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Midland, TX 79703

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September 7, 2017

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

Henryetta Price  
Carlsbad Field Office  
United States Department of the Interior  
Bureau of Land Management  
620 E. Greene Street  
Carlsbad, New Mexico 88220

Re: Soil Investigation Summary and Proposed Remediation Workplan  
Gunslinger 11 Federal Com #001 (1RP-4651)  
GPS: N 32.582877° W 103.640467°  
Unit Letter "M", Section 11, Township 20 South, Range 33 East  
Lea County, New Mexico

Dear Ms. Yu and Ms. Price,

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG) has prepared this Soil Investigation Summary and Proposed Remediation Workplan (Workplan) for the Gunslinger 11 Federal Com #001 Release Site (Release Site). The purpose of this Workplan is to propose remediation activities designed to advance the Gunslinger 11 Federal Com #001 Release Site toward a New Mexico Oil Conservation Division (NMOCD) approved Site Closure Status. The legal description of the Release Site is Unit Letter "M", Section 11, Township 20 South, Range 33 East, in Lea County, New Mexico. The GPS coordinates for the Site are N 32.582877° W 103.640467°. The subject property is administered by the United States Bureau of Land Management (BLM). A Site Location Map and Site Map are provided as Figure 1 and Figure 2, respectively.

On March 18, 2017, COG discovered a crude oil and produced water release, which occurred when a heater treater relief valve failed. The release was confined to the caliche pad of the location with overspray on the adjacent pasture and measured approximately 26,248 square feet in area. On March 22, 2017, a Release Notification and Corrective Action (Form C-141) was submitted to the NMOCD. During initial response activities, COG replaced the damaged pressure relief valve on the heater treater.

Approximately forty (40) barrels of fluid was released from the heater treater, with thirty (30) barrels of fluid recovered. The Form C-141 is attached to this report.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 11, Township 20 South, Range 33 East. A reference map utilized by the NMOCD Hobbs District Office indicates groundwater should be encountered at approximately two hundred twenty-five (225) feet below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

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

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

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

On June 30, 2017, a TRC Representative collected twenty one (21) delineation soil samples (Trench-1 1', Trench-1 3', Trench-1 5', Trench-1 8', Trench-2 6", Trench-2 1', Trench-2 3', Trench-2 5', Trench-2 8', Trench-3 6", Trench-3 1', Trench-3 3', Trench-3 5', Trench-3 8', Trench-4 6", Trench-4 1', Trench-4 3', Trench-4 5', Trench-4 8', Trench-4 11', and Trench-4 17') from the impacted area utilizing a backhoe. 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/or chloride using Method E 300.0/300.1. The analytical results indicated benzene concentrations were less than the applicable laboratory Method Detection Limit (MDL) for all submitted soil samples, with the exception of soil samples Trench-4 6" (0.0590 mg/Kg) and Trench-4 1' (0.174 mg/Kg). A review of laboratory analytical results indicated benzene concentrations were below NMOCD regulatory guidelines for the submitted soil samples. The laboratory results indicated BTEX concentrations ranged from less than the applicable laboratory MDL for soil samples Trench-1 3', Trench-1 5', Trench-1 8', Trench-2 6", Trench-2 1', Trench-2 3', Trench-2 5', Trench-2 8', Trench-3 5', Trench-4 11', and Trench-4 17' to 123.8 mg/Kg for soil sample Trench-4 5'. A review of laboratory analytical results indicate BTEX concentrations were below NMOCD regulatory guidelines, with the exception of soil samples Trench-4 1' (59.284 mg/Kg) and Trench-4 5' (123.8 mg/Kg). The laboratory results indicated TPH concentrations ranged from less than the applicable laboratory MDL for soil samples Trench-2 1', Trench-2 3', Trench-3 5', and Trench-4 17' to 11,531 mg/kg for soil sample Trench-4 6". A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines for the submitted soil samples, with the exception of soil samples Trench-3 6" (10,479 mg/Kg), Trench-4 6" (11,531 mg/Kg), Trench-4 1' (8,548 mg/Kg), and Trench-4 5' (7,405 mg/Kg), which were above NMOCD regulatory guidelines. Chloride concentrations ranged from 7.33 mg/Kg for soil sample Trench-4 17' to 589 mg/Kg for soil sample Trench-3 6", indicating chloride concentrations were below

NMOCD regulatory guidelines for all of the submitted soil samples. The laboratory analytical results are attached to this report.

In addition, TRC collected five (5) samples (North Trench-1 1', East Trench-1 1', South Trench-1 1', West Trench-1 1', and West Trench-1 3') to the north, east, south and west of the visibly stained area to a depth ranging from approximately one (1) foot to three (3) feet bgs to determine the horizontal extent of the impacted area. The soil samples were submitted to Xenco Laboratories for BTEX, TPH, and chloride analysis. Laboratory analytical results indicated benzene concentrations were less than applicable laboratory MDL for the submitted soil samples, with the exception of soil sample West Trench-1 3' (0.660 mg/Kg). A review of laboratory analytical results indicate benzene concentrations were below NMOCD regulatory guidelines. Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory MDL for the submitted soil samples, with the exception of soil samples West Trench-1 1' (4.761 mg/Kg) and West Trench-1 3' (156.060 mg/Kg). A review of laboratory analytical results indicated BTEX concentrations were below NMOCD regulatory guidelines with the exception of soil sample West Trench-1 3'. A review of laboratory analytical results indicated TPH concentrations ranged from less than the applicable laboratory MDL for soil sample North Trench-1 1' to 13,231 mg/Kg for soil sample West Trench-1 3'. A review of laboratory analytical results indicated TPH concentrations were below NMOCD regulatory guidelines for the submitted soil samples with the exception of soil samples West Trench-1 1' (6,744 mg/Kg) and West Trench-1 3' (13,231 mg/Kg). Laboratory analytical results indicated chloride concentrations ranged from 38.0 mg/Kg for soil sample South Trench-1 1' to 298 mg/Kg for soil sample East Trench-1 1', which indicated the submitted soil samples were below NMOCD regulatory guidelines.

In addition, two (2) soil samples (OS-1 3" and OS-2 3") were collected from the overspray area located in the pasture adjacent to the caliche pad and submitted to the laboratory for BTEX, TPH, and chloride analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the applicable laboratory MDL and below NMOCD regulatory guidelines. Laboratory analytical results indicated chloride concentrations for soil samples OS-1 3" and OS-2 3" were 13.8 mg/Kg and 82.6 mg/Kg, respectively, and below NMOCD regulatory guidelines.

Based on the analytical results of the soil samples collected on June 30, 2017, COG proposes the following field activities designed to remediate the Gunslinger 11 Federal Com #001 Release:

- Utilizing a backhoe, excavate the Release Site to a depth of approximately six (6) inches bgs in the area represented by soil samples Trench-1, excavate to a depth of approximately one (1) foot bgs in the area represented by soil samples Trench-3, and excavate approximately five (5) feet bgs in the area represented by soil samples Trench-4. No excavation activities will be performed in the areas represented by soil sample Trench-2, which will be aesthetically addressed. Excavated soil will be temporarily stockpiled on a plastic liner adjacent to the excavation.
- Following excavation activities, one (1) confirmation soil sample will be collected from the west wall of the area represented by soil samples Trench-4 and West Trench and submit the soil sample to the laboratory for determination of concentrations of BTEX and TPH. In addition, a minimum of one (1) composite soil sample will be collected for each one hundred (100) cubic yards of excavated soil and will be submitted to the laboratory for determination of concentrations of BTEX, TPH, and chloride.

- On receipt of favorable analytical results (below NMOCD regulatory guidelines), the excavation will be backfilled with the remediated soil.
- If laboratory results indicate BTEX, TPH, or chloride concentrations of the excavated soil exceed NMOCD regulatory guidelines, the excavated soil will be transported under manifest to an NMOCD approved disposal facility and the excavated area will be backfilled with "like" non-impacted soil.
- Prepare and submit a "Remediation Summary and Site Closure Request" to the NMOCD and BLM.

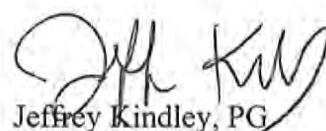
COG is prepared to begin the activities outlined in this Proposed Remediation Workplan on NMOCD and BLM approval.

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

Thank you,



Nikki Green  
Project Manager  
TRC Environmental Corporation



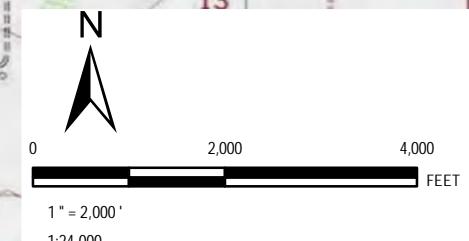
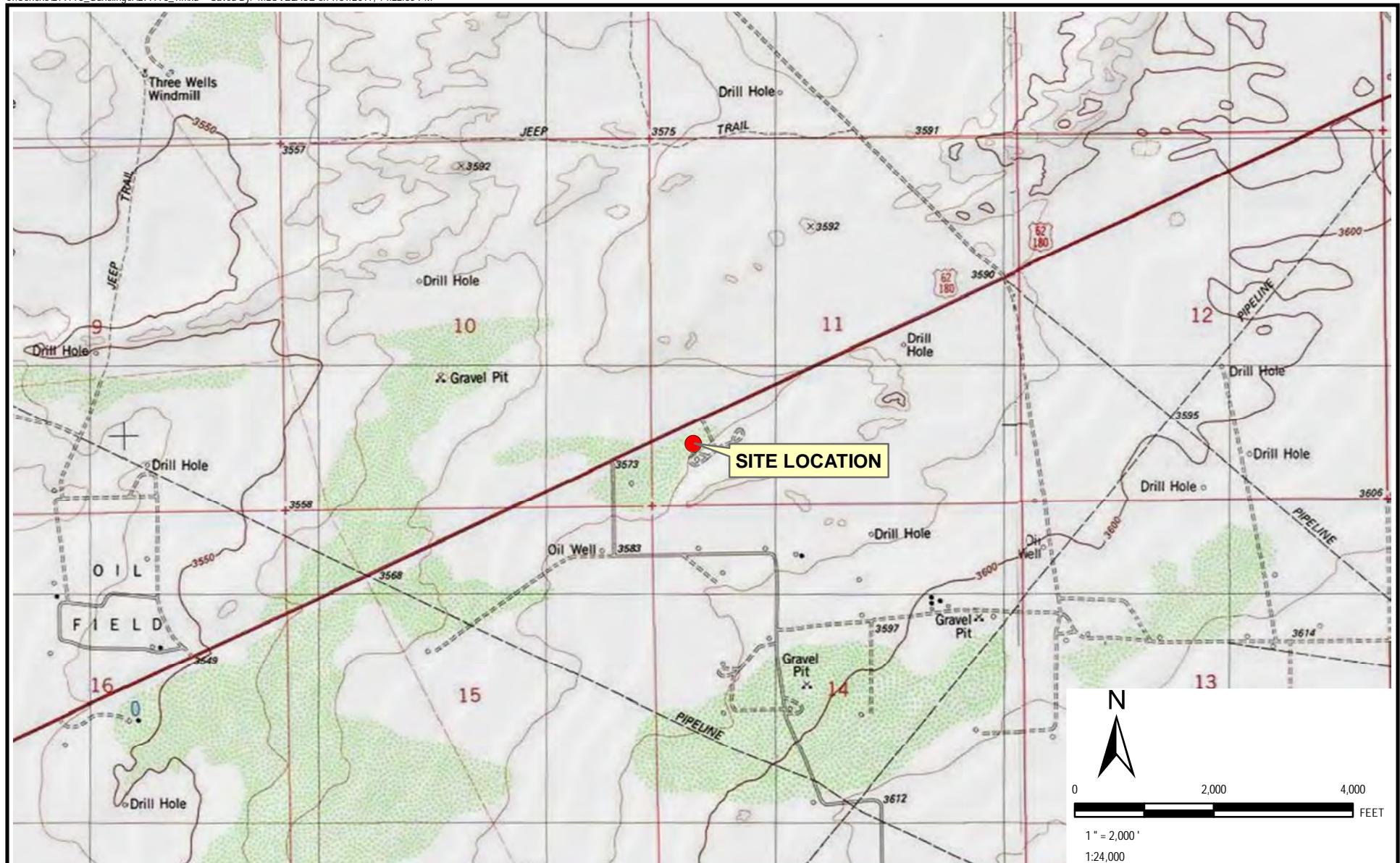
Jeffrey Kindley, PG  
Senior Project Manager  
TRC Environmental Corporation

**Attachments:**

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

cc: Rebecca Haskell  
COG Operating, LLC  
600 W. Illinois Avenue  
Midland, Texas 79701

File



2075 Commerce Drive  
Midland, TX 79703  
Phone: 432.520.770

TRC - GIS

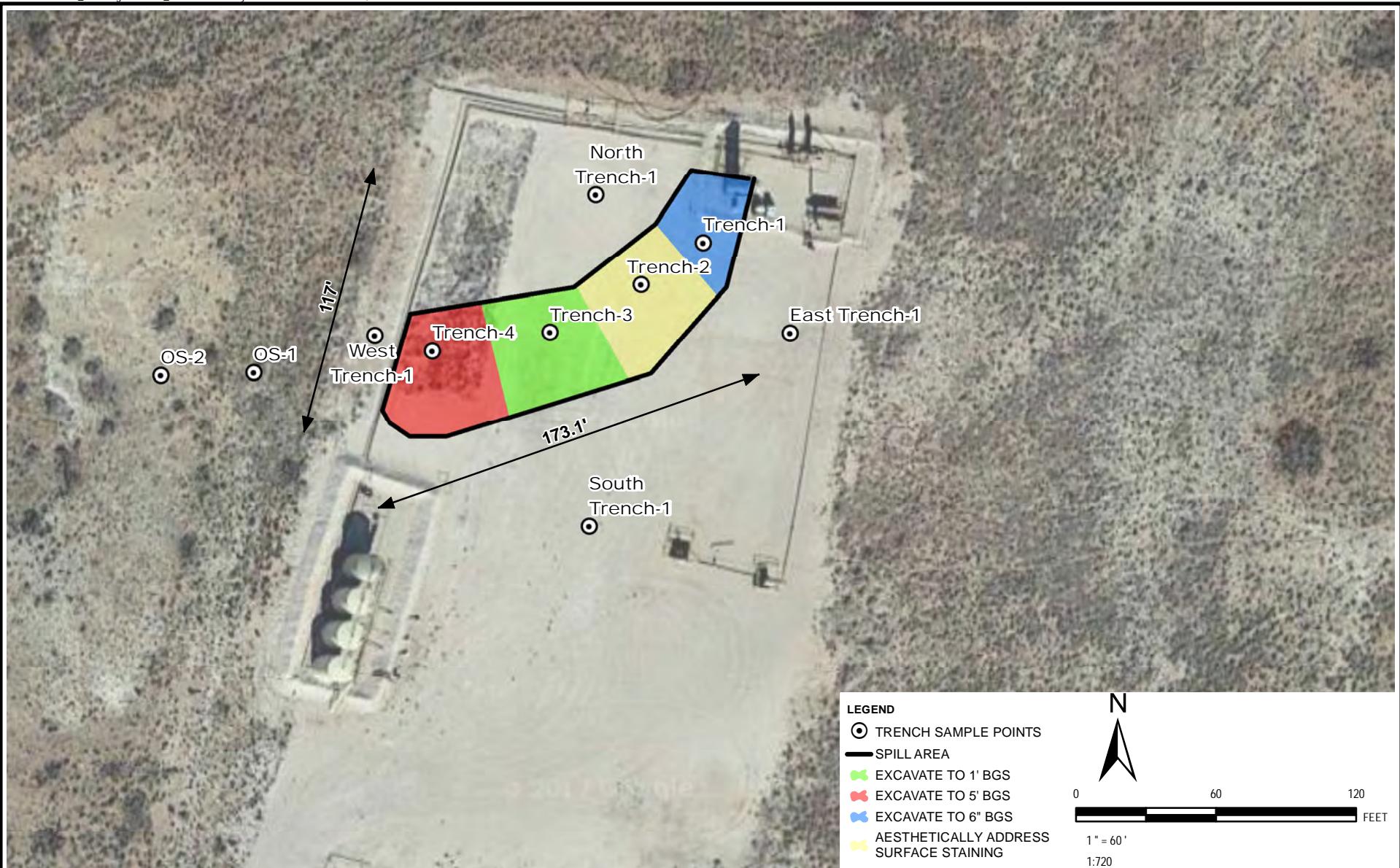
TITLE:

## FIGURE 1 SITE LOCATION MAP

PROJECT:

GUNSLINGER 11 FEDERAL #001  
LEA COUNTY, NEW MEXICO  
COG OPERATING, LLC

DRAWN BY:	MLOVELACE
CHECKED BY:	NGREEN
APPROVED BY:	NGREEN
DATE:	JULY 2017
PROJ. NO.:	279778
GPS	LAT. N 32.582877°, LONG. W 103.640467°
SW1/4 SW1/4 SEC 11 T20S R33E	



2075 Commerce Drive  
Midland, TX 79703  
Phone: 432.520.770

TRC - GIS

TITLE:

## FIGURE 2 SITE MAP

PROJECT:

GUNSLINGER 11 FEDERAL #001  
LEA COUNTY, NEW MEXICO  
COG OPERATING, LLC.

DRAWN BY:	MLOVELACE
CHECKED BY:	NGREEN
APPROVED BY:	NGREEN
DATE:	AUGUST 2017
PROJ. NO.:	279778
GPS	LAT. N 32.582877°, LONG. W 103.640467°
<b>SW1/4 SW1/4 SEC 11 T20S R33E</b>	

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL**

COG Operating LLC  
**Gunslinger 11 Federal Com #001 (1RP-4651)**  
**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 - XYLEMES	o - XYLEMES	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>	
NMOCD Site Classification Criteria			10					50				5,000	600
Trench-1 1'	06/30/17	Trench	<0.00199	0.00585	<0.00199	0.210	0.322	0.538	724	1,860	153	2,737	84.0
Trench-1 3'	06/30/17	Trench	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00397	<15.0	24.7	<15.0	24.7	-
Trench-1 5'	06/30/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	19.0	176	<15.0	195.0	-
Trench-1 8'	06/30/17	Trench	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<15.0	70.2	<15.0	70.2	85.2
Trench-2 6"	06/30/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	27.5	1,020	78.5	1,126.0	355
Trench-2 1'	06/30/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	<15.0	<15.0	<15.0	326
Trench-2 3'	06/30/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	-
Trench-2 5'	06/30/17	Trench	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<0.00403	<14.9	54.4	<14.9	54.4	-
Trench-2 8'	06/30/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	<15.0	<15.0	<15.0	<15.0	50.9
Trench-3 6"	06/30/17	Trench	<0.00199	<0.00199	<0.00199	0.0489	0.0318	0.0807	1,360	8,520	599	<b>10,479</b>	589
Trench-3 1'	06/30/17	Trench	<0.00201	<0.00201	<0.00201	0.00807	0.00545	0.01352	141	846	<15.0	987	136
Trench-3 3'	06/30/17	Trench	<0.00202	<0.00202	<0.00202	0.00563	<0.00202	0.00563	34.3	632	<15.0	666.3	-
Trench-3 5'	06/30/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	-
Trench-3 8'	06/30/17	Trench	<0.00201	<0.00201	<0.00201	0.00858	<0.00201	0.00858	21.3	150	<15.0	171	193
Trench-4 6"	06/30/17	Trench	0.0590	0.387	0.731	3.68	4.19	9.047	1,980	8,860	691	<b>11,531</b>	155
Trench-4 1'	06/30/17	Trench	0.174	2.39	1.92	38.8	16.0	<b>59.284</b>	2,920	5,260	368	<b>8,548</b>	50.8
Trench-4 3'	06/30/17	Trench	<0.0202	0.599	0.542	7.10	3.18	11.421	415	1,160	45.8	1,620.8	-
Trench-4 5'	06/30/17	Trench	<0.0199	11.0	11.0	74.4	27.4	<b>123.8</b>	2,740	4,310	355.0	<b>7,405</b>	-
Trench-4 8'	06/30/17	Trench	<0.00200	0.00305	<0.00200	0.116	0.0859	0.20495	317	1,200	89.1	1,606.1	-
Trench-4 11'	06/30/17	Trench	<0.00199	<0.00199	<0.00199	<0.00398	<0.00199	<0.00398	16.4	130	<15.0	146.4	-
Trench-4 17'	06/30/17	Trench	<0.00200	<0.00200	<0.00200	<0.00399	<0.00200	<0.00399	<15.0	<15.0	<15.0	<15.0	7.33
North Trench-1 1'	06/30/17	Trench	<0.00201	<0.00201	<0.00201	<0.00402	<0.00201	<0.00402	<15.0	<15.0	<15.0	<15.0	281
East Trench-1 1'	06/30/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	28.8	<15.0	28.8	298
South Trench-1 1'	06/30/17	Trench	<0.00198	<0.00198	<0.00198	<0.00397	<0.00198	<0.00397	<15.0	142	25.3	167.3	38.0

**TABLE 1**  
**CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL**

COG Operating LLC  
 Gunslinger 11 Federal Com #001 (1RP-4651)  
 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>	
NMOCD Site Classification Criteria			10					50				5,000	600
West Trench-1 1'	06/30/17	Trench	<0.0202	0.278	0.373	2.08	2.03	4.761	1380	4940	424	6,744	74.9
West Trench-1 3'	06/30/17	Trench	0.660	26.5	11.8	80.5	36.6	<b>156.060</b>	5690	7,230	311	<b>13,231</b>	78.4
OS-1 3"	06/30/17	Trench	<0.00202	<0.00202	<0.00202	<0.00404	<0.00202	<0.00404	<15.0	<15.0	<15.0	<15.0	13.8
OS-2 3"	06/30/17	Trench	<0.00200	<0.00200	<0.00200	<0.00401	<0.00200	<0.00401	<15.0	<15.0	<15.0	<15.0	82.6



# Certificate of Analysis Summary 556808

TRC Solutions, Inc, Midland, TX

Project Name: Gunslinger 11 Federal Com #001H (03/18/17)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

Analysis Requested		Lab Id:	556808-001	556808-002	556808-003	556808-004	556808-005	556808-006		
		Field Id:	OS-1 3"	OS-2 3"	Trench-1 1'	Trench-1 3'	Trench-1 5'	Trench-1 8'		
		Depth:								
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
		Sampled:	Jun-30-17 08:50	Jun-30-17 08:55	Jun-30-17 09:00	Jun-30-17 09:15	Jun-30-17 09:30	Jun-30-17 09:45		
<b>BTEX by EPA 8021B</b>		Extracted:	Jul-06-17 09:30							
		Analyzed:	Jul-06-17 18:35	Jul-06-17 18:51	Jul-06-17 20:28	Jul-06-17 19:08	Jul-06-17 19:24	Jul-06-17 19:40		
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	
Toluene		<0.00202	0.00202	<0.00200	0.00200	0.00585	0.00199	<0.00200	0.00200	
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	
m,p-Xylenes		<0.00404	0.00404	<0.00401	0.00401	0.210	0.00398	<0.00399	0.00399	
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	0.112	0.00199	<0.00200	0.00200	
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	0.322	0.00199	<0.00200	0.00200	
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	0.328	0.00199	<0.00200	0.00202	
<b>Chloride by EPA 300</b>		Extracted:	Jul-07-17 16:30	Jul-07-17 16:30	Jul-07-17 16:30			Jul-07-17 16:30		
		Analyzed:	Jul-07-17 19:54	Jul-07-17 20:17	Jul-07-17 20:24			Jul-07-17 20:32		
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		13.8	4.91	82.6	4.97	84.0	4.95		85.2	4.94
<b>TPH by SW8015 Mod</b>		Extracted:	Jul-04-17 10:00							
		Analyzed:	Jul-04-17 12:36	Jul-04-17 13:37	Jul-04-17 13:57	Jul-04-17 14:19	Jul-04-17 14:39	Jul-04-17 14:59		
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	724	15.0	<15.0	15.0	
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	1860	15.0	24.7	15.0	
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	153	15.0	<15.0	15.0	
Total TPH		<15.0	15.0	<15.0	15.0	2740	15.0	24.7	15.0	
								195	15.0	
								70.2	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

Version: 1.%

Mike Kimmel  
Client Services Manager



# Certificate of Analysis Summary 556808

TRC Solutions, Inc, Midland, TX

Project Name: Gunslinger 11 Federal Com #001H (03/18/17)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

Analysis Requested		Lab Id:	556808-007	Field Id:	556808-008	Depth:	556808-009	Lab Id:	556808-010	Field Id:	556808-011	Depth:	556808-012							
BTEX by EPA 8021B		Extracted:	Jul-06-17 15:00	Analyzed:	Jul-06-17 15:00	Matrix:	SOIL	Extracted:	Jul-06-17 15:00	Analyzed:	Jul-06-17 15:00	Matrix:	SOIL	Extracted:	Jul-06-17 15:00	Analyzed:	Jul-06-17 15:00	Matrix:	SOIL	
		Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	<0.00199	0.00199	
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00398	0.00398	<0.00403	0.00403	<0.00398	0.00398	<0.00409	0.00409	<0.00398	0.00398	0.0489	0.00398	0.0489	0.00398	
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	0.0318	0.00199	0.0318	0.00199	
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	0.0807	0.00199	0.0807	0.00199	
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	0.0807	0.00199	0.0807	0.00199	
Chloride by EPA 300		Extracted:	Jul-07-17 16:30	Analyzed:	Jul-07-17 16:30										Extracted:	Jul-07-17 16:30	Analyzed:	Jul-07-17 16:30		
		Units/RL:	mg/kg	Units/RL:	mg/kg										Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg
Chloride		355	4.95	326	4.92										50.9	4.93	589	4.91		
TPH by SW8015 Mod		Extracted:	Jul-04-17 10:00	Analyzed:	Jul-04-17 10:00										Extracted:	Jul-04-17 10:00	Analyzed:	Jul-04-17 10:00		
		Units/RL:	mg/kg	Units/RL:	mg/kg										Units/RL:	mg/kg	Units/RL:	mg/kg		
Gasoline Range Hydrocarbons (GRO)		27.5	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0	1360	74.8			
Diesel Range Organics (DRO)		1020	15.0	<15.0	15.0	<15.0	15.0	54.4	14.9	<15.0	15.0	54.4	14.9	<15.0	15.0	8520	74.8			
Oil Range Hydrocarbons (ORO)		78.5	15.0	<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<14.9	14.9	<15.0	15.0	599	74.8			
Total TPH		1130	15.0	<15.0	15.0	<15.0	15.0	54.4	14.9	<15.0	15.0	54.4	14.9	<15.0	15.0	10500	74.8			

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Mike Kimmel  
Client Services Manager



# Certificate of Analysis Summary 556808

TRC Solutions, Inc, Midland, TX

Project Name: Gunslinger 11 Federal Com #001H (03/18/17)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

Analysis Requested		Lab Id:	556808-013	Field Id:	556808-014	Depth:	556808-015	Lab Id:	556808-016	Field Id:	556808-017	Depth:	556808-018						
BTEX by EPA 8021B		Extracted:	Jul-06-17 15:00	Analyzed:	Jul-06-17 15:00	Matrix:	SOIL	Extracted:	Jul-07-17 08:30	Analyzed:	Jul-07-17 08:30	Matrix:	SOIL	Extracted:	Jul-07-17 12:00	Analyzed:	Jul-07-17 12:15	Matrix:	SOIL
		Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg	Units/RL:	mg/kg
Benzene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	0.0590	0.0498	0.174	0.101		
Toluene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	0.387	0.0498	2.39	0.101		
Ethylbenzene		<0.00201	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	0.731	0.0498	1.92	0.101		
m,p-Xylenes		0.00807	0.00402	0.00563	0.00404	<0.00402	0.00402	0.00858	0.00402	3.68	0.0996	0.00858	0.00201	4.19	0.0498	38.8	0.202		
o-Xylene		0.00545	0.00201	<0.00202	0.00202	<0.00201	0.00201	<0.00201	0.00201	<0.00201	0.00201	7.87	0.0498	16.0	0.101				
Total Xylenes		0.0135	0.00201	0.00563	0.00202	<0.00201	0.00201	0.00858	0.00201	9.05	0.0498	0.00858	0.00201	54.8	0.101				
Total BTEX		0.0135	0.00201	0.00563	0.00202	<0.00201	0.00201	0.00858	0.00201	9.05	0.0498	0.00858	0.00201	59.3	0.101				
Chloride by EPA 300		Extracted:	Jul-07-17 16:30	Analyzed:	Jul-07-17 21:26	Matrix:	mg/kg	Extracted:	Jul-07-17 16:30	Analyzed:	Jul-07-17 21:33	Matrix:	mg/kg	Extracted:	Jul-07-17 16:30	Analyzed:	Jul-07-17 22:04	Matrix:	mg/kg
Chloride		mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
TPH by SW8015 Mod		Extracted:	Jul-04-17 10:00	Analyzed:	Jul-04-17 18:09	Matrix:	mg/kg	Extracted:	Jul-04-17 10:00	Analyzed:	Jul-04-17 18:31	Matrix:	mg/kg	Extracted:	Jul-04-17 10:00	Analyzed:	Jul-04-17 19:12	Matrix:	mg/kg
Gasoline Range Hydrocarbons (GRO)		141	15.0	34.3	15.0	<15.0	15.0	21.3	15.0	1980	74.9	150	15.0	150	15.0	8860	74.9	150	15.0
Diesel Range Organics (DRO)		846	15.0	632	15.0	<15.0	15.0	150	15.0	5260	74.9	691	74.9	691	74.9	368	74.9	691	74.9
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	11500	74.9	171	15.0	171	15.0	8550	74.9	171	15.0
Total TPH		987	15.0	666	15.0	<15.0	15.0	11500	74.9	11500	74.9	11500	74.9	11500	74.9	11500	74.9	11500	74.9

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Mike Kimmel  
Client Services Manager



# Certificate of Analysis Summary 556808

TRC Solutions, Inc, Midland, TX

Project Name: Gunslinger 11 Federal Com #001H (03/18/17)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

<b>Analysis Requested</b>	<b>Lab Id:</b>	556808-019	556808-020	556808-021	556808-022	556808-023	556808-024	
	<b>Field Id:</b>	Trench-4 3'	Trench-4 5'	Trench-4 8'	Trench-4 11'	Trench-4 17'	North Trench-1 1'	
	<b>Depth:</b>							
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	<b>Sampled:</b>	Jun-30-17 12:30	Jun-30-17 12:45	Jun-30-17 13:00	Jun-30-17 13:15	Jun-30-17 13:30	Jun-30-17 13:35	
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Jul-10-17 15:00	Jul-10-17 18:00	Jul-10-17 08:00	Jul-06-17 15:00	Jul-06-17 15:00	Jul-06-17 15:00	
	<b>Analyzed:</b>	Jul-10-17 23:45	Jul-11-17 14:13	Jul-10-17 16:11	Jul-07-17 02:08	Jul-07-17 02:24	Jul-07-17 02:40	
	<b>Units/RL:</b>	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene	<0.0202	0.0202	<0.0199	0.0199	<0.00200	0.00200	<0.00201	0.00201
Toluene	0.599	0.0202	11.0 D	0.201	0.00305	0.00200	<0.00200	0.00200
Ethylbenzene	0.542	0.0202	11.0 D	0.201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes	7.10	0.0404	74.4 D	0.402	0.116	0.00401	<0.00398	0.00398
o-Xylene	3.18	0.0202	27.4 D	0.201	0.0859	0.00200	<0.00199	0.00199
Total Xylenes	10.3	0.0202	102	0.201	0.202	0.00200	<0.00199	0.00199
Total BTEX	11.4	0.0202	124	0.0199	0.205	0.00200	<0.00199	0.00199
<b>Chloride by EPA 300</b>	<b>Extracted:</b>					Jul-07-17 16:30	Jul-07-17 16:30	
	<b>Analyzed:</b>					Jul-07-17 22:12	Jul-07-17 22:35	
	<b>Units/RL:</b>					mg/kg	RL	
Chloride						7.33	4.94	
<b>TPH by SW8015 Mod</b>	<b>Extracted:</b>	Jul-04-17 10:00						
	<b>Analyzed:</b>	Jul-04-17 20:15	Jul-04-17 20:36	Jul-04-17 22:23	Jul-04-17 23:28	Jul-04-17 23:49	Jul-05-17 00:10	
	<b>Units/RL:</b>	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)	415	15.0	2740	15.0	317	15.0	<15.0	15.0
Diesel Range Organics (DRO)	1160	15.0	4310	15.0	1200	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)	45.8	15.0	355	15.0	89.1	15.0	<15.0	15.0
Total TPH	1620	15.0	7410	15.0	1610	15.0	<15.0	15.0

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Mike Kimmel  
Client Services Manager



# Certificate of Analysis Summary 556808

TRC Solutions, Inc, Midland, TX

Project Name: Gunslinger 11 Federal Com #001H (03/18/17)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 11-JUL-17

Project Manager: Kelsey Brooks

<b><i>Analysis Requested</i></b>		<b><i>Lab Id:</i></b>	556808-025	<b><i>Field Id:</i></b>		556808-026	<b><i>Depth:</i></b>		556808-027	<b><i>Matrix:</i></b>				
		<b><i>Sampled:</i></b>	Jun-30-17 13:45			East Trench-1 1'			South Trench-1 1'			WesT Trench-1 1'		
<b>BTEX by EPA 8021B</b>		<b><i>Extracted:</i></b>	Jul-06-17 15:00	<b><i>Analyzed:</i></b>		Jul-06-17 15:00	<b><i>Units/RL:</i></b>		Jul-10-17 18:00					
Benzene		<0.00200	0.00200	<0.00198		0.00198	<0.0202		0.0202					
Toluene		<0.00200	0.00200	<0.00198		0.00198	0.278		0.0202					
Ethylbenzene		<0.00200	0.00200	<0.00198		0.00198	0.373		0.0202					
m,p-Xylenes		<0.00401	0.00401	<0.00397		0.00397	2.08		0.0403					
o-Xylene		<0.00200	0.00200	<0.00198		0.00198	2.03		0.0202					
Total Xylenes		<0.00200	0.00200	<0.00198		0.00198	4.11		0.0202					
Total BTEX		<0.00200	0.00200	<0.00198		0.00198	4.76		0.0202					
<b>Chloride by EPA 300</b>		<b><i>Extracted:</i></b>	Jul-07-17 16:30	<b><i>Analyzed:</i></b>		Jul-07-17 16:30	<b><i>Units/RL:</i></b>		Jul-07-17 16:30					
Chloride		mg/kg	RL	mg/kg		RL	mg/kg		RL					
298		4.97		38.0		4.94	74.9		4.95					
<b>TPH by SW8015 Mod</b>		<b><i>Extracted:</i></b>	Jul-04-17 10:00	<b><i>Analyzed:</i></b>		Jul-04-17 10:00	<b><i>Units/RL:</i></b>		Jul-04-17 10:00					
Gasoline Range Hydrocarbons (GRO)		mg/kg	RL	mg/kg		RL	mg/kg		RL					
28.8		15.0		142		15.0	4940		15.0					
Diesel Range Organics (DRO)														
Oil Range Hydrocarbons (ORO)		<15.0	15.0	25.3		15.0	424		15.0					
28.8		15.0		167		15.0	6740		15.0					
Total TPH														

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Mike Kimmel  
Client Services Manager

# **Analytical Report 556808**

**for  
TRC Solutions, Inc**

**Project Manager: Nikki Green**

**Gunslinger 11 Federal Com #001H (03/18/17)**

**11-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)

11-JUL-17

Project Manager: **Nikki Green**

**TRC Solutions, Inc**

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **556808**

**Gunslinger 11 Federal Com #001H (03/18/17)**

Project Address: Lea Co 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) 556808. 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. 556808 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,



**Mike Kimmel**

Client Services Manager

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

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
OS-1 3"	S	06-30-17 08:50		556808-001
OS-2 3"	S	06-30-17 08:55		556808-002
Trench-1 1'	S	06-30-17 09:00		556808-003
Trench-1 3'	S	06-30-17 09:15		556808-004
Trench-1 5'	S	06-30-17 09:30		556808-005
Trench-1 8'	S	06-30-17 09:45		556808-006
Trench-2 6"	S	06-30-17 10:00		556808-007
Trench-2 1'	S	06-30-17 10:20		556808-008
Trench-2 3'	S	06-30-17 10:30		556808-009
Trench-2 5'	S	06-30-17 10:45		556808-010
Trench-2 8'	S	06-30-17 11:00		556808-011
Trench-3 6"	S	06-30-17 11:15		556808-012
Trench-3 1'	S	06-30-17 11:20		556808-013
Trench-3 3'	S	06-30-17 11:30		556808-014
Trench-3 5'	S	06-30-17 11:45		556808-015
Trench-3 8'	S	06-30-17 12:00		556808-016
Trench-4 6"	S	06-30-17 12:15		556808-017
Trench-4 1'	S	06-30-17 12:20		556808-018
Trench-4 3'	S	06-30-17 12:30		556808-019
Trench-4 5'	S	06-30-17 12:45		556808-020
Trench-4 8'	S	06-30-17 13:00		556808-021
Trench-4 11'	S	06-30-17 13:15		556808-022
Trench-4 17'	S	06-30-17 13:30		556808-023
North Trench-1 1'	S	06-30-17 13:35		556808-024
East Trench-1 1'	S	06-30-17 13:45		556808-025
South Trench-1 1'	S	06-30-17 13:55		556808-026
WesT Trench-1 1'	S	06-30-17 10:10		556808-027

**Client Name: TRC Solutions, Inc****Project Name: Gunslinger 11 Federal Com #001H (03/18/17)**

Project ID:

Work Order Number(s): 556808

Report Date: 11-JUL-17

Date Received: 07/03/2017

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

None

**Analytical non conformances and comments:**

Batch: LBA-3021649 BTEX by EPA 8021B

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

Batch: LBA-3021700 BTEX by EPA 8021B

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

Batch: LBA-3021705 BTEX by EPA 8021B

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

Batch: LBA-3021783 Chloride by EPA 300

Lab Sample ID 556808-017 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 556808-001, -002, -003, -006, -007, -008, -011, -012, -013, -016, -017, -018, -023, -024, -025, -026, -027.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3021854 BTEX by EPA 8021B

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

Batch: LBA-3021934 BTEX by EPA 8021B

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

Batch: LBA-3021965 BTEX by EPA 8021B

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

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

Samples affected are: 556808-020.



## CASE NARRATIVE

*Client Name: TRC Solutions, Inc*

*Project Name: Gunslinger 11 Federal Com #001H (03/18/17)*

Project ID:

Work Order Number(s): 556808

Report Date: 11-JUL-17

Date Received: 07/03/2017

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# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: OS-1 3"

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-001

Date Collected: 06.30.17 08.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	4.91	mg/kg	07.07.17 19.54		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 12.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 12.36	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 12.36	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 12.36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	112	%	70-135	07.04.17 12.36	
o-Terphenyl		84-15-1	111	%	70-135	07.04.17 12.36	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: OS-1 3"

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-001

Date Collected: 06.30.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.06.17 09.30

Basis: Wet Weight

Seq Number: 3021649

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.17 18.35	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.17 18.35	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.17 18.35	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	07.06.17 18.35	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.17 18.35	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.17 18.35	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.06.17 18.35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	80-120	07.06.17 18.35		
4-Bromofluorobenzene	460-00-4	99	%	80-120	07.06.17 18.35		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: OS-2 3" Matrix: Soil Date Received:07.03.17 11.55  
Lab Sample Id: 556808-002 Date Collected: 06.30.17 08.55  
  
Analytical Method: Chloride by EPA 300 Prep Method: E300P  
Tech: MGO % Moisture:  
Analyst: MGO Basis: Wet Weight  
Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	82.6	4.97	mg/kg	07.07.17 20.17		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P  
Tech: ARM % Moisture:  
Analyst: ARM Basis: Wet Weight  
Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 13.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 13.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 13.37	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 13.37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	07.04.17 13.37		
o-Terphenyl	84-15-1	106	%	70-135	07.04.17 13.37		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: OS-2 3"

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-002

Date Collected: 06.30.17 08.55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.06.17 09.30

Basis: Wet Weight

Seq Number: 3021649

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.17 18.51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.17 18.51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.17 18.51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.06.17 18.51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.17 18.51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.17 18.51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.17 18.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	80-120	07.06.17 18.51		
4-Bromofluorobenzene	460-00-4	104	%	80-120	07.06.17 18.51		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-003

Date Collected: 06.30.17 09.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	84.0	4.95	mg/kg	07.07.17 20.24		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	724	15.0	mg/kg	07.04.17 13.57		1
Diesel Range Organics (DRO)	C10C28DRO	1860	15.0	mg/kg	07.04.17 13.57		1
Oil Range Hydrocarbons (ORO)	PHCG2835	153	15.0	mg/kg	07.04.17 13.57		1
Total TPH	PHC635	2740	15.0	mg/kg	07.04.17 13.57		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	07.04.17 13.57		
o-Terphenyl	84-15-1	93	%	70-135	07.04.17 13.57		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-003

Date Collected: 06.30.17 09.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.06.17 09.30

Basis: Wet Weight

Seq Number: 3021649

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.17 20.28	U	1
Toluene	108-88-3	<b>0.00585</b>	0.00199	mg/kg	07.06.17 20.28		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.17 20.28	U	1
m,p-Xylenes	179601-23-1	<b>0.210</b>	0.00398	mg/kg	07.06.17 20.28		1
o-Xylene	95-47-6	<b>0.112</b>	0.00199	mg/kg	07.06.17 20.28		1
Total Xylenes	1330-20-7	<b>0.322</b>	0.00199	mg/kg	07.06.17 20.28		1
<b>Total BTEX</b>		<b>0.328</b>	0.00199	mg/kg	07.06.17 20.28		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	80-120	07.06.17 20.28		
1,4-Difluorobenzene	540-36-3	99	%	80-120	07.06.17 20.28		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-1 3'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-004**

Date Collected: 06.30.17 09.15

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 14.19	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>24.7</b>	15.0	mg/kg	07.04.17 14.19		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 14.19	U	1
<b>Total TPH</b>	PHC635	<b>24.7</b>	15.0	mg/kg	07.04.17 14.19		1
<b>Surrogate</b>			<b>% Recovery</b>				
1-Chlorooctane	111-85-3		110	%	70-135	07.04.17 14.19	
o-Terphenyl	84-15-1		111	%	70-135	07.04.17 14.19	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 09.30**

Basis: **Wet Weight**

Seq Number: **3021649**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.06.17 19.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.06.17 19.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.06.17 19.08	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.06.17 19.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.06.17 19.08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.06.17 19.08	U	1
<b>Total BTEX</b>		<b>&lt;0.00198</b>	<b>0.00198</b>	mg/kg	07.06.17 19.08	U	1
<b>Surrogate</b>			<b>% Recovery</b>				
4-Bromofluorobenzene	460-00-4		109	%	80-120	07.06.17 19.08	
1,4-Difluorobenzene	540-36-3		98	%	80-120	07.06.17 19.08	

## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

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

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-005**

Date Collected: 06.30.17 09.30

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: 07.04.17 10.00

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>19.0</b>	15.0	mg/kg	07.04.17 14.39		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>176</b>	15.0	mg/kg	07.04.17 14.39		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 14.39	U	1
<b>Total TPH</b>	PHC635	<b>195</b>	15.0	mg/kg	07.04.17 14.39		1
<b>Surrogate</b>			<b>% Recovery</b>				
1-Chlorooctane	111-85-3		109	%	70-135	07.04.17 14.39	
o-Terphenyl	84-15-1		109	%	70-135	07.04.17 14.39	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: 07.06.17 09.30

Basis: **Wet Weight**

Seq Number: **3021649**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.17 19.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.17 19.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.17 19.24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.06.17 19.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.17 19.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.17 19.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.17 19.24	U	1
<b>Surrogate</b>			<b>% Recovery</b>				
1,4-Difluorobenzene	540-36-3		95	%	80-120	07.06.17 19.24	
4-Bromofluorobenzene	460-00-4		87	%	80-120	07.06.17 19.24	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

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

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-006

Date Collected: 06.30.17 09.45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>85.2</b>	4.94	mg/kg	07.07.17 20.32		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 14.59	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>70.2</b>	15.0	mg/kg	07.04.17 14.59		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 14.59	U	1
<b>Total TPH</b>	PHC635	<b>70.2</b>	15.0	mg/kg	07.04.17 14.59		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-135	07.04.17 14.59		
o-Terphenyl	84-15-1	118	%	70-135	07.04.17 14.59		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

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

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-006

Date Collected: 06.30.17 09.45

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.06.17 09.30

Basis: Wet Weight

Seq Number: 3021649

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.17 19.40	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.17 19.40	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.17 19.40	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.06.17 19.40	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.17 19.40	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.17 19.40	U	1
Total BTEX		<0.00202	0.00202	mg/kg	07.06.17 19.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	80-120	07.06.17 19.40		
1,4-Difluorobenzene	540-36-3	103	%	80-120	07.06.17 19.40		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 6"**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-007**

Date Collected: 06.30.17 10.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: 07.07.17 16.30

Basis: **Wet Weight**

Seq Number: **3021783**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>355</b>	4.95	mg/kg	07.07.17 20.40		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: 07.04.17 10.00

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>27.5</b>	15.0	mg/kg	07.04.17 15.20		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>1020</b>	15.0	mg/kg	07.04.17 15.20		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>78.5</b>	15.0	mg/kg	07.04.17 15.20		1
<b>Total TPH</b>	PHC635	<b>1130</b>	15.0	mg/kg	07.04.17 15.20		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	07.04.17 15.20		
o-Terphenyl	84-15-1	90	%	70-135	07.04.17 15.20		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 6"**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-007**

Date Collected: **06.30.17 10.00**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.06.17 22.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.06.17 22.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.06.17 22.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.06.17 22.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.06.17 22.54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.06.17 22.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.06.17 22.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	80-120	07.06.17 22.54		
1,4-Difluorobenzene	540-36-3	106	%	80-120	07.06.17 22.54		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 1'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-008**

Date Collected: **06.30.17 10.20**

Analytical Method: **Chloride by EPA 300**

Prep Method: **E300P**

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: **07.07.17 16.30**

Basis: **Wet Weight**

Seq Number: **3021783**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>326</b>	4.92	mg/kg	07.07.17 21.03		1

Analytical Method: **TPH by SW8015 Mod**

Prep Method: **TX1005P**

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 15.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 15.41	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 15.41	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 15.41	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	110	%	70-135	07.04.17 15.41	
o-Terphenyl		84-15-1	111	%	70-135	07.04.17 15.41	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 1'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-008**

Date Collected: **06.30.17 10.20**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.06.17 23.10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.06.17 23.10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.06.17 23.10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.06.17 23.10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.06.17 23.10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.06.17 23.10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.06.17 23.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	80-120	07.06.17 23.10		
1,4-Difluorobenzene	540-36-3	92	%	80-120	07.06.17 23.10		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 3'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-009**

Date Collected: 06.30.17 10.30

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 16.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 16.02	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 16.02	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 16.02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	07.04.17 16.02		
o-Terphenyl	84-15-1	113	%	70-135	07.04.17 16.02		

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.17 23.27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.17 23.27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.17 23.27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.17 23.27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.17 23.27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.17 23.27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.17 23.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	80-120	07.06.17 23.27		
1,4-Difluorobenzene	540-36-3	116	%	80-120	07.06.17 23.27		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

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

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-010

Date Collected: 06.30.17 10.45

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: 07.04.17 10.00

Basis: **Wet Weight**

Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	07.04.17 16.23	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>54.4</b>	14.9	mg/kg	07.04.17 16.23		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.04.17 16.23	U	1
<b>Total TPH</b>	PHC635	<b>54.4</b>	14.9	mg/kg	07.04.17 16.23		1
<b>Surrogate</b>			<b>% Recovery</b>				
1-Chlorooctane	111-85-3		111	%	70-135	07.04.17 16.23	
o-Terphenyl	84-15-1		113	%	70-135	07.04.17 16.23	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: 07.06.17 15.00

Basis: **Wet Weight**

Seq Number: 3021700

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.06.17 23.43	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.06.17 23.43	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.06.17 23.43	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	07.06.17 23.43	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.06.17 23.43	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	07.06.17 23.43	U	1
<b>Total BTEX</b>		<0.00202	0.00202	mg/kg	07.06.17 23.43	U	1
<b>Surrogate</b>			<b>% Recovery</b>				
4-Bromofluorobenzene	460-00-4		93	%	80-120	07.06.17 23.43	
1,4-Difluorobenzene	540-36-3		100	%	80-120	07.06.17 23.43	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 8'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-011

Date Collected: 06.30.17 11.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>50.9</b>	4.93	mg/kg	07.07.17 21.10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 17.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 17.27	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 17.27	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 17.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	07.04.17 17.27		
o-Terphenyl	84-15-1	114	%	70-135	07.04.17 17.27		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-2 8'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-011**

Date Collected: **06.30.17 11.00**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.06.17 23.59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.06.17 23.59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.06.17 23.59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.06.17 23.59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.06.17 23.59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.06.17 23.59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.06.17 23.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	80-120	07.06.17 23.59		
1,4-Difluorobenzene	540-36-3	97	%	80-120	07.06.17 23.59		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 6"**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-012**

Date Collected: 06.30.17 11.15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: **07.07.17 16.30**

Basis: **Wet Weight**

Seq Number: **3021783**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>589</b>	4.91	mg/kg	07.07.17 21.18		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>1360</b>	74.8	mg/kg	07.05.17 07.12		5
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>8520</b>	74.8	mg/kg	07.05.17 07.12		5
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>599</b>	74.8	mg/kg	07.05.17 07.12		5
<b>Total TPH</b>	PHC635	<b>10500</b>	74.8	mg/kg	07.05.17 07.12		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	101	%	70-135	07.05.17 07.12		
o-Terphenyl	84-15-1	99	%	70-135	07.05.17 07.12		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 6"**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-012**

Date Collected: **06.30.17 11.15**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.07.17 08.30**

Basis: **Wet Weight**

Seq Number: **3021705**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 15.22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 15.22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 15.22	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.0489</b>	0.00398	mg/kg	07.07.17 15.22		1
<b>o-Xylene</b>	95-47-6	<b>0.0318</b>	0.00199	mg/kg	07.07.17 15.22		1
<b>Total Xylenes</b>	1330-20-7	<b>0.0807</b>	0.00199	mg/kg	07.07.17 15.22		1
<b>Total BTEX</b>		<b>0.0807</b>	0.00199	mg/kg	07.07.17 15.22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	80-120	07.07.17 15.22		
1,4-Difluorobenzene	540-36-3	82	%	80-120	07.07.17 15.22		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 1'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-013**

Date Collected: 06.30.17 11.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: **07.07.17 16.30**

Basis: **Wet Weight**

Seq Number: **3021783**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>136</b>	4.92	mg/kg	07.07.17 21.26		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>141</b>	15.0	mg/kg	07.04.17 18.09		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>846</b>	15.0	mg/kg	07.04.17 18.09		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<15.0	15.0	mg/kg	07.04.17 18.09	U	1
<b>Total TPH</b>	PHC635	<b>987</b>	15.0	mg/kg	07.04.17 18.09		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	96	%	70-135	07.04.17 18.09	
o-Terphenyl		84-15-1	84	%	70-135	07.04.17 18.09	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 1'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-013**

Date Collected: **06.30.17 11.20**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 00.15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 00.15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 00.15	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.00807</b>	0.00402	mg/kg	07.07.17 00.15		1
<b>o-Xylene</b>	95-47-6	<b>0.00545</b>	0.00201	mg/kg	07.07.17 00.15		1
<b>Total Xylenes</b>	1330-20-7	<b>0.0135</b>	0.00201	mg/kg	07.07.17 00.15		1
<b>Total BTEX</b>		<b>0.0135</b>	0.00201	mg/kg	07.07.17 00.15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	80-120	07.07.17 00.15		
4-Bromofluorobenzene	460-00-4	98	%	80-120	07.07.17 00.15		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 3'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-014**

Date Collected: 06.30.17 11.30

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>34.3</b>	15.0	mg/kg	07.04.17 18.31		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>632</b>	15.0	mg/kg	07.04.17 18.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 18.31	U	1
<b>Total TPH</b>	PHC635	<b>666</b>	15.0	mg/kg	07.04.17 18.31		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	100	%	70-135	07.04.17 18.31	
o-Terphenyl		84-15-1	88	%	70-135	07.04.17 18.31	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.07.17 00.31	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.07.17 00.31	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	07.07.17 00.31	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.00563</b>	0.00404	mg/kg	07.07.17 00.31		1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	07.07.17 00.31	U	1
<b>Total Xylenes</b>	1330-20-7	<b>0.00563</b>	0.00202	mg/kg	07.07.17 00.31		1
<b>Total BTEX</b>		<b>0.00563</b>	0.00202	mg/kg	07.07.17 00.31		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	95	%	80-120	07.07.17 00.31	
1,4-Difluorobenzene		540-36-3	111	%	80-120	07.07.17 00.31	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

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

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-015**

Date Collected: 06.30.17 11.45

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 18.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 18.51	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 18.51	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 18.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	110	%	70-135	07.04.17 18.51		
o-Terphenyl	84-15-1	107	%	70-135	07.04.17 18.51		

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.07.17 08.30**

Basis: **Wet Weight**

Seq Number: **3021705**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 12.24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 12.24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 12.24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.17 12.24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.17 12.24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.17 12.24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.17 12.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	80-120	07.07.17 12.24		
1,4-Difluorobenzene	540-36-3	108	%	80-120	07.07.17 12.24		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 8'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-016

Date Collected: 06.30.17 12.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	193	4.98	mg/kg	07.07.17 21.33		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021776

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	21.3	15.0	mg/kg	07.04.17 19.12		1
Diesel Range Organics (DRO)	C10C28DRO	150	15.0	mg/kg	07.04.17 19.12		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 19.12	U	1
Total TPH	PHC635	171	15.0	mg/kg	07.04.17 19.12		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	07.04.17 19.12		
o-Terphenyl	84-15-1	115	%	70-135	07.04.17 19.12		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-3 8'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-016

Date Collected: 06.30.17 12.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.06.17 15.00

Basis: Wet Weight

Seq Number: 3021700

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 01.04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 01.04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 01.04	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.00858</b>	0.00402	mg/kg	07.07.17 01.04		1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.17 01.04	U	1
<b>Total Xylenes</b>	1330-20-7	<b>0.00858</b>	0.00201	mg/kg	07.07.17 01.04		1
<b>Total BTEX</b>		<b>0.00858</b>	0.00201	mg/kg	07.07.17 01.04		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	80-120	07.07.17 01.04		
1,4-Difluorobenzene	540-36-3	89	%	80-120	07.07.17 01.04		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 6"**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-017**

Date Collected: 06.30.17 12.15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: 07.07.17 16.30

Basis: **Wet Weight**

Seq Number: **3021783**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>155</b>	4.92	mg/kg	07.07.17 21.41		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: 07.04.17 10.00

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>1980</b>	74.9	mg/kg	07.05.17 07.33		5
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>8860</b>	74.9	mg/kg	07.05.17 07.33		5
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>691</b>	74.9	mg/kg	07.05.17 07.33		5
<b>Total TPH</b>	PHC635	<b>11500</b>	74.9	mg/kg	07.05.17 07.33		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	120	%	70-135	07.05.17 07.33		
o-Terphenyl	84-15-1	103	%	70-135	07.05.17 07.33		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 6"**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-017**

Date Collected: **06.30.17 12.15**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.07.17 08.30**

Basis: **Wet Weight**

Seq Number: **3021705**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>0.0590</b>	0.0498	mg/kg	07.07.17 17.11		25
<b>Toluene</b>	108-88-3	<b>0.387</b>	0.0498	mg/kg	07.07.17 17.11		25
<b>Ethylbenzene</b>	100-41-4	<b>0.731</b>	0.0498	mg/kg	07.07.17 17.11		25
<b>m,p-Xylenes</b>	179601-23-1	<b>3.68</b>	0.0996	mg/kg	07.07.17 17.11		25
<b>o-Xylene</b>	95-47-6	<b>4.19</b>	0.0498	mg/kg	07.07.17 17.11		25
<b>Total Xylenes</b>	1330-20-7	<b>7.87</b>	0.0498	mg/kg	07.07.17 17.11		25
<b>Total BTEX</b>		<b>9.05</b>	0.0498	mg/kg	07.07.17 17.11		25
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	80-120	07.07.17 17.11		
4-Bromofluorobenzene	460-00-4	110	%	80-120	07.07.17 17.11		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 1'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-018**

Date Collected: 06.30.17 12.20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: **07.07.17 16.30**

Basis: **Wet Weight**

Seq Number: **3021783**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>50.8</b>	4.96	mg/kg	07.07.17 22.04		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>2920</b>	74.9	mg/kg	07.05.17 07.54		5
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>5260</b>	74.9	mg/kg	07.05.17 07.54		5
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>368</b>	74.9	mg/kg	07.05.17 07.54		5
<b>Total TPH</b>	PHC635	<b>8550</b>	74.9	mg/kg	07.05.17 07.54		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	07.05.17 07.54		
o-Terphenyl	84-15-1	97	%	70-135	07.05.17 07.54		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 1'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-018**

Date Collected: **06.30.17 12.20**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.07.17 08.30**

Basis: **Wet Weight**

Seq Number: **3021705**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>0.174</b>	0.101	mg/kg	07.07.17 17.28		50
<b>Toluene</b>	108-88-3	<b>2.39</b>	0.101	mg/kg	07.07.17 17.28		50
<b>Ethylbenzene</b>	100-41-4	<b>1.92</b>	0.101	mg/kg	07.07.17 17.28		50
<b>m,p-Xylenes</b>	179601-23-1	<b>38.8</b>	0.202	mg/kg	07.07.17 17.28		50
<b>o-Xylene</b>	95-47-6	<b>16.0</b>	0.101	mg/kg	07.07.17 17.28		50
<b>Total Xylenes</b>	1330-20-7	<b>54.8</b>	0.101	mg/kg	07.07.17 17.28		50
<b>Total BTEX</b>		<b>59.3</b>	0.101	mg/kg	07.07.17 17.28		50
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	07.07.17 17.28		
4-Bromofluorobenzene	460-00-4	115	%	80-120	07.07.17 17.28		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 3'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-019**

Date Collected: 06.30.17 12.30

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>415</b>	15.0	mg/kg	07.04.17 20.15		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>1160</b>	15.0	mg/kg	07.04.17 20.15		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>45.8</b>	15.0	mg/kg	07.04.17 20.15		1
<b>Total TPH</b>	PHC635	<b>1620</b>	15.0	mg/kg	07.04.17 20.15		1
<b>Surrogate</b>			<b>% Recovery</b>				
1-Chlorooctane		111-85-3	100	%	70-135	07.04.17 20.15	
o-Terphenyl		84-15-1	82	%	70-135	07.04.17 20.15	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.10.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021934**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0202	0.0202	mg/kg	07.10.17 23.45	U	10
Toluene	108-88-3	<b>0.599</b>	0.0202	mg/kg	07.10.17 23.45		10
Ethylbenzene	100-41-4	<b>0.542</b>	0.0202	mg/kg	07.10.17 23.45		10
m,p-Xylenes	179601-23-1	<b>7.10</b>	0.0404	mg/kg	07.10.17 23.45		10
o-Xylene	95-47-6	<b>3.18</b>	0.0202	mg/kg	07.10.17 23.45		10
<b>Total Xylenes</b>	1330-20-7	<b>10.3</b>	0.0202	mg/kg	07.10.17 23.45		10
<b>Total BTEX</b>		<b>11.4</b>	0.0202	mg/kg	07.10.17 23.45		10
<b>Surrogate</b>			<b>% Recovery</b>				
1,4-Difluorobenzene	540-36-3		97	%	80-120	07.10.17 23.45	
4-Bromofluorobenzene	460-00-4		110	%	80-120	07.10.17 23.45	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

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

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-020**

Date Collected: 06.30.17 12.45

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021776**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>2740</b>	15.0	mg/kg	07.04.17 20.36		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>4310</b>	15.0	mg/kg	07.04.17 20.36		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>355</b>	15.0	mg/kg	07.04.17 20.36		1
<b>Total TPH</b>	PHC635	<b>7410</b>	15.0	mg/kg	07.04.17 20.36		1
<b>Surrogate</b>			<b>% Recovery</b>				
1-Chlorooctane		111-85-3	108	%	70-135	07.04.17 20.36	
o-Terphenyl		84-15-1	83	%	70-135	07.04.17 20.36	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.10.17 18.00**

Basis: **Wet Weight**

Seq Number: **3021965**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	07.11.17 14.13	U	10
Toluene	108-88-3	<b>11.0</b>	0.201	mg/kg	07.11.17 00.01	D	100
Ethylbenzene	100-41-4	<b>11.0</b>	0.201	mg/kg	07.11.17 00.01	D	100
m,p-Xylenes	179601-23-1	<b>74.4</b>	0.402	mg/kg	07.11.17 00.01	D	100
o-Xylene	95-47-6	<b>27.4</b>	0.201	mg/kg	07.11.17 00.01	D	100
<b>Total Xylenes</b>	1330-20-7	<b>102</b>	0.201	mg/kg	07.11.17 00.01		100
<b>Total BTEX</b>		<b>124</b>	0.0199	mg/kg	07.11.17 00.01		100
<b>Surrogate</b>			<b>% Recovery</b>				
4-Bromofluorobenzene		460-00-4	903	%	80-120	07.11.17 14.13	**
1,4-Difluorobenzene		540-36-3	82	%	80-120	07.11.17 14.13	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 8'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-021**

Date Collected: 06.30.17 13.00

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021777**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>317</b>	15.0	mg/kg	07.04.17 22.23		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>1200</b>	15.0	mg/kg	07.04.17 22.23		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>89.1</b>	15.0	mg/kg	07.04.17 22.23		1
<b>Total TPH</b>	PHC635	<b>1610</b>	15.0	mg/kg	07.04.17 22.23		1
<b>Surrogate</b>			<b>% Recovery</b>				
1-Chlorooctane		111-85-3	110	%	70-135	07.04.17 22.23	
o-Terphenyl		84-15-1	101	%	70-135	07.04.17 22.23	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.10.17 08.00**

Basis: **Wet Weight**

Seq Number: **3021854**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.10.17 16.11	U	1
<b>Toluene</b>	108-88-3	<b>0.00305</b>	0.00200	mg/kg	07.10.17 16.11		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.10.17 16.11	U	1
<b>m,p-Xylenes</b>	179601-23-1	<b>0.116</b>	0.00401	mg/kg	07.10.17 16.11		1
<b>o-Xylene</b>	95-47-6	<b>0.0859</b>	0.00200	mg/kg	07.10.17 16.11		1
<b>Total Xylenes</b>	1330-20-7	<b>0.202</b>	0.00200	mg/kg	07.10.17 16.11		1
<b>Total BTEX</b>		<b>0.205</b>	0.00200	mg/kg	07.10.17 16.11		1
<b>Surrogate</b>			<b>% Recovery</b>				
4-Bromofluorobenzene		460-00-4	107	%	80-120	07.10.17 16.11	
1,4-Difluorobenzene		540-36-3	95	%	80-120	07.10.17 16.11	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 11'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556808-022**

Date Collected: 06.30.17 13.15

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.04.17 10.00**

Basis: **Wet Weight**

Seq Number: **3021777**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>16.4</b>	15.0	mg/kg	07.04.17 23.28		1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>130</b>	15.0	mg/kg	07.04.17 23.28		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 23.28	U	1
<b>Total TPH</b>	PHC635	<b>146</b>	15.0	mg/kg	07.04.17 23.28		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	110	%	70-135	07.04.17 23.28	
o-Terphenyl		84-15-1	109	%	70-135	07.04.17 23.28	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.07.17 02.08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.07.17 02.08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.07.17 02.08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.07.17 02.08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.07.17 02.08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.07.17 02.08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.07.17 02.08	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	82	%	80-120	07.07.17 02.08	
4-Bromofluorobenzene		460-00-4	90	%	80-120	07.07.17 02.08	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 17'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-023

Date Collected: 06.30.17 13.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.33	4.94	mg/kg	07.07.17 22.12		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.04.17 23.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.04.17 23.49	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.04.17 23.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.04.17 23.49	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	99	%	70-135	07.04.17 23.49	
o-Terphenyl		84-15-1	100	%	70-135	07.04.17 23.49	

## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **Trench-4 17'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-023**

Date Collected: **06.30.17 13.30**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 02.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 02.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 02.24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	07.07.17 02.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 02.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 02.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 02.24	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	92	%	80-120	07.07.17 02.24	
1,4-Difluorobenzene		540-36-3	91	%	80-120	07.07.17 02.24	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **North Trench-1 1'** Matrix: **Soil** Date Received:07.03.17 11.55  
Lab Sample Id: 556808-024 Date Collected: 06.30.17 13.35  
  
Analytical Method: Chloride by EPA 300 Prep Method: E300P  
Tech: MGO % Moisture:  
Analyst: MGO Basis: Wet Weight  
Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	281	4.97	mg/kg	07.07.17 22.35		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P  
Tech: ARM % Moisture:  
Analyst: ARM Basis: Wet Weight  
Seq Number: 3021777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 00.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.05.17 00.10	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 00.10	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.05.17 00.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	95	%	70-135	07.05.17 00.10		
o-Terphenyl	84-15-1	92	%	70-135	07.05.17 00.10		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **North Trench-1 1'** Matrix: **Soil** Date Received:07.03.17 11.55  
Lab Sample Id: 556808-024 Date Collected: 06.30.17 13.35  
Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B  
Tech: ALJ % Moisture:  
Analyst: ALJ Date Prep: 07.06.17 15.00 Basis: Wet Weight  
Seq Number: 3021700

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.07.17 02.40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.07.17 02.40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.07.17 02.40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.07.17 02.40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.07.17 02.40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.07.17 02.40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.07.17 02.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	80-120	07.07.17 02.40		
1,4-Difluorobenzene	540-36-3	94	%	80-120	07.07.17 02.40		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **East Trench-1 1'**

Matrix: Soil

Date Received: 07.03.17 11.55

Lab Sample Id: 556808-025

Date Collected: 06.30.17 13.45

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MGO

% Moisture:

Analyst: MGO

Date Prep: 07.07.17 16.30

Basis: Wet Weight

Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	298	4.97	mg/kg	07.07.17 22.43		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture:

Analyst: ARM

Date Prep: 07.04.17 10.00

Basis: Wet Weight

Seq Number: 3021777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 00.31	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>28.8</b>	15.0	mg/kg	07.05.17 00.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.05.17 00.31	U	1
<b>Total TPH</b>	PHC635	<b>28.8</b>	15.0	mg/kg	07.05.17 00.31		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	07.05.17 00.31		
o-Terphenyl	84-15-1	98	%	70-135	07.05.17 00.31		

## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **East Trench-1 1'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-025**

Date Collected: **06.30.17 13.45**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.07.17 02.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.07.17 02.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.07.17 02.56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.07.17 02.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.07.17 02.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.07.17 02.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.07.17 02.56	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	109	%	80-120	07.07.17 02.56	
4-Bromofluorobenzene		460-00-4	109	%	80-120	07.07.17 02.56	



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **South Trench-1 1'** Matrix: **Soil** Date Received:07.03.17 11.55  
Lab Sample Id: 556808-026 Date Collected: 06.30.17 13.55  
  
Analytical Method: Chloride by EPA 300 Prep Method: E300P  
Tech: MGO % Moisture:  
Analyst: MGO Basis: Wet Weight  
Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>38.0</b>	4.94	mg/kg	07.07.17 22.50		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P  
Tech: ARM % Moisture:  
Analyst: ARM Basis: Wet Weight  
Seq Number: 3021777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.05.17 00.53	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>142</b>	15.0	mg/kg	07.05.17 00.53		1
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>25.3</b>	15.0	mg/kg	07.05.17 00.53		1
<b>Total TPH</b>	PHC635	<b>167</b>	15.0	mg/kg	07.05.17 00.53		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	105	%	70-135	07.05.17 00.53		
o-Terphenyl	84-15-1	98	%	70-135	07.05.17 00.53		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **South Trench-1 1'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556808-026**

Date Collected: **06.30.17 13.55**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.06.17 15.00**

Basis: **Wet Weight**

Seq Number: **3021700**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.07.17 03.12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	07.07.17 03.12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.07.17 03.12	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	07.07.17 03.12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	07.07.17 03.12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	07.07.17 03.12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	07.07.17 03.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	80-120	07.07.17 03.12		
4-Bromofluorobenzene	460-00-4	114	%	80-120	07.07.17 03.12		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **WesT Trench-1 1'** Matrix: **Soil** Date Received:07.03.17 11.55  
Lab Sample Id: 556808-027 Date Collected: 06.30.17 10.10  
  
Analytical Method: Chloride by EPA 300 Prep Method: E300P  
Tech: MGO % Moisture:  
Analyst: MGO Basis: Wet Weight  
Seq Number: 3021783

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>74.9</b>	4.95	mg/kg	07.07.17 22.58		1

Analytical Method: TPH by SW8015 Mod Prep Method: TX1005P  
Tech: ARM % Moisture:  
Analyst: ARM Basis: Wet Weight  
Seq Number: 3021777

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<b>1380</b>	15.0	mg/kg	07.05.17 01.14		1
Diesel Range Organics (DRO)	C10C28DRO	<b>4940</b>	15.0	mg/kg	07.05.17 01.14		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<b>424</b>	15.0	mg/kg	07.05.17 01.14		1
Total TPH	PHC635	<b>6740</b>	15.0	mg/kg	07.05.17 01.14		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-135	07.05.17 01.14		
o-Terphenyl	84-15-1	82	%	70-135	07.05.17 01.14		



# Certificate of Analytical Results 556808



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **WesT Trench-1 1'** Matrix: **Soil** Date Received:07.03.17 11.55  
Lab Sample Id: 556808-027 Date Collected: 06.30.17 10.10  
Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B  
Tech: **ALJ** % Moisture:  
Analyst: **ALJ** Date Prep: 07.10.17 18.00 Basis: **Wet Weight**  
Seq Number: 3021965

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0202	0.0202	mg/kg	07.11.17 13.56	U	10
Toluene	108-88-3	<b>0.278</b>	0.0202	mg/kg	07.11.17 13.56		10
Ethylbenzene	100-41-4	<b>0.373</b>	0.0202	mg/kg	07.11.17 13.56		10
m,p-Xylenes	179601-23-1	<b>2.08</b>	0.0403	mg/kg	07.11.17 13.56		10
o-Xylene	95-47-6	<b>2.03</b>	0.0202	mg/kg	07.11.17 13.56		10
Total Xylenes	1330-20-7	<b>4.11</b>	0.0202	mg/kg	07.11.17 13.56		10
<b>Total BTEX</b>		<b>4.76</b>	0.0202	mg/kg	07.11.17 13.56		10
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	80-120	07.11.17 13.56		
4-Bromofluorobenzene	460-00-4	103	%	80-120	07.11.17 13.56		



- 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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# QC Summary 556808

TRC Solutions, Inc  
Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method: Chloride by EPA 300**

Seq Number:	3021783	Matrix:	Solid	Prep Method:	E300P							
MB Sample Id:	727344-1-BLK	LCS Sample Id:	727344-1-BKS	Date Prep:	07.07.17							
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	254	102	259	104	90-110	2	20	mg/kg	07.07.17 19:38	

**Analytical Method: Chloride by EPA 300**

Seq Number:	3021783	Matrix:	Soil	Prep Method:	E300P							
Parent Sample Id:	556808-001	MS Sample Id:	556808-001 S	Date Prep:	07.07.17							
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.8	246	251	96	262	101	90-110	4	20	mg/kg	07.07.17 20:01	

**Analytical Method: Chloride by EPA 300**

Seq Number:	3021783	Matrix:	Soil	Prep Method:	E300P							
Parent Sample Id:	556808-017	MS Sample Id:	556808-017 S	Date Prep:	07.07.17							
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	155	246	404	101	372	88	90-110	8	20	mg/kg	07.07.17 21:49	X

**Analytical Method: TPH by SW8015 Mod**

Seq Number:	3021776	Matrix:	Solid	Prep Method:	TX1005P							
MB Sample Id:	727234-1-BLK	LCS Sample Id:	727234-1-BKS	Date Prep:	07.04.17							
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	1090	109	1110	111	70-135	2	35	mg/kg	07.04.17 11:54	
Diesel Range Organics (DRO)	<15.0	1000	1100	110	1130	113	70-135	3	35	mg/kg	07.04.17 11:54	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1-Chlorooctane	117		116		116		70-135			%	07.04.17 11:54	
o-Terphenyl	125		109		110		70-135			%	07.04.17 11:54	



# QC Summary 556808

TRC Solutions, Inc  
Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3021777	Matrix:	Solid	Prep Method:	TX1005P							
MB Sample Id:	727236-1-BLK	LCS Sample Id:	727236-1-BKS	Date Prep:	07.04.17							
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	983	98	993	99	70-135	1	35	mg/kg	07.04.17 21:40	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	963	96	70-135	5	35	mg/kg	07.04.17 21:40	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane		110		100		102	70-135		%	07.04.17 21:40		
o-Terphenyl		117		98		102	70-135		%	07.04.17 21:40		

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3021776	Matrix:	Soil	Prep Method:	TX1005P							
Parent Sample Id:	556808-001	MS Sample Id:	556808-001 S	Date Prep:	07.04.17							
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	999	1020	102	1030	103	70-135	1	35	mg/kg	07.04.17 12:57	
Diesel Range Organics (DRO)	<15.0	999	987	99	1020	102	70-135	3	35	mg/kg	07.04.17 12:57	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			111		112		70-135		%	07.04.17 12:57		
o-Terphenyl			100		100		70-135		%	07.04.17 12:57		

**Analytical Method:** TPH by SW8015 Mod

Seq Number:	3021777	Matrix:	Soil	Prep Method:	TX1005P							
Parent Sample Id:	556808-021	MS Sample Id:	556808-021 S	Date Prep:	07.04.17							
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)	317	998	1420	111	1360	104	70-135	4	35	mg/kg	07.04.17 22:45	
Diesel Range Organics (DRO)	1200	998	2350	115	2210	101	70-135	6	35	mg/kg	07.04.17 22:45	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			115		104		70-135		%	07.04.17 22:45		
o-Terphenyl			97		87		70-135		%	07.04.17 22:45		



# QC Summary 556808

## TRC Solutions, Inc

Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3021649	Matrix: Solid						Prep Method: SW5030B			
MB Sample Id:	727276-1-BLK	LCS Sample Id: 727276-1-BKS						Date Prep: 07.06.17			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00201	0.100	0.118	118	0.120	120	70-130	2	35	mg/kg	07.06.17 10:10
Toluene	<0.00201	0.100	0.108	108	0.112	112	70-130	4	35	mg/kg	07.06.17 10:10
Ethylbenzene	<0.00201	0.100	0.108	108	0.119	119	71-129	10	35	mg/kg	07.06.17 10:10
m,p-Xylenes	<0.00402	0.201	0.200	100	0.215	108	70-135	7	35	mg/kg	07.06.17 10:10
o-Xylene	<0.00201	0.100	0.111	111	0.115	115	71-133	4	35	mg/kg	07.06.17 10:10
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	103		97		98		80-120			%	07.06.17 10:10
4-Bromofluorobenzene	92		97		110		80-120			%	07.06.17 10:10

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3021700	Matrix: Solid						Prep Method: SW5030B			
MB Sample Id:	727313-1-BLK	LCS Sample Id: 727313-1-BKS						Date Prep: 07.06.17			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00202	0.101	0.125	124	0.101	101	70-130	21	35	mg/kg	07.06.17 21:17
Toluene	<0.00202	0.101	0.117	116	0.0917	92	70-130	24	35	mg/kg	07.06.17 21:17
Ethylbenzene	<0.00202	0.101	0.115	114	0.0947	95	71-129	19	35	mg/kg	07.06.17 21:17
m,p-Xylenes	<0.00403	0.202	0.207	102	0.170	85	70-135	20	35	mg/kg	07.06.17 21:17
o-Xylene	<0.00202	0.101	0.111	110	0.0936	94	71-133	17	35	mg/kg	07.06.17 21:17
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	96		87		95		80-120			%	07.06.17 21:17
4-Bromofluorobenzene	111		86		91		80-120			%	07.06.17 21:17

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3021705	Matrix: Solid						Prep Method: SW5030B			
MB Sample Id:	727314-1-BLK	LCS Sample Id: 727314-1-BKS						Date Prep: 07.07.17			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00202	0.101	0.117	116	0.116	115	70-130	1	35	mg/kg	07.07.17 08:50
Toluene	<0.00202	0.101	0.107	106	0.103	102	70-130	4	35	mg/kg	07.07.17 08:50
Ethylbenzene	<0.00202	0.101	0.111	110	0.112	111	71-129	1	35	mg/kg	07.07.17 08:50
m,p-Xylenes	<0.00404	0.202	0.196	97	0.199	99	70-135	2	35	mg/kg	07.07.17 08:50
o-Xylene	<0.00202	0.101	0.104	103	0.108	107	71-133	4	35	mg/kg	07.07.17 08:50
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	103		88		94		80-120			%	07.07.17 08:50
4-Bromofluorobenzene	106		115		99		80-120			%	07.07.17 08:50



# QC Summary 556808

## TRC Solutions, Inc

Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3021854	Matrix: Solid						Prep Method: SW5030B			
MB Sample Id:	727410-1-BLK	LCS Sample Id: 727410-1-BKS						Date Prep: 07.10.17			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00201	0.101	0.109	108	0.114	114	70-130	4	35	mg/kg	07.10.17 07:26
Toluene	<0.00201	0.101	0.0959	95	0.105	105	70-130	9	35	mg/kg	07.10.17 07:26
Ethylbenzene	<0.00201	0.101	0.103	102	0.103	103	71-129	0	35	mg/kg	07.10.17 07:26
m,p-Xylenes	<0.00402	0.201	0.181	90	0.185	92	70-135	2	35	mg/kg	07.10.17 07:26
o-Xylene	<0.00201	0.101	0.104	103	0.100	100	71-133	4	35	mg/kg	07.10.17 07:26
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	101		86		85		80-120			%	07.10.17 07:26
4-Bromofluorobenzene	96		101		87		80-120			%	07.10.17 07:26

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3021934	Matrix: Solid						Prep Method: SW5030B			
MB Sample Id:	727453-1-BLK	LCS Sample Id: 727453-1-BKS						Date Prep: 07.10.17			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00200	0.0998	0.121	121	0.113	113	70-130	7	35	mg/kg	07.10.17 16:43
Toluene	<0.00200	0.0998	0.117	117	0.105	105	70-130	11	35	mg/kg	07.10.17 16:43
Ethylbenzene	<0.00200	0.0998	0.120	120	0.109	109	71-129	10	35	mg/kg	07.10.17 16:43
m,p-Xylenes	<0.00399	0.200	0.210	105	0.191	95	70-135	9	35	mg/kg	07.10.17 16:43
o-Xylene	<0.00200	0.0998	0.117	117	0.102	102	71-133	14	35	mg/kg	07.10.17 16:43
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	88		94		87		80-120			%	07.10.17 16:43
4-Bromofluorobenzene	85		89		90		80-120			%	07.10.17 16:43

**Analytical Method: BTEX by EPA 8021B**

Seq Number:	3021965	Matrix: Solid						Prep Method: SW5030B			
MB Sample Id:	727471-1-BLK	LCS Sample Id: 727471-1-BKS						Date Prep: 07.10.17			
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>
Benzene	<0.00199	0.0994	0.0970	98	0.123	123	70-130	24	35	mg/kg	07.11.17 01:06
Toluene	<0.00199	0.0994	0.0865	87	0.115	115	70-130	28	35	mg/kg	07.11.17 01:06
Ethylbenzene	<0.00199	0.0994	0.0941	95	0.121	121	71-129	25	35	mg/kg	07.11.17 01:06
m,p-Xylenes	<0.00398	0.199	0.166	83	0.210	105	70-135	23	35	mg/kg	07.11.17 01:06
o-Xylene	<0.00199	0.0994	0.0979	98	0.111	111	71-133	13	35	mg/kg	07.11.17 01:06
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>
1,4-Difluorobenzene	89		84		106		80-120			%	07.11.17 01:06
4-Bromofluorobenzene	96		93		97		80-120			%	07.11.17 01:06



# QC Summary 556808

## TRC Solutions, Inc

Gunslinger 11 Federal Com #001H (03/18/17)

### Analytical Method: BTEX by EPA 8021B

Seq Number:	3021649	Matrix:	Soil		Prep Method:	SW5030B						
Parent Sample Id:	556732-001	MS Sample Id:	556732-001 S		Date Prep:	07.06.17						
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.114	114	0.109	109	70-130	4	35	mg/kg	07.06.17 10:56	
Toluene	<0.00199	0.0996	0.106	106	0.0958	96	70-130	10	35	mg/kg	07.06.17 10:56	
Ethylbenzene	<0.00199	0.0996	0.102	102	0.0947	95	71-129	7	35	mg/kg	07.06.17 10:56	
m,p-Xylenes	<0.00398	0.199	0.182	91	0.171	86	70-135	6	35	mg/kg	07.06.17 10:56	
o-Xylene	<0.00199	0.0996	0.0991	99	0.0915	92	71-133	8	35	mg/kg	07.06.17 10:56	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			110		98		80-120			%	07.06.17 10:56	
4-Bromofluorobenzene			118		95		80-120			%	07.06.17 10:56	

### Analytical Method: BTEX by EPA 8021B

Seq Number:	3021700	Matrix:	Soil		Prep Method:	SW5030B						
Parent Sample Id:	556808-007	MS Sample Id:	556808-007 S		Date Prep:	07.06.17						
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.112	112	0.110	110	70-130	2	35	mg/kg	07.06.17 21:49	
Toluene	<0.00200	0.0998	0.0954	96	0.0886	89	70-130	7	35	mg/kg	07.06.17 21:49	
Ethylbenzene	<0.00200	0.0998	0.0902	90	0.0861	86	71-129	5	35	mg/kg	07.06.17 21:49	
m,p-Xylenes	<0.00399	0.200	0.156	78	0.152	76	70-135	3	35	mg/kg	07.06.17 21:49	
o-Xylene	<0.00200	0.0998	0.0907	91	0.0801	80	71-133	12	35	mg/kg	07.06.17 21:49	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			88		107		80-120			%	07.06.17 21:49	
4-Bromofluorobenzene			118		101		80-120			%	07.06.17 21:49	

### Analytical Method: BTEX by EPA 8021B

Seq Number:	3021705	Matrix:	Soil		Prep Method:	SW5030B						
Parent Sample Id:	556810-012	MS Sample Id:	556810-012 S		Date Prep:	07.07.17						
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.101	101	0.121	121	70-130	18	35	mg/kg	07.07.17 09:23	
Toluene	<0.00200	0.0998	0.0966	97	0.114	114	70-130	17	35	mg/kg	07.07.17 09:23	
Ethylbenzene	<0.00200	0.0998	0.0958	96	0.110	110	71-129	14	35	mg/kg	07.07.17 09:23	
m,p-Xylenes	<0.00399	0.200	0.168	84	0.194	97	70-135	14	35	mg/kg	07.07.17 09:23	
o-Xylene	<0.00200	0.0998	0.0870	87	0.106	106	71-133	20	35	mg/kg	07.07.17 09:23	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			95		98		80-120			%	07.07.17 09:23	
4-Bromofluorobenzene			98		98		80-120			%	07.07.17 09:23	



# QC Summary 556808

TRC Solutions, Inc  
Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3021854

Matrix: Soil

Prep Method: SW5030B

Date Prep: 07.10.17

Parent Sample Id: 556914-001

MS Sample Id: 556914-001 S

MSD Sample Id: 556914-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.106	106	0.102	102	70-130	4	35	mg/kg	07.10.17 08:04	
Toluene	<0.00200	0.0998	0.0863	86	0.0932	93	70-130	8	35	mg/kg	07.10.17 08:04	
Ethylbenzene	<0.00200	0.0998	0.0928	93	0.0971	97	71-129	5	35	mg/kg	07.10.17 08:04	
m,p-Xylenes	<0.00399	0.200	0.162	81	0.167	84	70-135	3	35	mg/kg	07.10.17 08:04	
o-Xylene	<0.00200	0.0998	0.0860	86	0.0965	97	71-133	12	35	mg/kg	07.10.17 08:04	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag				Units	Analysis Date	
1,4-Difluorobenzene			112		98		80-120			%	07.10.17 08:04	
4-Bromofluorobenzene			106		108		80-120			%	07.10.17 08:04	

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3021934

Matrix: Soil

Prep Method: SW5030B

Date Prep: 07.10.17

Parent Sample Id: 556932-002

MS Sample Id: 556932-002 S

MSD Sample Id: 556932-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0935	94	0.102	102	70-130	9	35	mg/kg	07.10.17 17:16	
Toluene	<0.00199	0.0996	0.0778	78	0.0893	89	70-130	14	35	mg/kg	07.10.17 17:16	
Ethylbenzene	<0.00199	0.0996	0.0848	85	0.0940	94	71-129	10	35	mg/kg	07.10.17 17:16	
m,p-Xylenes	<0.00398	0.199	0.142	71	0.162	81	70-135	13	35	mg/kg	07.10.17 17:16	
o-Xylene	<0.00199	0.0996	0.0823	83	0.0874	88	71-133	6	35	mg/kg	07.10.17 17:16	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag				Units	Analysis Date	
1,4-Difluorobenzene			109		103		80-120			%	07.10.17 17:16	
4-Bromofluorobenzene			119		111		80-120			%	07.10.17 17:16	

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3021965

Matrix: Soil

Prep Method: SW5030B

Date Prep: 07.10.17

Parent Sample Id: 556811-001

MS Sample Id: 556811-001 S

MSD Sample Id: 556811-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.103	103	70-130	6	35	mg/kg	07.11.17 11:14	
Toluene	<0.00200	0.100	0.0984	98	0.0907	91	70-130	8	35	mg/kg	07.11.17 11:14	
Ethylbenzene	<0.00200	0.100	0.102	102	0.0879	88	71-129	15	35	mg/kg	07.11.17 11:14	
m,p-Xylenes	0.0181	0.200	0.182	82	0.185	83	70-135	2	35	mg/kg	07.11.17 11:14	
o-Xylene	<0.00200	0.100	0.101	101	0.0933	93	71-133	8	35	mg/kg	07.11.17 11:14	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag				Units	Analysis Date	
1,4-Difluorobenzene			88		98		80-120			%	07.11.17 11:14	
4-Bromofluorobenzene			98		103		80-120			%	07.11.17 11:14	



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# CHAIN OF CUSTODY

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Client / Reporting Information		Project Information		Analytical Information		Xenco Job #	Matrix Codes
Company Name / Branch: <b>TRC</b>	Project Name/Number: <b>Gunslinger 11 Federal Com #001H (3/18/17)</b>	Project Location: <b>Lea County, NM</b>	Phone No: <b>432-664-6699</b>	Invoice To: <b>Rebecca Haskell with COG Operating LLC rhaskell@concho.com</b>	PO Number:	<b>556800</b>	
Project Contact: <b>Nikki Green</b>	Sampler's Name: <b>Nikki Green</b>	Collection	Number of preserved bottles				
No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	
1	OS-1 3"		30-Jun	850	S	1	HCl NaOH/Zn Acetate H <sub>2</sub> SO <sub>4</sub> NaOH NaHSO <sub>4</sub> MEOH NONE
2	OS-2 3"		30-Jun	855	S	1	X X X X X X
3	Trench-1 1'		30-Jun	900	S	1	X X X X X X
4	Trench-1 3'		30-Jun	915	S	1	X X X X X X
5	Trench-1 5'		30-Jun	930	S	1	X X X X X X
6	Trench-1 8'		30-Jun	945	S	1	X X X X X X
7	Trench-2 6"		30-Jun	1000	S	1	X X X X X X
8	Trench-2 1'		30-Jun	1020	S	1	X X X X X X
9	Trench-2 3'		30-Jun	1030	S	1	X X X X X X
10	Trench-2 5'		30-Jun	1045	S	1	X X X X X X
Turnaround Time ( Business days)		Data Deliverable Information		Notes:			
<input type="checkbox"/> Same Day TAT		<input checked="" type="checkbox"/> 5 Day TAT		<input checked="" type="checkbox"/> Level II Std QC		<input type="checkbox"/> Level IV (Full Data Pkg /raw data)	
<input type="checkbox"/> Next Day EMERGENCY		<input type="checkbox"/> 7 Day TAT		<input type="checkbox"/> Level III Std QC+ Forms		<input type="checkbox"/> TRRP Level IV	
<input type="checkbox"/> 2 Day EMERGENCY		<input checked="" type="checkbox"/> Contract TAT		<input type="checkbox"/> Level 3 (CLP Forms)		<input type="checkbox"/> UST / RG 411	
<input type="checkbox"/> 3 Day EMERGENCY				<input type="checkbox"/> TRRP Checklist			
TAT Starts Day received by Lab, If received by 5:00 pm							
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY							
Relinquished by Sampler: <b>Nikki Green</b>	Date Time: <b>4/7/17 11:59</b>	Received By: <b>M. NAMER</b>	Relinquished By: <b>2</b>	Date Time: <b>Received By: 2</b>	Received By: <b>2</b>	Temp: <b>5.1</b>	IR ID:R-8
Relinquished by: <b>3</b>	Date Time: <b>3</b>	Received By: <b>3</b>	Relinquished By: <b>4</b>	Date Time: <b>Received By: 4</b>	Received By: <b>4</b>	Corrected Temp: <b>4.9</b>	
5	Date Time: <b>5</b>	Received By: <b>5</b>	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp.	Thermo. Corr. Factor

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

# CHAIN OF CUSTODY

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Xenco Quote # 5508008  
Xenco Job # 5508008

## Client / Reporting Information

Company Name / Branch:  
TRC

Company Address:  
2057 Commerce Drive  
Midland, Texas 79703

Email:  
[niqueen@lcsolutions.com](mailto:niqueen@lcsolutions.com)

Project Contact:  
Nikki Green

Sampler's Name: Nikki Green

## Project Information

Project Name/Number:  
Gunslinger 11 Federal Com #001H (3/18/17)

Project Location:  
Lea County, NM

Invoice To:  
Rebecca Haskell with COG Operating LLC [rhaskell@onchoco.com](mailto:rhaskell@onchoco.com)  
600 W Illinois Avenue | Midland, TX 79701  
Direct: 432-818-2372 | Main: 432-683-7443

PO Number:

## Matrix Codes

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

## Analytical Information

Notes:

Collection  
No.  
Field ID / Point of Collection

Field Comments

Sample Depth  
Date  
Time  
Matrix  
# of bottles  
HCl  
NaOH/Zn Acetate  
HNO3  
H2SO4  
ZnOH  
NaHSO4  
MEOH  
NONE

TPH 8015M EXT 36  
BTEX 8021B  
Chloride E300.0

No.	Field ID / Point of Collection	Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	ZnOH	NaHSO4	MEOH	NONE	TPH 8015M EXT 36	BTEX 8021B	Chloride E300.0
1	Trench-2 8'			30-Jun	1100	S	1					x	x	x	x			
2	Trench-3 6"			30-Jun	1115	S	1					x	x	x	x			
3	Trench-3 1'			30-Jun	1120	S	1					x	x	x	x			
4	Trench-3 3'			30-Jun	1130	S	1					x	x	x	x			
5	Trench-3 5'			30-Jun	1145	S	1					x	x	x	x			
6	Trench-3 8'			30-Jun	1200	S	1					x	x	x	x			
7	Trench-4 6"			30-Jun	1215	S	1					x	x	x	x			
8	Trench-4 1'			30-Jun	1220	S	1					x	x	x	x			
9	Trench-4 3'			30-Jun	1230	S	1					x	x	x	x			
10	Trench-4 5'			30-Jun	1245	S	1					x	x	x	x			
Turnaround Time (Business days)		Data Deliverable Information																
<input type="checkbox"/> Same Day TAT	<input type="checkbox"/> 5 Day TAT	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> Level IV (Full Data Pkg / raw data)															
<input type="checkbox"/> Next Day EMERGENCY	<input type="checkbox"/> 7 Day TAT	<input type="checkbox"/> Level III Std QC+ Forms	<input type="checkbox"/> TRRP Level IV															
<input type="checkbox"/> 2 Day EMERGENCY	<input checked="" type="checkbox"/> Contract TAT	<input type="checkbox"/> Level 3 (CLP Forms)	<input type="checkbox"/> UST / RG -411															
<input type="checkbox"/> 3 Day EMERGENCY		<input type="checkbox"/> TRRP Checklist																

## TAT Starts Day received by Lab, if received by 5:00 pm

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

Date Time: 7/3/17 11:55  
Received By: 

Date Time: 1  
Received By: 

Date Time: 2  
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Date Time: 3  
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Date Time: 4  
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Date Time: 97



Setting the Standard since 1990  
Stafford, Texas (281-240-4200)  
Dallas Texas (214-902-0300)

# CHAIN OF CUSTODY

Page 3 Of 3

San Antonio, Texas (210-599-3334)  
Midland, Texas (432-704-5251)  
[www.xenco.com](http://www.xenco.com)

Phoenix, Arizona (480-355-0900)

Xenco Quote # **556808** Xenco Job # **556808**

[www.xenco.com](http://www.xenco.com)

Project Name/Number:  
Gunslinger 11 Federal Com #001H (3/18/17)

Company Address:  
2057 Commerce Drive  
Midland, Texas 79703  
Email: [noreen@trcsolutions.com](mailto:noreen@trcsolutions.com)

Phone No:  
432-564-6699

Project Contact:  
Nikki Green

Sampler's Name: Nikki Green

## Client / Reporting Information

Company Name / Branch:

TRC  
Company Address:  
2057 Commerce Drive  
Midland, Texas 79703

Email: [noreen@trcsolutions.com](mailto:noreen@trcsolutions.com)

Phone No:  
432-564-6699

Project Contact:  
Nikki Green

Sampler's Name: Nikki Green

## Project Information

Project Name/Number:  
Gunslinger 11 Federal Com #001H (3/18/17)

Project Location:  
Lea County, NM

Invoice To:  
Rebecca Haskell with COG Operating LLC [rhaskell@concho.com](mailto:rhaskell@concho.com)

Direct: 432-818-2372 | Main: 432-683-7443

PO Number:

TPH 8015M EXT 36

BTEX 8021B

Chloride E300.0

Notes:

Field Comments

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

Matrix Codes

## Analytical Information

Sample Depth

Date

Time

Matrix

# of bottles

HCl

NaOH/Zn Acetate

HNO3

H2SO4

NaOH

NaHSO4

MEOH

NONE

TPH 8015M EXT 36

BTEX 8021B

Chloride E300.0

Notes:

Field Comments

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

Turnaround Time (Business days)

Data Deliverable Information

Notes:

Field Comments

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

Temp: **5 - 1**  
CF: (0-6; -0.2°C)  
(6-23; +0.2°C)  
Corrected Temp: **4.9**

FED-EX / UPS: Tracking #

Relinquished By: **Nikki Green**

Received By: **J. V. Haskell**

Date Time: **7/31/17 11:55**

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Date Time: **7/31/17 11:55**

Relinquished By: **Nikki Green**

Received By: **J. V. Haskell**



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 07/03/2017 11:55:00 AM

**Work Order #:** 556808

**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)?	4.9
#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/extraneous 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: 07/03/2017

**Checklist reviewed by:**

*Kelsey Brooks*  
Kelsey Brooks

Date: 07/03/2017



# Certificate of Analysis Summary 556809

TRC Solutions, Inc, Midland, TX

Project Name: Gunslinger 11 Federal Com #001H (03/18/17)



Project Id:

Contact: Nikki Green

Project Location: Lea Co NM

Date Received in Lab: Mon Jul-03-17 11:55 am

Report Date: 18-JUL-17

Project Manager: Kelsey Brooks

<b>Analysis Requested</b>		<b>Lab Id:</b>	556809-001					
		<b>Field Id:</b>	West Trench-1 3'					
		<b>Depth:</b>						
		<b>Matrix:</b>	SOIL					
		<b>Sampled:</b>	Jun-30-17 10:25					
<b>BTEX by EPA 8021B</b>		<b>Extracted:</b>	Jul-12-17 13:00					
		<b>Analyzed:</b>	Jul-12-17 19:39					
		<b>Units/RL:</b>	mg/kg	RL				
Benzene			0.660	0.201				
Toluene			26.5	0.201				
Ethylbenzene			11.8	0.201				
m,p-Xylenes			80.5	0.402				
o-Xylene			36.6	0.201				
Total Xylenes			117	0.201				
Total BTEX			156	0.201				
<b>Chloride by EPA 300</b>		<b>Extracted:</b>	Jul-14-17 15:00					
		<b>Analyzed:</b>	Jul-14-17 19:35					
		<b>Units/RL:</b>	mg/kg	RL				
Chloride			78.4	4.99				
<b>TPH by SW8015 Mod</b>		<b>Extracted:</b>	Jul-12-17 14:00					
		<b>Analyzed:</b>	Jul-12-17 16:11					
		<b>Units/RL:</b>	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)			5690	74.9				
Diesel Range Organics (DRO)			7230	74.9				
Oil Range Hydrocarbons (ORO)			311	74.9				
Total TPH			13200	74.9				

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

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

Kelsey Brooks  
Project Manager

# **Analytical Report 556809**

**for  
TRC Solutions, Inc**

**Project Manager: Nikki Green**

**Gunslinger 11 Federal Com #001H (03/18/17)**

**18-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)

18-JUL-17

Project Manager: **Nikki Green**

**TRC Solutions, Inc**

2057 Commerce

Midland, TX 79703

Reference: XENCO Report No(s): **556809**

**Gunslinger 11 Federal Com #001H (03/18/17)**

Project Address: Lea Co 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) 556809. 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. 556809 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 556809



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

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
West Trench-1 3'	S	06-30-17 10:25		556809-001



## CASE NARRATIVE

***Client Name: TRC Solutions, Inc***

***Project Name: Gunslinger 11 Federal Com #001H (03/18/17)***

Project ID:

Work Order Number(s): 556809

Report Date: 18-JUL-17

Date Received: 07/03/2017

---

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

---

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

None

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

Batch: LBA-3022089 BTEX by EPA 8021B

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

Batch: LBA-3022462 Chloride by EPA 300

Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 556809-001.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



# Certificate of Analytical Results 556809



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **West Trench-1 3'**

Matrix: **Soil**

Date Received: 07.03.17 11.55

Lab Sample Id: **556809-001**

Date Collected: 06.30.17 10.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: **MGO**

% Moisture:

Analyst: **MGO**

Date Prep: **07.14.17 15.00**

Basis: **Wet Weight**

Seq Number: **3022462**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Chloride</b>	16887-00-6	<b>78.4</b>	4.99	mg/kg	07.14.17 19.35		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: **ARM**

% Moisture:

Analyst: **ARM**

Date Prep: **07.12.17 14.00**

Basis: **Wet Weight**

Seq Number: **3022138**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Gasoline Range Hydrocarbons (GRO)</b>	PHC610	<b>5690</b>	74.9	mg/kg	07.12.17 16.11		5
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>7230</b>	74.9	mg/kg	07.12.17 16.11		5
<b>Oil Range Hydrocarbons (ORO)</b>	PHCG2835	<b>311</b>	74.9	mg/kg	07.12.17 16.11		5
<b>Total TPH</b>	PHC635	<b>13200</b>	74.9	mg/kg	07.12.17 16.11		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	123	%	70-135	07.12.17 16.11		
o-Terphenyl	84-15-1	118	%	70-135	07.12.17 16.11		



# Certificate of Analytical Results 556809



## TRC Solutions, Inc, Midland, TX

Gunslinger 11 Federal Com #001H (03/18/17)

Sample Id: **West Trench-1 3'**

Matrix: **Soil**

Date Received:07.03.17 11.55

Lab Sample Id: **556809-001**

Date Collected: **06.30.17 10.25**

Analytical Method: **BTEX by EPA 8021B**

Prep Method: **SW5030B**

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: **07.12.17 13.00**

Basis: **Wet Weight**

Seq Number: **3022089**

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
<b>Benzene</b>	71-43-2	<b>0.660</b>	0.201	mg/kg	07.12.17 19.39		100
<b>Toluene</b>	108-88-3	<b>26.5</b>	0.201	mg/kg	07.12.17 19.39		100
<b>Ethylbenzene</b>	100-41-4	<b>11.8</b>	0.201	mg/kg	07.12.17 19.39		100
<b>m,p-Xylenes</b>	179601-23-1	<b>80.5</b>	0.402	mg/kg	07.12.17 19.39		100
<b>o-Xylene</b>	95-47-6	<b>36.6</b>	0.201	mg/kg	07.12.17 19.39		100
<b>Total Xylenes</b>	1330-20-7	<b>117</b>	0.201	mg/kg	07.12.17 19.39		100
<b>Total BTEX</b>		<b>156</b>	0.201	mg/kg	07.12.17 19.39		100
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	81	%	80-120	07.12.17 19.39		
4-Bromofluorobenzene	460-00-4	87	%	80-120	07.12.17 19.39		



- 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

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

***Certified and approved by numerous States and Agencies.***

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

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

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



# QC Summary 556809

TRC Solutions, Inc  
Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method: Chloride by EPA 300**

Seq Number:	3022462	Matrix:	Solid	Prep Method:	E300P							
MB Sample Id:	727761-1-BLK	LCS Sample Id:	727761-1-BKS	Date Prep:	07.14.17							
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>	<b>Flag</b>
Chloride	<5.00	250	262	105	261	104	90-110	0	20	mg/kg	07.14.17 16:50	

**Analytical Method: Chloride by EPA 300**

Seq Number:	3022462	Matrix:	Soil	Prep Method:	E300P							
Parent Sample Id:	556809-001	MS Sample Id:	556809-001 S	Date Prep:	07.14.17							
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>	<b>Flag</b>
Chloride	78.4	250	359	112	358	112	90-110	0	20	mg/kg	07.14.17 19:42	X

**Analytical Method: Chloride by EPA 300**

Seq Number:	3022462	Matrix:	Soil	Prep Method:	E300P							
Parent Sample Id:	557201-001	MS Sample Id:	557201-001 S	Date Prep:	07.14.17							
<b>Parameter</b>	<b>Parent Result</b>	<b>Spike Amount</b>	<b>MS Result</b>	<b>MS %Rec</b>	<b>MSD Result</b>	<b>MSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>	<b>Flag</b>
Chloride	23.9	497	542	104	543	104	90-110	0	20	mg/kg	07.14.17 17:55	

**Analytical Method: TPH by SW8015 Mod**

Seq Number:	3022138	Matrix:	Solid	Prep Method:	TX1005P							
MB Sample Id:	727570-1-BLK	LCS Sample Id:	727570-1-BKS	Date Prep:	07.12.17							
<b>Parameter</b>	<b>MB Result</b>	<b>Spike Amount</b>	<b>LCS Result</b>	<b>LCS %Rec</b>	<b>LCSD Result</b>	<b>LCSD %Rec</b>	<b>Limits</b>	<b>%RPD</b>	<b>RPD Limit</b>	<b>Units</b>	<b>Analysis Date</b>	<b>Flag</b>
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	
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>	
1-Chlorooctane	121		114		109		70-135			%	07.12.17 14:59	
o-Terphenyl	127		112		108		70-135			%	07.12.17 14:59	



# QC Summary 556809

**TRC Solutions, Inc**  
Gunslinger 11 Federal Com #001H (03/18/17)

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3022138

Matrix: Soil

Prep Method: TX1005P

Parent Sample Id: 557336-001

MS Sample Id: 557336-001 S

Date Prep: 07.12.17

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

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3022089

Matrix: Solid

Prep Method: SW5030B

MB Sample Id: 727538-1-BLK

LCS Sample Id: 727538-1-BKS

Date Prep: 07.12.17

LCSD Sample Id: 727538-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.115	116	0.118	118	70-130	3	35	mg/kg	07.12.17 12:49	
Toluene	<0.00199	0.0994	0.108	109	0.106	106	70-130	2	35	mg/kg	07.12.17 12:49	
Ethylbenzene	<0.00199	0.0994	0.113	114	0.117	117	71-129	3	35	mg/kg	07.12.17 12:49	
m,p-Xylenes	<0.00398	0.199	0.196	98	0.201	101	70-135	3	35	mg/kg	07.12.17 12:49	
o-Xylene	<0.00199	0.0994	0.104	105	0.109	109	71-133	5	35	mg/kg	07.12.17 12:49	
<b>Surrogate</b>	<b>MB %Rec</b>	<b>MB Flag</b>	<b>LCS %Rec</b>	<b>LCS Flag</b>	<b>LCSD %Rec</b>	<b>LCSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>	
1,4-Difluorobenzene	119		104			89		80-120		%	07.12.17 12:49	
4-Bromofluorobenzene	113		109			102		80-120		%	07.12.17 12:49	

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3022089

Matrix: Soil

Prep Method: SW5030B

Parent Sample Id: 557309-001

MS Sample Id: 557309-001 S

Date Prep: 07.12.17

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0936	94	0.103	102	70-130	10	35	mg/kg	07.12.17 13:55	
Toluene	<0.00199	0.0996	0.0942	95	0.0779	77	70-130	19	35	mg/kg	07.12.17 13:55	
Ethylbenzene	<0.00199	0.0996	0.0889	89	0.0869	86	71-129	2	35	mg/kg	07.12.17 13:55	
m,p-Xylenes	<0.00398	0.199	0.153	77	0.146	73	70-135	5	35	mg/kg	07.12.17 13:55	
o-Xylene	<0.00199	0.0996	0.0863	87	0.0890	88	71-133	3	35	mg/kg	07.12.17 13:55	
<b>Surrogate</b>			<b>MS %Rec</b>	<b>MS Flag</b>	<b>MSD %Rec</b>	<b>MSD Flag</b>	<b>Limits</b>			<b>Units</b>	<b>Analysis Date</b>	
1,4-Difluorobenzene			114			107		80-120		%	07.12.17 13:55	
4-Bromofluorobenzene			119			120		80-120		%	07.12.17 13:55	

# CHAIN OF CUSTODY

Page 1 Of 1

San Antonio, Texas (210-509-3334)

Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

[www.xenco.com](http://www.xenco.com)

Sample Custody Log

Sample ID: 556809

Client / Reporting Information		Project Information		Analytical Information		Matrix Codes	
Company Name / Branch: TRC		Project Name/Number: Guisinger 11 Federal Corn #001H (3/18/17)					
Company Address: 2057 Commerce Drive Midland, Texas 79703		Project Location: Lea County, NM					
Email: <a href="mailto:nigreen@lrcsolutions.com">nigreen@lrcsolutions.com</a>		Phone No.: 432-664-6699					
Project Contact: Nikki Green							
Sampler's Name: Nikki Green							

No.	Field ID / Point of Collection	Collection	Number of preserved bottles	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015M EXT 36	BTEX 8021B	Chloride E300.0	HOLD	Field Comments
1	West Trench-1 3'			30-Jun	1025	S		1							X						
2															X						
3															X						
4															X						
5															X						
6															X						
7															X						
8															X						
9															X						
10															X						

Turnaround Time ( Business days)		Data Deliverable Information		Notes:			
<input type="checkbox"/> Same Day TAT	<input type="checkbox"/> 5 Day TAT	<input checked="" type="checkbox"/> Level II Std QC	<input type="checkbox"/> Level IV (Full Data Pkg / raw data)	Please hold sample until notified to run TPH, BTEX, and Chloride analysis			
<input type="checkbox"/> Next Day EMERGENCY	<input type="checkbox"/> 7 Day TAT	<input type="checkbox"/> Level III Std QC+ Forms	<input type="checkbox"/> TRRP Level IV				
<input type="checkbox"/> 2 Day EMERGENCY	<input checked="" type="checkbox"/> Contract TAT	<input type="checkbox"/> Level 3 (CLP Forms)	<input type="checkbox"/> UST / RG -411				
<input type="checkbox"/> 3 Day EMERGENCY		<input type="checkbox"/> TRRP Checklist					
TAT Starts Day received by Lab, if received by 5:00 pm							
<b>SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY</b>							
1	Date Time: 1/3/17 11:55	Received By: J. M. HANNA	Relinquished By: J. M. HANNA	Date Time: 2/1/17	Received By: J. M. HANNA		
2	Date Time: 3/1/17	Received By: J. M. HANNA	Relinquished By: J. M. HANNA	Date Time: 2/2/17	Received By: J. M. HANNA		
3	Date Time: 5/1/17	Received By: J. M. HANNA	Custody Seal #	Preserved where applicable	On ice		
4							
5							

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.



# XENCO Laboratories

## Prelogin/Nonconformance Report- Sample Log-In



**Client:** TRC Solutions, Inc

**Date/ Time Received:** 07/03/2017 11:55:00 AM

**Work Order #:** 556809

**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)?	4.9
#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/extraneous samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A

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

Analyst:

PH Device/Lot#:

**Checklist completed by:**

*Jessica Kramer*  
Jessica Kramer

Date: 07/03/2017

**Checklist reviewed by:**

Date: \_\_\_\_\_

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

**State of New Mexico**  
**Energy Minerals and Natural Resources**

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

Form C-141  
 Revised August 8, 2011

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

### Release Notification and Corrective Action

#### OPERATOR

Initial Report  Final Report

Name of Company:	COG Operating LLC OGRID # 229137	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	Gunslinger 11 Federal Com #001	Facility Type:	Tank Battery
Surface Owner:	Federal	Mineral Owner:	API No. 30-025-36797

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	11	20S	33E	810	South	660	West	Lea

Latitude 32.582877 Longitude -103.640467

#### NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 25 bbls Oil & 15 bbls PW	Volume Recovered: 20 bbls Oil & 10 bbls PW
Source of Release: Heater Treater	Date and Hour of Occurrence: March 18, 2017 9:30 am	Date and Hour of Discovery: March 18, 2017 9:30 am
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

**RECEIVED**  
**By Olivia Yu at 3:56 pm, Mar 22, 2017**

Describe Cause of Problem and Remedial Action Taken.\*

The release was caused by pressure valve failure on a heater treater, causing fluids to be released through the relief valve. The pressure valve was replaced.  
Describe Area Affected and Cleanup Action Taken.\*

The release was within and unlined facility with overspray on the adjacent pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to 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>Rebecca Haskell</i>	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Rebecca Haskell	Approved by Environmental Specialist: <i>OLY</i>		
Title: Senior HSE Coordinator	Approval Date: <b>3/22/2017</b>	Expiration Date:	
E-mail Address: <a href="mailto:raskell@concho.com">raskell@concho.com</a>	Conditions of Approval: <b>see attached directive</b>		Attached <input type="checkbox"/>
Date: March 21, 2017 Phone: 432-683-7443			

\* Attach Additional Sheets If Necessary

1RP-4651

noY1708157566

pOY1708157871

Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_3/21/2017\_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number \_1R- 4651\_ 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 \_4/22/2017\_. 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](mailto:jim.griswold@state.nm.us)