



**REMEDIATION SUMMARY AND  
SITE CLOSURE REQUEST**

**ETC FIELD SERVICES, LLC  
A-14 Compressor Station Field Scrubber Release  
Lea County, New Mexico  
UNIT LTR "I", Section 6, Township 24 South, Range 35 East, NMPM  
Latitude 32° 14' 46.26" North, Longitude 103° 24' 7.2" West  
NMOCD Reference # 1RP-4634**

**APPROVED**

*By Olivia Yu at 2:08 pm, Dec 19, 2017*

Prepared For:

**ETC Field Services, LLC  
800 East Sonterra  
San Antonio, Texas 78258**

**NMOCD approves  
1RP-4634 for closure.**

Prepared By:

**TRC Environmental Corporation  
2057 Commerce  
Midland, Texas 79703**

**October 2017**

Nikki Green  
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## **INTRODUCTION**

TRC Environmental Corporation (TRC), on behalf of ETC Field Services, LLC (ETC), has prepared this Remediation Summary and Site Closure Request for the Release Site known as A-14 Compressor Station Field Scrubber. The legal description of the Release Site is Unit Letter "I", Section 6, Township 24 South, Range 35 East, in Lea County, New Mexico. The subject property is administered by the United States Bureau of Land Management (BLM). The GPS coordinates for the site are N 32° 14' 46.26" W 103° 24' 7.2". Please reference Figure 1 for the Site Location Map, and Figure 4 for the Site Details and Confirmation Soil Sample Location Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On February 23, 2017, ETC discovered a crude oil and produced water release had occurred from the field scrubber due to a tubing failure. The released fluid flowed from the release point to the south and west in an open pasture and impacted an area measuring approximately three thousand (3,000) square feet. The release was reported to the New Mexico Oil Conservation Division (NMOCD) on March 3, 2017. During initial response activities, ETC replaced the tubing associated with the field scrubber to mitigate the release. Less than five (5) barrels of fluid was released from the field scrubber, with no recovery. General photographs of the site are provided as Appendix B.

## **NMOCD SITE CLASSIFICATION**

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 6, Township 24 South, Range 35 East. A reference map utilized by the NMOCD Hobbs District Office, indicates groundwater should be encountered at approximately two hundred and twenty-five (225) feet below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the A-14 Compressor Station Field Scrubber Release Site 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.

The NMOCD guidelines indicate the A-14 Compressor Station Field Scrubber Release Site has a ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)
- Chloride – 600 mg/Kg (ppm)

## SUMMARY OF SOIL REMEDIATION ACTIVITIES

On March 6, 2017, a representative of ETC submitted the “Proposed Delineation Workplan” for NMOCD and BLM consideration. The “Proposed Delineation Workplan” summarized the delineation activities strategy designed to progress the Release Site toward an NMOCD approved closure status. ETC received written approval from the NMOCD to proceed with the activities outlined in the “Proposed Delineation Workplan”.

On March 21 and 22, 2017, due to safety concerns and the potential of striking underground piping and associated equipment within the vicinity of the A-14 Compressor Station, ETC utilized a hydro-vac prior to conducting any field sampling activities to identify the location of underground pipelines and other associated subsurface equipment.

On March 23, 2017, TRC, on behalf of ETC, utilized a hand auger to collect ten (10) delineation soil samples (FS-1 6” through FS-5 6” and FS-1 1’ through FS-5 1’) from the stained surface soil. 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 were less than the applicable laboratory Method Detection Limit (MDL), with the exception of soil samples FS-1 6”, FS-3 6”, and FS-3 1’, which exhibited BTEX concentrations of 0.00480 mg/Kg, 0.2959 mg/Kg, and 0.2374 mg/Kg, respectively. The collected soil samples exhibited benzene and BTEX concentrations below NMOCD regulatory guidelines. The laboratory results indicated TPH concentrations ranged from 574.0 mg/Kg for soil sample FS-1 1’ to 27,290 mg/Kg for soil sample FS-3 1’. A review of laboratory analytical results indicated soil samples FS-2 6”, FS-3 6”, FS-3 1’, and FS-5 1’ exhibited TPH concentrations above NMOCD regulatory guidelines. Chloride concentrations ranged from less than the applicable laboratory MDL for soil samples FS-4 6” and FS-4 1’ to 7,910 mg/Kg for soil sample FS-1 6”. A review of laboratory analytical results indicated soil samples FS-1 6” through FS-3 6” and FS-1 1’ through FS-3 1’ exhibited chloride concentrations above NMOCD regulatory guidelines. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chloride in Soil. Analytical reports are provided as Appendix A. Please refer to Figure 3 for the Site Details and Soil Sample Locations Map for soil sample locations.

In addition to the soil samples described above, seven (7) soil samples (WFS-1 1’, EFS-1 1’, SFS-1 1’, NFS-2 1’, SFS-2 1’, SFS-3 1’, and NFS-3 1’) were collected utilizing a hand auger approximately five (5) feet from the outer perimeter of the stained surface soil and submitted for BTEX, TPH, and chloride analysis. The analytical results indicated benzene and BTEX concentrations were less than the applicable laboratory MDL and NMOCD regulatory guidelines. TPH concentrations ranged from 16.7 mg/Kg for soil sample EFS-1 1’ to 1,283 mg/Kg for soil sample NFS-3 1’. A review of laboratory results indicated TPH concentrations were below NMOCD regulatory guidelines for the submitted soil samples. Chloride concentrations ranged from less than the applicable laboratory MDL for soil samples SFS-1 1’ and NFS-3 1’ to 108 mg/Kg for soil sample SFS-3 1’. A review of laboratory analytical results indicated chloride concentrations were below NMOCD regulatory guidelines for the submitted samples.

In addition, one background sample (BG-1 1’) was collected, utilizing a hand auger, approximately fifty (50) feet north of the A-14 Compressor Station and submitted to the laboratory for TPH, BTEX, and chloride analysis. A review of laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than laboratory applicable MDL. Please refer

to Figure 2 for the Site Details and Soil Sample Location Map for the background soil sample location.

On April 17, 2017, TRC conducted additional vertical delineation activities utilizing a hand auger. During the sampling event, hand auger refusal was encountered at a depth ranging from approximately one (1) foot to sixteen (16) inches bgs. Three (3) soil samples (FS-3 16", FS-5a 1', and FS-5a 16") were collected from the stained surface soil and submitted to the laboratory for BTEX and TPH analysis. The analytical results indicated benzene concentrations were below the applicable laboratory MDL and NMOCD regulatory guidelines. BTEX concentrations ranged from 0.00389 mg/Kg for soil sample FS-5a 1' to 0.02233 mg/Kg for soil sample FS-3 16". A review of laboratory analytical results indicated BTEX concentrations were below NMOCD regulatory guidelines. TPH concentrations ranged from 1,690.8 mg/Kg for soil sample FS-3 16" to 3,550 mg/Kg for soil sample FS-5a 1'. A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines for the collected samples. In addition, soil samples FS-5a 1' and FS-5a 16" were submitted for chloride analysis. A review of laboratory analytical results indicated chloride concentrations were less than the applicable laboratory MDL for the submitted soil samples and below NMOCD regulatory guidelines.

On May 10, 2017, TRC conducted additional vertical delineation activities at the Release Site. Utilizing a backhoe, three (3) vertical trenches were advanced to approximately four (4) feet bgs. Three (3) soil samples (FS-1a 4', FS-2a 4', and FS-3a 4') were collected and submitted to the laboratory 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 below NMOCD regulatory guidelines. TPH concentrations ranged from 15.0 mg/Kg for soil sample FS-3a 4' to 23.6 mg/Kg for soil sample FS-1a 4'. A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines. Chloride concentrations ranged from 22.8 mg/Kg for soil sample FS-3a 4' to 478 mg/Kg for soil sample FS-1a 4'. A review of laboratory analytical results indicate TPH concentrations were below NMOCD regulatory guidelines.

In addition, the three (3) vertical trenches were advanced to nine (9) feet bgs to confirm chloride concentrations remained below NMOCD regulatory guidelines. Three (3) soil samples (FS-1a 9', FS-2a 9', and FS-3a 9') were collected and submitted to the laboratory for chloride analysis. A review of laboratory analytical results indicated chloride concentrations ranged from 27.0 mg/Kg for soil sample FS-2a 9' to 162 mg/Kg for soil sample FS-1a 9' indicating chloride concentrations remained below NMOCD regulatory guidelines an additional five (5) feet below soil samples FS-1a 4', FS-2a 4', and FS-3a 4'.

A Kinder Morgan high pressure (1,000 psi) natural gas pipeline, heading in a northwest to southeast direction, bisects the area represented by soil samples FS-4 and FS-5. Due to safety concerns, heavy equipment (i.e. backhoe) was not permitted to break ground within a thirty-five (35) foot radius of the pipeline. For this reason, vertical trenches were not advanced in the areas represented by soil samples FS-4 and FS-5.

On June 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 June 9, 2017, ETC received written (email) NMOCD approval to proceed with the activities outlined in the Workplan.

On June 13, 2017, TRC commenced excavation activities utilizing a backhoe from the release point heading west. Chloride field screening was utilized to guide the excavation activities. In the areas represented by soil samples by soil samples FS-4 and FS-5 were conducting utilizing a hydro-vac due to the close proximity of the High Pressure Kinder Morgan natural gas line. Excavated soil was stockpiled to the north of the excavation within the A-14 Compressor Station, pending final disposition of the soil.

On June 13, 14, and 15, 2017, twelve (12) soil samples (BH-1 4', SW-1 3', NW-1 3', BH-4 1', EW-1 3', BH-2 3', SW-2 2', NW-2 2', BH-5 1', BH-3 2', NW-3 1', and SW-3 1') 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 BTEX using SW 846-8021B, TPH using EPA Method SW 846-8015M and chloride using EPA Method E 300.0. The laboratory analytical results indicated benzene and BTEX concentrations were less than the laboratory applicable MDL for all collected soil samples, with the exception of soil sample BH-4 1', which exhibited a BTEX concentration of 0.00511 mg/Kg. The analytical results indicated TPH concentrations were less than the laboratory MDL of 15 mg/Kg for all collected soil samples, with the exception of soil samples BH-4 1', BH-5 1', BH-3 2', and NW-3 1', which exhibited TPH concentrations of 315 mg/Kg, 26.3 mg/Kg, 37.3 mg/Kg, and 81.4 mg/Kg, respectively. In addition, analytical results indicated chloride concentrations ranged from 11.7 mg/Kg for soil sample BH-5 1' to 336 mg/Kg for soil sample EW-1 3'. 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 Chloride in Soil. Analytical reports are provided as Appendix A. Please refer to Figure 4 Site Details and Confirmation Soil Sample Location Map for soil sample locations.

On July 11, 2017, one (1) soil sample (KM-1 3") was collected from the surface of the impacted area in the vicinity of the Kinder Morgan High Pressure Natural Gas Steel Line. The soil sample was submitted to the laboratory for BTEX, TPH, and chloride analysis. A review of laboratory analytical results indicated benzene and TPH concentrations were less than the applicable laboratory MDL and NMOCD regulatory guidelines. A review of laboratory analytical results indicated TPH concentrations were 6,690 mg/Kg and above NMOCD regulatory guidelines. A review of laboratory analytical results indicated the chloride concentration was 10.9 mg/Kg and below NMOCD regulatory guidelines.

On July 27, 2017, ETC submitted the Remediation Summary and Permission to Backfill Request for NMOCD and BLM approval. On August 7, 2017, ETC and TRC representatives met with a NMOCD representative to discuss remediation activities at the Release Site and received approval to backfill the excavated area, with the exception of the area in the vicinity of the Kinder Morgan High Pressure Natural Gas Pipeline, which required additional excavation activities.

On August 22, 2017, TRC commenced hand digging activities conducted in the vicinity of the Kinder Morgan High Pressure Natural Gas Steel Pipeline. The excavated area measured approximately twenty (20) feet in length, approximately ten (10) feet in width, and approximately six (6) inches in depth. One (1) confirmation soil sample (KM-1 @ 6") was collected from the excavated area and submitted to the laboratory for TPH analysis. A review of laboratory analytical

results indicated TPH concentrations were 3,319 mg/Kg and below NMOCD regulatory guidelines.

On September 6, 2017, ETC requested NMOCD and BLM approval to backfill the area in the vicinity of the Kinder Morgan High Pressure Natural Gas Pipeline with non-impacted, locally obtained “like” soil.

On September 8, 2017, BLM approved the “Remediation Summary and Permission to Backfill Request” and the backfill of the excavated area in the vicinity of the Kinder Morgan Pipeline.

On September 20 through 22, 2017, TRC began transporting the excavated soil to Sundance Services, Inc. in Eunice, New Mexico. Approximately two hundred and eighty (280) cubic yards of excavated soil was transported to the NMOCD approved facility. The Sundance Disposal Manifests are provided as Appendix C.

On September 27, 2017, NMOCD approved the backfill of the excavated area in the vicinity of the Kinder Morgan Pipeline.

On October 4, 2017, TRC commenced backfill activities at the Release Site. The excavation was backfilled with locally obtained topsoil and the impacted area was contoured to fit the surrounding topography. The backfilled area will be reseeded with vegetation approved by the BLM at a later date.

## **SITE CLOSURE REQUEST**

ETC requests NMOCD grant Site Closure Status to the A-14 Compressor Station Field Scrubber (IRP-4634) incident.

## **LIMITATIONS**

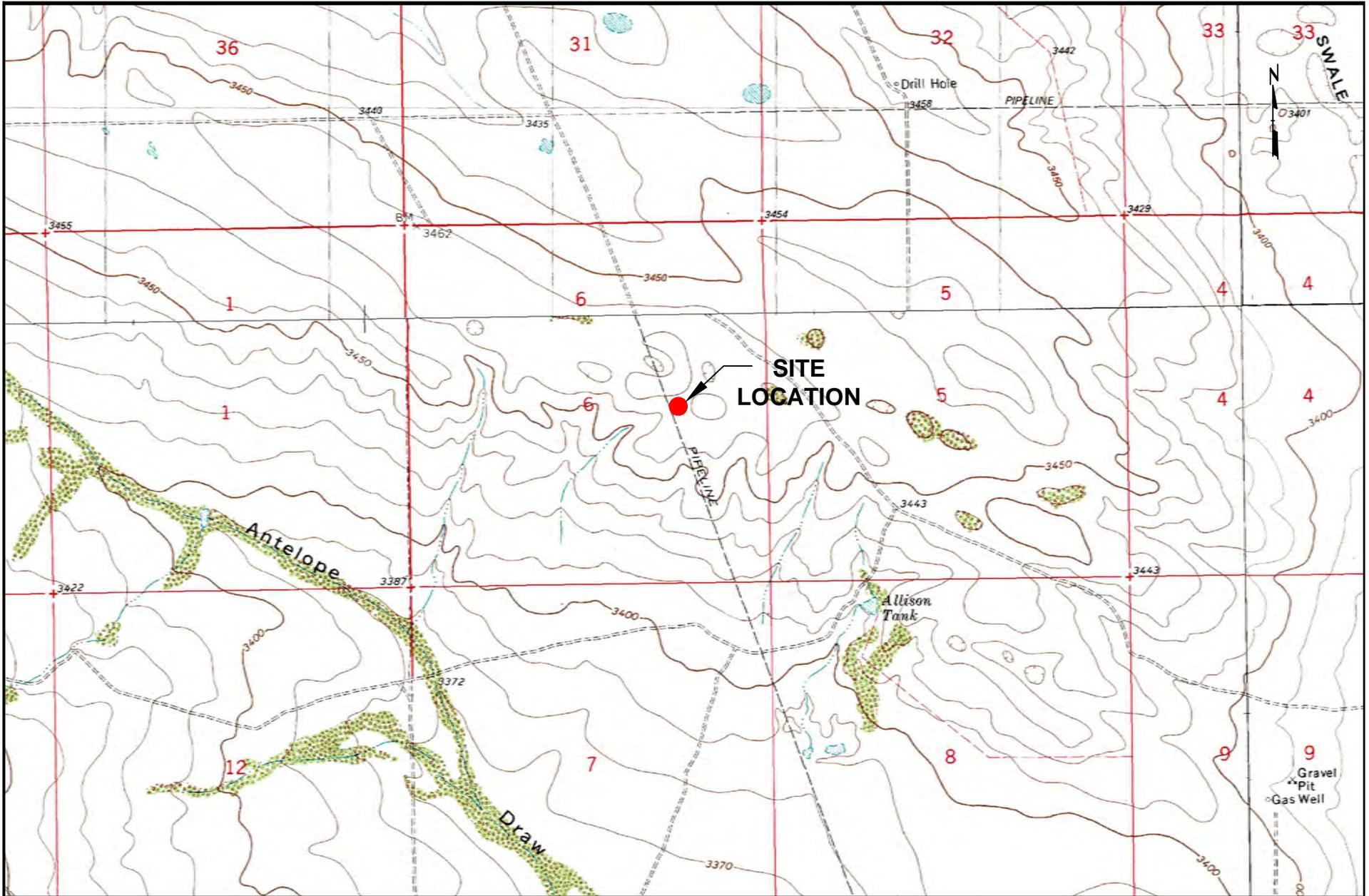
TRC has prepared this Remediation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

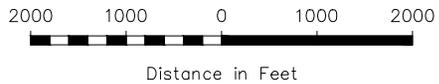
This report has been prepared for the benefit of ETC Field Services, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or ETC Field Services, LLC.

## **DISTRIBUTION**

- Copy 1: Olivia Yu  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division (District 1)  
1625 French Drive  
Hobbs, New Mexico 88240
- Copy 2: Yolanda Jordan Jimenez  
Carlsbad Field Office  
United States Department of the Interior  
Bureau of Land Management  
620 E. Greene Street  
Carlsbad, New Mexico 88220
- Copy 3: Rose Slade  
ETC Field Services, LLC  
800 East Sonterra  
San Antonio, Texas 78258
- Copy 4: TRC Environmental Corporation  
2057 Commerce Street  
Midland, Texas 79703



LEGEND:



Distance in Feet

Figure 1  
 Site Location Map  
 ETC Field Services, LLC  
 A-14 Compressor Station  
 Field Scrubber  
 Lea County, NM

Scale: 1" = 2000'

CAD By: TA

Checked By: CS

Draft: March 3, 2017

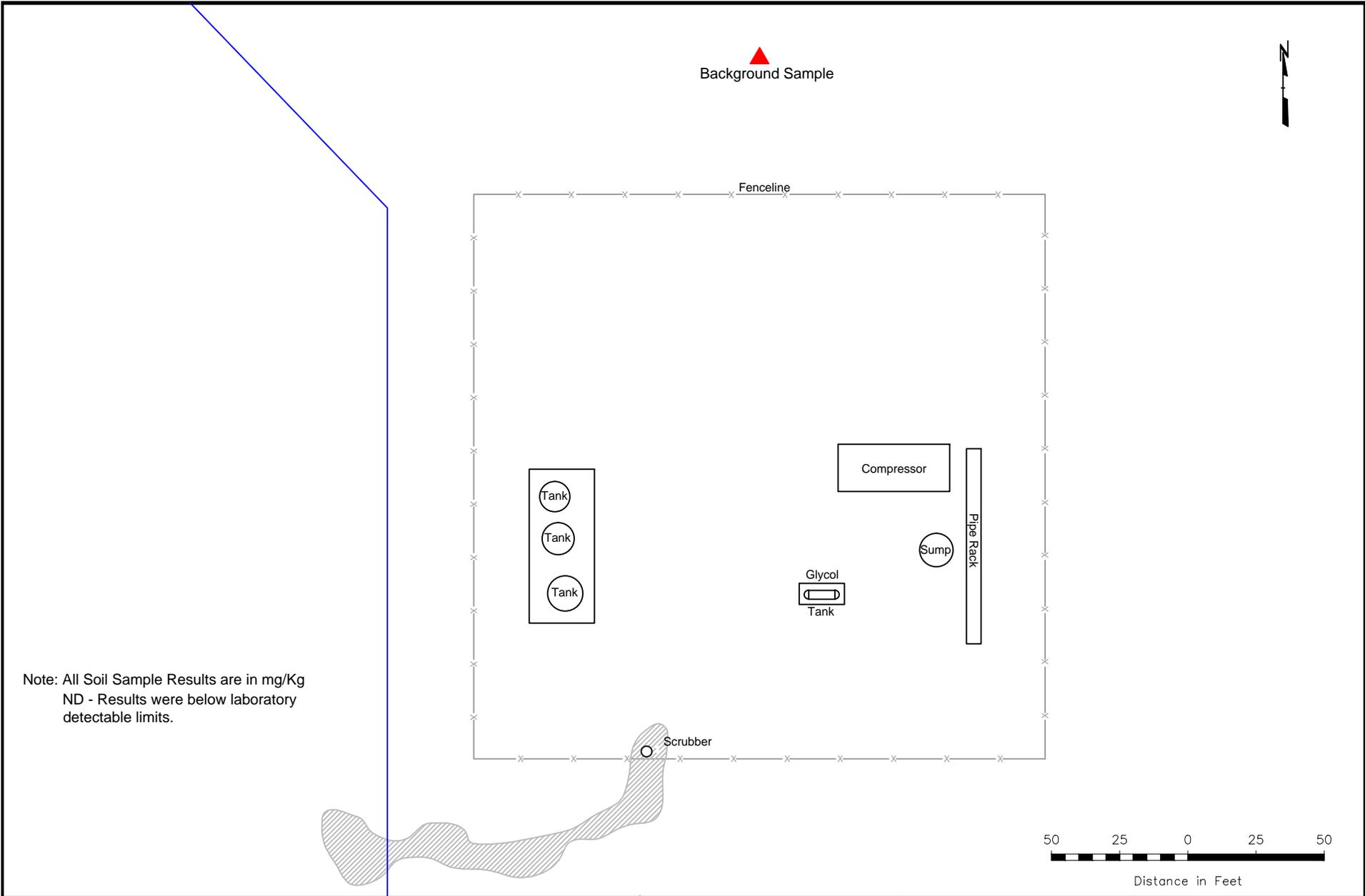
Lat. N 32° 14' 46.26" , Long. W 103° 24' 7.2"

SE1/4 NE1/4 Sec 6 T24S R35E

TRC Proj. No.: 273817



2057 Commerce Drive  
 Midland, Texas 79703  
 432.520.7720



Note: All Soil Sample Results are in mg/Kg  
 ND - Results were below laboratory detectable limits.

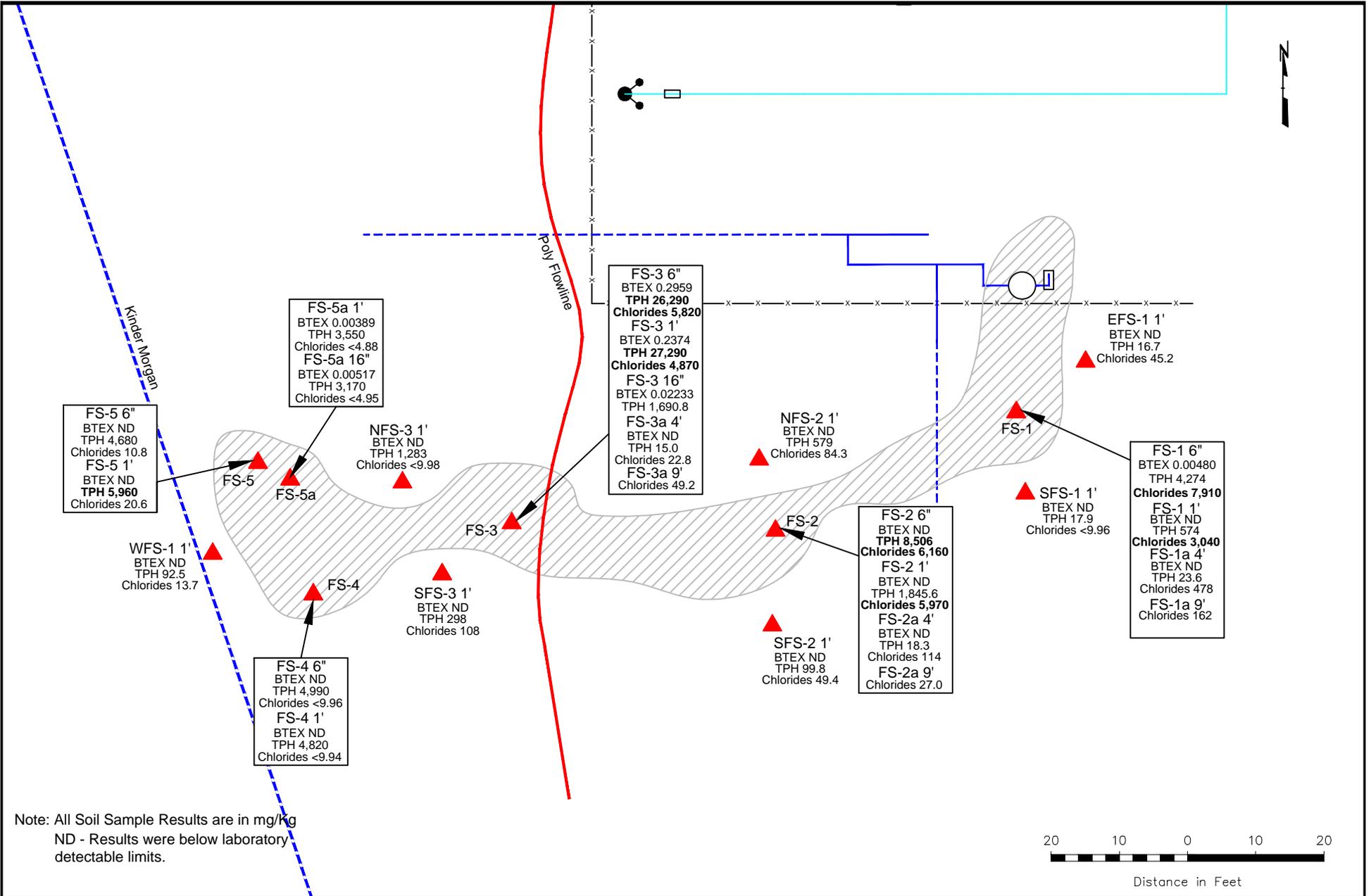
**LEGEND:**

- x— Fence Line
- ▲ Soil Sample Location
- Pipeline

**Figure 2**  
 Site Detail and  
 Soil Sample Location Map  
 ETC Field Services, LLC  
 A-14 Compressor Station  
 Field Scrubber Release  
 Lea County, NM

Scale: 1" = 50'	
CAD By: TA	Checked By: NG
Draft: March 4, 2017	
Lat. N 32° 14' 46.26", Long. W 103° 24' 7.2"	
SE1/4 NE1/4 Sec 6 T24S R35E	
TRC Proj. No.: 273817	

**TRC**  
 2057 Commerce Drive  
 Midland, Texas 79703  
 432.520.7720



**LEGEND:**

	Pipeline		Sidewall Soil Sample Location
	Electric		Floor Soil Sample Location
	Light Pole		
	Fence		
	Flowline		

**Figure 3**  
 Site Detail and  
 Soil Sample Locations  
 ETC Field Services, LLC  
 A-14 Compressor Station  
 Field Scrubber Release  
 Lea County, NM

Scale: 1" = 20'	
CAD By: TA	Checked By: NG
Draft: April 4, 2017	
Lat. N 32° 14' 46.26" , Long. W 103° 24' 7.2"	
SE1/4 NE1/4 Sec 6 T24S R35E	
TRC Proj. No.: 273817	

2057 Commerce Drive  
 Midland, Texas 79703  
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TABLE 1

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

ETC FIELD SERVICES, LLC  
A-14 COMPRESSOR STATION FIELD SCRUBBER  
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 <sub>6</sub> -C <sub>10</sub>	TPH DRO C <sub>10</sub> -C <sub>28</sub>	TPH ORO C <sub>28</sub> -C <sub>35</sub>	TOTAL TPH C <sub>6</sub> -C <sub>35</sub>	CHLORIDE	
<b>NMOCDC Site Classification Criteria</b>			<b>10</b>						<b>50</b>				<b>5,000</b>	<b>600</b>
FS-1 6"	03/23/17	Trench	<0.00149	<0.00198	<0.00198	0.00480	<0.00297	0.00480	770	3,260	244	4,274	<b>7,910</b>	
FS-1 1'	03/23/17	Trench	<0.00151	<0.00201	<0.00201	<0.00201	<0.00301	<0.00301	20.8	508	45.2	574.0	<b>3,040</b>	
FS-2 6"	03/23/17	Trench	<0.00149	<0.00199	<0.00199	<0.00199	<0.00298	<0.00298	730	7,120	656	<b>8,506</b>	<b>6,160</b>	
FS-2 1'	03/23/17	Trench	<0.00147	<0.00196	<0.00196	<0.00196	<0.00295	<0.00295	96.6	1,570	179	1,845.6	<b>5,970</b>	
FS-3 6"	03/23/17	Trench	<0.00147	<0.00196	0.0209	0.146	0.129	0.2959	2,370	21,300	2,620	<b>26,290</b>	<b>5,820</b>	
FS-3 1'	03/23/17	Trench	<0.00150	<0.00200	0.0144	0.119	0.104	0.2374	1,880	22,700	2,710	<b>27,290</b>	<b>4,870</b>	
FS-4 6"	03/23/17	Trench	<0.00270	<0.00360	<0.00360	<0.00360	<0.00540	<0.00540	<15.0	1,730	3,260	4,990	<9.96	
FS-4 1'	03/23/17	Trench	<0.00275	<0.00366	<0.00366	<0.00366	<0.00549	<0.00549	<15.0	1,640	3,180	4,820	<9.94	
FS-5 6"	03/23/17	Trench	<0.00149	<0.00199	<0.00199	<0.00199	<0.00298	<0.00298	<15.0	1,590	3,090	4,680	10.8	
FS-5 1'	03/23/17	Trench	<0.00148	<0.00197	<0.00197	<0.00197	<0.00296	<0.00296	<15.0	2,060	3,900	<b>5,960</b>	20.6	
WFS-1 1'	03/23/17	Trench	<0.00267	<0.00356	<0.00356	<0.00356	<0.00534	<0.00534	<14.9	51.4	41.1	92.5	13.7	
EFS-1 1'	03/23/17	Trench	<0.00254	<0.00339	<0.00339	<0.00339	<0.00508	<0.00508	<15.0	16.7	<15.0	16.7	45.2	
SFS-1 1'	03/23/17	Trench	<0.00262	<0.00350	<0.00350	<0.00350	<0.00524	<0.00524	<15.0	17.9	<15.0	17.9	<9.96	
NFS-2 1'	03/23/17	Trench	<0.00148	<0.00198	<0.00198	<0.00198	<0.00296	<0.00296	<15.0	448	131	579	84.3	
SFS-2 1'	03/23/17	Trench	<0.00149	<0.00199	<0.00199	<0.00199	<0.00299	<0.00299	<15.0	99.8	<15.0	99.8	49.4	
SFS-3 1'	03/23/17	Trench	<0.00151	<0.00201	<0.00201	<0.00201	<0.00301	<0.00301	<15.0	180	118	298	108	
NFS-3 1'	03/23/17	Trench	<0.00152	<0.00202	<0.00202	<0.00202	<0.00303	<0.00303	<15.0	513	770	1,283	<9.98	
FS-3 16"	04/17/17	Trench	<0.00149	0.00479	0.00728	0.00625	0.00401	0.02233	117	1,480	93.8	1,690.8	-	
FS-5a 1'	04/17/17	Trench	<0.00151	<0.00201	<0.00201	0.00389	<0.00301	0.00389	<15.0	1,240	2,310	3,550	<4.88	
FS-5a 16"	04/17/17	Trench	<0.00152	<0.00152	<0.00202	<0.00202	0.00517	0.00517	<15.0	1,110	2,060	3,170	<4.95	
FS-1a 4'	05/10/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	23.6	<15.0	23.6	478	
FS-1a 9'	05/10/17	Trench	-	-	-	-	-	-	-	-	-	-	162	
FS-2a 4'	05/10/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	18.3	<15.0	18.3	114	
FS-2a 9'	05/10/17	Trench	-	-	-	-	-	-	-	-	-	-	27.0	
FS-3a 4'	05/10/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<14.9	15.0	<14.9	15.0	22.8	
FS-3a 9'	05/10/17	Trench	-	-	-	-	-	-	-	-	-	-	49.2	

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

ETC FIELD SERVICES, LLC  
A-14 COMPRESSOR STATION FIELD SCRUBBER  
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 <sub>6</sub> -C <sub>10</sub>	TPH DRO C <sub>10</sub> -C <sub>28</sub>	TPH ORO C <sub>28</sub> -C <sub>35</sub>	TOTAL TPH C <sub>6</sub> -C <sub>35</sub>	CHLORIDE
<b>NMOCD Site Classification Criteria</b>			<b>10</b>					<b>50</b>				<b>5,000</b>	<b>600</b>
BH-1 4'	06/13/17	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	21.5
SW-1 3'	06/13/17	In-Situ	<0.00205	<0.00205	<0.00205	<0.00410	<0.00205	<0.00410	<15.0	<15.0	<15.0	<15.0	176
NW-1 3'	06/13/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	38.9
BH-4 1'	06/14/17	In-Situ	<0.00200	<0.00200	<0.00200	0.00511	<0.00200	0.00511	<15.0	128	187	315	13.9
EW-1 3'	06/13/17	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	336
BH-2 3'	06/14/17	In-Situ	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	166
SW-2 2'	06/14/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	55.1
NW-2 2'	06/14/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	186
BH-5 1'	06/14/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<15.0	26.3	<15.0	26.3	11.7
BH-3 2'	06/15/17	In-Situ	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	37.3	<15.0	37.3	61
NW-3 1'	06/15/17	In-Situ	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	65.7	15.7	81.4	114
SW-3 1'	06/15/17	In-Situ	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	20.6
KM-1 3"	07/11/17	Excavated	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	1,250	5,440	<b>6,690</b>	10.9
KM-1a 6"	08/22/17	In-Situ	-	-	-	-	-	-	<15.0	719	2,600	3,319	-
BG-1 1'	03/23/17	In-Situ	<0.00151	<0.00201	<0.00201	<0.00201	<0.00301	<0.00301	<15.0	<15.0	<15.0	<15.0	<9.96

# Analytical Report 549417

for  
TRC Solutions, Inc

Project Manager: Nikki Green  
A14 Compressor Station Field Scrubber

TRC #273817

04-APR-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)



04-APR-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **549417**  
**A14 Compressor Station Field Scrubber**  
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) 549417. 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. 549417 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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*Certified and approved by numerous States and Agencies.*

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## TRC Solutions, Inc, Midland, TX

### A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS-1 6"	S	03-23-17 13:25	- 6 In	549417-001
FS-1 1'	S	03-23-17 13:31	- 1 ft	549417-002
FS-2 6"	S	03-23-17 13:35	- 6 In	549417-003
FS-2 1'	S	03-23-17 13:42	- 1 ft	549417-004
FS-3 6"	S	03-23-17 13:47	- 6 In	549417-005
FS-3 1'	S	03-23-17 13:54	- 1 ft	549417-006
FS-4 6"	S	03-23-17 14:07	- 6 In	549417-007
FS-4 1'	S	03-23-17 14:20	- 1 ft	549417-008
FS-5 6"	S	03-23-17 14:28	- 6 In	549417-009
FS-5 1'	S	03-23-17 14:38	- 1 ft	549417-010
WFS-1 1'	S	03-23-17 14:48	- 1 ft	549417-011
EFS-1 1'	S	03-23-17 14:58	- 1 ft	549417-012
SFS-1 1'	S	03-23-17 15:09	- 1 ft	549417-013
NFS-2 1'	S	03-23-17 15:23	- 1 ft	549417-014
SFS-2 1'	S	03-23-17 15:37	- 1 ft	549417-015
SFS-3 1'	S	03-23-17 15:30	- 1 ft	549417-016
NFS-3 1'	S	03-23-17 16:10	- 1 ft	549417-017



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station Field Scrubber*

Project ID: TRC #273817  
Work Order Number(s): 549417

Report Date: 04-APR-17  
Date Received: 03/24/2017

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

#### **Analytical non conformances and comments:**

Batch: LBA-3013589 BTEX by EPA 8021B

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

Batch: LBA-3013602 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX



Project Name: A14 Compressor Station Field Scrubber

Project Id: TRC #273817  
 Contact: Nikki Green  
 Project Location: Lea County, NM

Date Received in Lab: Fri Mar-24-17 02:55 pm  
 Report Date: 04-APR-17  
 Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	549417-001	549417-002	549417-003	549417-004	549417-005	549417-006
	<i>Field Id:</i>	FS-1 6"	FS-1 1'	FS-2 6"	FS-2 1'	FS-3 6"	FS-3 1'
	<i>Depth:</i>	6 In	1 ft	6 In	1 ft	6 In	1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-23-17 13:25	Mar-23-17 13:31	Mar-23-17 13:35	Mar-23-17 13:42	Mar-23-17 13:47	Mar-23-17 13:54
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-28-17 15:30					
	<i>Analyzed:</i>	Mar-28-17 18:38	Mar-28-17 18:54	Mar-28-17 19:10	Mar-28-17 19:26	Mar-28-17 19:42	Mar-28-17 19:59
	<i>Units/RL:</i>	mg/kg RL					
Benzene		ND 0.00149	ND 0.00151	ND 0.00149	ND 0.00147	ND 0.00147	ND 0.00150
Toluene		ND 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	ND 0.00196	ND 0.00200
Ethylbenzene		ND 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	0.0209 0.00196	0.0144 0.00200
m_p-Xylenes		0.00480 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	0.146 0.00196	0.119 0.00200
o-Xylene		ND 0.00297	ND 0.00301	ND 0.00298	ND 0.00295	0.129 0.00294	0.104 0.00299
Total Xylenes		0.00480 0.00198	ND 0.00201	ND 0.00199	ND 0.00196	0.275 0.00196	0.223 0.00200
Total BTEX		0.00480 0.00149	ND 0.00151	ND 0.00149	ND 0.00147	0.296 0.00147	0.237 0.00150
<b>Chloride by EPA 300 SUB: TX104704215</b>	<i>Extracted:</i>	Apr-01-17 13:54					
	<i>Analyzed:</i>	Apr-02-17 05:39	Apr-02-17 05:48	Apr-02-17 05:57	Apr-02-17 06:07	Apr-02-17 06:16	Apr-02-17 06:25
	<i>Units/RL:</i>	mg/kg RL					
Chloride		7910 D 99.8	3040 D 96.3	6160 D 98.8	5970 D 99.6	5820 D 99.6	4870 D 99.8
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-24-17 17:00					
	<i>Analyzed:</i>	Mar-25-17 17:39	Mar-25-17 18:00	Mar-25-17 18:20	Mar-27-17 06:24	Mar-25-17 19:01	Mar-25-17 19:23
	<i>Units/RL:</i>	mg/kg RL					
C6-C10 Gasoline Range Hydrocarbons		770 74.8	20.8 15.0	730 74.9	96.6 15.0	2370 74.9	1880 74.9
C10-C28 Diesel Range Organics		3260 74.8	508 15.0	7120 74.9	1570 15.0	21300 74.9	22700 74.9
C28-C35 Oil Range Hydrocarbons		244 74.8	45.2 15.0	656 74.9	179 15.0	2620 74.9	2710 74.9
Total TPH		4270 74.8	574 15.0	8510 74.9	1850 15.0	26300 74.9	27300 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.

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



**Project Id:** TRC #273817  
**Contact:** Nikki Green  
**Project Location:** Lea County, NM

**Date Received in Lab:** Fri Mar-24-17 02:55 pm  
**Report Date:** 04-APR-17  
**Project Manager:** Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	549417-007	549417-008	549417-009	549417-010	549417-011	549417-012
	<i>Field Id:</i>	FS-4 6"	FS-4 1'	FS-5 6"	FS-5 1'	WFS-1 1'	EFS-1 1'
	<i>Depth:</i>	6 In	1 ft	6 In	1 ft	1 ft	1 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-23-17 14:07	Mar-23-17 14:20	Mar-23-17 14:28	Mar-23-17 14:38	Mar-23-17 14:48	Mar-23-17 14:58
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-28-17 16:50	Mar-28-17 16:50	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 16:50	Mar-28-17 16:50
	<i>Analyzed:</i>	Mar-29-17 12:30	Mar-29-17 11:08	Mar-28-17 21:20	Mar-28-17 21:37	Mar-29-17 11:24	Mar-29-17 11:41
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	ND 0.00270	ND 0.00275	ND 0.00149	ND 0.00148	ND 0.00267	ND 0.00254
Toluene	ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339	
Ethylbenzene	ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339	
m_p-Xylenes	ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339	
o-Xylene	ND 0.00540	ND 0.00549	ND 0.00298	ND 0.00296	ND 0.00534	ND 0.00508	
Total Xylenes	ND 0.00360	ND 0.00366	ND 0.00199	ND 0.00197	ND 0.00356	ND 0.00339	
Total BTEX	ND 0.00270	ND 0.00275	ND 0.00149	ND 0.00148	ND 0.00267	ND 0.00254	
<b>Chloride by EPA 300 SUB: TX104704215</b>	<i>Extracted:</i>	Apr-01-17 15:46					
	<i>Analyzed:</i>	Apr-02-17 16:20	Apr-02-17 16:48	Apr-02-17 16:57	Apr-02-17 17:07	Apr-02-17 17:16	Apr-02-17 17:44
	<i>Units/RL:</i>	mg/kg RL					
	Chloride	ND 9.96	ND 9.94	10.8 9.92	20.6 9.88	13.7 9.98	45.2 9.77
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-24-17 17:00					
	<i>Analyzed:</i>	Mar-25-17 19:44	Mar-25-17 20:03	Mar-25-17 20:25	Mar-25-17 20:46	Mar-25-17 21:48	Mar-25-17 22:11
	<i>Units/RL:</i>	mg/kg RL					
	C6-C10 Gasoline Range Hydrocarbons	ND 15.0	ND 15.0	ND 15.0	ND 15.0	ND 14.9	ND 15.0
C10-C28 Diesel Range Organics	1730 15.0	1640 15.0	1590 15.0	2060 15.0	51.4 14.9	16.7 15.0	
C28-C35 Oil Range Hydrocarbons	3260 15.0	3180 15.0	3090 15.0	3900 15.0	41.1 14.9	ND 15.0	
Total TPH	4990 15.0	4820 15.0	4680 15.0	5960 15.0	92.5 14.9	16.7 15.0	

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Kelsey Brooks  
Project Manager



# Certificate of Analysis Summary 549417

TRC Solutions, Inc, Midland, TX



Project Name: A14 Compressor Station Field Scrubber

Project Id: TRC #273817  
 Contact: Nikki Green  
 Project Location: Lea County, NM

Date Received in Lab: Fri Mar-24-17 02:55 pm  
 Report Date: 04-APR-17  
 Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	549417-013	549417-014	549417-015	549417-016	549417-017	
	<i>Field Id:</i>	SFS-1 1'	NFS-2 1'	SFS-2 1'	SFS-3 1'	NFS-3 1'	
	<i>Depth:</i>	1 ft					
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Mar-23-17 15:09	Mar-23-17 15:23	Mar-23-17 15:37	Mar-23-17 15:30	Mar-23-17 16:10	
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-28-17 16:50	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	Mar-28-17 15:30	
	<i>Analyzed:</i>	Mar-29-17 11:57	Mar-28-17 22:42	Mar-28-17 22:59	Mar-28-17 23:15	Mar-28-17 23:31	
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	ND 0.00262	ND 0.00148	ND 0.00149	ND 0.00151	ND 0.00152	
	Toluene	ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
	Ethylbenzene	ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
	m_p-Xylenes	ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202	
	o-Xylene	ND 0.00524	ND 0.00296	ND 0.00299	ND 0.00301	ND 0.00303	
Total Xylenes	ND 0.00350	ND 0.00198	ND 0.00199	ND 0.00201	ND 0.00202		
Total BTEX	ND 0.00262	ND 0.00148	ND 0.00149	ND 0.00151	ND 0.00152		
<b>Chloride by EPA 300 SUB: TX104704215</b>	<i>Extracted:</i>	Apr-01-17 15:46					
	<i>Analyzed:</i>	Apr-02-17 17:53	Apr-02-17 18:03	Apr-02-17 18:12	Apr-02-17 18:21	Apr-02-17 18:31	
	<i>Units/RL:</i>	mg/kg RL					
Chloride	ND 9.96	84.3 9.88	49.4 9.92	108 10.0	ND 9.98		
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-24-17 17:00					
	<i>Analyzed:</i>	Mar-25-17 22:32	Mar-25-17 23:34	Mar-25-17 23:55	Mar-26-17 00:15	Mar-26-17 00:36	
	<i>Units/RL:</i>	mg/kg RL					
	C6-C10 Gasoline Range Hydrocarbons	ND 15.0					
C10-C28 Diesel Range Organics	17.9 15.0	448 15.0	99.8 15.0	180 15.0	513 15.0		
C28-C35 Oil Range Hydrocarbons	ND 15.0	131 15.0	ND 15.0	118 15.0	770 15.0		
Total TPH	17.9 15.0	579 15.0	99.8 15.0	298 15.0	1280 15.0		

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Kelsey Brooks  
Project Manager

- 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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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013500

Sample: 549417-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 17:39

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	93.2	99.7	93	70-135	
o-Terphenyl	43.8	49.9	88	70-135	

Lab Batch #: 3013500

Sample: 549417-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 18:00

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	88.7	99.7	89	70-135	
o-Terphenyl	44.7	49.9	90	70-135	

Lab Batch #: 3013500

Sample: 549417-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 18:20

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	88.1	99.9	88	70-135	
o-Terphenyl	38.6	50.0	77	70-135	

Lab Batch #: 3013500

Sample: 549417-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 19:01

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 3013500

Sample: 549417-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 19:23

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	94.9	99.9	95	70-135	
o-Terphenyl	64.7	50.0	129	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013500

Sample: 549417-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 19:44

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 3013500

Sample: 549417-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 20:03

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.8	104	70-135	
o-Terphenyl	52.8	49.9	106	70-135	

Lab Batch #: 3013500

Sample: 549417-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 20:25

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	100	100	70-135	
o-Terphenyl	50.1	50.0	100	70-135	

Lab Batch #: 3013500

Sample: 549417-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 20:46

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.6	99.7	99	70-135	
o-Terphenyl	51.1	49.9	102	70-135	

Lab Batch #: 3013500

Sample: 549417-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 21:48

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.2	99.6	88	70-135	
o-Terphenyl	44.5	49.8	89	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013500

Sample: 549417-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 22:11

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	99.7	83	70-135	
o-Terphenyl	41.8	49.9	84	70-135	

Lab Batch #: 3013500

Sample: 549417-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 22:32

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.9	87	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 3013500

Sample: 549417-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 23:34

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.6	99.8	96	70-135	
o-Terphenyl	48.2	49.9	97	70-135	

Lab Batch #: 3013500

Sample: 549417-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 23:55

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.8	102	70-135	
o-Terphenyl	51.8	49.9	104	70-135	

Lab Batch #: 3013500

Sample: 549417-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 00:15

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	99.8	91	70-135	
o-Terphenyl	45.9	49.9	92	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013500

Sample: 549417-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 00:36

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	99.9	97	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 3013500

Sample: 549417-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/27/17 06:24

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	99.8	94	70-135	
o-Terphenyl	39.0	49.9	78	70-135	

Lab Batch #: 3013589

Sample: 549417-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 18:38

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0245	0.0300	82	80-120	

Lab Batch #: 3013589

Sample: 549417-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 18:54

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3013589

Sample: 549417-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:10

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0244	0.0300	81	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013589

Sample: 549417-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:26

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 3013589

Sample: 549417-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:42

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0257	0.0300	86	80-120	

Lab Batch #: 3013589

Sample: 549417-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 19:59

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene	0.0240	0.0300	80	80-120	

Lab Batch #: 3013589

Sample: 549417-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 21:20

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 3013589

Sample: 549417-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 21:37

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013589

Sample: 549417-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 22:42

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 3013589

Sample: 549417-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 22:59

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0301	0.0300	100	80-120	

Lab Batch #: 3013589

Sample: 549417-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 23:15

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 3013589

Sample: 549417-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 23:31

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0360	0.0300	120	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 3013602

Sample: 549417-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:08

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013602

Sample: 549417-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:24

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0340	0.0300	113	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3013602

Sample: 549417-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:41

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3013602

Sample: 549417-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 11:57

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0351	0.0300	117	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 3013602

Sample: 549417-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 12:30

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 3013500

Sample: 722213-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/17 16:38

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013589

Sample: 722268-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/28/17 17:49

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 3013602

Sample: 722269-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 01:42

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 3013500

Sample: 722213-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/17 16:58

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 3013589

Sample: 722268-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/28/17 16:27

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3013602

Sample: 722269-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:20

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013500

Sample: 722213-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/17 17:19

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	100	98	70-135	
o-Terphenyl	47.0	50.0	94	70-135	

Lab Batch #: 3013589

Sample: 722268-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/28/17 16:43

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 3013602

Sample: 722269-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:36

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3013500

Sample: 549417-013 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 22:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	99.7	96	70-135	
o-Terphenyl	46.8	49.9	94	70-135	

Lab Batch #: 3013589

Sample: 549416-026 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 17:00

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 549417,

Project ID: TRC #273817

Lab Batch #: 3013602

Sample: 549418-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 00:53

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 3013500

Sample: 549417-013 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/17 23:14

**SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.7	88	70-135	
o-Terphenyl	41.6	49.9	83	70-135	

Lab Batch #: 3013589

Sample: 549416-026 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/28/17 17:16

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 3013602

Sample: 549418-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 01:09

**SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

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



# BS / BSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order #: 549417**

**Project ID: TRC #273817**

**Analyst: ALJ**

**Date Prepared: 03/28/2017**

**Date Analyzed: 03/28/2017**

**Lab Batch ID: 3013589**

**Sample: 722268-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00150	0.100	0.107	107	0.0998	0.0921	92	15	70-130	35	
Toluene	<0.00200	0.100	0.112	112	0.0998	0.0993	99	12	70-130	35	
Ethylbenzene	<0.00200	0.100	0.118	118	0.0998	0.104	104	13	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.228	114	0.200	0.200	100	13	70-135	35	
o-Xylene	<0.00301	0.100	0.119	119	0.0998	0.103	103	14	71-133	35	

**Analyst: ALJ**

**Date Prepared: 03/28/2017**

**Date Analyzed: 03/29/2017**

**Lab Batch ID: 3013602**

**Sample: 722269-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00149	0.0990	0.0886	89	0.100	0.0825	83	7	70-130	35	
Toluene	<0.00198	0.0990	0.0935	94	0.100	0.0856	86	9	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0942	95	0.100	0.0873	87	8	71-129	35	
m_p-Xylenes	<0.00198	0.198	0.183	92	0.201	0.171	85	7	70-135	35	
o-Xylene	<0.00297	0.0990	0.0965	97	0.100	0.0905	91	6	71-133	35	

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Blank Spike Recovery [D] = 100\*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]

All results are based on MDL and Validated for QC Purposes



# BS / BSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order #: 549417**

**Project ID: TRC #273817**

**Analyst: ALA**

**Date Prepared: 04/01/2017**

**Date Analyzed: 04/02/2017**

**Lab Batch ID: 3013926**

**Sample: 722476-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<1.00	10.0	10.1	101	10.0	10.1	101	0	80-120	20	

**Analyst: ALA**

**Date Prepared: 04/01/2017**

**Date Analyzed: 04/02/2017**

**Lab Batch ID: 3013926**

**Sample: 722491-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<1.00	10.0	9.75	98	10.0	9.99	100	2	80-120	20	

**Analyst: ARM**

**Date Prepared: 03/24/2017**

**Date Analyzed: 03/25/2017**

**Lab Batch ID: 3013500**

**Sample: 722213-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	918	92	1000	928	93	1	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	931	93	1000	939	94	1	70-135	35	

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Blank Spike Recovery [D] = 100\*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order # :** 549417

**Project ID:** TRC #273817

**Lab Batch ID:** 3013589

**QC- Sample ID:** 549416-026 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 03/28/2017

**Date Prepared:** 03/28/2017

**Analyst:** ALJ

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	<0.00150	0.0998	0.0874	88	0.0994	0.0811	82	7	70-130	35	
Toluene	<0.00200	0.0998	0.0879	88	0.0994	0.0795	80	10	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0853	85	0.0994	0.0723	73	16	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.164	82	0.199	0.137	69	18	70-135	35	X
o-Xylene	<0.00299	0.0998	0.0903	90	0.0994	0.0744	75	19	71-133	35	

**Lab Batch ID:** 3013602

**QC- Sample ID:** 549418-001 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 03/29/2017

**Date Prepared:** 03/28/2017

**Analyst:** ALJ

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	<0.00151	0.100	0.0716	72	0.101	0.0798	79	11	70-130	35	
Toluene	<0.00201	0.100	0.0726	73	0.101	0.0815	81	12	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0728	73	0.101	0.0819	81	12	71-129	35	
m_p-Xylenes	<0.00201	0.201	0.143	71	0.202	0.155	77	8	70-135	35	
o-Xylene	<0.00301	0.100	0.0713	71	0.101	0.0841	83	16	71-133	35	

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

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

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



# Form 3 - MS / MSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order # :** 549417

**Project ID:** TRC #273817

**Lab Batch ID:** 3013926

**QC- Sample ID:** 549416-014 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/02/2017

**Date Prepared:** 04/01/2017

**Analyst:** ALA

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	62.5	99.8	164	102	99.8	164	102	0	80-120	20	

**Lab Batch ID:** 3013926

**QC- Sample ID:** 549416-024 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/02/2017

**Date Prepared:** 04/01/2017

**Analyst:** ALA

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	34.8	98.8	136	102	98.8	136	102	0	80-120	20	

**Lab Batch ID:** 3013961

**QC- Sample ID:** 549417-007 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/02/2017

**Date Prepared:** 04/01/2017

**Analyst:** ALA

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<9.96	99.6	103	103	99.6	103	103	0	80-120	20	

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

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

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



# Form 3 - MS / MSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order # :** 549417

**Project ID:** TRC #273817

**Lab Batch ID:** 3013961

**QC- Sample ID:** 549417-017 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/02/2017

**Date Prepared:** 04/01/2017

**Analyst:** ALA

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<9.98	99.8	106	106	99.8	106	106	0	80-120	20	

**Lab Batch ID:** 3013500

**QC- Sample ID:** 549417-013 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 03/25/2017

**Date Prepared:** 03/24/2017

**Analyst:** ARM

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C10 Gasoline Range Hydrocarbons	<15.0	997	961	96	997	864	87	11	70-135	35	
C10-C28 Diesel Range Organics	17.9	997	958	94	997	862	85	11	70-135	35	

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

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

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





**Client:** TRC Solutions, Inc

**Date/ Time Received:** 03/24/2017 02:55:00 PM

**Work Order #:** 549417

**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)?	2.2
#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:** Jessica Kramer  
 Jessica Kramer

Date: 03/24/2017

**Checklist reviewed by:** Kelsey Brooks  
 Kelsey Brooks

Date: 03/27/2017

# Analytical Report 549418

for  
**TRC Solutions, Inc**

**Project Manager: Nikki Green**  
**A14 Compressor Station**

**03-APR-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)



03-APR-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **549418**  
**A14 Compressor Station**  
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) 549418. 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. 549418 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 549418



**TRC Solutions, Inc, Midland, TX**

A14 Compressor Station

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
BG-1 1'	S	03-23-17 16:45	- 1 ft	549418-001



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station*

Project ID:  
Work Order Number(s): 549418

Report Date: 03-APR-17  
Date Received: 03/24/2017

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3013602 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 549418

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station



**Project Id:**  
**Contact:** Nikki Green  
**Project Location:** Lea County, NM

**Date Received in Lab:** Fri Mar-24-17 02:55 pm  
**Report Date:** 03-APR-17  
**Project Manager:** Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b>	549418-001				
	<b>Field Id:</b>	BG-1 1'				
	<b>Depth:</b>	1 ft				
	<b>Matrix:</b>	SOIL				
	<b>Sampled:</b>	Mar-23-17 16:45				
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Mar-28-17 16:50				
	<b>Analyzed:</b>	Mar-29-17 01:58				
	<b>Units/RL:</b>	mg/kg RL				
	Benzene	ND 0.00151				
	Toluene	ND 0.00201				
	Ethylbenzene	ND 0.00201				
	m_p-Xylenes	ND 0.00201				
	o-Xylene	ND 0.00301				
Total Xylenes	ND 0.00201					
Total BTEX	ND 0.00151					
<b>Chloride by EPA 300 SUB: TX104704215</b>	<b>Extracted:</b>	Apr-01-17 14:14				
	<b>Analyzed:</b>	Apr-02-17 11:11				
	<b>Units/RL:</b>	mg/kg RL				
Chloride	ND 9.96					
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Mar-24-17 17:00				
	<b>Analyzed:</b>	Mar-26-17 02:20				
	<b>Units/RL:</b>	mg/kg RL				
	C6-C10 Gasoline Range Hydrocarbons	ND 15.0				
	C10-C28 Diesel Range Organics	ND 15.0				
C28-C35 Oil Range Hydrocarbons	ND 15.0					
Total TPH	ND 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

- 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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4147 Greenbriar Dr, Stafford, TX 77477  
 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	



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station

Work Orders : 549418,

Lab Batch #: 3013501

Sample: 549418-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 02:20

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.8	103	70-135	
o-Terphenyl	52.6	49.9	105	70-135	

Lab Batch #: 3013602

Sample: 549418-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 01:58

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0358	0.0300	119	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

Lab Batch #: 3013501

Sample: 722214-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/26/17 01:18

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	52.7	50.0	105	70-135	

Lab Batch #: 3013602

Sample: 722269-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 01:42

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 3013501

Sample: 722214-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/26/17 01:40

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.4	100	92	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station

Work Orders : 549418,

Project ID:

Lab Batch #: 3013602

Sample: 722269-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:20

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3013501

Sample: 722214-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/26/17 02:00

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	50.8	50.0	102	70-135	

Lab Batch #: 3013602

Sample: 722269-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/29/17 00:36

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3013501

Sample: 549418-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 02:41

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	99.9	97	70-135	
o-Terphenyl	48.2	50.0	96	70-135	

Lab Batch #: 3013602

Sample: 549418-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 00:53

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0356	0.0300	119	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station

Work Orders : 549418,

Lab Batch #: 3013501

Sample: 549418-001 SD / MSD

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/26/17 03:03

## SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.9	89	70-135	
o-Terphenyl	43.7	50.0	87	70-135	

Lab Batch #: 3013602

Sample: 549418-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/29/17 01:09

## SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# BS / BSD Recoveries



**Project Name: A14 Compressor Station**

**Work Order #: 549418**

**Project ID:**

**Analyst: ALJ**

**Date Prepared: 03/28/2017**

**Date Analyzed: 03/29/2017**

**Lab Batch ID: 3013602**

**Sample: 722269-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00149	0.0990	0.0886	89	0.100	0.0825	83	7	70-130	35	
Toluene	<0.00198	0.0990	0.0935	94	0.100	0.0856	86	9	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0942	95	0.100	0.0873	87	8	71-129	35	
m_p-Xylenes	<0.00198	0.198	0.183	92	0.201	0.171	85	7	70-135	35	
o-Xylene	<0.00297	0.0990	0.0965	97	0.100	0.0905	91	6	71-133	35	

**Analyst: ALA**

**Date Prepared: 04/01/2017**

**Date Analyzed: 04/02/2017**

**Lab Batch ID: 3013954**

**Sample: 722482-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<1.00	10.0	9.91	99	10.0	9.77	98	1	80-120	20	

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Blank Spike Recovery [D] = 100\*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]

All results are based on MDL and Validated for QC Purposes



# BS / BSD Recoveries



**Project Name: A14 Compressor Station**

**Work Order #:** 549418

**Project ID:**

**Analyst:** ARM

**Date Prepared:** 03/24/2017

**Date Analyzed:** 03/26/2017

**Lab Batch ID:** 3013501

**Sample:** 722214-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	908	91	1000	1040	104	14	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	885	89	1000	1000	100	12	70-135	35	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



**Project Name: A14 Compressor Station**

**Work Order # :** 549418  
**Lab Batch ID:** 3013602  
**Date Analyzed:** 03/29/2017  
**Reporting Units:** mg/kg

**Project ID:**  
**QC- Sample ID:** 549418-001 S      **Batch #:** 1      **Matrix:** Soil  
**Date Prepared:** 03/28/2017      **Analyst:** ALJ

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	<0.00151	0.100	0.0716	72	0.101	0.0798	79	11	70-130	35	
Toluene	<0.00201	0.100	0.0726	73	0.101	0.0815	81	12	70-130	35	
Ethylbenzene	<0.00201	0.100	0.0728	73	0.101	0.0819	81	12	71-129	35	
m_p-Xylenes	<0.00201	0.201	0.143	71	0.202	0.155	77	8	70-135	35	
o-Xylene	<0.00301	0.100	0.0713	71	0.101	0.0841	83	16	71-133	35	

**Lab Batch ID:** 3013954  
**Date Analyzed:** 04/02/2017  
**Reporting Units:** mg/kg

**QC- Sample ID:** 549418-001 S      **Batch #:** 1      **Matrix:** Soil  
**Date Prepared:** 04/01/2017      **Analyst:** ALA

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Chloride	<9.96	99.6	104	104	99.6	103	103	1	80-120	20	

**Lab Batch ID:** 3013954  
**Date Analyzed:** 04/02/2017  
**Reporting Units:** mg/kg

**QC- Sample ID:** 549469-007 S      **Batch #:** 1      **Matrix:** Soil  
**Date Prepared:** 04/01/2017      **Analyst:** ALA

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Chloride	29.4	99.0	132	104	99.0	131	103	1	80-120	20	

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

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

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



# Form 3 - MS / MSD Recoveries



**Project Name: A14 Compressor Station**

**Work Order # :** 549418

**Project ID:**

**Lab Batch ID:** 3013501

**QC- Sample ID:** 549418-001 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 03/26/2017

**Date Prepared:** 03/24/2017

**Analyst:** ARM

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C10 Gasoline Range Hydrocarbons	<15.0	999	972	97	999	879	88	10	70-135	35	
C10-C28 Diesel Range Organics	<15.0	999	951	95	999	872	87	9	70-135	35	

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

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

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



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 03/24/2017 02:55:00 PM

**Work Order #:** 549418

**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)?	2.2
#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:** Jessica Kramer  
 Jessica Kramer

Date: 03/24/2017

**Checklist reviewed by:** Kelsey Brooks  
 Kelsey Brooks

Date: 03/27/2017

# Analytical Report 551537

for  
**TRC Solutions, Inc**

**Project Manager: Nikki Green**  
**A14 Compressor Station Field Scrubber**

**TRC#273817**

**26-APR-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-APR-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **551537**  
**A14 Compressor Station Field Scrubber**  
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) 551537. 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. 551537 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.*

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

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



# Sample Cross Reference 551537



**TRC Solutions, Inc, Midland, TX**

A14 Compressor Station Field Scrubber

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
FS-3 16"	S	04-17-17 13:40	- 16 In	551537-001
FS-5a 1'	S	04-17-17 14:30	- 1 ft	551537-002
FS-5a 16"	S	04-17-17 15:20	- 16 In	551537-003



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station Field Scrubber*

Project ID: TRC#273817  
Work Order Number(s): 551537

Report Date: 26-APR-17  
Date Received: 04/21/2017

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3015680 BTEX by EPA 8021B

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



# Certificate of Analysis Summary 551537

TRC Solutions, Inc, Midland, TX



Project Name: A14 Compressor Station Field Scrubber

Project Id: TRC#273817  
 Contact: Nikki Green  
 Project Location: Lea County, NM

Date Received in Lab: Fri Apr-21-17 11:39 am  
 Report Date: 26-APR-17  
 Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	551537-001	551537-002	551537-003			
	<i>Field Id:</i>	FS-3 16"	FS-5a 1'	FS-5a 16"			
	<i>Depth:</i>	16 In	1 ft	16 In			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Apr-17-17 13:40	Apr-17-17 14:30	Apr-17-17 15:20			
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Apr-24-17 08:00	Apr-24-17 08:00	Apr-24-17 08:00			
	<i>Analyzed:</i>	Apr-24-17 10:30	Apr-24-17 10:46	Apr-24-17 11:01			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		ND 0.00149	ND 0.00151	ND 0.00152			
Toluene		0.00479 0.00198	ND 0.00201	ND 0.00202			
Ethylbenzene		0.00728 0.00198	ND 0.00201	ND 0.00202			
m_p-Xylenes		0.00625 0.00198	0.00389 0.00201	0.00517 0.00202			
o-Xylene		0.00401 0.00298	ND 0.00301	ND 0.00303			
Total Xylenes		0.0103 0.00198	0.00389 0.00201	0.00517 0.00202			
Total BTEX		0.0223 0.00149	0.00389 0.00151	0.00517 0.00152			
<b>Chloride by EPA 300</b>	<i>Extracted:</i>		Apr-24-17 09:00	Apr-24-17 09:00			
	<i>Analyzed:</i>		Apr-24-17 11:39	Apr-24-17 11:47			
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL			
Chloride			ND 4.88	ND 4.95			
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Apr-21-17 17:00	Apr-21-17 17:00	Apr-21-17 17:00			
	<i>Analyzed:</i>	Apr-22-17 16:34	Apr-22-17 16:53	Apr-22-17 17:12			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C10 Gasoline Range Hydrocarbons		117 15.0	ND 15.0	ND 15.0			
C10-C28 Diesel Range Organics		1480 15.0	1240 15.0	1110 15.0			
C28-C35 Oil Range Hydrocarbons		93.8 15.0	2310 15.0	2060 15.0			
Total TPH		1690 15.0	3550 15.0	3170 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.

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Kelsey Brooks  
Project Manager

- 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	



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Project ID: TRC#273817

Lab Batch #: 3015601

Sample: 551537-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 16:34

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.1	99.7	98	70-135	
o-Terphenyl	38.6	49.9	77	70-135	

Lab Batch #: 3015601

Sample: 551537-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 16:53

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.8	113	70-135	
o-Terphenyl	59.2	49.9	119	70-135	

Lab Batch #: 3015601

Sample: 551537-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 17:12

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	52.7	49.9	106	70-135	

Lab Batch #: 3015680

Sample: 551537-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 10:30

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 3015680

Sample: 551537-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 10:46

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Project ID: TRC#273817

Lab Batch #: 3015680

Sample: 551537-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 11:01

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 3015601

Sample: 723517-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/17 22:55

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	63.1	50.0	126	70-135	

Lab Batch #: 3015680

Sample: 723559-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/24/17 09:48

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 3015601

Sample: 723517-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/17 23:15

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.0	100	98	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 3015680

Sample: 723559-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/24/17 08:26

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: A14 Compressor Station Field Scrubber

Work Orders : 551537,

Project ID: TRC#273817

Lab Batch #: 3015601

Sample: 723517-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/21/17 23:34

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	61.5	50.0	123	70-135	

Lab Batch #: 3015680

Sample: 723559-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04/24/17 08:43

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 3015601

Sample: 551449-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 00:33

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.8	107	70-135	
o-Terphenyl	50.6	49.9	101	70-135	

Lab Batch #: 3015680

Sample: 551542-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/24/17 08:59

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 3015601

Sample: 551449-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04/22/17 00:52

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	99.9	114	70-135	
o-Terphenyl	55.5	50.0	111	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



**Form 2 - Surrogate Recoveries**  
**Project Name: A14 Compressor Station Field Scrubber**

**Work Orders :** 551537,

**Lab Batch #:** 3015680

**Sample:** 551542-001 SD / MSD

**Project ID:** TRC#273817

**Batch:** 1 **Matrix:** Soil

**Units:** mg/kg

**Date Analyzed:** 04/24/17 09:15

**SURROGATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
1,4-Difluorobenzene	0.0323	0.0300	108	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

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



# BS / BSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order #: 551537**

**Project ID: TRC#273817**

**Analyst: ALJ**

**Date Prepared: 04/24/2017**

**Date Analyzed: 04/24/2017**

**Lab Batch ID: 3015680**

**Sample: 723559-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	<0.00149	0.0994	0.107	108	0.0998	0.106	106	1	70-130	35	
Toluene	<0.00199	0.0994	0.0992	100	0.0998	0.108	108	8	70-130	35	
Ethylbenzene	<0.00199	0.0994	0.111	112	0.0998	0.109	109	2	71-129	35	
m_p-Xylenes	<0.00199	0.199	0.218	110	0.200	0.209	105	4	70-135	35	
o-Xylene	<0.00298	0.0994	0.105	106	0.0998	0.0967	97	8	71-133	35	

**Analyst: MGO**

**Date Prepared: 04/24/2017**

**Date Analyzed: 04/24/2017**

**Lab Batch ID: 3015643**

**Sample: 723511-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Chloride	<4.98	249	270	108	249	269	108	0	90-110	20	

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

Blank Spike Recovery [D] = 100\*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100\*(F)/[E]

All results are based on MDL and Validated for QC Purposes



# BS / BSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order #:** 551537

**Project ID:** TRC#273817

**Analyst:** ARM

**Date Prepared:** 04/21/2017

**Date Analyzed:** 04/21/2017

**Lab Batch ID:** 3015601

**Sample:** 723517-1-BKS

**Batch #:** 1

**Matrix:** Solid

**Units:** mg/kg

**BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	974	97	1000	1040	104	7	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	910	91	1000	1010	101	10	70-135	35	

Relative Percent Difference RPD =  $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



**Project Name: A14 Compressor Station Field Scrubber**

**Work Order # :** 551537

**Project ID:** TRC#273817

**Lab Batch ID:** 3015680

**QC- Sample ID:** 551542-001 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/24/2017

**Date Prepared:** 04/24/2017

**Analyst:** ALJ

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Benzene	<0.00151	0.100	0.0743	74	0.0998	0.0666	67	11	70-130	35	X
Toluene	<0.00201	0.100	0.0515	52	0.0998	0.0436	44	17	70-130	35	X
Ethylbenzene	<0.00201	0.100	0.0454	45	0.0998	0.0396	40	14	71-129	35	X
m_p-Xylenes	<0.00201	0.201	0.0856	43	0.200	0.0765	38	11	70-135	35	X
o-Xylene	<0.00301	0.100	0.0449	45	0.0998	0.0378	38	17	71-133	35	X

**Lab Batch ID:** 3015643

**QC- Sample ID:** 551526-001 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/24/2017

**Date Prepared:** 04/24/2017

**Analyst:** MGO

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>Chloride by EPA 300</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
Chloride	695	250	936	96	250	944	100	1	90-110	20	

**Lab Batch ID:** 3015601

**QC- Sample ID:** 551449-002 S

**Batch #:** 1 **Matrix:** Soil

**Date Analyzed:** 04/22/2017

**Date Prepared:** 04/21/2017

**Analyst:** ARM

**Reporting Units:** mg/kg

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH By SW8015 Mod</b> <b>Analytes</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
C6-C10 Gasoline Range Hydrocarbons	<15.0	998	953	95	999	1050	105	10	70-135	35	
C10-C28 Diesel Range Organics	61.3	998	1030	97	999	1080	102	5	70-135	35	

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

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

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



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 04/21/2017 11:39:00 AM

**Work Order #:** 551537

**Acceptable Temperature Range: 0 - 6 degC**  
**Air and Metal samples Acceptable Range: Ambient**  
**Temperature Measuring device used : R8**

<b>Sample Receipt Checklist</b>	<b>Comments</b>
#1 *Temperature of cooler(s)?	3.2
#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:** Jessica Kramer Date: 04/21/2017  
 Jessica Kramer

**Checklist reviewed by:** Kelsey Brooks Date: 04/21/2017  
 Kelsey Brooks



# Certificate of Analysis Summary 553088

TRC Solutions, Inc, Midland, TX



Project Name: A14 Compressor Station Field Scrubber

Project Id: TRC#273817  
 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>	553088-001	553088-002	553088-003	553088-004	553088-005	553088-006
	<i>Field Id:</i>	FS -1a 4'	FS-1a 9'	FS-2a 4'	FS-2a 9'	FS-3a 4'	FS-3a 9'
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	May-10-17 11:45	May-10-17 12:19	May-10-17 14:25	May-10-17 14:58	May-10-17 16:12	May-10-17 16:58
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	May-16-17 15:00		May-16-17 15:00		May-16-17 15:00	
	<i>Analyzed:</i>	May-17-17 07:39		May-17-17 07:55		May-17-17 08:12	
	<i>Units/RL:</i>	mg/kg RL		mg/kg RL		mg/kg RL	
Benzene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Toluene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Ethylbenzene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
m,p-Xylenes		<0.00402 0.00402		<0.00398 0.00398		<0.00399 0.00399	
o-Xylene		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Total Xylenes		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
Total BTEX		<0.00201 0.00201		<0.00199 0.00199		<0.00200 0.00200	
<b>Chloride by EPA 300</b>	<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 19:52	May-20-17 19:59	May-20-17 20:07	May-20-17 20:15	May-20-17 20:22	May-20-17 20:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		478 4.92	162 49.3	114 24.7	27.0 5.01	22.8 5.00	49.2 5.00
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	May-15-17 14:00		May-15-17 14:00		May-15-17 14:00	
	<i>Analyzed:</i>	May-15-17 20:48		May-15-17 21:07		May-15-17 22:04	
	<i>Units/RL:</i>	mg/kg RL		mg/kg RL		mg/kg RL	
Gasoline Range Hydrocarbons		<15.0 15.0		<15.0 15.0		<14.9 14.9	
Diesel Range Organics		23.6 15.0		18.3 15.0		15.0 14.9	
Oil Range Hydrocarbons		<15.0 15.0		<15.0 15.0		<14.9 14.9	
Total TPH		23.6 15.0		18.3 15.0		15.0 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.

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

Kelsey Brooks  
Project Manager

# Analytical Report 553088

for  
TRC Solutions, Inc

Project Manager: Nikki Green  
A14 Compressor Station Field Scrubber

TRC#273817

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): **553088**  
**A14 Compressor Station Field Scrubber**  
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) 553088. 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. 553088 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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*Certified and approved by numerous States and Agencies.*

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# Sample Cross Reference 553088



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS -1a 4'	S	05-10-17 11:45		553088-001
FS-1a 9'	S	05-10-17 12:19		553088-002
FS-2a 4'	S	05-10-17 14:25		553088-003
FS-2a 9'	S	05-10-17 14:58		553088-004
FS-3a 4'	S	05-10-17 16:12		553088-005
FS-3a 9'	S	05-10-17 16:58		553088-006



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station Field Scrubber*

Project ID: TRC#273817  
Work Order Number(s): 553088

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

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3017621 BTEX by EPA 8021B

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

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>FS -1a 4'</b>	Matrix: Soil	Date Received: 05.12.17 13.13
Lab Sample Id: 553088-001	Date Collected: 05.10.17 11.45	
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	<b>478</b>	4.92	mg/kg	05.20.17 19.52		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 20.48	U	1
<b>Diesel Range Organics</b>	C10C28DRO	<b>23.6</b>	15.0	mg/kg	05.15.17 20.48		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 20.48	U	1
<b>Total TPH</b>	PHC635	<b>23.6</b>	15.0	mg/kg	05.15.17 20.48		1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	99	%	70-135	05.15.17 20.48	
	o-Terphenyl	84-15-1	101	%	70-135	05.15.17 20.48	



# Certificate of Analytical Results 553088



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS -1a 4'**  
Lab Sample Id: 553088-001

Matrix: Soil  
Date Collected: 05.10.17 11.45

Date Received: 05.12.17 13.13

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	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.17.17 07.39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.17.17 07.39	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	118	%	80-120	05.17.17 07.39		
1,4-Difluorobenzene	540-36-3	116	%	80-120	05.17.17 07.39		



# Certificate of Analytical Results 553088



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-1a 9'**  
Lab Sample Id: 553088-002

Matrix: Soil  
Date Collected: 05.10.17 12.19

Date Received: 05.12.17 13.13

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	162	49.3	mg/kg	05.20.17 19.59		10

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>FS-2a 4'</b>	Matrix: Soil	Date Received: 05.12.17 13.13
Lab Sample Id: 553088-003	Date Collected: 05.10.17 14.25	
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	<b>114</b>	24.7	mg/kg	05.20.17 20.07		5

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	05.15.17 21.07	U	1
<b>Diesel Range Organics</b>	C10C28DRO	<b>18.3</b>	15.0	mg/kg	05.15.17 21.07		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	05.15.17 21.07	U	1
<b>Total TPH</b>	PHC635	<b>18.3</b>	15.0	mg/kg	05.15.17 21.07		1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	98	%	70-135	05.15.17 21.07	
	o-Terphenyl	84-15-1	98	%	70-135	05.15.17 21.07	



# Certificate of Analytical Results 553088



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-2a 4'**  
Lab Sample Id: 553088-003

Matrix: Soil  
Date Collected: 05.10.17 14.25

Date Received: 05.12.17 13.13

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	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.17.17 07.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.17.17 07.55	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>		<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
1,4-Difluorobenzene	540-36-3	87		%	80-120	05.17.17 07.55	
4-Bromofluorobenzene	460-00-4	85		%	80-120	05.17.17 07.55	



# Certificate of Analytical Results 553088



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-2a 9'**  
Lab Sample Id: 553088-004

Matrix: Soil  
Date Collected: 05.10.17 14.58

Date Received: 05.12.17 13.13

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	27.0	5.01	mg/kg	05.20.17 20.15		1

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>FS-3a 4'</b>	Matrix: Soil	Date Received: 05.12.17 13.13
Lab Sample Id: 553088-005	Date Collected: 05.10.17 16.12	
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	<b>22.8</b>	5.00	mg/kg	05.20.17 20.22		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<14.9	14.9	mg/kg	05.15.17 22.04	U	1
<b>Diesel Range Organics</b>	C10C28DRO	<b>15.0</b>	14.9	mg/kg	05.15.17 22.04		1
Oil Range Hydrocarbons	PHCG2835	<14.9	14.9	mg/kg	05.15.17 22.04	U	1
<b>Total TPH</b>	PHC635	<b>15.0</b>	14.9	mg/kg	05.15.17 22.04		1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	97	%	70-135	05.15.17 22.04	
	o-Terphenyl	84-15-1	94	%	70-135	05.15.17 22.04	



# Certificate of Analytical Results 553088



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-3a 4'**  
Lab Sample Id: 553088-005

Matrix: Soil  
Date Collected: 05.10.17 16.12

Date Received: 05.12.17 13.13

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	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.17.17 08.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.17.17 08.12	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>		<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
4-Bromofluorobenzene	460-00-4	90		%	80-120	05.17.17 08.12	
1,4-Difluorobenzene	540-36-3	100		%	80-120	05.17.17 08.12	



# Certificate of Analytical Results 553088



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **FS-3a 9'**  
Lab Sample Id: 553088-006

Matrix: Soil  
Date Collected: 05.10.17 16.58

Date Received: 05.12.17 13.13

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	49.2	5.00	mg/kg	05.20.17 20.30		1

- 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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5332 Blackberry Drive, San Antonio TX 78238	(214) 902 0300	(214) 351-9139
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	(602) 437-0330	



TRC Solutions, Inc  
A14 Compressor Station Field Scrubber

**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**

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



TRC Solutions, Inc  
A14 Compressor Station Field Scrubber

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: 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

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

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** TRC Solutions, Inc

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

**Work Order #:** 553088

**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 Houston
#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 555475

TRC Solutions, Inc, Midland, TX



Project Name: A14 Compressor Station Field Scrubber

Project Id: TRC#273818  
 Contact: Nikki Green  
 Project Location: Lea County, NM

Date Received in Lab: Thu Jun-15-17 09:30 am  
 Report Date: 06-JUL-17  
 Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	555475-001	555475-002	555475-003	555475-004	555475-005	555475-006
	<i>Field Id:</i>	BH-1 4'	SW-1 3'	NW-1 3'	BH-4 1'	EW-1 3'	BH-2 3'
	<i>Depth:</i>	4 ft	3 ft	3 ft	1 ft	3 ft	3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-13-17 11:51	Jun-13-17 12:05	Jun-13-17 12:17	Jun-14-17 17:00	Jun-13-17 12:22	Jun-14-17 10:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Jun-15-17 17:15	Jun-15-17 17:15	Jun-15-17 17:15	Jun-15-17 17:15	Jun-16-17 15:30	Jun-16-17 15:30
	<i>Analyzed:</i>	Jun-16-17 02:59	Jun-16-17 03:15	Jun-16-17 06:04	Jun-16-17 10:59	Jun-17-17 12:18	Jun-16-17 23:33
	<i>Units/RL:</i>	mg/kg RL					
	Benzene	<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
	Toluene	<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
	Ethylbenzene	<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
	m,p-Xylenes	<0.00401 0.00401	<0.00410 0.00410	<0.00398 0.00398	0.00511 0.00399	<0.00402 0.00402	<0.00401 0.00401
	o-Xylene	<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes	<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	0.00511 0.00200	<0.00201 0.00201	<0.00200 0.00200	
Total BTEX	<0.00200 0.00200	<0.00205 0.00205	<0.00199 0.00199	0.00511 0.00200	<0.00201 0.00201	<0.00200 0.00200	
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Jun-19-17 11:00	Jun-19-17 11:00	Jun-19-17 11:00	Jun-19-17 11:00	Jun-19-17 13:30	Jun-19-17 13:30
	<i>Analyzed:</i>	Jun-19-17 16:21	Jun-19-17 16:29	Jun-19-17 17:48	Jun-19-17 17:56	Jun-19-17 19:58	Jun-19-17 20:20
	<i>Units/RL:</i>	mg/kg RL					
Chloride	21.5 4.94	176 4.94	38.9 5.00	13.9 4.94	336 4.89	166 4.97	
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Jun-15-17 15:00					
	<i>Analyzed:</i>	Jun-15-17 23:27	Jun-15-17 23:47	Jun-16-17 00:06	Jun-16-17 00:27	Jun-16-17 00:47	Jun-16-17 01:08
	<i>Units/RL:</i>	mg/kg RL					
	Gasoline Range Hydrocarbons	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
	Diesel Range Organics	<15.0 15.0	<15.0 15.0	<15.0 15.0	128 15.0	<15.0 15.0	<15.0 15.0
Oil Range Hydrocarbons	<15.0 15.0	<15.0 15.0	<15.0 15.0	187 15.0	<15.0 15.0	<15.0 15.0	
Total TPH	<15.0 15.0	<15.0 15.0	<15.0 15.0	315 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 555475

TRC Solutions, Inc, Midland, TX



Project Name: A14 Compressor Station Field Scrubber

Project Id: TRC#273818  
 Contact: Nikki Green  
 Project Location: Lea County, NM

Date Received in Lab: Thu Jun-15-17 09:30 am  
 Report Date: 06-JUL-17  
 Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	555475-007	555475-008	555475-009			
	<i>Field Id:</i>	SW-2 2'	NW-2 2'	BH-5 1'			
	<i>Depth:</i>	2 ft	2 ft	1 ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Jun-14-17 10:15	Jun-14-17 10:27	Jun-14-17 17:05			
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Jun-15-17 17:15	Jun-16-17 15:30	Jun-19-17 06:30			
	<i>Analyzed:</i>	Jun-16-17 11:32	Jun-17-17 12:35	Jun-19-17 13:22			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
m,p-Xylenes		<0.00398 0.00398	<0.00404 0.00404	<0.00403 0.00403			
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202			
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Jun-19-17 13:30	Jun-19-17 13:30	Jun-19-17 13:30			
	<i>Analyzed:</i>	Jun-19-17 20:28	Jun-19-17 20:36	Jun-19-17 20:43			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		55.1 4.92	186 24.8	11.7 5.00			
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Jun-15-17 15:00	Jun-15-17 15:00	Jun-15-17 15:00			
	<i>Analyzed:</i>	Jun-16-17 01:28	Jun-16-17 01:48	Jun-16-17 02:10			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0			
Diesel Range Organics		<15.0 15.0	<15.0 15.0	26.3 15.0			
Oil Range Hydrocarbons		<15.0 15.0	<15.0 15.0	<15.0 15.0			
Total TPH		<15.0 15.0	<15.0 15.0	26.3 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.

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Kelsey Brooks  
Project Manager

# Analytical Report 555475

for  
TRC Solutions, Inc

Project Manager: Nikki Green  
A14 Compressor Station Field Scrubber

TRC#273818

06-JUL-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-JUL-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **555475**  
**A14 Compressor Station Field Scrubber**  
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) 555475. 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. 555475 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.*

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

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



# Sample Cross Reference 555475



TRC Solutions, Inc, Midland, TX

A14 Compressor Station Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 4'	S	06-13-17 11:51	- 4 ft	555475-001
SW-1 3'	S	06-13-17 12:05	- 3 ft	555475-002
NW-1 3'	S	06-13-17 12:17	- 3 ft	555475-003
BH-4 1'	S	06-14-17 17:00	- 1 ft	555475-004
EW-1 3'	S	06-13-17 12:22	- 3 ft	555475-005
BH-2 3'	S	06-14-17 10:00	- 3 ft	555475-006
SW-2 2'	S	06-14-17 10:15	- 2 ft	555475-007
NW-2 2'	S	06-14-17 10:27	- 2 ft	555475-008
BH-5 1'	S	06-14-17 17:05	- 1 ft	555475-009



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station Field Scrubber*

Project ID: TRC#273818  
Work Order Number(s): 555475

Report Date: 06-JUL-17  
Date Received: 06/15/2017

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### Sample receipt non conformances and comments:

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#### Sample receipt non conformances and comments per sample:

None

#### **Analytical non conformances and comments:**

Batch: LBA-3019915 BTEX by EPA 8021B

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

Benzene, Toluene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 555475-001, -002, -003, -004, -007

Lab Sample ID 555475-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 555475-001, -002, -003, -004, -007.

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

Batch: LBA-3020005 BTEX by EPA 8021B

Lab Sample ID 555475-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). 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: 555475-005, -006, -008.

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

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

Batch: LBA-3020111 BTEX by EPA 8021B

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



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-1 4'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-001	Date Collected: 06.13.17 11.51	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 11.00	Basis: Wet Weight
Seq Number: 3020141		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.5	4.94	mg/kg	06.19.17 16.21		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.17 23.27	U	1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	103	%	70-135	06.15.17 23.27	
	o-Terphenyl	84-15-1	103	%	70-135	06.15.17 23.27	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-1 4'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-001	Date Collected: 06.13.17 11.51	Sample Depth: 4 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.15.17 17.15	Basis: Wet Weight
Seq Number: 3019915		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.16.17 02.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.16.17 02.59	U	1
		%					
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	89	%	80-120	06.16.17 02.59		
4-Bromofluorobenzene	460-00-4	104	%	80-120	06.16.17 02.59		

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>SW-1 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-002	Date Collected: 06.13.17 12.05	Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 11.00	Basis: Wet Weight
Seq Number: 3020141		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	176	4.94	mg/kg	06.19.17 16.29		1

Analytical Method: TPH by SW8015 Mod		Prep Method: TX1005P
Tech: ARM		% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00	Basis: Wet Weight
Seq Number: 3019902		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.15.17 23.47	U	1
		%					
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	104	%	70-135	06.15.17 23.47		
o-Terphenyl	84-15-1	104	%	70-135	06.15.17 23.47		



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>SW-1 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-002	Date Collected: 06.13.17 12.05	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.15.17 17.15	Basis: Wet Weight
Seq Number: 3019915		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Toluene	108-88-3	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Ethylbenzene	100-41-4	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
m,p-Xylenes	179601-23-1	<0.00410	0.00410	mg/kg	06.16.17 03.15	U	1
o-Xylene	95-47-6	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Total Xylenes	1330-20-7	<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
Total BTEX		<0.00205	0.00205	mg/kg	06.16.17 03.15	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>		<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
1,4-Difluorobenzene	540-36-3		83	%	80-120	06.16.17 03.15	
4-Bromofluorobenzene	460-00-4		94	%	80-120	06.16.17 03.15	

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>NW-1 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-003	Date Collected: 06.13.17 12.17	Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 11.00	Basis: Wet Weight
Seq Number: 3020141		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>38.9</b>	5.00	mg/kg	06.19.17 17.48		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 00.06	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 00.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	06.16.17 00.06	
o-Terphenyl	84-15-1	100	%	70-135	06.16.17 00.06	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>NW-1 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-003	Date Collected: 06.13.17 12.17	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.15.17 17.15	Basis: Wet Weight
Seq Number: 3019915		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.16.17 06.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.16.17 06.04	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.16.17 06.04		
4-Bromofluorobenzene	460-00-4	98	%	80-120	06.16.17 06.04		



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-4 1'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-004	Date Collected: 06.14.17 17.00	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 11.00	Basis: Wet Weight
Seq Number: 3020141		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.9	4.94	mg/kg	06.19.17 17.56		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 00.27	U	1
Diesel Range Organics	C10C28DRO	128	15.0	mg/kg	06.16.17 00.27		1
Oil Range Hydrocarbons	PHCG2835	187	15.0	mg/kg	06.16.17 00.27		1
Total TPH	PHC635	315	15.0	mg/kg	06.16.17 00.27		1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	105	%	70-135	06.16.17 00.27	
	o-Terphenyl	84-15-1	105	%	70-135	06.16.17 00.27	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-4 1'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-004	Date Collected: 06.14.17 17.00	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.15.17 17.15	Basis: Wet Weight
Seq Number: 3019915		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.00511</b>	0.00399	mg/kg	06.16.17 10.59		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.16.17 10.59	U	1
<b>Total Xylenes</b>	1330-20-7	<b>0.00511</b>	0.00200	mg/kg	06.16.17 10.59		1
<b>Total BTEX</b>		<b>0.00511</b>	0.00200	mg/kg	06.16.17 10.59		1
		%					
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	120	%	80-120	06.16.17 10.59		
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.16.17 10.59		

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>EW-1 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-005	Date Collected: 06.13.17 12.22	Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 13.30	Basis: Wet Weight
Seq Number: 3020148		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	336	4.89	mg/kg	06.19.17 19.58		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 00.47	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 00.47	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 00.47	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 00.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	06.16.17 00.47	
o-Terphenyl	84-15-1	105	%	70-135	06.16.17 00.47	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: **EW-1 3'**  
Lab Sample Id: 555475-005

Matrix: Soil  
Date Collected: 06.13.17 12.22

Date Received: 06.15.17 09.30  
Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.16.17 15.30

Basis: Wet Weight

Seq Number: 3020005

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.17.17 12.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.17.17 12.18	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>		<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
4-Bromofluorobenzene	460-00-4	82		%	80-120	06.17.17 12.18	
1,4-Difluorobenzene	540-36-3	96		%	80-120	06.17.17 12.18	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-2 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-006	Date Collected: 06.14.17 10.00	Sample Depth: 3 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 13.30	Basis: Wet Weight
Seq Number: 3020148		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	4.97	mg/kg	06.19.17 20.20		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 01.08	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 01.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	06.16.17 01.08	
o-Terphenyl	84-15-1	96	%	70-135	06.16.17 01.08	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-2 3'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-006	Date Collected: 06.14.17 10.00	Sample Depth: 3 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.16.17 15.30	Basis: Wet Weight
Seq Number: 3020005		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.16.17 23.33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.16.17 23.33	U	1
		%					
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	116	%	80-120	06.16.17 23.33		
1,4-Difluorobenzene	540-36-3	108	%	80-120	06.16.17 23.33		



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>SW-2 2'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-007	Date Collected: 06.14.17 10.15	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 13.30	Basis: Wet Weight
Seq Number: 3020148		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.1	4.92	mg/kg	06.19.17 20.28		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 01.28	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 01.28	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 01.28	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 01.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	06.16.17 01.28	
o-Terphenyl	84-15-1	102	%	70-135	06.16.17 01.28	

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>SW-2 2'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-007	Date Collected: 06.14.17 10.15	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.15.17 17.15	Basis: Wet Weight
Seq Number: 3019915		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.16.17 11.32	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.16.17 11.32	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	114	%	80-120	06.16.17 11.32		
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.16.17 11.32		

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>NW-2 2'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-008	Date Collected: 06.14.17 10.27	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 13.30	Basis: Wet Weight
Seq Number: 3020148		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>186</b>	24.8	mg/kg	06.19.17 20.36		5

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.16.17 01.48	U	1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	96	%	70-135	06.16.17 01.48	
	o-Terphenyl	84-15-1	97	%	70-135	06.16.17 01.48	

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>NW-2 2'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-008	Date Collected: 06.14.17 10.27	Sample Depth: 2 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.16.17 15.30	Basis: Wet Weight
Seq Number: 3020005		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.17.17 12.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.17.17 12.35	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>		<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
1,4-Difluorobenzene	540-36-3		91	%	80-120	06.17.17 12.35	
4-Bromofluorobenzene	460-00-4		107	%	80-120	06.17.17 12.35	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-5 1'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-009	Date Collected: 06.14.17 17.05	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.19.17 13.30	Basis: Wet Weight
Seq Number: 3020148		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	5.00	mg/kg	06.19.17 20.43		1

Analytical Method: TPH by SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 06.15.17 15.00
Seq Number: 3019902	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.16.17 02.10	U	1
<b>Diesel Range Organics</b>	C10C28DRO	<b>26.3</b>	15.0	mg/kg	06.16.17 02.10		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.16.17 02.10	U	1
<b>Total TPH</b>	PHC635	<b>26.3</b>	15.0	mg/kg	06.16.17 02.10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	06.16.17 02.10	
o-Terphenyl	84-15-1	96	%	70-135	06.16.17 02.10	



# Certificate of Analytical Results 555475



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>BH-5 1'</b>	Matrix: Soil	Date Received: 06.15.17 09.30
Lab Sample Id: 555475-009	Date Collected: 06.14.17 17.05	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.19.17 06.30	Basis: Wet Weight
Seq Number: 3020111		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.19.17 13.22	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.19.17 13.22	U	1
		%					
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	116	%	80-120	06.19.17 13.22		
1,4-Difluorobenzene	540-36-3	94	%	80-120	06.19.17 13.22		

- 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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5332 Blackberry Drive, San Antonio TX 78238	(214) 902 0300	(214) 351-9139
1211 W Florida Ave, Midland, TX 79701	(210) 509-3334	(210) 509-3335
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(432) 563-1800	(432) 563-1713
	(602) 437-0330	



TRC Solutions, Inc  
A14 Compressor Station Field Scrubber

Analytical Method: Chloride by EPA 300

Seq Number: 3020141

MB Sample Id: 726321-1-BLK

Matrix: Solid

LCS Sample Id: 726321-1-BKS

Prep Method: E300P

Date Prep: 06.19.17

LCSD Sample Id: 726321-1-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	249	100	246	98	90-110	1	20	mg/kg	06.19.17 11:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3020148

MB Sample Id: 726322-1-BLK

Matrix: Solid

LCS Sample Id: 726322-1-BKS

Prep Method: E300P

Date Prep: 06.19.17

LCSD Sample Id: 726322-1-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	227	91	230	92	90-110	1	20	mg/kg	06.19.17 19:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3020141

Parent Sample Id: 555462-001

Matrix: Soil

MS Sample Id: 555462-001 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555462-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.64	247	249	99	252	100	90-110	1	20	mg/kg	06.19.17 13:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3020141

Parent Sample Id: 555462-002

Matrix: Soil

MS Sample Id: 555462-002 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555462-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.2	246	257	100	257	100	90-110	0	20	mg/kg	06.19.17 14:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3020148

Parent Sample Id: 555360-001

Matrix: Soil

MS Sample Id: 555360-001 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555360-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.1	249	272	102	280	105	90-110	3	20	mg/kg	06.19.17 21:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3020148

Parent Sample Id: 555475-005

Matrix: Soil

MS Sample Id: 555475-005 S

Prep Method: E300P

Date Prep: 06.19.17

MSD Sample Id: 555475-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	336	245	575	98	576	98	90-110	0	20	mg/kg	06.19.17 20:05	



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Analytical Method: TPH by SW8015 Mod

Seq Number: 3019902

MB Sample Id: 726219-1-BLK

Matrix: Solid

LCS Sample Id: 726219-1-BKS

Prep Method: TX1005P

Date Prep: 06.15.17

LCSD Sample Id: 726219-1-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	1050	105	70-135	2	35	mg/kg	06.15.17 21:08	
Diesel Range Organics	<15.0	1000	1040	104	1060	106	70-135	2	35	mg/kg	06.15.17 21:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		102		102		70-135	%	06.15.17 21:08
o-Terphenyl	115		101		101		70-135	%	06.15.17 21:08

Analytical Method: TPH by SW8015 Mod

Seq Number: 3019902

Parent Sample Id: 555308-001

Matrix: Soil

MS Sample Id: 555308-001 S

Prep Method: TX1005P

Date Prep: 06.15.17

MSD Sample Id: 555308-001 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	1050	105	1000	100	70-135	5	35	mg/kg	06.15.17 22:07	
Diesel Range Organics	41.5	998	1070	103	1050	101	70-135	2	35	mg/kg	06.15.17 22:07	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		111		70-135	%	06.15.17 22:07
o-Terphenyl	107		106		70-135	%	06.15.17 22:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3019915

MB Sample Id: 726203-1-BLK

Matrix: Solid

LCS Sample Id: 726203-1-BKS

Prep Method: SW5030B

Date Prep: 06.15.17

LCSD Sample Id: 726203-1-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	0.0832	83	0.0822	81	70-130	1	35	mg/kg	06.16.17 01:06	
Toluene	<0.00200	0.100	0.0875	88	0.0793	79	70-130	10	35	mg/kg	06.16.17 01:06	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0979	97	71-129	2	35	mg/kg	06.16.17 01:06	
m,p-Xylenes	<0.00401	0.200	0.190	95	0.178	89	70-135	7	35	mg/kg	06.16.17 01:06	
o-Xylene	<0.00200	0.100	0.103	103	0.0961	95	71-133	7	35	mg/kg	06.16.17 01:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	84		116		111		80-120	%	06.16.17 01:06
4-Bromofluorobenzene	92		114		113		80-120	%	06.16.17 01:06



TRC Solutions, Inc  
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Analytical Method: BTEX by EPA 8021B

Seq Number: 3020005

MB Sample Id: 726253-1-BLK

Matrix: Solid

LCS Sample Id: 726253-1-BKS

Prep Method: SW5030B

Date Prep: 06.16.17

LCSD Sample Id: 726253-1-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	0.0985	99	0.0982	99	70-130	0	35	mg/kg	06.16.17 21:39	
Toluene	<0.00200	0.100	0.0836	84	0.0896	90	70-130	7	35	mg/kg	06.16.17 21:39	
Ethylbenzene	<0.00200	0.100	0.0885	89	0.0952	96	71-129	7	35	mg/kg	06.16.17 21:39	
m,p-Xylenes	<0.00401	0.200	0.152	76	0.168	84	70-135	10	35	mg/kg	06.16.17 21:39	
o-Xylene	<0.00200	0.100	0.0785	79	0.0908	91	71-133	15	35	mg/kg	06.16.17 21:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		93		97		80-120	%	06.16.17 21:39
4-Bromofluorobenzene	83		81		101		80-120	%	06.16.17 21:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020111

MB Sample Id: 726344-1-BLK

Matrix: Solid

LCS Sample Id: 726344-1-BKS

Prep Method: SW5030B

Date Prep: 06.19.17

LCSD Sample Id: 726344-1-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	0.105	105	0.101	101	70-130	4	35	mg/kg	06.19.17 08:20	
Toluene	<0.00199	0.0996	0.0888	89	0.0891	89	70-130	0	35	mg/kg	06.19.17 08:20	
Ethylbenzene	<0.00199	0.0996	0.106	106	0.101	101	71-129	5	35	mg/kg	06.19.17 08:20	
m,p-Xylenes	<0.00398	0.199	0.163	82	0.173	87	70-135	6	35	mg/kg	06.19.17 08:20	
o-Xylene	<0.00199	0.0996	0.0986	99	0.0960	96	71-133	3	35	mg/kg	06.19.17 08:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		85		96		80-120	%	06.19.17 08:20
4-Bromofluorobenzene	104		104		102		80-120	%	06.19.17 08:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3019915

Parent Sample Id: 555475-001

Matrix: Soil

MS Sample Id: 555475-001 S

Prep Method: SW5030B

Date Prep: 06.15.17

MSD Sample Id: 555475-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0349	35	0.0512	51	70-130	38	35	mg/kg	06.16.17 01:39	XF
Toluene	<0.00201	0.100	0.0365	37	0.0524	53	70-130	36	35	mg/kg	06.16.17 01:39	XF
Ethylbenzene	<0.00201	0.100	0.0630	63	0.0677	68	71-129	7	35	mg/kg	06.16.17 01:39	X
m,p-Xylenes	<0.00402	0.201	0.113	56	0.112	56	70-135	1	35	mg/kg	06.16.17 01:39	X
o-Xylene	<0.00201	0.100	0.0764	76	0.0866	87	71-133	13	35	mg/kg	06.16.17 01:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		89		80-120	%	06.16.17 01:39
4-Bromofluorobenzene	86		113		80-120	%	06.16.17 01:39



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Analytical Method: BTEX by EPA 8021B

Seq Number: 3020005

Parent Sample Id: 555475-006

Matrix: Soil

MS Sample Id: 555475-006 S

Prep Method: SW5030B

Date Prep: 06.16.17

MSD Sample Id: 555475-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00203	0.101	0.0914	90	0.0862	85	70-130	6	35	mg/kg	06.16.17 22:12	
Toluene	<0.00203	0.101	0.0810	80	0.0774	77	70-130	5	35	mg/kg	06.16.17 22:12	
Ethylbenzene	<0.00203	0.101	0.0832	82	0.0806	80	71-129	3	35	mg/kg	06.16.17 22:12	
m,p-Xylenes	<0.00406	0.203	0.146	72	0.140	69	70-135	4	35	mg/kg	06.16.17 22:12	X
o-Xylene	<0.00203	0.101	0.0820	81	0.0752	74	71-133	9	35	mg/kg	06.16.17 22:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		96		80-120	%	06.16.17 22:12
4-Bromofluorobenzene	102		99		80-120	%	06.16.17 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020111

Parent Sample Id: 555245-021

Matrix: Soil

MS Sample Id: 555245-021 S

Prep Method: SW5030B

Date Prep: 06.19.17

MSD Sample Id: 555245-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00389	0.195	0.175	90	0.181	91	70-130	3	35	mg/kg	06.19.17 09:02	
Toluene	0.0115	0.195	0.157	75	0.170	80	70-130	8	35	mg/kg	06.19.17 09:02	
Ethylbenzene	<0.00389	0.195	0.171	88	0.168	85	71-129	2	35	mg/kg	06.19.17 09:02	
m,p-Xylenes	0.00913	0.389	0.297	74	0.300	74	70-135	1	35	mg/kg	06.19.17 09:02	
o-Xylene	<0.00389	0.195	0.161	83	0.167	84	71-133	4	35	mg/kg	06.19.17 09:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		94		80-120	%	06.19.17 09:02
4-Bromofluorobenzene	103		115		80-120	%	06.19.17 09:02







# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 06/15/2017 09:30:00 AM

**Work Order #:** 555475

**Acceptable Temperature Range:** 0 - 6 degC  
**Air and Metal samples Acceptable Range:** Ambient  
**Temperature Measuring device used :** R-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.6
#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)?	No
#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:** Mary Alexis Negron Date: 06/15/2017  
 Mary Negron

**Checklist reviewed by:** Holly Taylor Date: 06/16/2017  
 Holly Taylor



# Certificate of Analysis Summary 555847



TRC Solutions, Inc, Midland, TX

Project Name: A-14 Field Scrubber

**Project Id:**  
**Contact:** Nikki Green  
**Project Location:** Lea County, NM

**Date Received in Lab:** Wed Jun-21-17 08:40 am  
**Report Date:** 26-JUN-17  
**Project Manager:** Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	555847-001	555847-002	555847-003			
	<i>Field Id:</i>	BH-3 2'	NW-3 1'	SW-3 1'			
	<i>Depth:</i>	2- ft	1- ft	1- ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Jun-15-17 14:00	Jun-15-17 14:00	Jun-15-17 14:00			
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Jun-24-17 11:30	Jun-24-17 11:30	Jun-24-17 11:30			
	<i>Analyzed:</i>	Jun-25-17 06:37	Jun-25-17 06:53	Jun-25-17 07:09			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
	Benzene	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
	Toluene	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
	Ethylbenzene	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
	m,p-Xylenes	<0.00398 0.00398	<0.00402 0.00402	<0.00404 0.00404			
	o-Xylene	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202			
Total Xylenes	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202				
Total BTEX	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202				
<b>Chloride by EPA 300</b>	<i>Extracted:</i>	Jun-26-17 10:05	Jun-26-17 10:05	Jun-26-17 10:05			
	<i>Analyzed:</i>	Jun-26-17 11:58	Jun-26-17 12:05	Jun-26-17 12:13			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride	61.0 4.99	114 4.97	20.6 4.97				
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	Jun-24-17 16:00	Jun-24-17 16:00	Jun-24-17 16:00			
	<i>Analyzed:</i>	Jun-25-17 06:54	Jun-25-17 07:15	Jun-25-17 07:36			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
	Gasoline Range Hydrocarbons	<15.0 15.0	<15.0 15.0	<15.0 15.0			
	Diesel Range Organics	37.3 15.0	65.7 15.0	<15.0 15.0			
Oil Range Hydrocarbons	<15.0 15.0	15.7 15.0	<15.0 15.0				
Total TPH	37.3 15.0	81.4 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.

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Kelsey Brooks  
Project Manager

# Analytical Report 555847

for  
TRC Solutions, Inc

Project Manager: Nikki Green

A-14 Field Scrubber

26-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)



26-JUN-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **555847**  
**A-14 Field Scrubber**  
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) 555847. 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. 555847 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.*

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

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



# Sample Cross Reference 555847



TRC Solutions, Inc, Midland, TX

A-14 Field Scrubber

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-3 2'	S	06-15-17 14:00	2 ft	555847-001
NW-3 1'	S	06-15-17 14:00	1 ft	555847-002
SW-3 1'	S	06-15-17 14:00	1 ft	555847-003



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A-14 Field Scrubber*

Project ID:  
Work Order Number(s): 555847

Report Date: 26-JUN-17  
Date Received: 06/21/2017

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3020665 BTEX by EPA 8021B

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



# Certificate of Analytical Results 555847



## TRC Solutions, Inc, Midland, TX A-14 Field Scrubber

Sample Id: <b>BH-3 2'</b>	Matrix: Soil	Date Received: 06.21.17 08.40
Lab Sample Id: 555847-001	Date Collected: 06.15.17 14.00	Sample Depth: 2 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.26.17 10.05	Basis: Wet Weight
Seq Number: 3020684		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>61.0</b>	4.99	mg/kg	06.26.17 11.58		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 06.54	U	1
<b>Diesel Range Organics</b>	C10C28DRO	<b>37.3</b>	15.0	mg/kg	06.25.17 06.54		1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.25.17 06.54	U	1
<b>Total TPH</b>	PHC635	<b>37.3</b>	15.0	mg/kg	06.25.17 06.54		1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	103	%	70-135	06.25.17 06.54	
	o-Terphenyl	84-15-1	99	%	70-135	06.25.17 06.54	



# Certificate of Analytical Results 555847



## TRC Solutions, Inc, Midland, TX

### A-14 Field Scrubber

Sample Id: **BH-3 2'**  
 Lab Sample Id: 555847-001

Matrix: Soil  
 Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40  
 Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.24.17 11.30

Basis: Wet Weight

Seq Number: 3020665

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.25.17 06.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.25.17 06.37	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	100	%	80-120	06.25.17 06.37		
4-Bromofluorobenzene	460-00-4	94	%	80-120	06.25.17 06.37		



# Certificate of Analytical Results 555847



## TRC Solutions, Inc, Midland, TX A-14 Field Scrubber

Sample Id: <b>NW-3 1'</b>	Matrix: Soil	Date Received: 06.21.17 08.40
Lab Sample Id: 555847-002	Date Collected: 06.15.17 14.00	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.26.17 10.05	Basis: Wet Weight
Seq Number: 3020684		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	114	4.97	mg/kg	06.26.17 12.05		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 07.15	U	1
Diesel Range Organics	C10C28DRO	65.7	15.0	mg/kg	06.25.17 07.15		1
Oil Range Hydrocarbons	PHCG2835	15.7	15.0	mg/kg	06.25.17 07.15		1
Total TPH	PHC635	81.4	15.0	mg/kg	06.25.17 07.15		1
<b>Surrogate</b>		<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
	1-Chlorooctane	111-85-3	105	%	70-135	06.25.17 07.15	
	o-Terphenyl	84-15-1	101	%	70-135	06.25.17 07.15	



# Certificate of Analytical Results 555847



## TRC Solutions, Inc, Midland, TX

### A-14 Field Scrubber

Sample Id: NW-3 1'  
Lab Sample Id: 555847-002

Matrix: Soil  
Date Collected: 06.15.17 14.00

Date Received: 06.21.17 08.40  
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 06.24.17 11.30

Basis: Wet Weight

Seq Number: 3020665

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.25.17 06.53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.25.17 06.53	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>		<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
4-Bromofluorobenzene	460-00-4	85		%	80-120	06.25.17 06.53	
1,4-Difluorobenzene	540-36-3	84		%	80-120	06.25.17 06.53	



# Certificate of Analytical Results 555847



## TRC Solutions, Inc, Midland, TX A-14 Field Scrubber

Sample Id: <b>SW-3 1'</b>	Matrix: Soil	Date Received: 06.21.17 08.40
Lab Sample Id: 555847-003	Date Collected: 06.15.17 14.00	Sample Depth: 1 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: MGO		% Moisture:
Analyst: MGO	Date Prep: 06.26.17 10.05	Basis: Wet Weight
Seq Number: 3020684		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>20.6</b>	4.97	mg/kg	06.26.17 12.13		1

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

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<15.0	15.0	mg/kg	06.25.17 07.36	U	1
Diesel Range Organics	C10C28DRO	<15.0	15.0	mg/kg	06.25.17 07.36	U	1
Oil Range Hydrocarbons	PHCG2835	<15.0	15.0	mg/kg	06.25.17 07.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	06.25.17 07.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	06.25.17 07.36	
o-Terphenyl	84-15-1	105	%	70-135	06.25.17 07.36	



# Certificate of Analytical Results 555847



## TRC Solutions, Inc, Midland, TX

### A-14 Field Scrubber

Sample Id: <b>SW-3 1'</b>	Matrix: Soil	Date Received: 06.21.17 08.40
Lab Sample Id: 555847-003	Date Collected: 06.15.17 14.00	Sample Depth: 1 ft
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 06.24.17 11.30	Basis: Wet Weight
Seq Number: 3020665		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.25.17 07.09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.25.17 07.09	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	94	%	80-120	06.25.17 07.09		
1,4-Difluorobenzene	540-36-3	95	%	80-120	06.25.17 07.09		

- 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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1211 W Florida Ave, Midland, TX 79701	(210) 509-3334	(210) 509-3335
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(432) 563-1800	(432) 563-1713
	(602) 437-0330	



TRC Solutions, Inc  
A-14 Field Scrubber

Analytical Method: Chloride by EPA 300

Seq Number: 3020684

MB Sample Id: 726721-1-BLK

Matrix: Solid

LCS Sample Id: 726721-1-BKS

Prep Method: E300P

Date Prep: 06.26.17

LCSD Sample Id: 726721-1-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	248	99	90-110	0	20	mg/kg	06.26.17 10:21	

Analytical Method: Chloride by EPA 300

Seq Number: 3020684

Parent Sample Id: 555846-002

Matrix: Soil

MS Sample Id: 555846-002 S

Prep Method: E300P

Date Prep: 06.26.17

MSD Sample Id: 555846-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.85	247	245	97	244	96	90-110	0	20	mg/kg	06.26.17 12:36	

Analytical Method: Chloride by EPA 300

Seq Number: 3020684

Parent Sample Id: 556064-003

Matrix: Soil

MS Sample Id: 556064-003 S

Prep Method: E300P

Date Prep: 06.26.17

MSD Sample Id: 556064-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.6	246	261	99	259	99	90-110	1	20	mg/kg	06.26.17 10:49	

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

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  
A-14 Field Scrubber

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: BTEX by EPA 8021B

Seq Number: 3020665

MB Sample Id: 726706-1-BLK

Matrix: Solid

LCS Sample Id: 726706-1-BKS

Prep Method: SW5030B

Date Prep: 06.24.17

LCSD Sample Id: 726706-1-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	0.107	107	0.0950	96	70-130	12	35	mg/kg	06.25.17 03:55	
Toluene	<0.00200	0.100	0.101	101	0.0876	88	70-130	14	35	mg/kg	06.25.17 03:55	
Ethylbenzene	<0.00200	0.100	0.111	111	0.0966	97	71-129	14	35	mg/kg	06.25.17 03:55	
m,p-Xylenes	<0.00401	0.200	0.200	100	0.173	87	70-135	14	35	mg/kg	06.25.17 03:55	
o-Xylene	<0.00200	0.100	0.106	106	0.0914	92	71-133	15	35	mg/kg	06.25.17 03:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		90		93		80-120	%	06.25.17 03:55
4-Bromofluorobenzene	98		93		92		80-120	%	06.25.17 03:55

Analytical Method: BTEX by EPA 8021B

Seq Number: 3020665

Parent Sample Id: 556138-002

Matrix: Soil

MS Sample Id: 556138-002 S

Prep Method: SW5030B

Date Prep: 06.24.17

MSD Sample Id: 556138-002 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	0.100	0.0785	79	0.0898	90	70-130	13	35	mg/kg	06.25.17 04:27	
Toluene	<0.00200	0.100	0.0785	79	0.0795	80	70-130	1	35	mg/kg	06.25.17 04:27	
Ethylbenzene	<0.00200	0.100	0.0770	77	0.0764	76	71-129	1	35	mg/kg	06.25.17 04:27	
m,p-Xylenes	0.00688	0.200	0.144	69	0.135	64	70-135	6	35	mg/kg	06.25.17 04:27	X
o-Xylene	<0.00200	0.100	0.0771	77	0.0762	76	71-133	1	35	mg/kg	06.25.17 04:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		112		80-120	%	06.25.17 04:27
4-Bromofluorobenzene	116		112		80-120	%	06.25.17 04:27



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 06/21/2017 08:40:00 AM

**Work Order #:** 555847

**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)?	3.5
#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 Date: 06/21/2017  
 Marithza Anaya

**Checklist reviewed by:** Kelsey Brooks Date: 06/21/2017  
 Kelsey Brooks



# Certificate of Analysis Summary 557335



TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Sump

Project Id: TRC#273818  
 Contact: Nikki Green  
 Project Location: Lea County NM

Date Received in Lab: Wed Jul-12-17 12:09 pm  
 Report Date: 14-JUL-17  
 Project Manager: Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b>	557335-001				
	<b>Field Id:</b>	KM-1 3"				
	<b>Depth:</b>	3- In				
	<b>Matrix:</b>	SOIL				
	<b>Sampled:</b>	Jul-11-17 11:00				
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Jul-13-17 17:30				
	<b>Analyzed:</b>	Jul-14-17 09:36				
	<b>Units/RL:</b>	mg/kg RL				
	Benzene	<0.00200 0.00200				
	Toluene	<0.00200 0.00200				
	Ethylbenzene	<0.00200 0.00200				
	m,p-Xylenes	<0.00399 0.00399				
	o-Xylene	<0.00200 0.00200				
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
<b>Chloride by EPA 300</b>	<b>Extracted:</b>	Jul-14-17 14:00				
	<b>Analyzed:</b>	Jul-14-17 14:43				
	<b>Units/RL:</b>	mg/kg RL				
Chloride	10.9 4.92					
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	Jul-12-17 14:00				
	<b>Analyzed:</b>	Jul-12-17 16:36				
	<b>Units/RL:</b>	mg/kg RL				
	Gasoline Range Hydrocarbons (GRO)	<15.0 15.0				
	Diesel Range Organics (DRO)	1250 15.0				
Oil Range Hydrocarbons (ORO)	5440 15.0					
Total TPH	6690 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 557335

for  
**TRC Solutions, Inc**

**Project Manager: Nikki Green**

**A14 Compressor Station Sump**

**TRC#273818**

**14-JUL-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)



14-JUL-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **557335**  
**A14 Compressor Station Sump**  
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) 557335. 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. 557335 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 557335



**TRC Solutions, Inc, Midland, TX**

A14 Compressor Station Sump

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
KM-1 3"	S	07-11-17 11:00	3 In	557335-001



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station Sump*

Project ID: TRC#273818  
Work Order Number(s): 557335

Report Date: 14-JUL-17  
Date Received: 07/12/2017

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3022274 BTEX by EPA 8021B

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

## TRC Solutions, Inc, Midland, TX

### A14 Compressor Station Sump

Sample Id: **KM-1 3"**  
 Lab Sample Id: 557335-001

Matrix: Soil  
 Date Collected: 07.11.17 11.00

Date Received: 07.12.17 12.09  
 Sample Depth: 3 In

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3022314

Date Prep: 07.14.17 14.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.9	4.92	mg/kg	07.14.17 14.43		1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3022138

Date Prep: 07.12.17 14.00

Prep Method: TX1005P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.12.17 16.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	1250	15.0	mg/kg	07.12.17 16.36		1
Oil Range Hydrocarbons (ORO)	PHCG2835	5440	15.0	mg/kg	07.12.17 16.36		1
Total TPH	PHC635	6690	15.0	mg/kg	07.12.17 16.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	07.12.17 16.36	
o-Terphenyl	84-15-1	110	%	70-135	07.12.17 16.36	



# Certificate of Analytical Results 557335



## TRC Solutions, Inc, Midland, TX A14 Compressor Station Sump

Sample Id: **KM-1 3"**  
 Lab Sample Id: 557335-001

Matrix: Soil  
 Date Collected: 07.11.17 11.00

Date Received: 07.12.17 12.09  
 Sample Depth: 3 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: JUM

% Moisture:

Analyst: JUM

Date Prep: 07.13.17 17.30

Basis: Wet Weight

Seq Number: 3022274

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.14.17 09.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.14.17 09.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.14.17 09.36	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.14.17 09.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.14.17 09.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.14.17 09.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.14.17 09.36	U	1
			%				
<b>Surrogate</b>	<b>Cas Number</b>	<b>Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	90	%	80-120	07.14.17 09.36		
4-Bromofluorobenzene	460-00-4	115	%	80-120	07.14.17 09.36		

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



TRC Solutions, Inc  
A14 Compressor Station Sump

**Analytical Method: Chloride by EPA 300**

Seq Number: 3022314

MB Sample Id: 727676-1-BLK

Matrix: Solid

LCS Sample Id: 727676-1-BKS

Prep Method: E300P

Date Prep: 07.14.17

LCSD Sample Id: 727676-1-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	250	100	253	101	90-110	1	20	mg/kg	07.14.17 14:27	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3022314

Parent Sample Id: 557335-001

Matrix: Soil

MS Sample Id: 557335-001 S

Prep Method: E300P

Date Prep: 07.14.17

MSD Sample Id: 557335-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.9	246	266	104	267	104	90-110	0	20	mg/kg	07.14.17 14:50	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3022138

MB Sample Id: 727570-1-BLK

Matrix: Solid

LCS Sample Id: 727570-1-BKS

Prep Method: TX1005P

Date Prep: 07.12.17

LCSD Sample Id: 727570-1-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	960	96	983	98	70-135	2	35	mg/kg	07.12.17 14:59	
Diesel Range Organics (DRO)	<15.0	1000	948	95	960	96	70-135	1	35	mg/kg	07.12.17 14:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		114		109		70-135	%	07.12.17 14:59
o-Terphenyl	127		112		108		70-135	%	07.12.17 14:59

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3022138

Parent Sample Id: 557336-001

Matrix: Soil

MS Sample Id: 557336-001 S

Prep Method: TX1005P

Date Prep: 07.12.17

MSD Sample Id: 557336-001 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	990	99	1030	103	70-135	4	35	mg/kg	07.12.17 17:27	
Diesel Range Organics (DRO)	43.5	1000	1020	98	1020	98	70-135	0	35	mg/kg	07.12.17 17:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		112		70-135	%	07.12.17 17:27
o-Terphenyl	108		114		70-135	%	07.12.17 17:27



TRC Solutions, Inc  
A14 Compressor Station Sump

Analytical Method: BTEX by EPA 8021B

Seq Number: 3022274

MB Sample Id: 727633-1-BLK

Matrix: Solid

LCS Sample Id: 727633-1-BKS

Prep Method: SW5030B

Date Prep: 07.13.17

LCSD Sample Id: 727633-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.102	103	0.122	122	70-130	18	35	mg/kg	07.13.17 18:04	
Toluene	<0.00198	0.0992	0.0949	96	0.114	114	70-130	18	35	mg/kg	07.13.17 18:04	
Ethylbenzene	<0.00198	0.0992	0.0907	91	0.117	117	71-129	25	35	mg/kg	07.13.17 18:04	
m,p-Xylenes	<0.00397	0.198	0.165	83	0.209	105	70-135	24	35	mg/kg	07.13.17 18:04	
o-Xylene	<0.00198	0.0992	0.0887	89	0.115	115	71-133	26	35	mg/kg	07.13.17 18:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		99		106		80-120	%	07.13.17 18:04
4-Bromofluorobenzene	92		85		108		80-120	%	07.13.17 18:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3022274

Parent Sample Id: 557431-001

Matrix: Soil

MS Sample Id: 557431-001 S

Prep Method: SW5030B

Date Prep: 07.13.17

MSD Sample Id: 557431-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0893	90	0.0957	96	70-130	7	35	mg/kg	07.13.17 18:37	
Toluene	<0.00198	0.0992	0.0971	98	0.0842	84	70-130	14	35	mg/kg	07.13.17 18:37	
Ethylbenzene	<0.00198	0.0992	0.0816	82	0.0822	82	71-129	1	35	mg/kg	07.13.17 18:37	
m,p-Xylenes	0.00444	0.198	0.164	81	0.163	79	70-135	1	35	mg/kg	07.13.17 18:37	
o-Xylene	0.00391	0.0992	0.103	100	0.0840	80	71-133	20	35	mg/kg	07.13.17 18:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		115		80-120	%	07.13.17 18:37
4-Bromofluorobenzene	118		116		80-120	%	07.13.17 18:37





# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 07/12/2017 12:09:00 PM

**Work Order #:** 557335

**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)?	4.1
#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 Date: 07/12/2017  
Jessica Kramer

**Checklist reviewed by:** Julian Martinez Date: 07/12/2017  
Julian Martinez



# Certificate of Analysis Summary 561288

TRC Solutions, Inc, Midland, TX

Project Name: A14 Compressor Station Field Scrubber



**Project Id:**  
**Contact:** Nikki Green  
**Project Location:** Lean County NM

**Date Received in Lab:** Fri Aug-25-17 02:35 pm  
**Report Date:** 30-AUG-17  
**Project Manager:** Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b>	561288-001				
	<b>Field Id:</b>	KM-1a 6"				
	<b>Depth:</b>					
	<b>Matrix:</b>	SOIL				
	<b>Sampled:</b>	Aug-22-17 12:00				
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	Aug-28-17 16:00				
	<b>Analyzed:</b>	Aug-29-17 04:39				
	<b>Units/RL:</b>	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0				
Diesel Range Organics (DRO)		719 15.0				
Oil Range Hydrocarbons (ORO)		2600 15.0				
Total TPH		3319 15				

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 561288

for  
**TRC Solutions, Inc**

**Project Manager: Nikki Green**  
**A14 Compressor Station Field Scrubber**

**30-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)



30-AUG-17

Project Manager: **Nikki Green**  
**TRC Solutions, Inc**  
2057 Commerce  
Midland, TX 79703

Reference: XENCO Report No(s): **561288**  
**A14 Compressor Station Field Scrubber**  
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) 561288. 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. 561288 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

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## Sample Cross Reference 561288



**TRC Solutions, Inc, Midland, TX**

A14 Compressor Station Field Scrubber

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
KM-1a 6"	S	08-22-17 12:00		561288-001



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: A14 Compressor Station Field Scrubber*

Project ID:  
Work Order Number(s): 561288

Report Date: 30-AUG-17  
Date Received: 08/25/2017

---

**Sample receipt non conformances and comments:**

---

**Sample receipt non conformances and comments per sample:**

None

## TRC Solutions, Inc, Midland, TX A14 Compressor Station Field Scrubber

Sample Id: <b>KM-1a 6''</b>	Matrix: Soil	Date Received: 08.25.17 14.35
Lab Sample Id: 561288-001	Date Collected: 08.22.17 12.00	
Analytical Method: TPH by SW8015 Mod		Prep Method: TX1005P
Tech: ARM		% Moisture:
Analyst: ARM	Date Prep: 08.28.17 16.00	Basis: Wet Weight
Seq Number: 3026146		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.29.17 04.39	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>719</b>	15.0	mg/kg	08.29.17 04.39		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>2600</b>	15.0	mg/kg	08.29.17 04.39		1
<b>Total TPH</b>	PHC635	<b>3319</b>	15	mg/kg	08.29.17 04.39		1
<b>% Recovery</b>							
<b>Surrogate</b>	<b>Cas Number</b>			<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>
1-Chlorooctane	111-85-3		93	%	70-135	08.29.17 04.39	
o-Terphenyl	84-15-1		94	%	70-135	08.29.17 04.39	

- 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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(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



TRC Solutions, Inc  
A14 Compressor Station Field Scrubber

Analytical Method: TPH by SW8015 Mod

Seq Number: 3026146

MB Sample Id: 730045-1-BLK

Matrix: Solid

LCS Sample Id: 730045-1-BKS

Prep Method: TX1005P

Date Prep: 08.28.17

LCSD Sample Id: 730045-1-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	898	90	952	95	70-135	6	35	mg/kg	08.29.17 02:12	
Diesel Range Organics (DRO)	<15.0	1000	967	97	1020	102	70-135	5	35	mg/kg	08.29.17 02:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		92		100		70-135	%	08.29.17 02:12
o-Terphenyl	95		89		100		70-135	%	08.29.17 02:12

Analytical Method: TPH by SW8015 Mod

Seq Number: 3026146

Parent Sample Id: 561389-001

Matrix: Soil

MS Sample Id: 561389-001 S

Prep Method: TX1005P

Date Prep: 08.28.17

MSD Sample Id: 561389-001 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	998	1050	105	893	89	70-135	16	35	mg/kg	08.29.17 03:14	
Diesel Range Organics (DRO)	99.9	998	1120	102	988	89	70-135	13	35	mg/kg	08.29.17 03:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		89		70-135	%	08.29.17 03:14
o-Terphenyl	99		82		70-135	%	08.29.17 03:14





# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 08/25/2017 02:35:00 PM

**Work Order #:** 561288

**Acceptable Temperature Range:** 0 - 6 degC  
**Air and Metal samples Acceptable Range:** Ambient  
**Temperature Measuring device used :** r-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#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)?	No
#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: 08/25/2017

**Checklist reviewed by:** Kelsey Brooks  
 \_\_\_\_\_  
 Kelsey Brooks

Date: 08/28/2017

## Photographic Documentation

Client: ETC Field Services, LLC

Prepared by: TRC Environmental Corp.

Project Name: A-14 Compressor Station Field Scrubber Location: Lea County, NM

**Photograph No. 1**

**Date:**  
February 23, 2017

**Description:**  
Looking northwest  
at Field Scrubber.



**Photograph No. 2**

**Date:**  
February 23, 2017

**Description:**  
Looking northeast  
at Field Scrubber.  
Release in  
foreground.



## Photographic Documentation

Client: ETC Field Services, LLC

Prepared by: TRC Environmental Corp.

Project Name: A-14 Compressor Station Field Scrubber Location: Lea County, NM

**Photograph No. 3**

**Date:**  
March 23, 2017

**Description:**  
Looking east  
following hand  
auger delineation  
activities.



**Photograph No. 4**

**Date:**  
May 9, 2017

**Description:**  
Looking west  
during backhoe  
trench activities at  
sample point FS-  
1a.



**Client: ETC Field Services, LLC**

**Prepared by: TRC Environmental Corp.**

**Project Name: A-14 Compressor Station Field Scrubber Location: Lea County, NM**

**Photograph No. 5**

**Date:  
June 16, 2017**

**Description:  
Looking east  
following  
excavation  
activities.**



**Photograph No. 6**

**Date:  
June 16, 2017**

**Description:  
Looking east  
following  
excavation  
activities.**



**Client: ETC Field Services, LLC**

**Prepared by: TRC Environmental Corp.**

**Project Name: A-14 Compressor Station Field Scrubber Location: Lea County, NM**

**Photograph No. 7**

**Date:**  
**June 16, 2017**

**Description:**  
**Looking northwest**  
**following**  
**excavation**  
**activities.**



**Photograph No. 8**

**Date:**  
**June 16, 2017**

**Description:**  
**Looking west**  
**following**  
**excavation**  
**activities.**



**Client:** ETC Field Services, LLC

**Prepared by:** TRC Environmental Corp.

**Project Name:** A-14 Compressor Station Field Scrubber **Location:** Lea County, NM

**Photograph No. 9**

**Date:**  
October 5, 2017

**Description:**  
Looking northeast  
following backfill  
activities.



**Photograph No. 10**

**Date:**  
October 5, 2017

**Description:**  
Looking northwest  
following backfill  
activities.





# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Elmer, New Mexico 88231  
(575) 294-2311

TICKET No. 430922

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: 4th Compressor Station Field Scratch

TRANSPORTER COMPANY: Aldos Trucking TIME: 1:21 AM/PM

DATE: 9-20-11 VEHICLE NO: 02 GENERATOR COMPANY NAME: Ross State

CHARGE TO: ETC REC NAME AND NUMBER

### TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinse    |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> B&W Content                  | <input type="checkbox"/> Call Out |

Description: o/d

RRC or API #

C-133#

VOLUME OF MATERIAL  BBLs \_\_\_\_\_ o/d YARD 20

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

**THIS WILL CERTIFY** that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

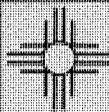
DRIVER: Martin Garcia

FACILITY REPRESENTATIVE: [Signature]

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 430921

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: H-14 Compressor Station Field Service

TRANSPORTER COMPANY: K & W Oilfield

TIME 1:17 AM/PM

DATE: 9-20-17 VEHICLE NO: 2

GENERATOR COMPANY  
MAN'S NAME: Kase Scott

CHARGE TO: ETC

RIG NAME  
AND NUMBER

## TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> BS&W Content:                | <input type="checkbox"/> Call Out |

Description: 0/D

RRC or API #

C-133#

VOLUME OF MATERIAL

BBLs

YARD

20

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

(SIGNATURE)

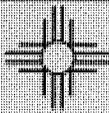
FACILITY REPRESENTATIVE: [Signature]

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 430919

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: H-14 Compressor Station Field Sampling

TRANSPORTER COMPANY: Cook 4" Trucks

TIME 1:11 AM/PM

DATE: 9-20-19

VEHICLE NO: 24

GENERATOR/COMPANY NAME'S NAME: Ray Sunde

CHARGE TO: ETC

RIG NAME AND NUMBER

### TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> BS&W Content                 | <input type="checkbox"/> Call Out |

Description: o/d

RRC or API #

C-133#

VOLUME OF MATERIAL  BBLs \_\_\_\_\_ :  YARD 20 :  \_\_\_\_\_

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

(SIGNATURE)

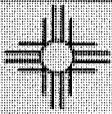
FACILITY REPRESENTATIVE: [Signature]

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eurlice, New Mexico 88231  
(575) 394-2511

TICKET No. 431015

LEASE OPERATOR/SHIPPER/COMPANY: ETS

LEASE NAME: Oilfield equipment

TRANSPORTER COMPANY: State Transport TIME: 7:55 AM/PM

DATE: 12/17 VEHICLE NO: 4 GENERATOR COMPANY MAN'S NAME: Ken Brown

CHARGE TO: ETS TRIG NAME AND NUMBER: 539005117

### TYPE OF MATERIAL

- Production Water
- Tank Bottoms
- Solids
- Drilling Fluids
- Contaminated Soil
- BS&W Content:
- Rinsate
- Jet Out
- Call Out

Description: Oil

RRC or API # 250 C-133#

VOLUME OF MATERIAL  BBLs.  YARD 30

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

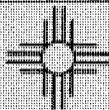
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DRIVER: Ignacio Est  
(SIGNATURE)

FACILITY REPRESENTATIVE: [Signature]  
(SIGNATURE)

White - Sundance      Canary - Sundance Acct #1      Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eureka, New Mexico 88231  
(575) 394-2511

TICKET No. 431018

LEASE OPERATOR/SHIPPER/COMPANY: <u>ETC</u>	
LEASE NAME: <u>ETC</u>	
TRANSPORTER COMPANY: <u>ETC</u>	TIME: <u>9:45 AM/PM</u>
DATE: <u>12/17</u>	VEHICLE NO: <u>24</u>
GENERATOR COMPANY NAME'S NAME: <u>ETC</u>	
CHARGE TO: <u>ETC</u>	RIG NAME AND NUMBER: <u>152-140-511</u>

### TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> B5&W Content:                | <input type="checkbox"/> Call Out |

Description: OLD

RRC or API # ETC C-133#

VOLUME OF MATERIAL  BBLS. : 1 YARD 20 :

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

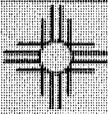
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DRIVER: [Signature]  
(SIGNATURE)

FACILITY REPRESENTATIVE: [Signature]  
(SIGNATURE)

White - Sundance      Canary - Sundance Acct #1      Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 431020

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: H-14 Computer Services

TRANSPORTER COMPANY: KIT Oilfield Services

TIME 9:41 AM/PM

DATE: 1/21/17 VEHICLE NO: 2

GENERATOR COMPANY MAIN'S NAME: KIT Oilfield Services

CHARGE TO: ETC

BIG NAME AND NUMBER: 432-7465117

### TYPE OF MATERIAL

- |   |  |                                   |
|---|--|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids   | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> BS&W Content:     | <input type="checkbox"/> Call Out |

Description: Oil

RRC or API #

C-133#

VOLUME OF MATERIAL  BBLs. :  YARD 40 :

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: [Signature]

(SIGNATURE)

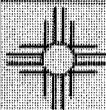
FACILITY REPRESENTATIVE: [Signature]

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 431028

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: [Handwritten]

TRANSPORTER COMPANY: [Handwritten] TIME: 09:50 AM/PM

DATE: 7/25/17 VEHICLE NO: 07 GENERATOR COMPANY MAN'S NAME: [Handwritten]

CHARGE TO: ETC RIG NAME AND NUMBER: 452-940-5141

### TYPE OF MATERIAL

- Production Water
- Tank Bottoms
- Solids
- Drilling Fluids
- Contaminated Soil
- BS&W Content:
- Rinsate
- Jet Out
- Call Out

Description: [Handwritten]

RRC or API # [Handwritten] C-133#

VOLUME OF MATERIAL [ ] BBLS. [ ] YARD [ ]

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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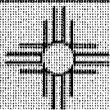
DRIVER: [Handwritten Signature]  
(SIGNATURE)

FACILITY REPRESENTATIVE: [Handwritten Signature]  
(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 431029

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: A-14 Computer Station

TRANSPORTER COMPANY: M & K Oilfield Transport TIME: 10:40 (AM/PM)

DATE: 7-21-17 VEHICLE NO.: 10 GENERATOR COMPANY: (602) 464  
MM'S NAME: (602) 464

CHARGE TO: ETC PIG NAME AND NUMBER: 952-940-5147

### TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> B&W Content                  | <input type="checkbox"/> Call Out |

Description: SOIL

RRC or API # 262 C-133#

VOLUME OF MATERIAL  BBLS : 1 YARD 20 :

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

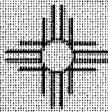
ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

**THIS WILL CERTIFY** that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER: [Signature]  
(SIGNATURE)

FACILITY REPRESENTATIVE: [Signature]  
(SIGNATURE)

White - Sundance      Canary - Sundance Acct #1      Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 431030

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: Oil compressor station

TRANSPORTER COMPANY: MTR outfield transport TIME: 10:50 AM/PM

DATE: 12/17 VEHICLE NO: 05 GENERATOR COMPANY MAN'S NAME: Bob Smith

CHARGE TO: ETC RIG NAME AND NUMBER: 155-746-5141

### TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> BS&W Content                 | <input type="checkbox"/> Call Out |

Description: oil

RRC or API #     C-133#

VOLUME OF MATERIAL  BBLS     :  YARD 20 :     

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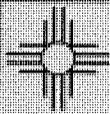
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DRIVER: Ramon Ramirez  
(SIGNATURE)

FACILITY REPRESENTATIVE: Sarah [Signature]  
(SIGNATURE)

White - Sundance      Canary - Sundance Acct #1      Pink - Transporter





# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 431033

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: ETC

TRANSPORTER COMPANY: MTR Koutfield Transport TIME 11:00 AM/PM

DATE: 7-21-17 VEHICLE NO: 19 GENERATOR COMPANY NAME: 400 Skoda

CHARGE TO: ETC RIG NAME AND NUMBER: 132-940-517

### TYPE OF MATERIAL

- Production Water
- Tank Bottoms
- Solids
- Drilling Fluids
- Contaminated Soil
- BS&W Content:
- Rinsate
- Jet Out
- Call Out

Description: CID

RRC or API # C-133#

VOLUME OF MATERIAL [ ] BBLS : [X] YARD 20 : [ ]

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

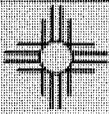
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DRIVER: Ricardo Diaz (SIGNATURE)

FACILITY REPRESENTATIVE: Sarah Thomas (SIGNATURE)

White - Sundance      Canary - Sundance Acct #1      Pink - Transporter



# SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231  
(575) 394-2511

TICKET No. 431034

LEASE OPERATOR/SHIPPER/COMPANY: ETC

LEASE NAME: ETC

TRANSPORTER COMPANY: K Oilfield Transport

TIME 11:03 AM/PM

DATE: 7/2/00 VEHICLE NO: 9

GENERATOR COMPANY  
MAN'S NAME: Tony Slack

CHARGE TO: ETC

RIG NAME  
AND NUMBER: 432-740-5147

## TYPE OF MATERIAL

- |   |   |                                   |
|---|---|-----------------------------------|
| <input type="checkbox"/> Production Water | <input type="checkbox"/> Drilling Fluids              | <input type="checkbox"/> Rinsate  |
| <input type="checkbox"/> Tank Bottoms     | <input checked="" type="checkbox"/> Contaminated Soil | <input type="checkbox"/> Jet Out  |
| <input type="checkbox"/> Solids           | <input type="checkbox"/> BS&W Content:                | <input type="checkbox"/> Call Out |

Description: O/D

RRC or API #

C-133#

VOLUME OF MATERIAL

BBLs

YARD

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Cris Montoya

(SIGNATURE)

FACILITY REPRESENTATIVE: Suzanne Herrera

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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

Form C-141  
Revised August 8, 2011

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

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, LLC	Contact: Rose Slade	
Address: 800 East Sonterra Rd. Suite 2 San Antonio, TX 78249	Telephone No. 210-403-6525	
Facility Name: A-14 (Field Scrubber)	Facility Type: Compressor Station	
Surface Owner: BLM	Mineral Owner: N/A	API No. N/A

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County:
I	6	24S	35E					Lea

Latitude: 32.246183 Longitude: -103.402000

**NATURE OF RELEASE**

Type of Release: Crude Oil/ Produced water	Volume of Release: < 5 barrels	Volume Recovered: 0
Source of Release: Field Scrubber	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 2/23/17
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Notification was given to Ms. Olivia Yu on 3/3/17 at approximately 8:19 AM	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**RECEIVED**  
By Olivia Yu at 12:52 pm, Mar 09, 2017

If a Watercourse was Impacted, Describe Fully.\*  
N/A

Describe Cause of Problem and Remedial Action Taken.\*  
On 2/23/17 ETC personnel discovered a crude oil & produced water release from the field scrubber due to a piece of tubing breaking off going into the field scrubber. During the initial response activities, ETC installed a new piece of tubing going into the field scrubber to prevent another incident.

Describe Area Affected and Cleanup Action Taken.\* Fluid flowed from the release point to the southwest corner of the facility. The impacted area was approximately 3,000 square feet. A Site Assessment has been conducted by ETC personnel and an environmental company representing ETC. A work-plan is being written to submit to the NMOCD Hobbs District Office and the Bureau of Land Management (BLM)

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: <i>Rose L. Slade</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Rose L. Slade	Approved by Environmental Specialist: <i>oy</i>	
Title: Sr. Environmental Specialist	Approval Date: 3/9/2017	Expiration Date:
E-mail Address: <a href="mailto:Rose.Slade@energytransfer.com">Rose.Slade@energytransfer.com</a>	Conditions of Approval: see attached directive	Attached <input checked="" type="checkbox"/>
Date: 3/3/17 Phone: 210-403-6525		

\* Attach Additional Sheets If Necessary

1RP-4634 fOY1706953656 nOY1706954187  
pOY1706955443

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/3/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1R-4634 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 4/10/2017. 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; C<sub>6</sub> thru C<sub>36</sub>), 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; C<sub>6</sub> thru C<sub>36</sub>), 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