Method: SW5030B

Date Prep: 06.27.17

LCSD Sample Id: 726847-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.103	102	0.103	103	70-130	0	35	mg/kg	06.27.17 20:16	
Toluene	<0.00202	0.101	0.0908	90	0.0903	90	70-130	1	35	mg/kg	06.27.17 20:16	
Ethylbenzene	<0.00202	0.101	0.0968	96	0.0998	100	71-129	3	35	mg/kg	06.27.17 20:16	
m,p-Xylenes	<0.00404	0.202	0.176	87	0.177	88	70-135	1	35	mg/kg	06.27.17 20:16	
o-Xylene	<0.00202	0.101	0.0917	91	0.0933	93	71-133	2	35	mg/kg	06.27.17 20:16	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	97		92		101		80-120			%	06.27.17 20:16	
4-Bromofluorobenzene	99		107		100		80-120			%	06.27.17 20:16	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3021020

MB Sample Id: 726890-1-BLK

Matrix: Solid

LCS Sample Id: 726890-1-BKS

Prep Method: SW5030B

Date Prep: 06.27.17

LCSD Sample Id: 726890-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0952	94	0.104	103	70-130	9	35	mg/kg	06.28.17 04:19	
Toluene	<0.00201	0.101	0.0831	82	0.0935	93	70-130	12	35	mg/kg	06.28.17 04:19	
Ethylbenzene	<0.00201	0.101	0.0885	88	0.100	99	71-129	12	35	mg/kg	06.28.17 04:19	
m,p-Xylenes	<0.00402	0.201	0.151	75	0.174	87	70-135	14	35	mg/kg	06.28.17 04:19	
o-Xylene	<0.00201	0.101	0.0854	85	0.100	99	71-133	16	35	mg/kg	06.28.17 04:19	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	98		104		93		80-120			%	06.28.17 04:19	
4-Bromofluorobenzene	107		110		115		80-120			%	06.28.17 04:19	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020931

Parent Sample Id: 556209-001

Matrix: Soil

MS Sample Id: 556209-001 S

Prep Method: SW5030B

Date Prep: 06.27.17

MSD Sample Id: 556209-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0814	81	0.0750	74	70-130	8	35	mg/kg	06.27.17 20:48	
Toluene	<0.00200	0.100	0.0665	67	0.0653	65	70-130	2	35	mg/kg	06.27.17 20:48	X
Ethylbenzene	<0.00200	0.100	0.0708	71	0.0610	60	71-129	15	35	mg/kg	06.27.17 20:48	X
m,p-Xylenes	<0.00400	0.200	0.117	59	0.105	52	70-135	11	35	mg/kg	06.27.17 20:48	X
o-Xylene	<0.00200	0.100	0.0656	66	0.0628	62	71-133	4	35	mg/kg	06.27.17 20:48	X
Surrogate				MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1,4-Difluorobenzene				90		116		80-120		%	06.27.17 20:48	
4-Bromofluorobenzene				91		117		80-120		%	06.27.17 20:48	



QC Summary 556211

TRC Solutions, Inc Trunk M

Analytical Method: BTEX by EPA 8021B

Seq Number: 3021020

Parent Sample Id: 556211-002

Matrix: Soil

MS Sample Id: 556211-002 S

Prep Method: SW5030B

Date Prep: 06.27.17

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0827	83	70-130	mg/kg	06.28.17 11:01	
Toluene	<0.00201	0.100	0.0753	75	70-130	mg/kg	06.28.17 11:01	
Ethylbenzene	<0.00201	0.100	0.0795	80	71-129	mg/kg	06.28.17 11:01	
m,p-Xylenes	<0.00402	0.201	0.143	71	70-135	mg/kg	06.28.17 11:01	
o-Xylene	<0.00201	0.100	0.0774	77	71-133	mg/kg	06.28.17 11:01	

Surrogate	MS %Rec	MS Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		80-120	%	06.28.17 11:01
4-Bromofluorobenzene	115		80-120	%	06.28.17 11:01

Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST
12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Pg 1 of 2

Project Manager: Nikki Green

Project Name: Trunk M

Company Name: TRC Environmental Corporation

Project #: TRC #: 274130

Company Address: 2057 Commerce Drive

Project Loc: Lea County, NM

City/State/Zip: Midland, Texas 79703

PO #:

Telephone No: 432.520.7720

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Fax No:

Sampler Signature: Nikki Green e-mail: rose.slade@energytransfer.com
nrgreen@trcsolutions.com

(lab use only)

ORDER #: 5560211

Analyze For:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Matrix	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT for Rose Slade
	East Trench 2'			6/22/2017	845		1	X									Soil	X													X
	East Trench 6'			6/22/2017	855		1	X									Soil	X													X
	NW Trench 3'			6/22/2017	900		1	X									Soil	X													X
	NW Trench 9'			6/22/2017	915		1	X									Soil	X													X
	NE Trench 3'			6/22/2017	920		1	X									Soil	X													X
	NE Trench 9'			6/22/2017	930		1	X									Soil	X													X
	SW Trench 3'			6/22/2017	935		1	X									Soil	X													X
	SW Trench 9'			6/22/2017	945		1	X									Soil	X													X
	SE Trench 3'			6/22/2017	1020		1	X									Soil	X													X
	SE Trench 9'			6/22/2017	1030		1	X									Soil	X													X
	West Trench 3'			6/22/2017	1100		1	X									Soil	X													X

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by: Nikki Green

Date: 6/23/17 Time: 15:33

Received by: MS

Relinquished by:

Date: Time:

Received by:

Relinquished by:

Date: Time:

Received by:

Laboratory Comments:

Sample Containers Intact?

VOCs Free of Headspace?

Labels on container(s)?

Custody seals on container(s)?

Custody seals on cooler(s)?

Sample Hand Delivered

by Sampler/Client Rep.?

by Courier? UPS DHL FedEx Lone Star

Temp: 2.4 IR ID: R-8
CF: (0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 2.4

Date: 6/23/17 Time: 15:33

Temperature Upon Receipt: °C

Xenco Laboratories

The Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Pg 2 of 2

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Nikki Green

Company Name: TRC Environmental Corporation

Company Address: 2057 Commerce Drive

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720

Sampler Signature: Nikki Green

Fax No:
e-mail: rose.slade@energytransfer.com
nrgreen@trcsolutions.com

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Project Name: Trunk M

Project #: TRC #: 274130

Project Loc: Lea County, NM

PO #:

(lab use only)

ORDER #: 5560311

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 80215/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300.1	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT for Rose Slade
	West Trench 9'			6/22/2017	1130		1	X								Soil	X								X					X

Preservation & # of Containers

Matrix

Analyze For:

TCLP:	TOTAL:

Special Instructions:

Bill to Rose Slade at Energy Transfer.

Relinquished by:	Date	Time	Received by:	Date	Time
<u>Nikki Green</u>	<u>6/23/17</u>	<u>1533</u>	<u>NKS</u>	<u>6/23/17</u>	<u>1533</u>

Relinquished by:	Date	Time	Received by:	Date	Time

Relinquished by:	Date	Time	Received by:	Date	Time

Temp: 24	IR ID: R-8
CF: (0-6: -0.2°C)	
(6-23: +0.2°C)	

Corrected Temp: 24



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/23/2017 03:33:00 PM

Work Order #: 556211

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)?	2.4
#2 *Shipping container in good condition?	Yes
#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)?	N/A
#21 VOC samples have zero headspace?	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: 06/23/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks

Date: 06/26/2017



Certificate of Analysis Summary 556256

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC# 274130
Contact: Nikki Green
Project Location: Lea County, NM

Date Received in Lab: Fri Jun-23-17 03:33 pm
Report Date: 28-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	556256-001	556256-002	556256-003	556256-004		
	Field Id:	Baseline-1 5'	Baseline-2 5'	Baseline-3 5'	Baseline-4 5'		
	Depth:	5- ft	5- ft	5- ft	5- ft		
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Jun-21-17 10:30	Jun-22-17 11:30	Jun-21-17 14:00	Jun-21-17 15:00		
BTEX by EPA 8021B	Extracted:	Jun-27-17 15:00	Jun-27-17 15:00	Jun-27-17 15:00	Jun-27-17 15:00		
	Analyzed:	Jun-28-17 01:54	Jun-28-17 02:10	Jun-28-17 02:26	Jun-28-17 02:42		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00197 0.00197	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Toluene		<0.00197 0.00197	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Ethylbenzene		<0.00197 0.00197	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
m,p-Xylenes		<0.00394 0.00394	<0.00398 0.00398	<0.00395 0.00395	<0.00402 0.00402		
o-Xylene		<0.00197 0.00197	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Total Xylenes		<0.00197 0.00197	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Total BTEX		<0.00197 0.00197	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201		
Chloride by EPA 300	Extracted:	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15	Jun-27-17 16:15		
	Analyzed:	Jun-28-17 04:21	Jun-28-17 04:29	Jun-28-17 04:37	Jun-28-17 04:44		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2500 24.9	77.9 4.95	59.3 4.97	1530 24.8		
TPH by SW8015 Mod	Extracted:	Jun-27-17 18:00	Jun-27-17 18:00	Jun-27-17 18:00	Jun-27-17 18:00		
	Analyzed:	Jun-28-17 04:53	Jun-28-17 05:14	Jun-28-17 05:35	Jun-28-17 05:57		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Diesel Range Organics		29.7 15.0	<15.0 15.0	<15.0 15.0	53.3 15.0		
Oil Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Total TPH		29.7 15.0	<15.0 15.0	<15.0 15.0	53.3 15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Analytical Report 556256

for
TRC Solutions, Inc

Project Manager: Nikki Green

Trunk M

TRC# 274130

28-JUN-17

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)



28-JUN-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **556256**

Trunk M

Project Address: Lea County, NM

Nikki Green:

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) 556256. 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. 556256 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

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Sample Cross Reference 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Baseline-1 5'	S	06-21-17 10:30	5 ft	556256-001
Baseline-2 5'	S	06-22-17 11:30	5 ft	556256-002
Baseline-3 5'	S	06-21-17 14:00	5 ft	556256-003
Baseline-4 5'	S	06-21-17 15:00	5 ft	556256-004



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Trunk M

Project ID: TRC# 274130
Work Order Number(s): 556256

Report Date: 28-JUN-17
Date Received: 06/23/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3020931 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-1 5'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556256-001

Date Collected: 06.21.17 10.30

Sample Depth: 5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.27.17 16.15

Basis: Wet Weight

Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2500	24.9	mg/kg	06.28.17 04.21		5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.27.17 18.00

Basis: Wet Weight

Seq Number: 3020944

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.28.17 04.53	U	1
Diesel Range Organics	C10C28DRO	29.7	15.0	mg/kg	06.28.17 04.53		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.28.17 04.53	U	1
Total TPH	PHC635	29.7	15.0	mg/kg	06.28.17 04.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	06.28.17 04.53	
o-Terphenyl	84-15-1	102	%	70-135	06.28.17 04.53	



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-1 5'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556256-001

Date Collected: 06.21.17 10.30

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 15.00

Basis: Wet Weight

Seq Number: 3020931

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	06.28.17 01.54	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	06.28.17 01.54	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	06.28.17 01.54	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	06.28.17 01.54	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	06.28.17 01.54	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	06.28.17 01.54	U	1
Total BTEX		<0.00197	0.00197	mg/kg	06.28.17 01.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	80-120	06.28.17 01.54		
1,4-Difluorobenzene	540-36-3	93	%	80-120	06.28.17 01.54		



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-2 5'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556256-002 Date Collected: 06.22.17 11.30 Sample Depth: 5 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	77.9	4.95	mg/kg	06.28.17 04.29		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.27.17 18.00 Basis: Wet Weight
Seq Number: 3020944

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.28.17 05.14	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.28.17 05.14	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.28.17 05.14	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.28.17 05.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	06.28.17 05.14	
o-Terphenyl	84-15-1	103	%	70-135	06.28.17 05.14	



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-2 5'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556256-002

Date Collected: 06.22.17 11.30

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 15.00

Basis: Wet Weight

Seq Number: 3020931

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.28.17 02.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.28.17 02.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.28.17 02.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.28.17 02.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.28.17 02.10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.28.17 02.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.28.17 02.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	80-120	06.28.17 02.10		
1,4-Difluorobenzene	540-36-3	111	%	80-120	06.28.17 02.10		



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-3 5'** Matrix: Soil Date Received: 06.23.17 15.33
Lab Sample Id: 556256-003 Date Collected: 06.21.17 14.00 Sample Depth: 5 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 06.27.17 16.15 Basis: Wet Weight
Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	59.3	4.97	mg/kg	06.28.17 04.37		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 06.27.17 18.00 Basis: Wet Weight
Seq Number: 3020944

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.28.17 05.35	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.28.17 05.35	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.28.17 05.35	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.28.17 05.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.28.17 05.35	
o-Terphenyl	84-15-1	104	%	70-135	06.28.17 05.35	



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-3 5'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556256-003

Date Collected: 06.21.17 14.00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 15.00

Basis: Wet Weight

Seq Number: 3020931

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	06.28.17 02.26	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	06.28.17 02.26	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	06.28.17 02.26	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	06.28.17 02.26	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	06.28.17 02.26	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	06.28.17 02.26	U	1
Total BTEX		<0.00198	0.00198	mg/kg	06.28.17 02.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	87	%	80-120	06.28.17 02.26		
4-Bromofluorobenzene	460-00-4	91	%	80-120	06.28.17 02.26		



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-4 5'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556256-004

Date Collected: 06.21.17 15.00

Sample Depth: 5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 06.27.17 16.15

Basis: Wet Weight

Seq Number: 3020953

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1530	24.8	mg/kg	06.28.17 04.44		5

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 06.27.17 18.00

Basis: Wet Weight

Seq Number: 3020944

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.28.17 05.57	U	1
Diesel Range Organics	C10C28DRO	53.3	15.0	mg/kg	06.28.17 05.57		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.28.17 05.57	U	1
Total TPH	PHC635	53.3	15.0	mg/kg	06.28.17 05.57		1

Surrogate

1-Chlorooctane

o-Terphenyl

Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
111-85-3	94	%	70-135	06.28.17 05.57	
84-15-1	95	%	70-135	06.28.17 05.57	



Certificate of Analytical Results 556256



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Baseline-4 5'**

Matrix: Soil

Date Received: 06.23.17 15.33

Lab Sample Id: 556256-004

Date Collected: 06.21.17 15.00

Sample Depth: 5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.27.17 15.00

Basis: Wet Weight

Seq Number: 3020931

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.28.17 02.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.28.17 02.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.28.17 02.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.28.17 02.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.28.17 02.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.28.17 02.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.28.17 02.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	80-120	06.28.17 02.42		
4-Bromofluorobenzene	460-00-4	104	%	80-120	06.28.17 02.42		

- 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 **SQL** 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

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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	

TRC Solutions, Inc
Trunk M**Analytical Method: Chloride by EPA 300**

Seq Number: 3020953

MB Sample Id: 726863-1-BLK

Matrix: Solid

LCS Sample Id: 726863-1-BKS

Prep Method: E300P

Date Prep: 06.27.17

LCSD Sample Id: 726863-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	251	100	90-110	2	20	mg/kg	06.28.17 01:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3020953

Parent Sample Id: 556210-002

Matrix: Soil

MS Sample Id: 556210-002 S

Prep Method: E300P

Date Prep: 06.27.17

MSD Sample Id: 556210-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	421	249	667	99	657	95	90-110	2	20	mg/kg	06.28.17 01:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3020953

Parent Sample Id: 556211-009

Matrix: Soil

MS Sample Id: 556211-009 S

Prep Method: E300P

Date Prep: 06.27.17

MSD Sample Id: 556211-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	272	110	271	109	90-110	0	20	mg/kg	06.28.17 03:13	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3020944

MB Sample Id: 726859-1-BLK

Matrix: Solid

LCS Sample Id: 726859-1-BKS

Prep Method: TX1005P

Date Prep: 06.27.17

LCSD Sample Id: 726859-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	1000	1060	106	1080	108	70-135	2	35	mg/kg	06.28.17 02:24	
Diesel Range Organics	<15.0	1000	1020	102	1060	106	70-135	4	35	mg/kg	06.28.17 02:24	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		108		109		70-135	%	06.28.17 02:24
o-Terphenyl	103		107		110		70-135	%	06.28.17 02:24



QC Summary 556256

TRC Solutions, Inc Trunk M

Analytical Method: TPH by SW8015 Mod

Seq Number: 3020944

Parent Sample Id: 556210-001

Matrix: Soil

MS Sample Id: 556210-001 S

Prep Method: TX1005P

Date Prep: 06.27.17

MSD Sample Id: 556210-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<15.0	999	1040	104	1010	101	70-135	3	35	mg/kg	06.28.17 03:27	
Diesel Range Organics	<15.0	999	1050	105	986	99	70-135	6	35	mg/kg	06.28.17 03:27	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		99		70-135	%	06.28.17 03:27
o-Terphenyl	100		96		70-135	%	06.28.17 03:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020931

MB Sample Id: 726847-1-BLK

Matrix: Solid

LCS Sample Id: 726847-1-BKS

Prep Method: SW5030B

Date Prep: 06.27.17

LCSD Sample Id: 726847-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.103	102	0.103	103	70-130	0	35	mg/kg	06.27.17 20:16	
Toluene	<0.00202	0.101	0.0908	90	0.0903	90	70-130	1	35	mg/kg	06.27.17 20:16	
Ethylbenzene	<0.00202	0.101	0.0968	96	0.0998	100	71-129	3	35	mg/kg	06.27.17 20:16	
m,p-Xylenes	<0.00404	0.202	0.176	87	0.177	88	70-135	1	35	mg/kg	06.27.17 20:16	
o-Xylene	<0.00202	0.101	0.0917	91	0.0933	93	71-133	2	35	mg/kg	06.27.17 20:16	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		92		101		80-120	%	06.27.17 20:16
4-Bromofluorobenzene	99		107		100		80-120	%	06.27.17 20:16

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020931

Parent Sample Id: 556209-001

Matrix: Soil

MS Sample Id: 556209-001 S

Prep Method: SW5030B

Date Prep: 06.27.17

MSD Sample Id: 556209-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0814	81	0.0750	74	70-130	8	35	mg/kg	06.27.17 20:48	
Toluene	<0.00200	0.100	0.0665	67	0.0653	65	70-130	2	35	mg/kg	06.27.17 20:48	X
Ethylbenzene	<0.00200	0.100	0.0708	71	0.0610	60	71-129	15	35	mg/kg	06.27.17 20:48	X
m,p-Xylenes	<0.00400	0.200	0.117	59	0.105	52	70-135	11	35	mg/kg	06.27.17 20:48	X
o-Xylene	<0.00200	0.100	0.0656	66	0.0628	62	71-133	4	35	mg/kg	06.27.17 20:48	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		116		80-120	%	06.27.17 20:48
4-Bromofluorobenzene	91		117		80-120	%	06.27.17 20:48



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 06/23/2017 03:33:00 PM

Work Order #: 556256

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)?	2.4
#2 *Shipping container in good condition?	Yes
#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)?	N/A
#21 VOC samples have zero headspace?	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: 06/26/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks

Date: 06/26/2017



Certificate of Analysis Summary 560839

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC# 274130
Contact: Nikki Green
Project Location: Lean County NM

Date Received in Lab: Tue Aug-22-17 10:51 am
Report Date: 28-AUG-17
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	560839-001	560839-002	560839-003	560839-004	560839-005	560839-006
	<i>Field Id:</i>	BH-2 7'	BH-1 6'	BH-4 9'	WW-1 8'	EW-2 6'	Release Point-1 9'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Aug-17-17 11:58	Aug-17-17 12:00	Aug-18-17 10:40	Aug-18-17 09:00	Aug-18-17 09:10	Aug-21-17 09:15
BTEX by EPA 8021B	<i>Extracted:</i>	Aug-23-17 08:15	Aug-23-17 08:15	Aug-23-17 08:15	Aug-23-17 08:15	Aug-23-17 08:15	Aug-23-17 08:15
	<i>Analyzed:</i>	Aug-23-17 10:58	Aug-23-17 11:17	Aug-23-17 11:36	Aug-23-17 13:31	Aug-23-17 13:50	Aug-23-17 14:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00404 0.00404	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.002 0.002	<0.00201 0.00201	<0.002 0.002
Total BTEX		<0.00201 0.00201	<0.00202 0.00202	<0.00199 0.00199	<0.002 0.002	<0.00201 0.00201	<0.002 0.002
Chloride by EPA 300	<i>Extracted:</i>	Aug-25-17 12:00	Aug-25-17 12:00	Aug-25-17 12:00	Aug-25-17 12:00	Aug-25-17 12:00	Aug-25-17 12:00
	<i>Analyzed:</i>	Aug-25-17 19:51	Aug-25-17 20:22	Aug-25-17 20:32	Aug-25-17 20:43	Aug-25-17 20:53	Aug-25-17 21:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		237 4.87	68.4 4.91	85.8 5.00	21.9 4.88	261 4.99	240 5.00
TPH by SW8015 Mod	<i>Extracted:</i>	Aug-23-17 08:00	Aug-23-17 08:00	Aug-23-17 08:00	Aug-23-17 08:00	Aug-23-17 08:00	Aug-23-17 08:00
	<i>Analyzed:</i>	Aug-23-17 12:02	Aug-23-17 13:04	Aug-23-17 13:25	Aug-23-17 13:45	Aug-23-17 14:06	Aug-23-17 14:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<14.9 14.9
Diesel Range Organics (DRO)		18.2 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	193 14.9
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	34.8 14.9
Total TPH		18.2 15	<15 15	<15 15	<14.9 14.9	<15 15	227.8 14.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Kelsey Brooks
Project Manager



Certificate of Analysis Summary 560839

TRC Solutions, Inc, Midland, TX

Project Name: Trunk M



Project Id: TRC# 274130
Contact: Nikki Green
Project Location: Lean County NM

Date Received in Lab: Tue Aug-22-17 10:51 am
Report Date: 28-AUG-17
Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	560839-007	560839-008	560839-009	560839-010		
	Field Id:	SW-1 8'	NW-1 5'	BH-3 9'	EW-1 6'		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Aug-21-17 09:20	Aug-21-17 13:00	Aug-21-17 15:00	Aug-21-17 15:10		
BTEX by EPA 8021B	Extracted:	Aug-23-17 08:15	Aug-23-17 08:15	Aug-23-17 08:15	Aug-23-17 08:15		
	Analyzed:	Aug-23-17 14:28	Aug-23-17 14:47	Aug-23-17 15:06	Aug-23-17 15:25		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Toluene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
m,p-Xylenes		<0.00404 0.00404	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399		
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200		
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.002 0.002		
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.002 0.002		
Chloride by EPA 300	Extracted:	Aug-25-17 12:00	Aug-25-17 12:00	Aug-25-17 12:00	Aug-25-17 12:00		
	Analyzed:	Aug-25-17 21:34	Aug-25-17 21:45	Aug-25-17 21:55	Aug-25-17 22:05		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		44.5 4.97	79.1 4.89	361 4.99	42.8 4.96		
TPH by SW8015 Mod	Extracted:	Aug-23-17 08:00	Aug-23-17 08:00	Aug-23-17 08:00	Aug-23-17 08:00		
	Analyzed:	Aug-23-17 15:07	Aug-23-17 16:48	Aug-23-17 15:48	Aug-23-17 16:08		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0		
Diesel Range Organics (DRO)		18.6 15.0	486 15.0	<15.0 15.0	<15.0 15.0		
Oil Range Hydrocarbons (ORO)		<15.0 15.0	158 15.0	<15.0 15.0	<15.0 15.0		
Total TPH		18.6 15	644 15	<15 15	<15 15		

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Version: 1.0%

Kelsey Brooks
Project Manager

Analytical Report 560839

**for
TRC Solutions, Inc**

Project Manager: Nikki Green

Trunk M

TRC# 274130

28-AUG-17

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)



28-AUG-17

Project Manager: **Nikki Green**

TRC Solutions, Inc

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **560839**

Trunk M

Project Address: Lean County NM

Nikki Green:

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) 560839. 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. 560839 will be filed for 45 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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Sample Cross Reference 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-2 7'	S	08-17-17 11:58		560839-001
BH-1 6'	S	08-17-17 12:00		560839-002
BH-4 9'	S	08-18-17 10:40		560839-003
WW-1 8'	S	08-18-17 09:00		560839-004
EW-2 6'	S	08-18-17 09:10		560839-005
Release Point-1 9'	S	08-21-17 09:15		560839-006
SW-1 8'	S	08-21-17 09:20		560839-007
NW-1 5'	S	08-21-17 13:00		560839-008
BH-3 9'	S	08-21-17 15:00		560839-009
EW-1 6'	S	08-21-17 15:10		560839-010



CASE NARRATIVE

Client Name: TRC Solutions, Inc

Project Name: Trunk M

Project ID: TRC# 274130
Work Order Number(s): 560839

Report Date: 28-AUG-17
Date Received: 08/22/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3025773 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-2 7'**
Lab Sample Id: 560839-001

Matrix: Soil
Date Collected: 08.17.17 11.58

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	237	4.87	mg/kg	08.25.17 19.51		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 12.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	18.2	15.0	mg/kg	08.23.17 12.02		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 12.02	U	1
Total TPH	PHC635	18.2	15	mg/kg	08.23.17 12.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	08.23.17 12.02	
o-Terphenyl	84-15-1	95	%	70-135	08.23.17 12.02	



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-2 7'**
Lab Sample Id: 560839-001

Matrix: Soil
Date Collected: 08.17.17 11.58

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.23.17 10.58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.23.17 10.58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.23.17 10.58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.23.17 10.58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.23.17 10.58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.23.17 10.58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.23.17 10.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.23.17 10.58		
4-Bromofluorobenzene	460-00-4	88	%	80-120	08.23.17 10.58		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-1 6'**
Lab Sample Id: 560839-002

Matrix: Soil
Date Collected: 08.17.17 12.00

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.4	4.91	mg/kg	08.25.17 20.22		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 13.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.23.17 13.04	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 13.04	U	1
Total TPH	PHC635	<15	15	mg/kg	08.23.17 13.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.23.17 13.04	
o-Terphenyl	84-15-1	93	%	70-135	08.23.17 13.04	



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-1 6'**
Lab Sample Id: 560839-002

Matrix: Soil
Date Collected: 08.17.17 12.00

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.23.17 11.17	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.23.17 11.17	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.23.17 11.17	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.23.17 11.17	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.23.17 11.17	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.23.17 11.17	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.23.17 11.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	80-120	08.23.17 11.17		
4-Bromofluorobenzene	460-00-4	88	%	80-120	08.23.17 11.17		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-4 9'**
Lab Sample Id: 560839-003

Matrix: Soil
Date Collected: 08.18.17 10.40

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.8	5.00	mg/kg	08.25.17 20.32		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 13.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.23.17 13.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 13.25	U	1
Total TPH	PHC635	<15	15	mg/kg	08.23.17 13.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	93	%	70-135	08.23.17 13.25		
o-Terphenyl	84-15-1	92	%	70-135	08.23.17 13.25		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-4 9'**
Lab Sample Id: 560839-003

Matrix: Soil
Date Collected: 08.18.17 10.40

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.23.17 11.36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.23.17 11.36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.23.17 11.36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.23.17 11.36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.23.17 11.36	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.23.17 11.36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.23.17 11.36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	80-120	08.23.17 11.36		
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.23.17 11.36		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **WW-1 8'**
Lab Sample Id: 560839-004

Matrix: Soil
Date Collected: 08.18.17 09.00

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.9	4.88	mg/kg	08.25.17 20.43		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.23.17 13.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.23.17 13.45	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.23.17 13.45	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.23.17 13.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-135	08.23.17 13.45		
o-Terphenyl	84-15-1	93	%	70-135	08.23.17 13.45		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **WW-1 8'**

Matrix: Soil

Date Received: 08.22.17 10.51

Lab Sample Id: 560839-004

Date Collected: 08.18.17 09.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.23.17 13.31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.23.17 13.31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.23.17 13.31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.23.17 13.31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.23.17 13.31	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	08.23.17 13.31	U	1
Total BTEX		<0.002	0.002	mg/kg	08.23.17 13.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	80-120	08.23.17 13.31		
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.23.17 13.31		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **EW-2 6'**
Lab Sample Id: 560839-005

Matrix: Soil
Date Collected: 08.18.17 09.10

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	261	4.99	mg/kg	08.25.17 20.53		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 14.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.23.17 14.06	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 14.06	U	1
Total TPH	PHC635	<15	15	mg/kg	08.23.17 14.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	08.23.17 14.06		
o-Terphenyl	84-15-1	104	%	70-135	08.23.17 14.06		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **EW-2 6'**
Lab Sample Id: 560839-005

Matrix: Soil
Date Collected: 08.18.17 09.10

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.23.17 13.50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.23.17 13.50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.23.17 13.50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.23.17 13.50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.23.17 13.50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.23.17 13.50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.23.17 13.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	80-120	08.23.17 13.50		
4-Bromofluorobenzene	460-00-4	91	%	80-120	08.23.17 13.50		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Release Point-1 9'** Matrix: Soil Date Received: 08.22.17 10.51
Lab Sample Id: 560839-006 Date Collected: 08.21.17 09.15
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MNV % Moisture:
Analyst: MGO Date Prep: 08.25.17 12.00 Basis: Wet Weight
Seq Number: 3026123

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	240	5.00	mg/kg	08.25.17 21.24		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 08.23.17 08.00 Basis: Wet Weight
Seq Number: 3025875

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.23.17 14.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	193	14.9	mg/kg	08.23.17 14.47		1
Oil Range Hydrocarbons (ORO)	PHCG2835	34.8	14.9	mg/kg	08.23.17 14.47		1
Total TPH	PHC635	227.8	14.9	mg/kg	08.23.17 14.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.23.17 14.47	
o-Terphenyl	84-15-1	95	%	70-135	08.23.17 14.47	



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **Release Point-1 9'**

Matrix: Soil

Date Received: 08.22.17 10.51

Lab Sample Id: 560839-006

Date Collected: 08.21.17 09.15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.23.17 14.09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.23.17 14.09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.23.17 14.09	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.23.17 14.09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.23.17 14.09	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	08.23.17 14.09	U	1
Total BTEX		<0.002	0.002	mg/kg	08.23.17 14.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	80-120	08.23.17 14.09		
1,4-Difluorobenzene	540-36-3	94	%	80-120	08.23.17 14.09		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SW-1 8'**
Lab Sample Id: 560839-007

Matrix: Soil
Date Collected: 08.21.17 09.20

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.5	4.97	mg/kg	08.25.17 21.34		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 15.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	18.6	15.0	mg/kg	08.23.17 15.07		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 15.07	U	1
Total TPH	PHC635	18.6	15	mg/kg	08.23.17 15.07		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	94	%	70-135	08.23.17 15.07		
o-Terphenyl	84-15-1	91	%	70-135	08.23.17 15.07		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **SW-1 8'**
Lab Sample Id: 560839-007

Matrix: Soil
Date Collected: 08.21.17 09.20

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.23.17 14.28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.23.17 14.28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.23.17 14.28	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.23.17 14.28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.23.17 14.28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.23.17 14.28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.23.17 14.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	80-120	08.23.17 14.28		
1,4-Difluorobenzene	540-36-3	97	%	80-120	08.23.17 14.28		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NW-1 5'**
Lab Sample Id: 560839-008

Matrix: Soil
Date Collected: 08.21.17 13.00

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300
Tech: MNV
Analyst: MGO
Seq Number: 3026123

Prep Method: E300P
% Moisture:
Basis: Wet Weight
Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	79.1	4.89	mg/kg	08.25.17 21.45		1

Analytical Method: TPH by SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3025875

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 16.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	486	15.0	mg/kg	08.23.17 16.48		1
Oil Range Hydrocarbons (ORO)	PHCG2835	158	15.0	mg/kg	08.23.17 16.48		1
Total TPH	PHC635	644	15	mg/kg	08.23.17 16.48		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-135	08.23.17 16.48		
o-Terphenyl	84-15-1	83	%	70-135	08.23.17 16.48		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **NW-1 5'**
Lab Sample Id: 560839-008

Matrix: Soil
Date Collected: 08.21.17 13.00

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.23.17 14.47	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.23.17 14.47	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.23.17 14.47	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.23.17 14.47	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.23.17 14.47	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.23.17 14.47	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.23.17 14.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	80-120	08.23.17 14.47		
1,4-Difluorobenzene	540-36-3	97	%	80-120	08.23.17 14.47		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-3 9'**
Lab Sample Id: 560839-009

Matrix: Soil
Date Collected: 08.21.17 15.00

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	361	4.99	mg/kg	08.25.17 21.55		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 15.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.23.17 15.48	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 15.48	U	1
Total TPH	PHC635	<15	15	mg/kg	08.23.17 15.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	95	%	70-135	08.23.17 15.48		
o-Terphenyl	84-15-1	94	%	70-135	08.23.17 15.48		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **BH-3 9'**
Lab Sample Id: 560839-009

Matrix: Soil
Date Collected: 08.21.17 15.00

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.23.17 15.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.23.17 15.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.23.17 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.23.17 15.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.23.17 15.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.23.17 15.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.23.17 15.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	80-120	08.23.17 15.06		
1,4-Difluorobenzene	540-36-3	95	%	80-120	08.23.17 15.06		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **EW-1 6'**
Lab Sample Id: 560839-010

Matrix: Soil
Date Collected: 08.21.17 15.10

Date Received: 08.22.17 10.51

Analytical Method: Chloride by EPA 300

Tech: MNV

Analyst: MGO

Seq Number: 3026123

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 08.25.17 12.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.8	4.96	mg/kg	08.25.17 22.05		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3025875

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Date Prep: 08.23.17 08.00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.23.17 16.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.23.17 16.08	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.23.17 16.08	U	1
Total TPH	PHC635	<15	15	mg/kg	08.23.17 16.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	107	%	70-135	08.23.17 16.08		
o-Terphenyl	84-15-1	104	%	70-135	08.23.17 16.08		



Certificate of Analytical Results 560839



TRC Solutions, Inc, Midland, TX

Trunk M

Sample Id: **EW-1 6'**
Lab Sample Id: 560839-010

Matrix: Soil
Date Collected: 08.21.17 15.10

Date Received: 08.22.17 10.51

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 08.23.17 08.15

Basis: Wet Weight

Seq Number: 3025773

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.23.17 15.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.23.17 15.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.23.17 15.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.23.17 15.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.23.17 15.25	U	1
Total Xylenes	1330-20-7	<0.002	0.002	mg/kg	08.23.17 15.25	U	1
Total BTEX		<0.002	0.002	mg/kg	08.23.17 15.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	80-120	08.23.17 15.25		
1,4-Difluorobenzene	540-36-3	96	%	80-120	08.23.17 15.25		

- 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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1211 W Florida Ave, Midland, TX 79701
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



QC Summary 560839

TRC Solutions, Inc Trunk M

Analytical Method: Chloride by EPA 300

Seq Number: 3026123

MB Sample Id: 729983-1-BLK

Matrix: Solid

LCS Sample Id: 729983-1-BKS

Prep Method: E300P

Date Prep: 08.25.17

LCSD Sample Id: 729983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	247	99	90-110	0	20	mg/kg	08.25.17 12:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3026123

Parent Sample Id: 560747-001

Matrix: Soil

MS Sample Id: 560747-001 S

Prep Method: E300P

Date Prep: 08.25.17

MSD Sample Id: 560747-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	22.7	247	254	94	254	94	90-110	0	20	mg/kg	08.25.17 22:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3026123

Parent Sample Id: 560839-001

Matrix: Soil

MS Sample Id: 560839-001 S

Prep Method: E300P

Date Prep: 08.25.17

MSD Sample Id: 560839-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	237	244	493	105	493	105	90-110	0	20	mg/kg	08.25.17 20:01	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3025875

MB Sample Id: 729881-1-BLK

Matrix: Solid

LCS Sample Id: 729881-1-BKS

Prep Method: TX1005P

Date Prep: 08.23.17

LCSD Sample Id: 729881-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	912	91	932	93	70-135	2	35	mg/kg	08.23.17 09:39	
Diesel Range Organics (DRO)	<15.0	1000	1140	114	1150	115	70-135	1	35	mg/kg	08.23.17 09:39	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		113		112		70-135	%	08.23.17 09:39
o-Terphenyl	99		108		107		70-135	%	08.23.17 09:39



QC Summary 560839

TRC Solutions, Inc Trunk M

Analytical Method: TPH by SW8015 Mod

Seq Number: 3025875

Parent Sample Id: 560839-001

Matrix: Soil

MS Sample Id: 560839-001 S

Prep Method: TX1005P

Date Prep: 08.23.17

MSD Sample Id: 560839-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	933	93	984	99	70-135	5	35	mg/kg	08.23.17 12:23	
Diesel Range Organics (DRO)	18.2	1000	1080	106	1140	112	70-135	5	35	mg/kg	08.23.17 12:23	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		128		70-135	%	08.23.17 12:23
o-Terphenyl	125		122		70-135	%	08.23.17 12:23

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025773

MB Sample Id: 729811-1-BLK

Matrix: Solid

LCS Sample Id: 729811-1-BKS

Prep Method: SW5030B

Date Prep: 08.23.17

LCSD Sample Id: 729811-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.121	121	0.121	121	70-130	0	35	mg/kg	08.23.17 07:48	
Toluene	<0.00199	0.0996	0.117	117	0.113	113	70-130	3	35	mg/kg	08.23.17 07:48	
Ethylbenzene	<0.00199	0.0996	0.116	116	0.112	112	71-129	4	35	mg/kg	08.23.17 07:48	
m,p-Xylenes	<0.00398	0.199	0.228	115	0.221	111	70-135	3	35	mg/kg	08.23.17 07:48	
o-Xylene	<0.00199	0.0996	0.109	109	0.106	106	71-133	3	35	mg/kg	08.23.17 07:48	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		89		108		80-120	%	08.23.17 07:48
4-Bromofluorobenzene	86		80		86		80-120	%	08.23.17 07:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3025773

Parent Sample Id: 560698-001

Matrix: Soil

MS Sample Id: 560698-001 S

Prep Method: SW5030B

Date Prep: 08.23.17

MSD Sample Id: 560698-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.116	116	0.0931	92	70-130	22	35	mg/kg	08.23.17 08:26	
Toluene	<0.00200	0.0998	0.111	111	0.0884	88	70-130	23	35	mg/kg	08.23.17 08:26	
Ethylbenzene	<0.00200	0.0998	0.106	106	0.0830	82	71-129	24	35	mg/kg	08.23.17 08:26	
m,p-Xylenes	<0.00399	0.200	0.210	105	0.163	81	70-135	25	35	mg/kg	08.23.17 08:26	
o-Xylene	<0.00200	0.0998	0.102	102	0.0796	79	71-133	25	35	mg/kg	08.23.17 08:26	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		80-120	%	08.23.17 08:26
4-Bromofluorobenzene	93		92		80-120	%	08.23.17 08:26

The Environmental Lab of Texas

Phone: 432-563-1800
Fax: 432-563-1713

Project Name: Trunk M

Project #: TRC #: 274130

Lea County, NM

PO #

Fax No.:

Report Format:

☒ Standard☐ TRRP☐ NPDES

e-mail:

rose.slade@energytransfer.com

ngreen@trcsolutions.com

(lab use only)

ORDER #: 2005

[illegible]

Special instructions:

Bill to Rose Slade at Energy Transfer.

Contract TAT ETC

Laboratory Comments:

VOCs Free of Headspace?

Labels on container(s)

U
H
Y

Temp: 5.0

CF:10-6-02

0.0

(6-23: +0)

Corrected T₁

91 no. 10

1

IR ID:R-8
5.1



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: TRC Solutions, Inc

Date/ Time Received: 08/22/2017 10:51:00 AM

Work Order #: 560839

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)?	5.1
#2 *Shipping container in good condition?	Yes
#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)?	N/A
#21 VOC samples have zero headspace?	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: 08/22/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks

Date: 08/23/2017

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

REVIEWED

By Kristen Lynch at 12:50 pm, Nov 08, 2016

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: ETC Field Services	Contact: Johnnie Bradford
Address: 600 N. Marienfeld Street, Ste. 700	Telephone No. (432) 250-5542 (cell) (817) 302-9812 (off)
Facility Name: Trunk M	Facility Type: Pipeline

Surface Owner:	Mineral Owner:	API No.
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LOCATION OF RELEASE

Unit Letter H	Section 12	Township 23S	Range 36E	Feet from the 555.64	North/South Line North	Feet from the 195.53	East/West Line East	County Lea
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Latitude 32.31741N Longitude 103.21097W

NATURE OF RELEASE

Type of Release: Gas/Oil/Condensate	Volume of Release: ~5.5 BBLs Liquid/24 Mscf Gas	Volume Recovered: 0
Source of Release: Leaking Pipeline	Date and Hour of Occurrence: 10/28/2016 12:52	Date and Hour of Discovery: 10/28/2016 18:00
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour: N/A	
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.

Describe Cause of Problem and Remedial Action Taken.*
Due to external corrosion, a section of 20" gathering system pipeline developed a hole causing a release of natural gas and oil. The pipeline was immediately isolated and the leaking section of pipe dug up to reveal the hole. The contaminated soil was stockpiled and sampled to determine disposal options. This section of steel pipeline will be replaced with a section of poly.

Describe Area Affected and Cleanup Action Taken.*
The area affected was approximately 15'x10'x6'. The contaminated soil was stockpiled and sampled for disposal options. Considering that additional contamination remained, the hole will be deepened to expose uncontaminated soil. At that time, additional samples will be taken to demonstrate remediation to NMOCD Recommended Remediation Action Levels (RRALs). All contaminated material will be disposed in a NMOCD approved landfill or land farm. Once remediation is confirmed, the hole will be backfilled with uncontaminated soil.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Johnnie Bradford	Approved by Environmental Specialist: 		
Title: Sr. Environmental Specialist	Approval Date: 11/8/2016	Expiration Date: 1/8/2017	
E-mail Address: johnnie.bradford@energytransfer.com	Conditions of Approval: See attached Directive		Attached ☐ 1RP 4500
Date: 11/02/2016	Phone: (432) 250-5542		

* Attach Additional Sheets If Necessary

NMOCD accepts discrete samples
Notify OCD prior to sampling

nKL1631344306
pKL1631345662

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 11/2/2016 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP 4500 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 1 office in Hobbs on or before 12/7/2016. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

jim.griswold@state.nm.us