

Basin Environmental Service Technologies, LLC

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REMEDIATION SUMMARY & SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES

TRUNK "O" #1

HISTORICAL RELEASE SITE

Lea County, New Mexico

Unit Letter "L" (NW/SW), Section 22, Township 22 South, Range 36 East

Latitude 32° 22.460' North, Longitude 103° 15.588' West

NMOCD Reference # 1RP-1507

Prepared For:

Southern Union Gas Services
801 S. Loop 464
Monahans, TX 79756

Prepared By:

Basin Environmental Service Technologies, LLC
3100 Plains Highway
Lovington, New Mexico 88260

December 2012

Joel W. Lowry
Project Manager

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1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this *Remediation Summary & Site Closure Request* for the Trunk “O” #1 Historical Release Site (1RP-1507). The legal description of the release site is Unit Letter “L” (NW/SW), Section 22, Township 22 South, Range 36 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 22.460' North latitude and 103° 15.588' West longitude. The property affected by the release is owned by Dasco Land and Cattle Company. Please reference Figure 1 for a "Site Location Map".

On July 21, 2007, Southern Union discovered a release had occurred on the Trunk “O” Pipeline. The “Release Notification and Corrective Action Form” (Form C-141) indicated failure of a section of thirty-inch (30”) low-pressure pipeline resulted in the release of approximately sixty barrels (60 bbls) of crude oil and produced water mixture along with one thousand, two hundred fifteen (1,215) Mcf of natural gas. During initial response activities approximately forty barrels (40 bbls) of free standing fluid was recovered with a vacuum truck. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on discovery. The Form C-141, filed August 2, 2007, indicated the release affected approximately two thousand, four hundred square feet (2,400 ft²) of pasture land and nine hundred square feet (900 ft²) of caliche lease road. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix D.

Between July 26, and August 10, 2007, remediation activities were conducted at the Trunk “O” #1 Release Site by an environmental contractor that is no longer affiliated with the site. The nature and extent of the aforementioned activities remains unclear, as environmental reports and work records are not readily available. Transporter’s manifests indicate at least two hundred fifty-two cubic yards (252 yd³) of impacted material was transported to Southern Union Gas Services’ Landfarm (Discharge Permit # NM-02-0019) for treatment during this time. Copies of transporter’s manifests are provided as Appendix C.

On June 22, 2012, at the request of Southern Union, Basin assumed remediation responsibilities at the Trunk “O” #1 Historical Release Site.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Unit Letter L, Section 22, Township 22 South, Range 36 East. A depth to groundwater reference map utilized by the NMOCD indicated groundwater should be encountered at approximately two hundred fifty feet (250’) below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000’) of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the Trunk "O" #1 Historical Release Site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene and xylene (BTEX) – 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) – 5,000 mg/Kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On October 30, 2012, Basin responded to the Trunk "O" #1 Historical Release Site. An initial investigation indicated previous remediation activities had been conducted at the release site. A series of six (6) test trenches were advanced within the historical release flowpath in an effort to determine if impacted soil containing BTEX, TPH, and chloride concentrations above NMOCD regulatory standards remained in-situ.

Test Trench #1 was advanced to approximately eight feet (8') bgs near the northwest margin of the historical release flowpath. During the advancement of the test trench, select soil samples were field-screened using a photo-ionization detector (PID) and chloride field test kit. Three (3) soil samples (TT-1 @ 3', TT-1 @ 6' and TT-1 @ 8') were collected and submitted to Xenco Laboratories, of Odessa, Texas, for determination of chloride concentrations in accordance with EPA Method 300.1. Laboratory analytical results indicated chloride concentrations ranged from 30.9 mg/Kg for soil sample TT-1 @ 8' to 343 mg/Kg for soil sample TT-1 @ 6'. Soil samples TT-1 @ 3' and TT-1 @ 8' were also analyzed for concentrations of TPH in accordance with EPA Method SW 846-8015M. Analytical results indicated TPH concentrations were less than the appropriate laboratory method detection limit (MDL) for each of the submitted soil samples. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided as Appendix B.

Test Trench #2 was advanced to approximately six feet (6') bgs approximately ten feet (10') northeast of the inferred release point, within the historical release flowpath. During the advancement of the test trench, two (2) soil samples (TT-2 @ 3' and TT-2 @ 6') were collected and submitted to the laboratory for analysis of chloride and TPH concentrations. Laboratory analytical results indicated chloride concentrations ranged from 10.4 mg/Kg for soil sample TT-2 @ 3' to 33.9 mg/Kg in soil sample TT-2 @ 6'. Analytical reports indicated TPH concentrations were less than the appropriate laboratory MDL for each of the soil samples submitted.

Test Trench #3 was advanced to approximately eight feet (8') bgs near the inferred center of the historical release pooling area. During the advancement of the test trench, three (3) soil samples

(TT-3 @ 3, TT-3 @ 6', and TT-3 @ 8') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from 181 mg/Kg for soil sample TT-3 @ 8' to 309 mg/Kg in soil sample TT-3 @ 3'. Soil samples TT-3 @ 3' and TT-3 @ 8' were also analyzed for concentrations of TPH. Analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the soil samples submitted.

Test Trench #4 was advanced to approximately eight feet (8') bgs adjacent to the inferred release point, west of the Trunk "O" Pipeline. During the advancement of the test trench, three (3) soil samples (TT-4 @ 3', TT-4 @ 6' and TT-4 @ 8') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from 65.7 mg/Kg for soil sample TT-4 @ 3' to 219 mg/Kg for soil sample TT-4 @ 6'. Soil samples TT-4 @ 3' and TT-4 @ 8' were also analyzed for concentrations of TPH. Analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the soil samples submitted. Soil sample TT-4 @ 8' was also analyzed for BTEX constituent concentrations in accordance with EPA Method SW 846-821B. Analytical results indicated the BTEX concentration was less than the appropriate laboratory MDL for each constituent.

Test Trench #5 was advanced to approximately thirteen and one-half feet (13.5') bgs near the inferred center of the historical release flowpath. During the advancement of the test trench, three (3) soil samples (TT-5 @ 3', TT-5 @ 8' and TT-5 @ 13.5') were collected and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations ranged from 242 mg/Kg for soil sample TT-5 @ 15.5' to 535 mg/Kg in soil sample TT-5 @ 8'. Soil samples TT-5 @ 3' and TT-5 @ 15.5' were also analyzed for concentrations of TPH. Analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the soil samples submitted. Soil sample TT-5 @ 13.5' was also analyzed for BTEX constituent concentrations. Analytical results indicated the BTEX concentration was less than the appropriate laboratory MDL for each constituent.

Test Trench #6 was advanced to approximately six feet (6') bgs near the inferred southern terminus of the historical release flowpath. During the advancement of the test trench, two (2) soil samples (TT-6 @ 3' and TT-6 @ 6') were collected and submitted to the laboratory for chloride and TPH analysis. Laboratory analytical results indicated chloride concentrations ranged from 15.6 mg/Kg for soil sample TT-6 @ 6' to 322 mg/Kg in soil sample TT-6 @ 3'. Analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the soil samples submitted.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Xenco Laboratories, of Odessa, Texas, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with modified EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 300/300.1

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Confirmation soil samples collected from the six (6) on-site test trenches suggested previous remediation activities at the Trunk “O” #1 Release Site met the requirements of the NMOCD’s “Guidelines for Remediation of Leaks, Spills and Releases”. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory remediation action levels in each of the submitted soil samples. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the Trunk “O” #1 Historical Release Site.

6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin has not conducted an independent examination of the facts contained in referenced materials and statements. Basin has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Southern Union Gas Services. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Southern Union Gas Services.

7.0 DISTRIBUTION

Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, NM 88240
GeoffreyR.Leking@state.nm.us

Copy 2: Rose Slade
Southern Union Gas Services
801 S. Loop 464
Monahans, Texas 79756
rose.slade@sug.com

Copy 3: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, New Mexico 88260

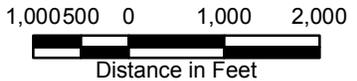
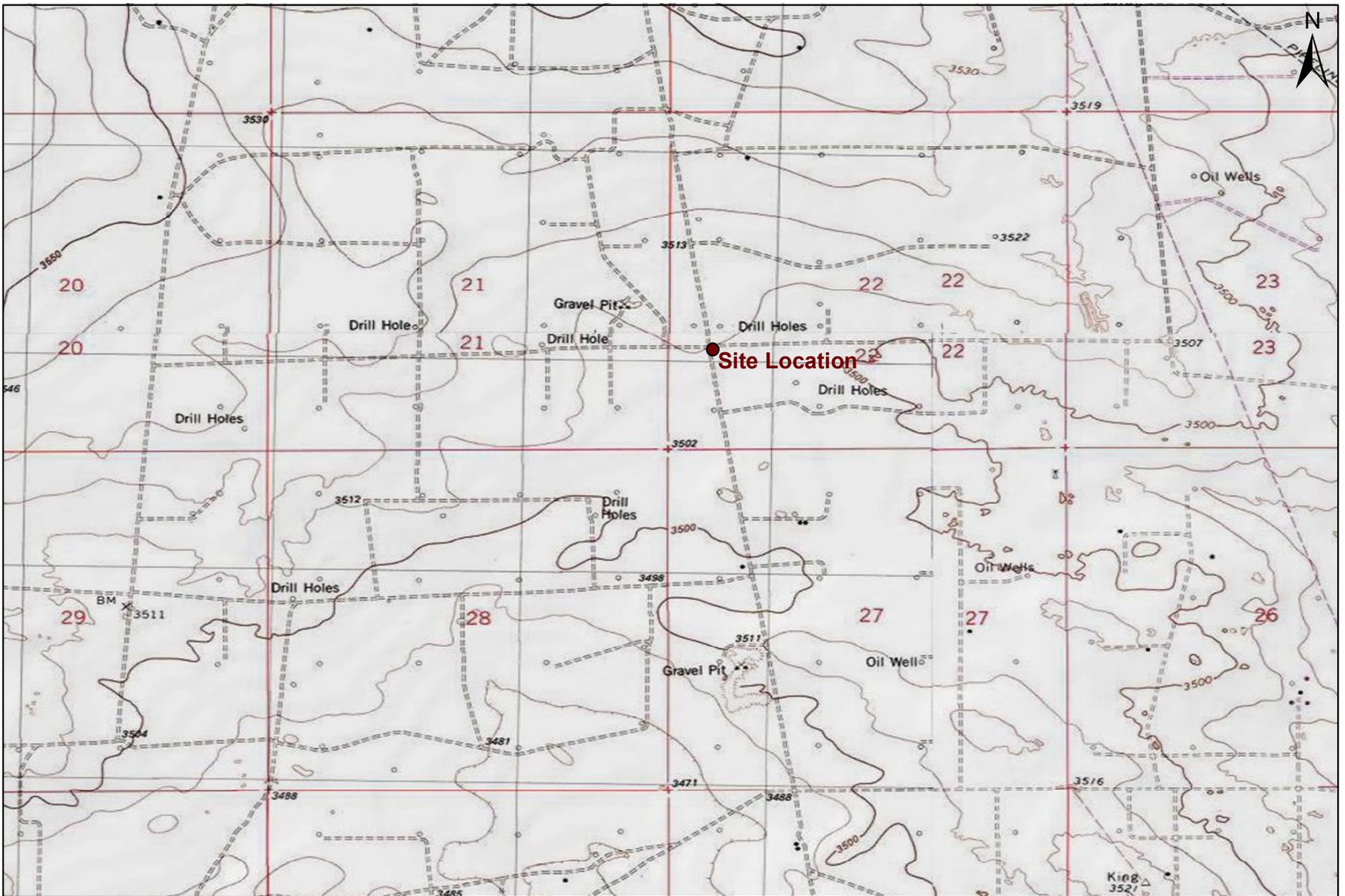
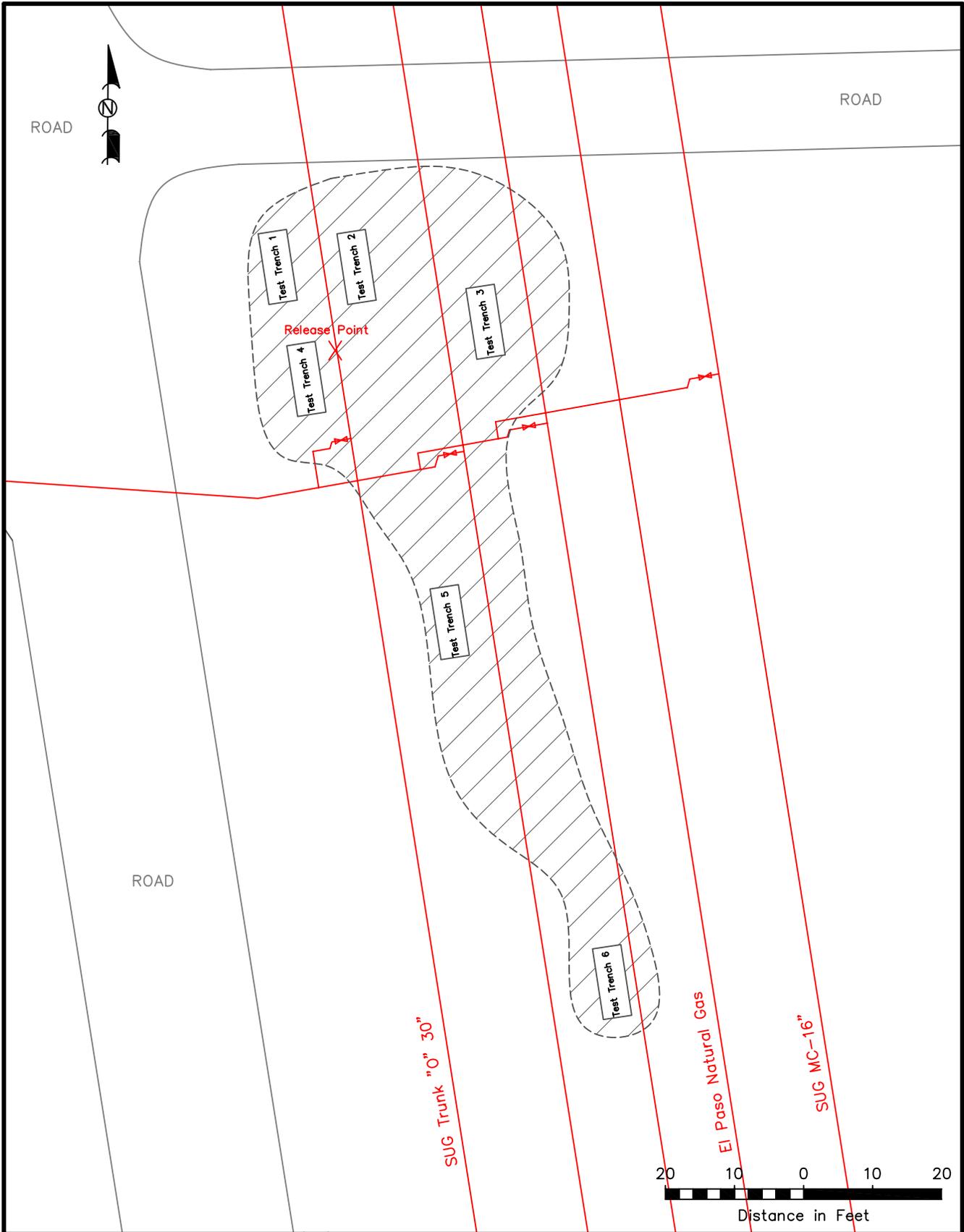


Figure 1
Site Location Map
 Southern Union Gas Services
 Trunk "O" #1
 Lea County, New Mexico
 NMOCD Reference #: 1RP-1507



Basin Environmental Service Technologies, LLC
 3100 Plains Hwy.
 Lovington, NM 88260

Drawn By: BJA	Checked By: JWL
November 5, 2012	Scale: 1" = 2000'



LEGEND:

- Inferred Flowpath
- Pipeline
- Road
- Sample Location
- ▨ Initial Flowpath

Figure 2
 Site & Sample Location Map
 Southern Union Gas Services
 Trunk "O" #1 (1RP-1507)
 Lea County, NM

Basin Environmental Services

Scale: 1" = 20'	Drawn By: JWL	Prepared By: BRB
November 2, 2012		

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
 TRUNK "O" #1
 HISTORICAL RELEASE SITE
 LEA COUNTY, NEW MEXICO
 NMOCD REFERENCE NO: 1RP-1507

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	E 300 CHLORIDE (mg/Kg)	
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)			
TT-1 @ 3'	3'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<16.8	<16.8	<16.8	<16.8	204
TT-1 @ 6'	6'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	-	-	-	-	343
TT-1 @ 8'	8'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<19.2	<19.2	<19.2	<19.2	30.9
TT-2 @ 3'	3'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<17.7	<17.7	<17.7	<17.7	10.4
TT-2 @ 6'	6'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<16.9	<16.9	<16.9	<16.9	33.9
TT-3 @ 3'	3'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<17.7	<17.7	<17.7	<17.7	309
TT-3 @ 6'	6'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	-	-	-	-	191
TT-3 @ 8'	8'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<16.0	<16.0	<16.0	<16.0	181
TT-4 @ 3'	3'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<20.0	<20.0	<20.0	<20.0	65.7
TT-4 @ 6'	6'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	-	-	-	-	219
TT-4 @ 8'	8'	10/30/2012	In-Situ	<0.00106	<0.00212	<0.00106	<0.00212	<0.00106	<0.00106	<0.00212	<0.00212	<15.8	<15.8	<15.8	<15.8	142
TT-5 @ 3'	3'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<16.5	<16.5	<16.5	<16.5	294
TT-5 @ 8'	8'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	-	-	-	-	535
TT-5 @ 13.5'	13.5'	10/30/2012	In-Situ	<0.00110	<0.00219	<0.00110	<0.00219	<0.00110	<0.00219	<0.00219	<0.00219	<16.5	<16.5	<16.5	<16.5	242
TT-6 @ 3'	3'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<16.5	<16.5	<16.5	<16.5	322
TT-6 @ 6'	6'	10/30/2012	In-Situ	-	-	-	-	-	-	-	-	<19.3	<19.3	<19.3	<19.3	15.6
MOCDC Regulatory Standard				10				50							5,000	1,000

- = Not analyzed.



Photograph of the initial release at the Trunk "O" #1 Historical Release Site.



Photograph of the initial release at the Trunk "O" #1 Historical Release Site.



Photograph of the disturbed area Trunk "O" #1 Historical Release Site.



Photograph of the disturbed area Trunk "O" #1 Historical Release Site.



Photograph of delineation activities at the Trunk "O" #1 Historical Release Site.



Photograph of delineation activities at the Trunk "O" #1 Historical Release Site.

Analytical Report 451912
for
Southern Union Gas Services- Monahans

Project Manager: Joel Lowry

Trunk "O" #1

(RP-1507)

15-NOV-12

Collected By: Client



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Lakeland: Florida (E84098)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



15-NOV-12

Project Manager: **Joel Lowry**
Southern Union Gas Services- Monahans
801 South Loop 464
Monahans, TX 79756

Reference: XENCO Report No: **451912**
Trunk "O" #1
Project Address: Lea County, NM

Joel Lowry:

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 451912. 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. 451912 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,

Nicholas Straccione
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 - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TT-1 @ 3'	S	10-30-12 09:45	- 3 ft	451912-001
TT-1 @ 6'	S	10-30-12 09:50	- 6 ft	451912-002
TT-1 @ 8'	S	10-30-12 09:55	- 8 ft	451912-003
TT-2 @ 3'	S	10-30-12 10:05	- 3 ft	451912-004
TT-2 @ 6'	S	10-30-12 10:10	- 6 ft	451912-005
TT-3 @ 3'	S	10-30-12 10:25	- 3 ft	451912-006
TT-3 @ 6'	S	10-30-12 10:30	- 6 ft	451912-007
TT-3 @ 8'	S	10-30-12 10:35	- 8 ft	451912-008
TT-4 @ 3'	S	10-30-12 10:50	- 3 ft	451912-009
TT-4 @ 6'	S	10-30-12 10:55	- 6 ft	451912-010
TT-4 @ 8'	S	10-30-12 11:00	- 8 ft	451912-011
TT-5 @ 3'	S	10-30-12 11:20	- 3 ft	451912-012
TT-5 @ 8'	S	10-30-12 11:40	- 8 ft	451912-013
TT-5 @ 13.5'	S	10-30-12 12:10	- 13.5 ft	451912-014
TT-6 @ 3'	S	10-30-12 13:40	- 3 ft	451912-015
TT-6 @ 6'	S	10-30-12 13:50	- 6 ft	451912-016



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Trunk "O" #1



Project ID: (RP-1507)
Work Order Number: 451912

Report Date: 15-NOV-12
Date Received: 11/05/2012

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None



Certificate of Analysis Summary 451912

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: (RP-1507)

Contact: Joel Lowry

Project Name: Trunk "O" #1

Date Received in Lab: Mon Nov-05-12 10:04 am

Report Date: 15-NOV-12

Project Location: Lea County, NM

Project Manager: Nicholas Straccione

<i>Analysis Requested</i>	<i>Lab Id:</i>	451912-001	451912-002	451912-003	451912-004	451912-005	451912-006
	<i>Field Id:</i>	TT-1 @ 3'	TT-1 @ 6'	TT-1 @ 8'	TT-2 @ 3'	TT-2 @ 6'	TT-3 @ 3'
	<i>Depth:</i>	3 ft	6 ft	8 ft	3 ft	6 ft	3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-30-12 09:45	Oct-30-12 09:50	Oct-30-12 09:55	Oct-30-12 10:05	Oct-30-12 10:10	Oct-30-12 10:25
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	<i>Extracted:</i>	Nov-10-12 21:28	Nov-10-12 21:45	Nov-10-12 22:33	Nov-10-12 22:49	Nov-10-12 23:05	Nov-10-12 23:21
	<i>Analyzed:</i>	Nov-10-12 21:28	Nov-10-12 21:45	Nov-10-12 22:33	Nov-10-12 22:49	Nov-10-12 23:05	Nov-10-12 23:21
	<i>Units/RL:</i>	mg/kg RL					
Chloride		204 1.12	343 1.08	30.9 1.28	10.4 1.19	33.9 1.13	309 1.18
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-09-12 12:30	Nov-09-12 12:35				
	<i>Units/RL:</i>	% RL					
Percent Moisture		9.52 1.00	6.18 1.00	21.0 1.00	16.6 1.00	10.7 1.00	14.9 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Nov-12-12 07:45		Nov-12-12 07:45	Nov-12-12 07:45	Nov-12-12 07:45	Nov-12-12 12:00
	<i>Analyzed:</i>	Nov-12-12 19:24		Nov-12-12 19:54	Nov-12-12 20:24	Nov-12-12 20:53	Nov-13-12 01:07
	<i>Units/RL:</i>	mg/kg RL		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 16.8		ND 19.2	ND 17.7	ND 16.9	ND 17.7
C12-C28 Diesel Range Hydrocarbons		ND 16.8		ND 19.2	ND 17.7	ND 16.9	ND 17.7
C28-C35 Oil Range Hydrocarbons		ND 16.8		ND 19.2	ND 17.7	ND 16.9	ND 17.7
Total TPH		ND 16.8		ND 19.2	ND 17.7	ND 16.9	ND 17.7

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

Nicholas Straccione
Project Manager

Certificate of Analysis Summary 451912

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: (RP-1507)

Contact: Joel Lowry

Project Name: Trunk "O" #1

Date Received in Lab: Mon Nov-05-12 10:04 am

Report Date: 15-NOV-12

Project Location: Lea County, NM

Project Manager: Nicholas Straccione

<i>Analysis Requested</i>	<i>Lab Id:</i>	451912-007	451912-008	451912-009	451912-010	451912-011	451912-012
	<i>Field Id:</i>	TT-3 @ 6'	TT-3 @ 8'	TT-4 @ 3'	TT-4 @ 6'	TT-4 @ 8'	TT-5 @ 3'
	<i>Depth:</i>	6 ft	8 ft	3 ft	6 ft	8 ft	3 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-30-12 10:30	Oct-30-12 10:35	Oct-30-12 10:50	Oct-30-12 10:55	Oct-30-12 11:00	Oct-30-12 11:20
BTEX by EPA 8021B	<i>Extracted:</i>					Nov-15-12 08:15	
	<i>Analyzed:</i>					Nov-15-12 09:49	
	<i>Units/RL:</i>					mg/kg RL	
Benzene						ND 0.00106	
Toluene						ND 0.00212	
Ethylbenzene						ND 0.00106	
m_p-Xylenes						ND 0.00212	
o-Xylene						ND 0.00106	
Total Xylenes						ND 0.00106	
Total BTEX						ND 0.00106	
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	<i>Extracted:</i>	Nov-10-12 23:37	Nov-10-12 23:53	Nov-11-12 00:09	Nov-11-12 00:26	Nov-11-12 00:42	Nov-11-12 00:58
	<i>Analyzed:</i>	Nov-10-12 23:37	Nov-10-12 23:53	Nov-11-12 00:09	Nov-11-12 00:26	Nov-11-12 00:42	Nov-11-12 00:58
	<i>Units/RL:</i>	mg/kg RL					
Chloride		191 1.05	181 1.07	65.7 1.34	219 1.12	142 1.06	294 1.10
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-09-12 12:35					
	<i>Units/RL:</i>	% RL					
Percent Moisture		4.55 1.00	5.71 1.00	25.5 1.00	9.84 1.00	5.09 1.00	9.01 1.00
TPH By SW8015 Mod	<i>Extracted:</i>		Nov-12-12 12:00	Nov-12-12 12:00		Nov-12-12 12:00	Nov-12-12 12:00
	<i>Analyzed:</i>		Nov-13-12 02:30	Nov-13-12 02:57		Nov-13-12 03:24	Nov-13-12 03:51
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL		mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons			ND 16.0	ND 20.0		ND 15.8	ND 16.5
C12-C28 Diesel Range Hydrocarbons			ND 16.0	ND 20.0		ND 15.8	ND 16.5
C28-C35 Oil Range Hydrocarbons			ND 16.0	ND 20.0		ND 15.8	ND 16.5
Total TPH			ND 16.0	ND 20.0		ND 15.8	ND 16.5

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

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Nicholas Straccione
Project Manager



Certificate of Analysis Summary 451912

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: (RP-1507)

Contact: Joel Lowry

Project Name: Trunk "O" #1

Date Received in Lab: Mon Nov-05-12 10:04 am

Report Date: 15-NOV-12

Project Location: Lea County, NM

Project Manager: Nicholas Straccione

<i>Analysis Requested</i>	<i>Lab Id:</i>	451912-013	451912-014	451912-015	451912-016		
	<i>Field Id:</i>	TT-5 @ 8'	TT-5 @ 13.5'	TT-6 @ 3'	TT-6 @ 6'		
	<i>Depth:</i>	8 ft	13.5 ft	3 ft	6 ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Oct-30-12 11:40	Oct-30-12 12:10	Oct-30-12 13:40	Oct-30-12 13:50		
BTEX by EPA 8021B	<i>Extracted:</i>		Nov-15-12 08:15				
	<i>Analyzed:</i>		Nov-15-12 10:05				
	<i>Units/RL:</i>		mg/kg RL				
Benzene			ND 0.00110				
Toluene			ND 0.00219				
Ethylbenzene			ND 0.00110				
m_p-Xylenes			ND 0.00219				
o-Xylene			ND 0.00110				
Total Xylenes			ND 0.00110				
Total BTEX			ND 0.00110				
Inorganic Anions by EPA 300/300.1 SUB: TX104704215	<i>Extracted:</i>	Nov-11-12 01:46	Nov-11-12 02:02	Nov-11-12 02:18	Nov-11-12 02:34		
	<i>Analyzed:</i>	Nov-11-12 01:46	Nov-11-12 02:02	Nov-11-12 02:18	Nov-11-12 02:34		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		535 1.11	242 1.10	322 1.10	15.6 1.29		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Nov-09-12 12:35	Nov-09-12 12:35	Nov-09-12 12:35	Nov-09-12 12:35		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		9.32 1.00	8.92 1.00	7.38 1.00	21.2 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>		Nov-12-12 12:00	Nov-12-12 12:00	Nov-12-12 12:00		
	<i>Analyzed:</i>		Nov-13-12 04:19	Nov-13-12 11:39	Nov-13-12 05:13		
	<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons			ND 16.5	ND 16.5	ND 19.3		
C12-C28 Diesel Range Hydrocarbons			ND 16.5	ND 16.5	ND 19.3		
C28-C35 Oil Range Hydrocarbons			ND 16.5	ND 16.5	ND 19.3		
Total TPH			ND 16.5	ND 16.5	ND 19.3		

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Nicholas Straccione
Project Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

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(770) 449-8800	(770) 449-5477
(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #1

Work Orders : 451912,

Project ID: (RP-1507)

Lab Batch #: 900705

Sample: 451912-001 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/12/12 19:24				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	100	87	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

Lab Batch #: 900705

Sample: 451912-003 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/12/12 19:54				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.5	100	88	70-135	
o-Terphenyl	44.3	50.0	89	70-135	

Lab Batch #: 900705

Sample: 451912-004 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/12/12 20:24				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	99.5	88	70-135	
o-Terphenyl	44.8	49.8	90	70-135	

Lab Batch #: 900705

Sample: 451912-005 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/12/12 20:53				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.4	99.8	88	70-135	
o-Terphenyl	44.4	49.9	89	70-135	

Lab Batch #: 900743

Sample: 451912-006 / SMP

Batch: 1 **Matrix:** Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg	Date Analyzed: 11/13/12 01:07				
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.8	99.7	90	70-135	
o-Terphenyl	45.7	49.9	92	70-135	

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

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #1

Work Orders : 451912,

Project ID: (RP-1507)

Lab Batch #: 900743

Sample: 451912-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 11/13/12 02:30	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.8	99.8	90	70-135	
o-Terphenyl	45.4	49.9	91	70-135	

Lab Batch #: 900743

Sample: 451912-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 11/13/12 02:57	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.4	99.6	90	70-135	
o-Terphenyl	45.0	49.8	90	70-135	

Lab Batch #: 900743

Sample: 451912-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 11/13/12 03:24	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.1	99.6	89	70-135	
o-Terphenyl	44.4	49.8	89	70-135	

Lab Batch #: 900743

Sample: 451912-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 11/13/12 03:51	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.0	99.7	89	70-135	
o-Terphenyl	45.2	49.9	91	70-135	

Lab Batch #: 900743

Sample: 451912-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 11/13/12 04:19	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.3	99.6	88	70-135	
o-Terphenyl	44.5	49.8	89	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #1

Work Orders : 451912,

Project ID: (RP-1507)

Lab Batch #: 900743

Sample: 451912-016 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/13/12 05:13	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod Analytes					
1-Chlorooctane	89.4	99.6	90	70-135	
o-Terphenyl	45.0	49.8	90	70-135	

Lab Batch #: 900743

Sample: 451912-015 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/13/12 11:39	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod Analytes					
1-Chlorooctane	89.7	100	90	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 900976

Sample: 451912-011 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/15/12 09:49	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B Analytes					
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 900976

Sample: 451912-014 / SMP

Batch: 1 Matrix: Soil

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/15/12 10:05	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B Analytes					
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0247	0.0300	82	80-120	

Lab Batch #: 900705

Sample: 629844-1-BLK / BLK

Batch: 1 Matrix: Solid

	SURROGATE RECOVERY STUDY				
Units: mg/kg Date Analyzed: 11/12/12 10:31	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod Analytes					
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	41.8	50.1	83	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #1

Work Orders : 451912,

Project ID: (RP-1507)

Lab Batch #: 900743

Sample: 629866-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 11/13/12 00:40	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.6	99.9	89	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 900976

Sample: 630013-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 11/15/12 09:33	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0242	0.0300	81	80-120	

Lab Batch #: 900705

Sample: 629844-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 11/12/12 09:31	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.9	100	70-135	
o-Terphenyl	54.9	50.0	110	70-135	

Lab Batch #: 900743

Sample: 629866-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 11/12/12 23:44	SURROGATE RECOVERY STUDY			
TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.9	99.8	91	70-135	
o-Terphenyl	51.4	49.9	103	70-135	

Lab Batch #: 900976

Sample: 630013-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg	Date Analyzed: 11/15/12 09:01	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #1

Work Orders : 451912,

Project ID: (RP-1507)

Lab Batch #: 900705

Sample: 629844-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/12/12 10:00	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		97.3	99.9	97	70-135	
o-Terphenyl		52.5	50.0	105	70-135	

Lab Batch #: 900743

Sample: 629866-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/13/12 00:12	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		93.3	100	93	70-135	
o-Terphenyl		51.5	50.1	103	70-135	

Lab Batch #: 900976

Sample: 630013-1-BSD / BSD

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/15/12 09:17	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0332	0.0300	111	80-120	
4-Bromofluorobenzene		0.0315	0.0300	105	80-120	

Lab Batch #: 900705

Sample: 451911-003 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/12/12 21:21	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		90.9	100	91	70-135	
o-Terphenyl		51.6	50.1	103	70-135	

Lab Batch #: 900743

Sample: 451912-006 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/13/12 01:35	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		93.9	100	94	70-135	
o-Terphenyl		52.0	50.1	104	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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



Form 2 - Surrogate Recoveries

Project Name: Trunk "O" #1

Work Orders : 451912,

Project ID: (RP-1507)

Lab Batch #: 900976

Sample: 451912-011 S / MS

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/15/12 12:34	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0318	0.0300	106	80-120	
4-Bromofluorobenzene		0.0336	0.0300	112	80-120	

Lab Batch #: 900705

Sample: 451911-003 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/12/12 21:50	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		89.7	100	90	70-135	
o-Terphenyl		50.7	50.1	101	70-135	

Lab Batch #: 900743

Sample: 451912-006 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/13/12 02:02	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
TPH By SW8015 Mod						
Analytes						
1-Chlorooctane		93.2	100	93	70-135	
o-Terphenyl		52.3	50.1	104	70-135	

Lab Batch #: 900976

Sample: 451912-011 SD / MSD

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY						
Units: mg/kg	Date Analyzed: 11/15/12 12:51	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
BTEX by EPA 8021B						
Analytes						
1,4-Difluorobenzene		0.0311	0.0300	104	80-120	
4-Bromofluorobenzene		0.0333	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

BS / BSD Recoveries

Project Name: Trunk "O" #1

Work Order #: 451912

Analyst: KEB

Date Prepared: 11/15/2012

Project ID: (RP-1507)

Date Analyzed: 11/15/2012

Lab Batch ID: 900976

Sample: 630013-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00100	0.100	0.105	105	0.100	0.106	106	1	70-130	35	
Toluene	<0.00200	0.100	0.110	110	0.100	0.113	113	3	70-130	35	
Ethylbenzene	<0.00100	0.100	0.106	106	0.100	0.110	110	4	71-129	35	
m_p-Xylenes	<0.00200	0.200	0.224	112	0.200	0.234	117	4	70-135	35	
o-Xylene	<0.00100	0.100	0.108	108	0.100	0.114	114	5	71-133	35	

Analyst: TTE

Date Prepared: 11/10/2012

Date Analyzed: 11/10/2012

Lab Batch ID: 900611

Sample: 629781-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<1.00	100	105	105	100	104	104	1	80-120	20	

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

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

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

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Trunk "O" #1

Work Order #: 451912

Analyst: KEB

Date Prepared: 11/12/2012

Project ID: (RP-1507)

Date Analyzed: 11/12/2012

Lab Batch ID: 900705

Sample: 629844-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	999	948	95	999	915	92	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	999	946	95	999	912	91	4	70-135	35	

Analyst: KEB

Date Prepared: 11/12/2012

Date Analyzed: 11/12/2012

Lab Batch ID: 900743

Sample: 629866-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	998	1000	100	1000	1000	100	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	998	988	99	1000	991	99	0	70-135	35	

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

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

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

All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries



Project Name: Trunk "O" #1

Work Order #: 451912

Lab Batch #: 900611

Date Analyzed: 11/10/2012

QC- Sample ID: 451783-001 S

Reporting Units: mg/kg

Date Prepared: 11/10/2012

Batch #: 1

Project ID: (RP-1507)

Analyst: TTE

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	<1.04	104	110	106	80-120	

Lab Batch #: 900611

Date Analyzed: 11/11/2012

QC- Sample ID: 451912-016 S

Reporting Units: mg/kg

Date Prepared: 11/11/2012

Batch #: 1

Analyst: TTE

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	15.6	129	148	103	80-120	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
 Relative Percent Difference [E] = 200*(C-A)/(C+B)
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Trunk "O" #1

Work Order #: 451912

Project ID: (RP-1507)

Lab Batch ID: 900976

QC- Sample ID: 451912-011 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/15/2012

Date Prepared: 11/15/2012

Analyst: KEB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.00105	0.105	0.105	100	0.106	0.100	94	5	70-130	35
Toluene	<0.00210	0.105	0.108	103	0.106	0.109	103	1	70-130	35	
Ethylbenzene	<0.00105	0.105	0.105	100	0.106	0.101	95	4	71-129	35	
m_p-Xylenes	<0.00210	0.210	0.225	107	0.212	0.216	102	4	70-135	35	
o-Xylene	<0.00105	0.105	0.112	107	0.106	0.106	100	6	71-133	35	

Lab Batch ID: 900705

QC- Sample ID: 451911-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/12/2012

Date Prepared: 11/12/2012

Analyst: KEB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<16.3	1090	1070	98	1090	1060	97	1	70-135	35
C12-C28 Diesel Range Hydrocarbons	<16.3	1090	1080	99	1090	1070	98	1	70-135	35	

Lab Batch ID: 900743

QC- Sample ID: 451912-006 S

Batch #: 1 Matrix: Soil

Date Analyzed: 11/13/2012

Date Prepared: 11/12/2012

Analyst: KEB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	<17.8	1190	1170	98	1190	1210	102	3	70-135	35
C12-C28 Diesel Range Hydrocarbons	<17.8	1190	1150	97	1190	1200	101	4	70-135	35	

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

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

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Trunk "O" #1

Work Order #: 451912

Lab Batch #: 900569

Project ID: (RP-1507)

Date Analyzed: 11/09/2012 12:05

Date Prepared: 11/09/2012

Analyst: WRU

QC- Sample ID: 451911-005 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	8.51	9.46	11	20	

Lab Batch #: 900570

Date Analyzed: 11/09/2012 12:35

Date Prepared: 11/09/2012

Analyst: WRU

QC- Sample ID: 451912-006 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	14.9	14.6	2	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit



Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan

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

Date/ Time Received: 11/05/2012 10:04:00 AM

Temperature Measuring device used :

Work Order #: 451912

Sample Receipt Checklist

Comments

Table with 2 columns: Checklist items (e.g., #1 *Temperature of cooler(s)?) and Comments (e.g., 9.7, Yes, No).

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

Analyst: [] PH Device/Lot#: []

Checklist completed by: _____

Date: _____

Checklist reviewed by: _____

Date: _____

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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Southern Union Gas Services, Ltd.	Contact	Tony Savoie
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	505-395-2116
Facility Name	Lea County Field Dept.	Facility Type	Natural Gas Gathering

Surface Owner: DASCO Land and Cattle Co.	Mineral Owner: Federal	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	22	22S	36E					Lea

Latitude N32 22.460 Longitude W103 15.588

NATURE OF RELEASE

Type of Release : Crude Oil, Produced water, and Natural Gas	Volume of Release: 60 Bbls Fluid and 1215 MCF Nat. Gas	Volume Recovered 40 Bbls crude Oil and produced water
Source of Release : 30" Natural Gas Pipeline	Date and Hour of Occurrence not known	Date and Hour of Discovery 7/21/07 Time: 7:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD on call representative	
By Whom? Tony Savoie	Date and Hour: 7/21/07 7:15 p.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A 30" Natural Gas gathering line developed a leak due to excess fluid delivered by a producer caused the line to pressure up and leak fluid and natural gas. Crews began shutting the line in at 7:45 pm, vacuum trucks were dispatched to the leak sites to start picking up fluid. A total of 40 bls of fluid was recovered before the leak was temporarily repaired with a 30" leak repair clamp.

Describe Area Affected and Cleanup Action Taken. Approximately 2400 Square feet of pasture land and approximately 900 square feet of caliche lease road was impacted by the release. Most of the heavily saturated soil was pushed up by a backhoe toward the point of release. The final remediation will follow the NMOCD guidelines for the remediation of leaks and spills.

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: Tony Savoie		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Tony Savoie	John A. Savoie	Approved by District Supervisor: <i>Franko Esola</i>	
Title: Remediation Supervisor		Approval Date: 8-2-07	Expiration Date: 10-2-07
E-mail Address: tony.savoie@sug.com		Conditions of Approval:	
Date: 7/31/07	Phone: 505-395-2116	Submitted Final P-141 w/ Documentation by <i>RP#1507</i>	

Attached

* Attach Additional Sheets If Necessary

RP#1507

District I
1625 N. French Dr., Hobbs, NM 88240
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1000 Rio Brazos Road, Aztec, NM 87410
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State of New Mexico
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Form C-141
Revised October 10, 2003

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

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Southern Union Gas Services, Ltd.	Contact	Crystal Callaway
Address	801 S. Loop 464, Monahans, TX, 79756	Telephone No.	(817) 302-9407
Facility Name: Trunk "O" #1 (RP-1507)		Facility Type	Natural Gas Gathering

Surface Owner	DASCO Land and Cattle Co.	Mineral Owner: Federal	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	22	22S	36E					Lea

Latitude N32 22.460 Longitude W103 15.588

NATURE OF RELEASE

Type of Release	Crude Oil, Produced water, and Natural Gas	Volume of Release	60 Bbls Fluid and 1215 MCF Nat. Gas	Volume Recovered	40 Bbls crude Oil and produced water
Source of Release	30" Natural Gas Pipeline	Date and Hour of Occurrence	not known	Date and Hour of Discovery	7/21/07 Time: 7:00 p.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	NMOCD on call representative		
By Whom?	Tony Savoie	Date and Hour:	7/21/07 7:15 p.m.		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

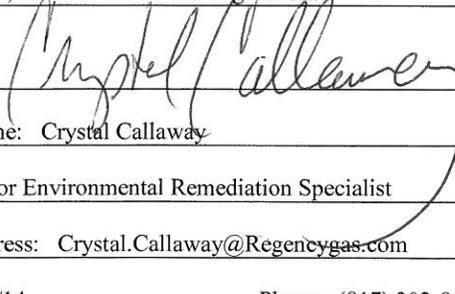
Describe Cause of Problem and Remedial Action Taken:
A 30" Natural Gas gathering line developed a leak due to excess fluid delivered by a producer caused the line to pressure up and leak fluid and natural gas. Crews began shutting the line in at 7:45 pm, vacuum trucks were dispatched to the leak sites to start picking up fluid. A total of 40 bbls of fluid was recovered before the leak was temporarily repaired with a 30" leak repair clamp.

Describe Area Affected and Cleanup Action Taken. Approximately 2,400 square feet of pasture land and approximately 900 square feet of caliche lease road was impacted by the release. Most of the heavily saturated soil was pushed up by a backhoe toward the point of release.

Between July 26, and August 10, 2007, remediation activities were conducted at the Trunk "O" #1 Release Site by an environmental contractor that is no longer affiliated with the site. Transporter's manifests indicate at least 252 yd³ of impacted material was transported to SUG's Landfarm. On October 30, 2012, the site was revisited in an effort to determine if soil exhibiting benzene, BTEX, TPH and chloride concentrations above NMOCD regulatory standards remained in-situ and collect confirmation soil samples. Laboratory analytical reports from the confirmation soil samples suggested previous remediation activities met the requirements of the NMOCD.

Please see the attached Basin Environmental Services Technologies Remediation Summary and Site Closure Request for details of remedial activities and the site investigation.

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

Signature:		OIL CONSERVATION DIVISION	
Printed Name:	Crystal Callaway	Approved by District Supervisor:	
Title:	Senior Environmental Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address:	Crystal.Callaway@Regencygas.com	Conditions of Approval:	
Date:	10/27/14	Phone:	(817) 302-9407