Administrative/Environmental Order



AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



App Number: pJXK1620946667

1RP - 2729

SOUTHERN UNION GAS SERVICES LTD

7/27/2016

1625 N. French Dr., Hobbs, NM 83240 Energy Min <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 Oil C <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Oil C <u>District IV</u> 1220 1220 S. St. Francis Dr., Santa Fe, NM 87505 Sa	Conse Sour	f New Mex s and Natura ervation Div th St. Franc Fe, NM 875	l Resources vision is Dr. 05		HOBBS OCD Form C-1 Revised October 10, 2 AUG 0 3 2011 Submit 2 Copies to appropri District Office in accorda with Rule 116 on b side of fo				
Release Notific	atio			ction	l	. '			
		OPERA			🛛 Initi	al Report 🔲 Final Report			
Name of Company Southern Union Gas Services Address P.O. Box 1226 Jal, New Mexico 882	50	Contact Ro	se Slade No. 432-940-51	47					
Facility Name Trunk "O" - Fulfer	52		e Natural Gas		e				
Surface Owner Fulfer Mineral O	wner			_	APINO	0 30-025-28822			
LOCA	TIC	ON OF REL	LEASE						
Unit Letter Section Township Range Feet from the D 30 25S 37E Feet from the	Nort	h/South Line	Feet from the	East/W	Vest Line	County Lea			
Latitude 32 degrees			-	12.482	3				
	URI	E OF REL							
Type of Release Natural Gas, Crude Oil and Produced Water Source of Release 30-Inch Steel Pipeline (Low Pressure)	_	Volume of	Release 10 bb			Recovered None Hour of Discovery			
Source of Release So-men Steel Pipeline (Low Pressure)			11 - Unknown	Ce I		2011 – 1400 hrs			
Was Immediate Notice Given?	quired	If YES, To							
By Whom?		Date and H							
Was a Watercourse Reached?		If YES, Vo	lume Impacting	the Wate	rcourse.				
Describe Cause of Problem and Remedial Action Taken.* Failure of a segment of the thirty (30) inch low pressure steel pipe occurred on the edge of a caliche road and flowed along the wester feet in width. Recovery of the released liquids was not possible. A	rn edg	e of the edge fo	or approximately	450 feet	in a ribbo	n measuring one (1) to two (2)			
Describe Area Affected and Cleanup Action Taken.* An area measuring approximately 675 square feet was affected by									
I hereby certify that the information given above is true and comple regulations all operators are required to report and/or file certain re- public health or the environment. The acceptance of a C-141 repo- should their operations have failed to adequately investigate and re- or the environment. In addition, NMOCD acceptance of a C-141 re- federal, state, or local laws and/or regulations.	elease ort by the emedia	notifications and he NMOCD mate contamination	nd perform correct arked as "Final R on that pose a thr	ctive active eport" de reat to gro	ons for rel oes not rel ound wate	eases which may endanger ieve the operator of liability r, surface water, human health			
			OIL CON	SERV.	ATION	DIVISION			
Signature: NOSE Scide	_	Approved by	ENV ENGINE	LER	1.00				
Printed Name: Rose Slade		- pprovou by	_ ion ion o open vio		JACKE	deRing			
Title: EHS Compliance Specialist			e: 08 03/11			Date: 10/03/11			
E-mail Address: rose.slade@sug.com	_	Conditions of C-141 B	Approval: SUB	METF	SINAL	Attached			
Date: August 3, 2011 Phone: 432-940-5147				-		IRP-08-2729			
* Attach Additional Sheets If Necessary,									



REMEDIATION SUMMARY

AND SITE

CLOSURE REQUEST

Southern Union Gas Services Trunk "O" Fulfer Release Lea County, New Mexico UNIT LTR "D" (NW ¼ /NW ¼), Section 30, Township 25 South, Range 37 East Latitude 32° 06.380' North, Longitude 103° 12.482' West NMOCD Reference # 1RP-2729



Prepared For:

Southern Union Gas Services 801 South Loop 464 Monahans, Texas 79756 HOBBS OCD

OCT 2 4 11

Prepared By:

RECEIVED

NOVA Safety & Environmental 2057 Commerce Midland, Texas 79703

October 2011

Camille J. Bryan

Project Manager

-el ~/ Brittan K. Byerly, P.G. President

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1.0 INTRODUCTION

Nova Safety & Environmental (NOVA), on behalf of Southern Union Gas Services (SUG), has prepared this Remediation Summary and Site Closure Request for the release site known as Trunk "O" Fulfer. The legal description of the release site is Unit Letter "D" (NW ¼ NW ¼), Section 30, Township 25 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by Mr. Greg Fulfer. The release site GPS coordinates are 32° 06.380' North and 103° 12.482' West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site Details Schematic and Confirmation Soil Sample Locations Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D.

On July 28, 2011, SUG discovered a release of crude oil, natural gas and produced water had occurred from a thirty (30) inch low pressure steel pipeline. The cause of the release was attributed to failure of a segment of the steel pipeline. The release occurred on the edge of a caliche road and flowed along the western edge of the road for approximately four hundred fifty (450) feet. During initial response activities, SUG installed a temporary pipeline clamp on the pipeline to mitigate the release. SUG submitted the Release Notification and Corrective Action (Form C-141) to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on August 3, 2011 The C-141 indicated approximately ten (10) barrels of fluids were released from the pipeline, with no recovery. General photographs of the site are provided as Appendix B.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database did not identify the average depth to groundwater information for Section 30, Township 25 South, Range 37 East. A reference map utilized by the NMOCD indicated depth to groundwater at the release site should be encountered at approximately one hundred eighty-five (185) feet below ground surface (bgs). The depth to groundwater at the Trunk "O" Fulfer Release Site results in a score of zero (0) points being assigned to the site, based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

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

The NMOCD guidelines indicate the Trunk "O" Fulfer Release Site has ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene 10 mg/Kg (ppm)
- BTEX 50 mg/Kg (ppm)
- TPH 5,000 mg/Kg (ppm)

The NMOCD chloride cleanup level concentrations are site specific and will be determined by the NMOCD Hobbs District Office.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On August 10, 2011, Nova, at the request of SUG, commenced remediation activities at the Trunk "O" Fulfer Release Site. Excavated soil was stockpiled on-site pending final disposition. The excavation of impacted soil was completed on August 30, 2011. Approximately 723 cubic yards of soil was stockpiled on-site during excavation activities. The final dimensions of the excavation were approximately one hundred (100) feet in length, approximately twenty (20) feet in width and ranged from approximately nine (9) feet to thirteen (13) feet in depth. The flow path excavation measured approximately one thirty-five (135) feet in length, approximately ten (10) feet in width and ranged from approximately six (6) inches to one (1) foot in depth. Please reference Figure 2 for site details.

On August 19, 2011, fourteen (14) soil samples (North S/W @ 8', West S/W-1 @ 8', East S/W-1 @ 8', R.P. Floor @ 9', West S/W-2 @ 5', East S/W-2 @ 5', Floor -2 @ 6', East S/W-3 @ 7', West S/W-3 @ 7', Floor-3 @ 8', South S/W @ 7', Flowpath-1, Flowpath-2, and Flowpath-3) were collected from the excavation and flow path area. The soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene and xylene (BTEX), total petroleum hydrocarbon (TPH), and chlorides using EPA SW-846 8021b, SW-846 8015M, and E 300, respectively. The analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) for all the submitted soil samples with the exception of soil sample West S/W-2 @ 5', which exhibited a benzene concentration of 0.00163 mg/Kg. BTEX concentrations ranged from less than the appropriate laboratory MDL for soil samples Floor-2 @ 6', East S/W-3 @ 7' and Floor-3 @ 8' to 0.754 mg/Kg for soil sample North S/W @ 8'. Laboratory analytical results indicated TPH concentrations ranged from 15.4 mg/Kg for soil sample Flowpath-1 to 1,540 mg/Kg for soil sample R.P. Floor @ 9'. Chloride concentrations ranged from less than the laboratory MDL for soil sample Flowpath-1 to 2,200 mg/Kg for soil sample Floor-2 @ 6' A review of the laboratory analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than the NMOCD regulatory guidelines for all submitted soil samples, with the exception of soil samples Floor-2 @ 6' and Floor-3 @ 8', which exceeded regulatory guidelines for chloride concentrations. Table 1 summarizes the Concentrations of BTEX, TPH and Chlorides in Soil. Laboratory analytical reports are provided as Appendix A.

The excavated soil was stockpiled east of the excavation, in a cleared area and remediated by mixing and blending methods. On August 19, 2011, the stockpiled soil was subdivided into three (3) discreet stockpiles. One (1) composite soil sample was collected from each stockpile, resulting in three (3) composite soil samples identified as SP-AS, SP-AN, and SP-B1. The stockpiles represented by soil samples SP-AN and SP-AS each contained approximately two hundred sixty (260) cubic yards of soil removed from the excavation. The stockpile represented by soil sample SP-B1 contained approximately one hundred (100) cubic yards of material removed from the caliche road. The three (3) composite soil samples (SP-AS, SP-AN, and SP-B1) were submitted to the laboratory and analyzed for concentrations of benzene, BTEX, TPH and chlorides. Laboratory analytical results indicated benzene concentrations ranged from less than the laboratory MDL for soil sample SP-B1 to 0.00468 mg/Kg for soil sample SP-AS. BTEX concentrations ranged from 0.619 mg/kg for soil sample SP-B1 to 1.00 mg/Kg for soil sample SP-AN. Laboratory analytical results indicated TPH concentrations ranged from 1,500

mg/Kg for soil sample SP-AS to 4,680 mg/Kg for soil sample SP-B1. Chloride concentrations ranged from 230 mg/Kg for soil sample SP-AS to 1,190 mg/Kg for soil sample SP-AN (Table 1).

On August 29, 2011, additional excavation was conducted on the floor of the excavation in the areas of soil samples Floor-2 @ 6' and Floor-3 @ 8'. The excavated soil was stockpiled separately from the previously excavated soil.

On August 30, 2011, two (2) soil samples (Floor-2 @ 10' and Floor-3 @ 13') were collected from the excavation and submitted to the laboratory for chloride analysis. Laboratory analytical results indicated chloride concentrations of 45.7 mg/Kg for soil sample Floor-2 @ 10 and 77.9 mg/Kg for soil sample Floor-3 @ 13'. A review of the laboratory analytical results indicated chloride concentrations were less than the NMOCD regulatory guidelines for both soil samples. Please reference Figure 2 for soil sample locations.

Based on analytical results of the soil samples collected on August 19, 2011, the soil contained in stockpiles represented by soil samples SP-AN and SP-B1 required additional blending and resampling. On August 30, 2011, after additional mixing and blending activities were conducted on the stockpiled material represented by soil samples SP-AN and SP-B1, two (2) composite soil samples (SP-AN-1 and SP-B-2) were collected from the remediated soil and submitted to the laboratory for chloride analysis. In addition, one (1) composite soil sample (SP-C) was collected from the newly excavated soil and submitted to the laboratory for analysis. Laboratory analytical results indicated chloride concentrations ranged from 580 mg/Kg for soil sample SP-B-2 to 1,440 mg/Kg for soil sample SP-C (Table 1).

On September 6, 2011, SUG and NOVA representatives met with an NMOCD Hobbs District Office representative to present the results of the soil sampling event, and request permission to backfill the excavation. The NMOCD representative granted approval to backfill the excavation with the stockpiled soil represented by soil samples SP-AS, SP-AN-1 and SP-B-2. The stockpiled soil represented by soil sample SP-C would be transported to Sundance Services, Inc. for disposal.

A total of approximately one hundred twenty (120) cubic yards of soil represented by soil sample SP-C was transported to Sundance Services, Inc. (NMOCD Permit # 01-0003) for disposal. The manifests documenting soil disposal volumes are provided as Appendix C.

The excavation was backfilled with non-impacted, locally obtained soil and with the stockpiled soil represented by soil samples SP-AS, SP-AN-1 and SP-B-2. On completion of backfilling activities the impacted area was contoured to fit the surrounding area and the caliche road was reestablished. The site will be reseeded with vegetation approved by the landowner.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories, Inc., of Odessa, Texas for BTEX and/or TPH and/or chloride analyses using the methods described below. Soil samples were analyzed for BTEX and/or TPH and/or chloride concentrations within fourteen (14) days following the sampling event.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentration in accordance with Method E 300.

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-ofcustody (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, NOVA recommends SUG provide the NMOCD a copy of this Remediation Summary and Site Closure Request and request the NMOCD grant closure to the Trunk "O" Fulfer Release Site.

6.0 LIMITATIONS

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

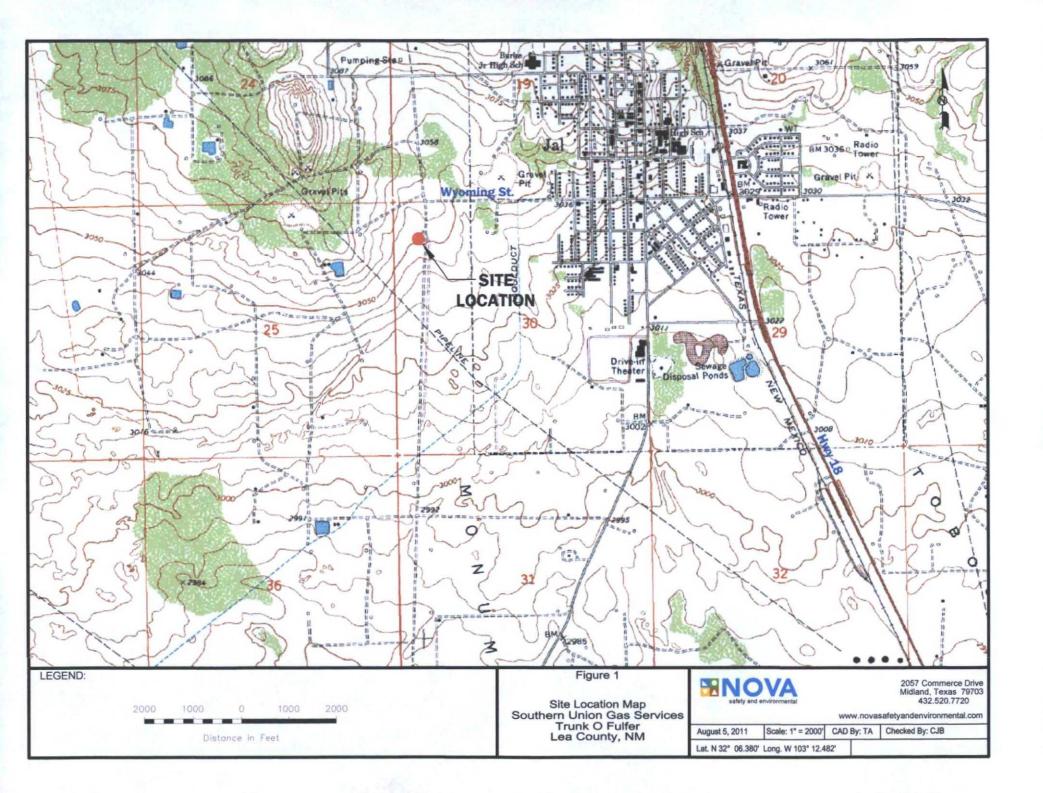
NOVA Safety and Environmental has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA Safety and Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. We have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

This report has been prepared for the benefit of 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 NOVA Safety and Environmental and/or Southern Union Gas.

7.0 DISTRIBUTION:

- Copy 1: Geoffrey Leking New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, New Mexico 88240
- Copy 2: Rose Slade and Curt Stanley Southern Union Gas Services 801 South Loop 464 Monahans, Texas 79756
- Copy 3: Nova Safety & Environmental 2057 Commerce Street Midland, Texas 79703

FIGURES





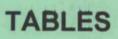


TABLE 1

CONCENTRATIONS OF BTEX, TPH AND CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES TRUNK "O" FULFER RELEASE SITE LEA COUNTY, NEW MEXICO

				METHODS: S	W 846-8021b				METHOD:	SW 8015M		E 300.1
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	0 - XYLENE	TOTAL BTEX	TPH GRO C6-C12	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
NMOCD Regul	atory Limit	10	-	-	-		50	-	-	-	5,000	
North S/W @ 8'	08/19/11	< 0.00105	0.0078	0.0854	0.458	0.203	0.754	73	337	<15.8	410	72.2
West S/W-1 @ 8'	08/19/11	< 0.00102	< 0.00205	< 0.00102	0.00409	0.00203	0.00612	<15.3	24.7	<15.3	24.7	67.1
East S/W-1 @ 8'	08/19/11	< 0.00103	0.00327	0.00524	0.0343	0.0128	0.0556	<15.4	30.4	<15.4	30.4	10.9
R.P. Floor @ 9'	08/19/11	< 0.00104	0.0219	0.103	0.489	0.0635	0.677	251	1290	<15.4	1,540	17.7
West S/W-2 @ 5'	08/19/11	0.00163	0.0114	0.00759	0.0318	0.0122	0.0646	<15.3	31.7	<15.3	31.7	13.2
East S/W-2 @ 5'	08/19/11	< 0.00103	< 0.00205	0.00137	0.00713	0.00349	0.012	<15.4	55.8	<15.4	55.8	34.3
Floor-2 @ 6'	08/19/11	< 0.00105	< 0.00210	< 0.00105	< 0.00210	< 0.00105	< 0.00105	<15.7	83.2	<15.7	83.2	2,200
East S/W-3 @ 7'	08/19/11	< 0.00102	< 0.00204	< 0.00102	< 0.00204	< 0.00102	< 0.00102	<15.3	22.5	<15.3	22.5	180
West S/W-3 @ 7'	08/19/11	< 0.00101	< 0.00202	0.00158	0.00774	0.00290	0.0122	<15.2	188	<15.2	188	18.9
Floor-3 @ 8'	08/19/11	< 0.00105	< 0.00211	< 0.00105	< 0.00211	< 0.00105	< 0.00105	29.1	92.3	<15.8	121	1,470
South S/W @ 7'	08/19/11	< 0.00101	< 0.00203	0.00154	0.00799	0.00282	0.0124	<15.4	66.1	<15.4	66.1	12.2
Flowpath-1	08/19/11	< 0.00102	< 0.00204	0.00275	0.0165	0.00573	0.025	<15.2	15.4	<15.2	15.4	<4.26
Flowpath-2	08/19/11	< 0.00146	0.0058	0.00738	0.0518	0.0254	0.0904	64.3	782	<21.8	846	70.7
Flowpath-3	08/19/11	< 0.00101	< 0.00203	0.0012	0.00334	0.0013	0.00584	<15.2	35.9	<15.2	35.9	7.27
SP-AS	08/19/11	0.00468	0.127	0.0886	0.454	0.175	0.849	163	1300	38.1	1,500	230
SP-AN	08/19/11	0.00349	0.152	0.109	0.532	0.205	1.00	285	3000	196	3,480	1,190
SP-B1	08/19/11	< 0.00101	0.0275	0.0625	0.369	0.160	0.619	401	3920	362	4,680	802
Floor-2 @ 10'	08/30/11			-	-	-	-	•		-	-	45.7
Floor-3 @ 13'	08/30/11	-	-		-	-	-	-	-		-	77.9
SP-AN-1	08/30/11	-	-	-	-	-	-	-		-	-	618
SP-B-2	08/30/11	-	-	-	-	-	-	-		-	-	580
SP-C	08/30/11	-	-	-	-	-	-	-	-	-	-	1,440

All concentrations are reported in mg/Kg

APPENDICES

APPENDIX A: Analytical Reports

Analytical Report 426152

for

Southern Union Gas Services- Monahans

Project Manager: Curt Stanley Trunk 'O' Fulfer

26-AUG-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



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)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
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 Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





Project Manager: Curt Stanley Southern Union Gas Services- Monahans 1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 426152 Trunk 'O' Fulfer Project Address: Lea Co., NM

Curt Stanley:

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 426152. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 426152 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,

BOND

Brent Barron II Odessa Laboratory 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 - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 426152



Southern Union Gas Services- Monahans, Monahans, TX

Trunk 'O' Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North S/W @ 8'	S	08-19-11 10:30		426152-001
West S/W-1 @ 8'	S	08-19-11 10:35		426152-002
East S/W-1 @ 8'	S	08-19-11 10:40		426152-003
R.P. Floor @ 9'	S	08-19-11 10:45		426152-004
West S/W-2 @ 5'	S	08-19-11 11:00		426152-005
East S/W-2 @ 5'	S	08-19-11 11:05		426152-006
Floor-2 @ 6'	S	08-19-11 11:10		426152-007
East S/W-3 @ 7'	S	08-19-11 11:20		426152-008
West S/W-3 @ 7'	S	08-19-11 11:25		426152-009
Floor- 3 @ 8'	S	08-19-11 11:30		426152-010
South S/W @ 7'	S	08-19-11 11:35		426152-011
Flowpath-1	S	08-19-11 11:40		426152-012
Flowpath-2	S	08-19-11 11:45		426152-013
Flowpath-3	S	08-19-11 11:50		426152-014

CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: Trunk 'O' Fulfer



Project ID: Work Order Number: 426152 Report Date: 26-AUG-11 Date Received: 08/19/2011

Sample receipt non conformances and comments: None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-868184 TPH By SW8015 Mod SW8015MOD NM

Batch 868184, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 426152-013.

Batch: LBA-868410 BTEX by EPA 8021B SW8021BM

Batch 868410, Ethylbenzene, Toluene, m_p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 426152-014, -008, -006, -013, -007, -011, -005, -009, -001, -012, -004, - 003, -010, -002.

The Laboratory Control Sample for Toluene, Ethylbenzene, m_p-Xylenes , o-Xylene is within laboratory Control Limits

SW8021BM

Batch 868410, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 426152-001 S,426152-001 SD,426152-001,426152-004.



Certificate of Analysis Summary 426152

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer



Project Id: Contact: Curt Stanley Project Location: Lea Co., NM

Date Received in Lab: Fri Aug-19-11 03:38 pm

Report Date: 26-AUG-11

roject Location: Lea Co., NM								Project Ma	nager:	Brent Barron	П		
	Lab Id:	426152-	-001	426152-4	002	426152-	003	426152-0	004	426152-	005	426152-	006
Analysis Requested	Field Id: Depth:	North S/W	V @ 8'	West S/W-	1 @ 8'	East S/W-1	@ 8'	R.P. Floor	@ 9'	West S/W-	2@5	East S/W-2	2 @ 5'
	Matrix:	SOI	L I	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-19-11	10:30	Aug-19-11	10:35	Aug-19-11	10:40	Aug-19-11	10:45	Aug-19-11	11:00	Aug-19-11	11:05
Anions by E300	Extracted:												
	Analyzed:	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		72.2	4.41	67.1	4.30	10.9	4.30	17.7	4.33	13.2	4.26	34.3	4.30
BTEX by EPA 8021B Extract		Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30
	Analyzed:	Aug-25-11	23:05	Aug-25-11	16:59	Aug-26-11	00:13	Aug-26-11	00:35	Aug-25-11	17:22	Aug-25-11	17:45
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00105	ND	0.00102	ND	0.00103	ND	0.00104	0.00163	0.00102	ND	0.00103
Toluene		0.00780	0.00211	ND	0.00205	0.00327	0.00207	0.0219	0.00208	0.0114	0.00204	ND	0.00205
Ethylbenzene		0.0854	0.00105	ND	0.00102	0.00524	0.00103	0.103	0.00104	0.00759	0.00102	0.00137	0.00103
m_p-Xylenes		0.458	0.00211	0.00409	0.00205	0.0343	0.00207	0.489	0.00208	0.0318	0.00204	0.00713	0.00205
o-Xylene		0.203	0.00105	0.00203	0.00102	0.0128	0.00103	0.0635	0.00104	0.0122	0.00102	0.00349	0.00103
Total Xylenes		0.661	0.00105	0.00612	0.00102	0.0471	0.00103	0.553	0.00104	0.0440	0.00102	0.0106	0.00103
Total BTEX		0.754	0.00105	0.00612	0.00102	0.0556	0.00103	0.677	0.00104	0.0646	0.00102	0.0120	0.00103
Percent Moisture	Extracted: Analyzed:	Aug-21-11	15:50	Aug-21-11	15:50	Aug-21-11	15:50	Aug-21-11	15:50	Aug-21-11	15:50	Aug-21-11	16:05
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.80	1.00	2.24	1.00	2.40	1.00	2.96	1.00	1.37	1.00	2.24	1.00
TPH By SW8015 Mod	Extracted:	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45
	Analyzed:	Aug-23-11	07:22	Aug-23-11	07:52	Aug-23-11	08:22	Aug-23-11	08:51	Aug-23-11	09:21	Aug-23-11	09:51
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		73.0	15.8	ND	15.3	ND	15.4	251	15.4	ND	15.3	ND	15.4
C12-C28 Diesel Range Hydrocarbons		337	15.8	24.7	15.3	30.4	15.4	1290	15.4	31.7	15.3	55.8	15.4
C28-C35 Oil Range Hydrocarbons		ND	15.8	ND	15.3	ND	15.4	ND	15.4	ND	15.3	ND	15.4
Total TPH		410	15.8	24.7	15.3	30.4	15.4	1540	15.4	31.7	15.3	55.8	15.4

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Odessa Laboratory Manager

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Certificate of Analysis Summary 426152 Southern Union Gas Services- Monahans, Monahans, TX





Project Id: Contact: Curt Stanley Project Location: Lea Co., NM

Date Received in Lab: Fri Aug-19-11 03:38 pm

Report Date: 26-AUG-11 Project Manager: Brent Barron II

								Project Mia	inager:	Brent Barron			
	Lab Id:	426152-0	07	426152-0	08	426152-0	009	426152-0	010	426152-	011	426152-4	012
Analysis Requested	Field Id: Depth:	Floor-2 @	6	East S/W-3	@7	West S/W-	3@7	Floor-3 (@ 8'	South S/W	' @ 7'	Flowpat	h-1
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-19-11	11:10	Aug-19-11	11:20	Aug-19-11	11:25	Aug-19-11	11:30	Aug-19-11	11:35	Aug-19-11	11:40
Anions by E300	Extracted:												
	Analyzed:	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28	Aug-22-11	19:28	Aug-23-11	18:23
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2200	43.8	180	4.27	18.9	4.25	1470	22.0	12.2	4.30	ND	4.26
BTEX by EPA 8021B	Extracted:	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30	Aug-25-11	14:30
	Analyzed:	Aug-25-11	18:08	Aug-25-11	18:31	Aug-25-11	18:54	Aug-25-11	19:17	Aug-25-11	19:40	Aug-25-11	20:02
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00105	ND	0.00102	ND	0.00101	ND	0.00105	ND	0.00101	ND	0.00102
Toluene		ND	0.00210	ND	0.00204	ND	0.00202	ND	0.00211	ND	0.00203	ND	0.00204
Ethylbenzene		ND	0.00105	ND	0.00102	0.00158	0.00101	ND	0.00105	0.00154	0.00101	0.00275	0.00102
m_p-Xylenes		ND	0.00210	ND	0.00204	0.00774	0.00202	ND	0.00211	0.00799	0.00203	0.0165	0.00204
o-Xylene		ND	0.00105	ND	0.00102	0.00290	0.00101	ND	0.00105	0.00282	0.00101	0.00573	0.00102
Total Xylenes		ND	0.00105	ND	0.00102	0.0106	0.00101	ND	0.00105	0.0108	0.00101	0.0222	0.00102
Total BTEX		ND	0.00105	ND	0.00102	0.0122	0.00101	ND	0.00105	0.0124	0.00101	0.0250	0.00102
Percent Moisture	Extracted:												
	Analyzed:	Aug-21-11	16:05	Aug-21-11	16:05	Aug-21-11	16:05	Aug-21-11	16:05	Aug-21-11	16:05	Aug-21-11	16:05
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4.21	1.00	1.57	1.00	1.23	1.00	4.65	1.00	2.37	1.00	1.49	1.00
TPH By SW8015 Mod	Extracted:	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45	Aug-22-11	10:45
	Analyzed:	Aug-23-11	10:21	Aug-23-11	10:51	Aug-23-11	11:52	Aug-24-11	01:56	Aug-24-11	02:26	Aug-24-11	02:55
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.7	ND	15.3	ND	15.2	29.1	15.8	ND	15.4	ND	15.2
C12-C28 Diesel Range Hydrocarbons		83.2	15.7	22.5	15.3	188	15.2	92.3	15.8	66.1	15.4	15.4	15.2
C28-C35 Oil Range Hydrocarbons		ND	15.7	ND	15.3	ND	15.2	ND	15.8	ND	15.4	ND	15.2
Total TPH		83.2	15.7	22.5	15.3	188	15.2	121	15.8	66.1	15.4	15.4	15.2

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Odessa Laboratory Manager

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Project Id:

Contact: Curt Stanley

Project Location: Lea Co., NM

Certificate of Analysis Summary 426152 Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer



Date Received in Lab: Fri Aug-19-11 03:38 pm Report Date: 26-AUG-11

Project Manager: Brent Barron II

	Lab Id:	426152-013	426152-014		
	Field Id:	Flowpath-2	Flowpath-3		
Analysis Requested	Depth:				
	Matrix:	SOIL	SOIL		
	Sampled:	Aug-19-11 11:45	Aug-19-11 11:50		
Anions by E300	Extracted:				
Amons by 2500		4	Aug 22 11 19 22		
	Analyzed:	Aug-23-11 18:23	Aug-23-11 18:23		
(1) L L L	Units/RL:	mg/kg RL	mg/kg RL 7.27 4.25	 	
Chloride		70.7 6.09		 	
BTEX by EPA 8021B	Extracted:	Aug-25-11 14:30	Aug-25-11 14:30		
	Analyzed:	Aug-25-11 20:25	Aug-25-11 21:57		
	Units/RL:	mg/kg RL	mg/kg RL		
Benzene		ND 0.00146	ND 0.00101		
Toluene		0.00580 0.00293	ND 0.00203		
Ethylbenzene		0.00738 0.00146	0.00120 0.00101		
m_p-Xylenes		0.0518 0.00293	0.00334 0.00203		
o-Xylene		0.0254 0.00146	0.00130 0.00101		
Total Xylenes		0.0772 0.00146	0.00464 0.00101		
Total BTEX		0.0904 0.00146	0.00584 0.00101		
Percent Moisture	Extracted:				
	Analyzed:	Aug-21-11 16:05	Aug-21-11 16:05		
	Units/RL:	% RL	% RL		
Percent Moisture		31.0 1.00	1.11 1.00		
TPH By SW8015 Mod	Extracted:	Aug-22-11 10:45	Aug-22-11 10:45		
	Analyzed:	Aug-24-11 03:26	Aug-24-11 03:56		
	Units/RL:	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		64.3 21.8	ND 15.2		
C12-C28 Diesel Range Hydrocarbons		782 21.8	35.9 15.2		
C28-C35 Oil Range Hydrocarbons		ND 21.8	ND 15.2		
Total TPH		846 21.8	35.9 15.2		

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Brent Barron II

Odessa Laboratory 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.

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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

LOQ Limit of Quantitation

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Project Name: Trunk 'O' Fulfer

ork Orders 426152 Lab Batch #:868184	Sample: 426152-001 / SMP	Batc	Project h: 1 Matri			
Units: mg/kg	Date Analyzed: 08/23/11 07:22	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flag
	Analytes			[D]		
1-Chlorooctane		117	100	117	70-135	
o-Terphenyl		64.3	50.2	128	70-135	
Lab Batch #: 868184	Sample: 426152-002 / SMP	Batc	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/23/11 07:52	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane		109	99.9	109	70-135	
o-Terphenyl		60.0	50.0	120	70-135	1
Lab Batch #: 868184	Sample: 426152-003 / SMP	Batc	h: 1 Matri	r-Soil		
Units: mg/kg	Date Analyzed: 08/23/11 08:22		RROGATE R		STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane		102	100	102	70-135	
o-Terphenyl		58.1	50.2	116	70-135	
Lab Batch #: 868184	Sample: 426152-004 / SMP	Batc	h: 1 Matri	v-Soil		
Units: mg/kg	Date Analyzed: 08/23/11 08:51		RROGATE R		STUDY	-
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane		123	99.8	123	70-135	
o-Terphenyl		58.9	49.9	118	70-135	
Lab Batch #: 868184	Sample: 426152-005 / SMP	Batc	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/23/11 09:21	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane		112	100	112	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.



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868184	Sample: 426152-006 / SMP	Batc							
Units: mg/kg	Date Analyzed: 08/23/11 09:51	su	RROGATE R	ECOVERY	STUDY				
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
1-Chlorooctane		102	100	102	70-135				
o-Terphenyl		58.1	50.1	116	70-135				
Lab Batch #: 868184	Sample: 426152-007 / SMP	Batc	h: 1 Matri	s:Soil					
Units: mg/kg	Date Analyzed: 08/23/11 10:21	SU	RROGATE R	ECOVERY	STUDY				
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
	Analytes								
1-Chlorooctane		113	100	113	70-135				
o-Terphenyl		64.5	50.2	128	70-135				
Lab Batch #: 868184	Sample: 426152-008 / SMP								
Units: mg/kg	Date Analyzed: 08/23/11 10:51	SU	RROGATE R	ECOVERY	STUDY				
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		98.3	101	97	70-135				
o-Terphenyl		54.7	50.3	109	70-135	_			
Lab Batch #: 868184	Sample: 426152-009 / SMP	Bate	h: 1 Matrix	r-Soil					
Units: mg/kg	Date Analyzed: 08/23/11 11:52		RROGATE R		STUDY				
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		99.5	100	100	70-135				
o-Terphenyl		55.3	50.2	110	70-135				
Lab Batch #: 868184	Sample: 426152-010 / SMP	Batc	h: 1 Matri	c:Soil					
Units: mg/kg	Date Analyzed: 08/24/11 01:56	SU	RROGATE R	ECOVERY	STUDY				
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		106	100	106	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.



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868184	Sample: 426152-011 / SMP	Bate				
Units: mg/kg	Date Analyzed: 08/24/11 02:26	su	RROGATE R	ECOVERY	STUDY	
TPHI	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		96.4	101	95	70-135	
o-Terphenyl		54.8	50.3	109	70-135	
Lab Batch #: 868184	Sample: 426152-012 / SMP	Bate	h: 1 Matri	c:Soil		
Units: mg/kg	Date Analyzed: 08/24/11 02:55	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	110	99.6	110	70-135	
o-Terphenyl		62.6	49.8	126	70-135	
Lab Batch #: 868184	Sample: 426152-013 / SMP	Bate	h: 1 Matri	Soil		
Units: mg/kg	Date Analyzed: 08/24/11 03:26		RROGATE R		STUDY	
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		135	100	135	70-135	
o-Terphenyl		78.4	50.2	156	70-135	*
Lab Batch #: 868184	Sample: 426152-014 / SMP	Bate	h: 1 Matri	s:Soil		
Units: mg/kg	Date Analyzed: 08/24/11 03:56	SU	RROGATE R	ECOVERY	STUDY	
TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		101	100	101	70-135	
o-Terphenyl		57.6	50.1	115	70-135	
Lab Batch #: 868410	Sample: 426152-002 / SMP	Bate	h: 1 Matri	c:Soil		
Units: mg/kg	Date Analyzed: 08/25/11 16:59	SU	RROGATE R	ECOVERY	STUDY	_
BTEX	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0283	0.0300	94	80-120	
				1		

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



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868410	Sample: 426152-005 / SMP	Bate		x:Soil	0.000	_
Units: mg/kg	Date Analyzed: 08/25/11 17:22	su	RROGATE R	RECOVERY	STUDY	
BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0276	0.0300	92	80-120	
4-Bromofluorobenzene		0.0317	0.0300	106	80-120	
Lab Batch #: 868410	Sample: 426152-006 / SMP	Bate	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/25/11 17:45	SU	RROGATE R	ECOVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0305	0.0300	102	80-120	
Lab Batch #: 868410	Sample: 426152-007 / SMP	Bate	h: 1 Matri	x-Soil		
Units: mg/kg	Date Analyzed: 08/25/11 18:08		RROGATE R		STUDY	
	K by EPA 8021B	Amount	True		Control	
	Analytes	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flag
1,4-Difluorobenzene		0.0260	0.0300	87	80-120	
4-Bromofluorobenzene		0.0299	0.0300	100	80-120	
Lab Batch #: 868410	Sample: 426152-008 / SMP	Bate	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/25/11 18:31	SU	RROGATE R	ECOVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1.4-Difluorobenzene	Analytes	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene		0.0325	0.0300	108	80-120	
L B + L # 969410	Sample: 426152-009 / SMP					
Lab Batch #: 868410		Bate	h: 1 Matri	MIN STREET	STUDY	
Units: mg/kg	Date Analyzed: 08/25/11 18:54			LECOVERT		_
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flag
	Analytes			[D]		
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	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



Project Name: Trunk 'O' Fulfer

Lab Batch #:868410	Sample: 426152-010 / SMP	Bate	RROGATE R	ECOVEDY	CTUDY					
Units: mg/kg	Date Analyzed: 08/25/11 19:17	su	RROGATE R	ECOVERY	STUDY					
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			[D]						
1,4-Difluorobenzene		0.0289	0.0300	96	80-120					
4-Bromofluorobenzene		0.0317	0.0300	106	80-120					
Lab Batch #: 868410	Sample: 426152-011 / SMP	Bate	h: 1 Matri	x:Soil						
Units: mg/kg	Date Analyzed: 08/25/11 19:40	SURROGATE RECOVERY STUDY								
BTE	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene	Analytes	0.0286	0.0300	95	80-120					
4-Bromofluorobenzene		0.0331	0.0300	110	80-120					
Lab Batch #: 868410	Sample: 426152-012 / SMP	Date	h: 1 Matri	Soil						
		Bate	RROGATE R		STUDY					
Units: mg/kg	Date Analyzed: 08/25/11 20:02			LECOVERI						
BTE	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0264	0.0300	88	80-120					
4-Bromofluorobenzene		0.0299	0.0300	100	80-120					
Lab Batch #: 868410	Sample: 426152-013 / SMP	Bate	h: 1 Matri	x:Soil						
Units: mg/kg	Date Analyzed: 08/25/11 20:25		RROGATE R		STUDY					
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
A	Analytes									
1,4-Difluorobenzene		0.0272	0.0300	91	80-120					
4-Bromofluorobenzene		0.0307	0.0300	102	80-120					
Lab Batch #: 868410	Sample: 426152-014 / SMP		h: 1 Matri	Althouse and a						
Units: mg/kg	Date Analyzed: 08/25/11 21:57	SU	RROGATE R	ECOVERY	STUDY					
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			[D]						
1,4-Difluorobenzene		0.0270	0.0300	90	80-120					
4-Bromofluorobenzene		0.0303	0.0300	101	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



Project Name: Trunk 'O' Fulfer

/ork Orders 426152 Lab Batch #:868410	Sample: 426152-001 / SMP	Batc	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/25/11 23:05		RROGATE R		STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0286	0.0300	95	80-120	_
4-Bromofluorobenzene		0.0684	0.0300	228	80-120	*
Lab Batch #: 868410	Sample: 426152-003 / SMP	Bate	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/26/11 00:13	SU	RROGATE R	RECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0272	0.0300	91	80-120	
4-Bromofluorobenzene		0.0317	0.0300	106	80-120	
Lab Batch #: 868410	Sample: 426152-004 / SMP	Bate	h: 1 Matri	x-Soil		
Units: mg/kg	Date Analyzed: 08/26/11 00:35		RROGATE R		STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0242	0.0300	81	80-120	
4-Bromofluorobenzene		0.0942	0.0300	314	80-120	
Lab Batch #: 868184	Sample: 610369-1-BLK / BL	K Bate	h: 1 Matri	x:Solid		
Units: mg/kg	Date Analyzed: 08/23/11 05:51	SU	RROGATE R	ECOVERY	STUDY	
					Control	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Limits %R	Flags
	By SW8015 Mod Analytes	Found	Amount	%R	Limits	Flags
1-Chlorooctane		Found [A]	Amount [B]	%R [D]	Limits %R	Flags
1-Chlorooctane o-Terphenyl	Analytes	Found [A] 101 55.9	Amount [B] 99.9 50.0	%R [D] 101 112	Limits %R 70-135	Flags
l-Chlorooctane o-Terphenyl		Found [A] 101 55.9 K Bate	Amount [B] 99.9 50.0	%R [D] 101 112 x: Solid	Limits %R 70-135 70-135	Flags
1-Chlorooctane o-Terphenyl Lab Batch #: 868410 Units: mg/kg	Analytes Sample: 610488-1-BLK / BL Date Analyzed: 08/25/11 16:36 X by EPA 8021B	Found [A] 101 55.9 K Bate	Amount [B] 99.9 50.0 th: 1 Matri	%R [D] 101 112 x: Solid RECOVERY Recovery %R	Limits %R 70-135 70-135	Flags
1-Chlorooctane o-Terphenyl Lab Batch #: 868410 Units: mg/kg	Analytes Sample: 610488-1-BLK / BL Date Analyzed: 08/25/11 16:36	Found [A] 101 55.9 K Bate SU Amount Found	Amount [B] 99.9 50.0 th: 1 Matri RROGATE R True Amount	%R [D] 101 112 x: Solid RECOVERY Recovery	Limits %R 70-135 70-135 STUDY Control Limits	

* Surrogate outside of Laboratory QC limits

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

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.

^{***} Poor recoveries due to dilution



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868184	Sample: 610369-1-BKS / BH	CS Bate	ch: 1 Matri	x:Solid				
Units: mg/kg	Date Analyzed: 08/23/11 04:50	SU	RROGATE R	RECOVERY	STUDY			
ТРН Н	3y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1-Chlorooctane		125	99.6	126	70-135			
o-Terphenyl		65.7	49.8	132	70-135			
Lab Batch #: 868410	Sample: 610488-1-BKS / BH	CS Bate	ch: 1 Matri	x:Solid				
Units: mg/kg	Date Analyzed: 08/25/11 15:05	SURROGATE RECOVERY STUDY						
BTEX	A polytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene	Analytes	0.0299	0.0200		80.120			
4-Bromofluorobenzene		0.0288	0.0300	96	80-120 80-120			
					80-120			
Lab Batch #:868184	Sample: 610369-1-BSD / BS			x:Solid	0.000			
Units: mg/kg	Date Analyzed: 08/23/11 05:21	st	RROGATE R	RECOVERY	STUDY			
ТРН Е	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane		121	100	121	70-135			
o-Terphenyl		59.0	50.2	118	70-135			
Lab Batch #: 868410	Sample: 610488-1-BSD / BS	SD Bate	h: 1 Matri	x:Solid		-		
Units: mg/kg	Date Analyzed: 08/25/11 15:28		RROGATE R		STUDY			
	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag		
1,4-Difluorobenzene		0.0301	0.0300	100	80-120			
4-Bromofluorobenzene		0.0297	0.0300	99	80-120			
Lab Batch #: 868184	Sample: 426152-014 S / MS	Bate	h: 1 Matri	x:Soil				
Units: mg/kg	Date Analyzed: 08/24/11 06:25		RROGATE R		STUDY			
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane		118	100	118	70-135			
o-Terphenyl		61.4	50.2	122	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



Project Name: Trunk 'O' Fulfer

Vork Orders 426152,			Project			
Lab Batch #:868410	Sample: 426152-001 S / MS					
Units: mg/kg	Date Analyzed: 08/26/11 02:06	SU	RROGATE R	RECOVERY	STUDY	
	by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0274	0.0300	91	80-120	
4-Bromofluorobenzene		0.0422	0.0300	141	80-120	*
Lab Batch #: 868184	Sample: 426152-014 SD / M	ISD Bate	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/24/11 06:55	SU	RROGATE R	ECOVERY	STUDY	
	y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		119	99.6	119	70-135	
o-Terphenyl		64.2	49.8	129	70-135	
Lab Batch #: 868410	Sample: 426152-001 SD / M	ISD Bate	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/26/11 02:29	SU	RROGATE R	RECOVERY	STUDY	
	by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0281	0.0300	94	80-120	
4-Bromofluorobenzene		0.0496	0.0300	165	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



BS / BSD Recoveries

Project Name: Trunk 'O' Fulfer



Work Order #: 426152 Analyst: ASA Lab Batch ID: 868410 Sample: 610488-1-B		ate Preparo Batch	ed: 08/25/20	11			Date A	ject ID: nalyzed: (Matrix: 5	08/25/2011 Solid		
Units: mg/kg	KO	and the second second		SPIKE / B	LANK S	PIKE DUPI				Y	
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	< 0.00100	0.100	0.110	110	0.100	0.110	110	0	70-130	35	
Toluene	< 0.00200	0.100	0.0981	98	0.100	0.0975	98	1	70-130	35	
Ethylbenzene	< 0.00100	0.100	0.109	109	0.100	0.108	108	1	71-129	35	
m_p-Xylenes	< 0.00200	0.200	0.218	109	0.200	0.215	108	1	70-135	35	
o-Xylene	< 0.00100	0.100	0.101	101	0.100	0.103	103	2	71-133	35	
Analyst: BRB Lab Batch ID: 867991 Sample: 867991-1-B Units: mg/kg		Batch			BLANK S	PIKE DUPI		Matrix:		Y	
Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.20	100	106	106	100	107	107	1	75-125	20	

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



BS / BSD Recoveries

Project Name: Trunk 'O' Fulfer



Work Order #: 426152 Analyst: BRB Lab Batch ID: 868301 Sample	D :: 868301-1-BKS	ate Prepar Batch	ed: 08/23/20	11			Date A	ject ID: nalyzed: (Matrix: 5	08/23/2011 Solid		
Units: mg/kg	. 808301-1-5K3	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY S								Y	
Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.20	100	106	106	100	107	107	1	75-125	20	
Analyst: BBH	D	ate Prepar	ed: 08/22/20	11			Date A	nalyzed: (08/23/2011		-In-
Lab Batch ID: 868184 Sample	: 610369-1-BKS	Batch	#: 1					Matrix:	Solid		
Units: mg/kg		BLANK	(BLANK S	SPIKE / B	BLANK S	PIKE DUPI	LICATE R	ECOVE	RY STUD	Y	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	831	83	1000	798	80	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<14.9	996	923	93	1000	851	85	8	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' Fulfer

Work Order #: 426152						
Lab Batch #: 867991			Pro	ject ID	:	
Date Analyzed: 08/22/2011	Date Prepared: 08/22/2011 Analyst: BRB Batch #: 1 Matrix: Soil MATRIX / MATRIX SPIKE RECOVERY STUDY					
QC- Sample ID: 426155-001 S						
Reporting Units: mg/kg						
Inorganic Anions by EPA 300		Spike	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	[A]	[B]				
Chloride	11500	5140	15600	80	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Trunk 'O' Fulfer

Work Order #: 426152						Project II	D:				
Lab Batch ID: 868410 Date Analyzed: 08/26/2011	QC- Sample ID Date Prepared				tch #: alyst:	1 Matrix ASA	c: Soil				
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	0.0921	88	0.105	0.0892	85	3	70-130	35	
Toluene	0.00780	0.105	0.0783	67	0.105	0.0739	63	6	70-130	35	X
Ethylbenzene	0.0854	0.105	0.0798	0	0.105	0.0719	0	10	71-129	35	X
m_p-Xylenes	0.458	0.210	0.160	0	0.211	0.147	0	8	70-135	35	X
o-Xylene	0.203	0.105	0.0759	0	0.105	0.0699	0	8	71-133	35	Х
Lab Batch ID: 868184 Date Analyzed: 08/24/2011	QC- Sample ID Date Prepared				tch #: alyst:	l Matriz BBH	c: Soil				
Reporting Units: mg/kg		I	MATRIX SPIK	E / MAT	RIX SP	IKE DUPLICA	TE REC	OVERY	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	<15.2	1010	763	76	1010	784	78	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	35.9	1010	928	88	1010	935	89	1	70-135	35	

Matrix Spike Percent Recovery $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD = $200^{\circ}[(C-F)/(C+F)]$ 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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Trunk 'O' Fulfer

Work Order #: 426152

Lab Batch #: 867991				Project I	D:	
Date Analyzed: 08/22/2011 19:28	Date Prepar	ed:08/22/2011	An	alyst:BRB		
QC- Sample ID: 426155-001 D	Batch	#: 1	Ma	atrix: Soil		
Reporting Units: mg/kg		SAMPLE	SAMPLE	DUPLIC	ATE RECO	OVERY
Anions by E300 Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride		11500	11400	1	20	
Lab Batch #: 867874						
Date Analyzed: 08/21/2011 15:50		ed:08/21/2011		alyst:BRB		
QC- Sample ID: 426157-019 D	Batch	#: 1	Ma	atrix: Soil	_	_
Reporting Units: %		SAMPLE	SAMPLE	DUPLIC	ATE RECO	OVERY
Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture		1.38	1.28	8	20	
Lab Batch #: 867877 Date Analyzed: 08/21/2011 16:05 QC- Sample ID: 426152-006 D	Date Prepar Batch	ed:08/21/2011 #: 1		alyst:BRB atrix: Soil		
Reporting Units: %		SAMPLE	SAMPLE	DUPLICA	ATE RECO	OVERY
Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits % RPD	Flag
Percent Moisture		2.24	2.12	6	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

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XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title:	Sample Re	eceipt Checklist.
Document No.: :	SYS-SRC	
Revision/Date:	No. 01, 5/2	7/2010
Effective Date:	6/1/2010	Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client:	Southern Union Gas 8-19-11 15:38
Date/Time:	8-19-11 15:38
Lab ID # :	426152
Initials:	aM

Sample Receipt Checklist

1. Samples on ice?		Blue	Water	No	
2. Shipping container in good condition?		(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles	?	Yes	No	(N/A)	
4. Chain of Custody present?		Yes	No		
5. Sample instructions complete on chain of custody?		(res)	No		
6. Any missing / extra samples?		Yes	No		
7. Chain of custody signed when relinquished / received?		Tes	No		_
8. Chain of custody agrees with sample label(s)?		Yes	No		
9. Container labels legible and intact?		(eg	No		
10. Sample matrix / properties agree with chain of custody?		Yes	No		
11. Samples in proper container / bottle?		(Yes	No		
12. Samples properly preserved?		Tas	No	N/A	
13. Sample container intact?		Yes	No		
14. Sufficient sample amount for indicated test(s)?		Tes	No		
15. All samples received within sufficient hold time?	_	Tes	No		
16. Subcontract of sample(s)?		Yes	No	N/A	
17. VOC sample have zero head space?		Yes	No	(NTA)	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.		Cooler 4 No		Cooler 5 No.	
Ibs 4.1 °C Ibs °C ibs	°C	lbs	°C	lbs	°C

Client understands and would like to proceed with analysis

Analytical Report 426199

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade Trunk 'O' Fulfer

29-AUG-11

Collected By: Client



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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)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
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 Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





29-AUG-11

Project Manager: **Rose Slade Southern Union Gas Services- Monahans** 1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 426199 Trunk 'O' Fulfer Project Address: Lea County, New Mexico

Rose Slade:

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 426199. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 426199 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,

AND

Brent Barron II Odessa Laboratory Manager

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Sample Cross Reference 426199



Southern Union Gas Services- Monahans, Monahans, TX

Trunk 'O' Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP- A S	S	08-19-11 14:20		426199-001
SP- A N	S	08-19-11 14:30		426199-002
SP- B 1	S	08-19-11 14:40		426199-003

CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: Trunk 'O' Fulfer



Project ID: Work Order Number: 426199 Report Date: 29-AUG-11 Date Received: 08/22/2011

Sample receipt non conformances and comments: None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-868200 TPH By SW8015 Mod SW8015MOD NM

Batch 868200, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 426199-002.

Batch: LBA-868554 BTEX by EPA 8021B SW8021BM

Batch 868554, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 426199-002. 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 426199-003.

SW8021BM

Batch 868554, Benzene, Ethylbenzene recovered above QC limits in the Blank Spike Duplicate. Samples affected are: 426199-001, -002, -003. These compounds were within limits in the Blank Spike as well as the Matrix Spike and Matrix Spike Duplicate. This is most likely a spiking error and should have no effect to the analytical data.



Certificate of Analysis Summary 426199 Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Trunk 'O' Fulfer



Project Id: Contact: Rose Slade Project Location: Lea County, New Mexico

Date Received in Lab: Mon Aug-22-11 10:10 am Report Date: 29-AUG-11

Project Manager: Brent Barron II

								the second s	1
	Lab Id:	426199-	001	426199-	002	426199-	003		
And Development	Field Id:	SP- A	S	SP- A	N	SP-B	1		
Analysis Requested	Depth:								
	Matrix:	SOII		SOIL		SOIL			
	Sampled:	Aug-19-11	14:20	Aug-19-11	14:30	Aug-19-11	14:40		
Aniana bu E200									
Anions by E300	Extracted:								
	Analyzed:	Aug-26-11	12000	Aug-26-11		Aug-26-11			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		230	21.1	1190	42.3	802	42.3		
BTEX by EPA 8021B	Extracted:	Aug-26-11	14:30	Aug-26-11	14:30	Aug-26-11	14:30		
	Analyzed:	Aug-27-11	02:17	Aug-27-11	02:39	Aug-27-11	01:08		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		0.00468	0.00100	0.00349	0.00101	ND	0.00101		
Toluene		0.127	0.00200	0.152	0.00201	0.0275	0.00201		
Ethylbenzene		0.0886	0.00100	0.109	0.00101	0.0625	0.00101		
m_p-Xylenes		0.454	0.00200	0.532	0.00201	0.369	0.00201		
o-Xylene		0.175	0.00100	0.205	0.00101	0.160	0.00101		
Total Xylenes		0.629	0.00100	0.737	0.00101	0.529	0.00101		
Total BTEX		0.849	0.00100	1.00	0.00101	0.619	0.00101		
Percent Moisture	Extracted:						1.1		
	Analyzed:	Aug-22-11	11:20	Aug-22-11	11:20	Aug-22-11	11:20		
	Units/RL:	%	RL	%	RL	%	RL		
Percent Moisture		ND	1.00	ND	1.00	ND	1.00		
TPH By SW8015 Mod	Extracted:	Aug-22-11	10:45	Aug-22-11	11:50	Aug-22-11	11:50		
	Analyzed:	Aug-24-11	05:54	Aug-22-11	15:47	Aug-22-11	16:17		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		163	15.0	285	15.0	401	15.2		
C10-C28 Diesel Range Hydrocarbons		1300	15.0	3000	15.0	3920	15.2		
C28-C35 Oil Range Hydrocarbons		38.1	15.0	196	15.0	362	15.2		
Total TPH		1500	15.0	3480	15.0	4680	15.2		

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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Brent Barron II

Odessa Laboratory 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 quantiation 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.

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

+ Outside XENCO's scope of NELAC Accreditation.

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Project Name: Trunk 'O' Fulfer

ork Orders : 426199 Lab Batch #: 868200	Sample: 426199-002 / SMP	Bate	Project I h: 1 Matrix			
Units: mg/kg	Date Analyzed: 08/22/11 15:47		RROGATE R		STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1 Mar 199	Analytes			[D]		
1-Chlorooctane		126	99.6	127	70-135	
o-Terphenyl		22.6	49.8	45	70-135	**
Lab Batch #: 868200	Sample: 426199-003 / SMP	Bate	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 08/22/11 16:17	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	121	101	120	70-135	
o-Terphenyl		61.4	50,3	120	70-135	
	0 12(100 001/SMD				10 100	
Lab Batch #: 868184	Sample: 426199-001 / SMP	Bate	h: 1 Matrix		TUDY	
Units: mg/kg	Date Analyzed: 08/24/11 05:54	30	KROGATE R	ECOVERIA		_
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		113	99.6	113	70-135	
o-Terphenyl		54.4	49.8	109	70-135	
Lab Batch #: 868554	Sample: 426199-003 / SMP	Bato	h: 1 Matri	x: Soil		
Units: mg/kg	Date Analyzed: 08/27/11 01:08		RROGATE R		STUDY	
	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0263	0.0300	88	80-120	
4-Bromofluorobenzene		0.0454	0.0300	151	80-120	*
Lab Batch #: 868554	Sample: 426199-001 / SMP	Bate	h: 1 Matri	x: Soil		
Units: mg/kg	Date Analyzed: 08/27/11 02:17	st	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1,4-Difluorobenzene	-	0.0259	0.0300	86	80-120	
12			0.0300	110	80-120	_

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868554	Sample: 426199-002 / SMP	Batc				
Units: mg/kg	Date Analyzed: 08/27/11 02:39	SU	RROGATE R	ECOVERY S	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0234	0.0300	78	80-120	*
4-Bromofluorobenzene		0.0310	0.0300	103	80-120	
Lab Batch #: 868200	Sample: 610373-1-BLK / BL	K Batc	h: 1 Matrix	:Solid		
Units: mg/kg	Date Analyzed: 08/22/11 13:46	SU	RROGATE R	ECOVERY S	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane		90.5	99.8	91	70-135	
o-Terphenyl		48.4	49.9	97	70-135	
	S 1 (10260 1 DI K / DI				10 100	_
Lab Batch #: 868184	Sample: 610369-1-BLK / BL		h: 1 Matrix RROGATE R	Solid	STUDY	
Units: mg/kg	Date Analyzed: 08/23/11 05:51	50	KRUGATE K	ECOVERT	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
1-Chlorooctane		101	99.9	101	70-135	
o-Terphenyl		55.9	50.0	112	70-135	
Lab Batch #: 868554	Sample: 610570-1-BLK / BL	K Batc	h: 1 Matrix	: Solid		_
Units: mg/kg	Date Analyzed: 08/26/11 18:42		RROGATE R		STUDY	
	X 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		0.0246	0.0300	82	80-120	
Lab Batch #: 868200	Sample: 610373-1-BKS / BK	S Batc	h: 1 Matri	: Solid		
Units: mg/kg	Date Analyzed: 08/22/11 12:45		RROGATE R		STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
			101	104	20.126	
1-Chlorooctane		107	101	106	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.



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868184	Sample: 610369-1-BKS / BK			Solid		
Units: mg/kg	Date Analyzed: 08/23/11 04:50	st	RROGATE R	ECOVERY S	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		125	99.6	126	70-135	_
o-Terphenyl		65.7	49.8	132	70-135	
Lab Batch #: 868554	Sample: 610570-1-BKS / BK	CS Bate	h: 1 Matrix	:Solid		
Units: mg/kg	Date Analyzed: 08/26/11 17:11	SU	RROGATE R	ECOVERY S	STUDY	
BTE	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	7 mary tes	0.0323	0.0300	108	80-120	_
4-Bromofluorobenzene		0.0256	0.0300	85	80-120	
Lab Batch #: 868200	Sample: 610373-1-BSD / BS	D Bate	h: 1 Matrix	:Solid		
Units: mg/kg	Date Analyzed: 08/22/11 13:15		RROGATE R		STUDY	
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		111	99.6	111	70-135	
o-Terphenyl		48.3	49.8	97	70-135	
Lab Batch #: 868184	Sample: 610369-1-BSD / BS	SD Bate	h: 1 Matrix	: Solid		
Units: mg/kg	Date Analyzed: 08/23/11 05:21		RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		121	100	121	70-135	
o-Terphenyl		59.0	50.2	118	70-135	
Lab Batch #: 868554	Sample: 610570-1-BSD / BS	SD Bate	ch: 1 Matri	: Solid		
Units: mg/kg	Date Analyzed: 08/26/11 17:34		RROGATE R	and the product of the	STUDY	
	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	-	0.0300	0.0300	100	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.



Project Name: Trunk 'O' Fulfer

Lab Batch #: 868200	Sample: 426135-001 S / MS	Batc	h: 1 Matri	x: Soil		
Units: mg/kg	Date Analyzed: 08/23/11 01:20	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
and the factor	Analytes			[D]		
1-Chlorooctane		115	99.7	115	70-135	
o-Terphenyl		57.1	49.9	114	70-135	
Lab Batch #: 868184	Sample: 426152-014 S / MS	Bate	h: 1 Matri	x: Soil		
Units: mg/kg	Date Analyzed: 08/24/11 06:25	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1	Analytes			[D]		
1-Chlorooctane		118	100	118	70-135	
o-Terphenyl		61.4	50.2	122	70-135	
Lab Batch #: 868554	Sample: 426524-001 S / MS					
Units: mg/kg	Date Analyzed: 08/26/11 22:53	SU	RROGATE R	ECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0297	0.0300	99	80-120	
4-Bromofluorobenzene		0.0287	0.0300	96	80-120	
Lab Batch #: 868200	Sample: 426135-001 SD / N	ISD Bate	h: 1 Matrix	x: Soil		
Units: mg/kg	Date Analyzed: 08/23/11 01:50		RROGATE R		STUDY	
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		111	100	111	70-135	
o-Terphenyl		48.8	50.1	97	70-135	
Lab Batch #: 868184	Sample: 426152-014 SD / N	ISD Bate	h: 1 Matri	x:Soil		
Units: mg/kg	Date Analyzed: 08/24/11 06:55	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		119	99.6	119	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.



Project Name: Trunk 'O' Fulfer

Vork Orders : 426199 Lab Batch #: 868554	, Sample: 426524-001 SD / M	ISD Bata	Project I										
Units: mg/kg	Date Analyzed: 08/26/11 23:16	MSD Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY											
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags							
	Analytes			[D]									
1,4-Difluorobenzene		0.0308	0.0300	103	80-120								
4-Bromofluorobenzene		0.0298	0.0300	99	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 / BAll results are based on MDL and validated for QC purposes.



Project Name: Trunk 'O' Fulfer



Work Order #: 426199 Analyst: ASA Lab Batch ID: 868554 Sample: 610		ite Prepar Batch	ed: 08/26/20	11			Date Ar	ect ID: nalyzed: (Matrix: S)8/26/2011 Solid		
Units: mg/kg	570-1-BK5			SPIKE / F	BLANK S	PIKE DUP				θY	
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	< 0.00100	0.100	0.106	106	0.100	0.137	137	26	70-130	35	Н
Toluene	<0.00200	0.100	0.0923	92	0.100	0.122	122	28	70-130	35	
Ethylbenzene	< 0.00100	0.100	0.102	102	0.100	0.133	133	26	71-129	35	Н
m_p-Xylenes	< 0.00200	0.200	0.203	102	0.200	0.264	132	26	70-135	35	
o-Xylene	< 0.00100	0.100	0.0954	95	0.100	0.121	121	24	71-133	35	
Analyst: BRB Lab Batch ID: 868503 Sample: 868: Units: mg/kg		Batch	SUTTON AT		BLANK S	PIKE DUP	1	Matrix: S		θ¥	
Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	< 0.840	20.0	22.7	114	20.0	22.5	113	1	75-125	20	

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





Project Name: Trunk 'O' Fulfer

Work Order #: 426199			. 08/26/20					ject ID:	08/26/2011		
Analyst: BRB			ed: 08/26/20	11							
Lab Batch ID: 868504 Sample: 86	58504-1-BKS	Batch						Matrix: S	energiation.		
Units: mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	PIKE DUP	LICATE	RECOVI	ERY STUI	ργ	
Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<4.20	100	116	116	100	114	114	2	75-125	20	
Analyst: BBH	D	ate Prepare	ed: 08/22/20	11			Date A	nalyzed: (08/23/2011		
Lab Batch ID: 868184 Sample: 61	10369-1-BKS	Batch	n#: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	PIKE DUP	LICATE	RECOVI	ERY STUI	PΥ	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<14.9	996	831	83	1000	798	80	4	70-135	35	-
C10-C28 Diesel Range Hydrocarbons	<14.9	996	923	93	1000	851	85	8	70-135	35	
	D:	Batch						Matrix:			
Units: mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	PIKE DUP	LICATE	RECOVI	ERY STUE	ργ	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<15.1	1010	731	72	996	742	74	1	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.1	1010	784	78	996	779	78	1	70-135	35	

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



Form 3 - MS Recoveries



Project Name: Trunk 'O' Fulfer

Work Order #: 426199							
Lab Batch #: 868503				Pro	ject ID:	:	
Date Analyzed: 08/26/2011	Date Pro	epared: 08/2	6/2011	А	nalyst: B	RB	
QC- Sample ID: 426199-003 S	Batch #: 1 Matrix: Soil						
Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300		Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes		[A]	[B]				
Chloride		802	1010	1870	106	75-125	
Lab Batch #: 868504							
Date Analyzed: 08/26/2011	Date Pr	epared: 08/2	6/2011	А	nalyst: B	BRB	
QC- Sample ID: 426157-004 S	E	atch #: 1		Ν	Matrix: S	loil	
Reporting Units: mg/kg	Г	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300		Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes		[A]	[B]	5.55			
Chloride		6530	1110	7610	97	75-125	

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Trunk 'O' Fulfer



Work Order #: 426199						Project II):				
Lab Batch ID: 868554 Date Analyzed: 08/26/2011	QC- Sample ID: Date Prepared:				tch #: alyst:	l Matrix ASA	: Soil				
Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	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	< 0.00103	0.103	0.0880	85	0.103	0.0926	90	5	70-130	35	
Toluene	<0.00206	0.103	0.0790	77	0.103	0.0812	79	3	70-130	35	
Ethylbenzene	< 0.00103	0.103	0.0849	82	0.103	0.0877	85	3	71-129	35	
m_p-Xylenes	<0.00206	0.206	0.165	80	0.206	0.171	83	4	70-135	35	
o-Xylene	< 0.00103	0.103	0.0768	75	0.103	0.0796	77	4	71-133	35	
Lab Batch ID: 868184 Date Analyzed: 08/24/2011	QC- Sample ID: Date Prepared:				tch #: alyst:	1 Matrix BBH					
Reporting Units: mg/kg						KE DUPLICA	TE REC	OVERY	STUDY		
	Parent Sample Result [A]			E / MAT			FE REC Spiked Dup. %R [G]	OVERY RPD %	STUDY Control Limits %R	Control Limits %RPD	Flag
Reporting Units: mg/kg TPH By SW8015 Mod	Sample Result	M Spike Added	ATRIX SPIK Spiked Sample Result	E / MAT Spiked Sample %R	RIX SPI Spike Added	KE DUPLICA Duplicate Spiked Sample	Spiked Dup. %R	RPD	Control Limits	Limits	Flag
Reporting Units: mg/kg TPH By SW8015 Mod Analytes	Sample Result [A]	M Spike Added [B]	ATRIX SPIK Spiked Sample Result [C]	E / MAT Spiked Sample %R [D]	Spike Added [E]	KE DUPLICA' Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Limits %RPD	Flag
Reporting Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons	Sample Result [A] <15.2	Spike Added [B] 1010 1010 426135	ATRIX SPIK Spiked Sample Result [C] 763 928 -001 S	E / MAT Spiked Sample %R [D] 76 88 Ba	RIX SPI Spike Added [E] 1010 1010 tch #:	KE DUPLICA Duplicate Spiked Sample Result [F] 784	Spiked Dup. %R [G] 78 89	RPD %	Control Limits %R 70-135	Limits %RPD 35	Flag
Reporting Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C10-C28 Diesel Range Hydrocarbons C10-C28 Diesel Range Hydrocarbons Lab Batch ID: 868200	Sample Result [A] <15.2 35.9 QC- Sample ID:	M Spike Added [B] 1010 1010 426135 08/22/2	ATRIX SPIK Spiked Sample Result [C] 763 928 -001 S 011	E / MAT Spiked Sample %R [D] 76 88 Ba An	RIX SPI Spike Added [E] 1010 1010 tch #: alyst:	KE DUPLICA Duplicate Spiked Sample Result [F] 784 935 1 Matrix	Spiked Dup. %R [G] 78 89 :: Soil	RPD %	Control Limits %R 70-135 70-135	Limits %RPD 35	Flag
Reporting Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C10-C28 Diesel Range Hydrocarbons Lab Batch ID: 868200 Date Analyzed: 08/23/2011	Sample Result [A] <15.2 35.9 QC- Sample ID:	M Spike Added [B] 1010 1010 426135 08/22/2	ATRIX SPIK Spiked Sample Result [C] 763 928 -001 S 011	E / MAT Spiked Sample %R [D] 76 88 Ba An	RIX SPI Spike Added [E] 1010 1010 tch #: alyst:	KE DUPLICA Duplicate Spiked Sample Result [F] 784 935 1 Matrix BBH	Spiked Dup. %R [G] 78 89 :: Soil	RPD %	Control Limits %R 70-135 70-135	Limits %RPD 35	
Reporting Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C10-C28 Diesel Range Hydrocarbons Lab Batch ID: 868200 Date Analyzed: 08/23/2011 Reporting Units: mg/kg TPH By SW8015 Mod	Sample Result [A] <15.2 35.9 QC- Sample ID: Date Prepared: Parent Sample Result	M Spike Added [B] 1010 1010 426135 08/22/2 M Spike Added	ATRIX SPIK Spiked Sample Result [C] 763 928 -001 S 011 IATRIX SPIK Spiked Sample Result	E / MAT Spiked Sample %R [D] 76 88 Ba An: E / MAT Spiked Sample %R	RIX SPI Spike Added [E] 1010 1010 tch #: alyst: RIX SPI Spike Added	KE DUPLICA Duplicate Spiked Sample Result [F] 784 935 1 Matrix BBH KE DUPLICA Duplicate Spiked Sample	Spiked Dup. %R [G] 78 89 :: Soil TE RECC Spiked Dup. %R	RPD % 3 1 OVERY	Control Limits %R 70-135 70-135 STUDY Control Limits	Limits %RPD 35 35 35 Control Limits	Flag

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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Trunk 'O' Fulfer

Work Order #: 426199

Lab Batch #: 868503				Project II	D:	
Date Analyzed: 08/26/2011 17:23	Date Prepare	ed: 08/26/2011	Ans	alyst: BRB		
QC- Sample ID: 426199-003 D	Batch	#: 1	Ma	trix: Soil		
Reporting Units: mg/kg	[SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300 Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride		802	827	3	20	
Lab Batch #: 868504						
Date Analyzed: 08/26/2011 10:03	Date Prepare	ed: 08/26/2011	Ana	alyst:BRB		
QC- Sample ID: 426157-004 D	Batch	#: 1	Ma	trix: Soil		
Reporting Units: mg/kg		SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300 Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride		6530	6440	1	20	
Lab Batch #: 868018						
Date Analyzed: 08/22/2011 11:20	Date Prepare	ed: 08/22/2011	Ana	alyst:BRB		
QC- Sample ID: 426194-001 D	Batch	#: 1	Ma	trix: Soil		
Reporting Units: %		SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture		4.99	4.93	1	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

Xenco Laboratories

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

The Env	rironmental Lab of Tex	as												East 9765											32-5 32-5						
	Project Manager:	Camille Bryant														_	Pro	ojec	t Na	me:			Trun	nk "()" F	ulfei	r		-	-	
	Company Name	Nova Safety and Environ	nmental															P	rojec	t#:					_		_	_		_	
	Company Address:	2057 Commerce												_		_	F	Proj	ect L	oc:			L	ea C	ount	y, N	ew N	Mexico	0		
	City/State/Zip:	Midland, TX 79703									_		_			_			P) #:		-	_								
	Telephone No:	432.520.7720		0		Fax No:		432	2.52	0.77	01		_			_	Repor	t Fo	rma	Ŀ		Stan	ndard		C] TR	RP			IPDE	S
	Sampler Signature	Carmiele Ba	you	t.	for	e-mail:		_	-	<u>cb</u> cu	ryar rt.st	nt@ tanle	nov ev(a	atra	ining	1.C(<u>c</u>			_			Ana	lyze	For:		_			Т	٦
(lab use	only)		Dai	uid	lopez	-										_		F		_	TOT	LP:	-	+	Ŧ	T		Π	T	72 hrs	
ORDER	R#: 426199		-					_	F	Pres	ervati	tion &	# of	Conta	iners	+	Matrix	80158	98				Hg Se		8260					24, 48,	
LAB # (lab use only)	FIE	LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #, of Containers	8	HNO ₃	HCI	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Uther (specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 (8015M)		Cations (Ca, Mg, Na, K)	Anions (CI, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Volatiles	BTEX 8021B/5030 %r BTEX 8260	RCI	N.O.R.M.	Moudes		RUSH TAT (Pre-Schedule)	Standard TAT
001		SP-A S			8/19/2011	1420			x	+							Soil	x							X	1		X		T	×
002	S	P-A N			8/19/2011	1430		-	X	-					-	+	Soil	X	-		_	-	-	+	X	-	-	X	+	+	X
003	5	SP-B 1	-		8/19/2011	1440		1	X				L		+		Soil	X	-					+	X		t	X	+	+	×
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romiquis					Ling 1	Judoch	2								8-2	2-	11 10	2:1	0	Ten	nper	ature	e'Up	TR	egeir	H:			3.6	°C	£



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist, Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client:	Nova Safety & Env.
Date/Time:	8-22-1119:10
Lab ID # :	426199
Initials:	RN

Sample Receipt Checklist

1. Samples on ice?		Blue	Water	No	
2. Shipping container in good condition?		Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottl	es?	Yes	No	NA	
4. Chain of Custody present?		Yes	No		
5. Sample instructions complete on chain of custody?		Ye	No		
6. Any missing / extra samples?		Yes	(No)		
7. Chain of custody signed when relinquished / received?		Yes	No		
8. Chain of custody agrees with sample label(s)?		Yes	No		
9. Container labels legible and intact?		(Te)	No		
10. Sample matrix / properties agree with chain of custody?		Yes	No		
11. Samples in proper container / bottle?		Tes	No		
12. Samples properly preserved?		Yes	No	N/A	
13. Sample container intact?		(Tes	No		
14. Sufficient sample amount for indicated test(s)?		(es)	No		
15. All samples received within sufficient hold time?		Yes	No		
16. Subcontract of sample(s)?		Yes	Na	N/A	
17. VOC sample have zero head space?		Yes	No	NA	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.		Cooler 4 No		Cooler 5 No.	
Ibs 3.6 °C Ibs °C II	os °C	lbs	°C	lbs	°C

Client understands and would like to proceed with analysis

Analytical Report 426772

for

Southern Union Gas Services- Monahans

Project Manager: Curt Stanley Trunk "O" Fulfer

02-SEP-11

Collected By: Client



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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)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
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)



02-SEP-11

Project Manager: Curt Stanley Southern Union Gas Services- Monahans 1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 426772 Trunk "O" Fulfer Project Address: Lea County, New Mexico

Curt Stanley:

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 426772. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 426772 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,

BOTO

Brent Barron II Odessa Laboratory Manager

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Sample Cross Reference 426772



Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-AN-1	S	08-30-11 11:00		426772-001
SP-B-2	S	08-30-11 11:15		426772-002
Floor-2 @10'	S	08-30-11 11:30		426772-003
Floor-3 @13'	S	08-30-11 15:30		426772-004

CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: Trunk "O" Fulfer



Project ID: Work Order Number: 426772 Report Date: 02-SEP-11 Date Received: 08/31/2011

Sample receipt non conformances and comments: None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 426772 Southern Union Gas Services- Monahans, Monahans, TX



Project Name: Trunk "O" Fulfer

Project Id: Contact: Curt Stanley Project Location: Lea County, New Mexico

Date Received in Lab: Wed Aug-31-11 09:02 am Report Date: 02-SEP-11

Project Manager: Brent Barron II

	Lab Id:	426772-001	426772-002	426772-003	426772-004	
Analysis Requested	Field Id:	SP-AN-1	SP-B-2	Floor-2 @10'	Floor-3 @13'	
Analysis Requested	Depth:					
	Matrix:	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Aug-30-11 11:00	Aug-30-11 11:15	Aug-30-11 11:30	Aug-30-11 15:30	
Anions by E300	Extracted:					
	Analyzed:	Aug-31-11 18:04	Aug-31-11 18:04	Aug-31-11 18:04	Aug-31-11 18:04	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		618 8.45	580 21.1	45.7 4.28	77.9 4.35	
Percent Moisture	Extracted:					
	Analyzed:	Aug-31-11 11:57	Aug-31-11 11:57	Aug-31-11 11:57	Aug-31-11 11:57	
	Units/RL:	% RL	% RL	% RL	% RL	
Percent Moisture		ND 1.00	ND 1.00	1.85 1.00	3.54 1.00	

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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Brent Barron II

Odessa Laboratory Manager

Page 5 of 11



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.

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

+ Outside XENCO's scope of NELAC Accreditation.

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Project Name: Trunk "O" Fulfer

Work Order #: 426772 Analyst: BRB Lab Batch ID: 868916	Sample: 868916-1-BKS		nred: 08/31/20	11			Date A	ect ID: nalyzed: (Matrix: S	08/31/2011 Solid		
Units: mg/kg		BLA	NK /BLANK	SPIKE / I	BLANK S	PIKE DUP	LICATE I	RECOVI	ERY STUE	ργ	
Anions by Anions by	E300 Blani Sample F [A]		Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.84	0 20.0	21.8	109	20.0	21.8	109	0	75-125	20	

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



Form 3 - MS Recoveries



Project Name: Trunk "O" Fulfer

Work Order #: 426772 Lab Batch #: 868916				ject ID:		
Date Analyzed: 08/31/2011	Date Prepared: 08/31/2	2011	A	nalyst: B	RB	
QC- Sample ID: 426772-001 S	Batch #: 1		N	latrix: S	oil	
Reporting Units: mg/kg	MATRI	X / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	[A]	[B]				
Chloride	618	201	811	96	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Trunk "O" Fulfer

Work Order #: 426772

Lab Batch #: 868916			Project I	D:	
Date Analyzed: 08/31/2011 18:04	Date Prepared: 08/31/2011	Ana	lyst: BRB		
QC- Sample ID: 426772-001 D	Batch #: 1	Mat	trix: Soil		
Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300	Parent Sample Result [A]	Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Chloride	618	619	0	20	
Lab Batch #: 868906					
Date Analyzed: 08/31/2011 11:40	Date Prepared: 08/31/2011	Ana	lyst: BRB		
QC- Sample ID: 426766-001 D	Batch #: 1	Mat	trix: Soil		
Reporting Units: %	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte		[6]			
Percent Moisture	2.32	2.33	0	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

Xenco Laboratories

Bill to SUG

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

	rironmental Lab of Texa									500 N essa												F				-563						
	Project Manager:	Camille Bryant				_	_	_					_	_	_	_	Pr	ojec	t Na	me:	_	Tru	Ink	"0"	Ful	fer	_	_				_
	Company Name	Nova Safety and Environm	nental	_				_					_					P	roje	ct #:	_				_	_		_		_		_
	Company Address:	2057 Commerce					_	_		_		_		_	_	_	1	Proj	ect	Loc:			Lea	Cou	unty,	Nev	w M	lexico	0			
	City/State/Zip:	Midland, TX 79703									_			_	_	_			P	0 #:	_	_	_	-			_					_
	Telephone No:	432.520.7720	0	_		Fax No:		432	2.52	0.77	01			_		_	Repor	t Fo	orma	ıt:	4	Sta	nda	rd			TRF	RP			PI	
	Sampler Signature	Camilee	12	zci	el	e-mail:		_	_						inin	g.cc			_	-	_	_	Ar	nalyz	ze Fo	or:	_				T	1
(lab use	only)									-					A contraction			F	_			CLP:	_	H	H	Η		Π	Т		48, 72 hrs	
ORDER	R#: 426772		_					_	F	Prese	rvati	on &	# of (Conta	ainers	Ŧ	Matrix	80158					g Se		Π	8260					24, 48.	╀
LAB # (lab use only)	EIEI	LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	ield Filtered	Total #. of Containers	lce	HNO3	HCI	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	Potable Si	TPH: 418.1 8015M 80	TX 1005 TX 10	Na	Anions (CI, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Volatiles		X 8021B/5030 or BTEX	RCI	N.O.R.M.	Chlmide		RUSH TAT (Pre-Schedule	Standard TAT
001		P-AN-1		<u> </u>	8/30/2011	1100		1	-								Soil	Ĺ											x		X	:
002	S	P-B-2			8/30/2011	1115		1	x								Soil									_			X	+	X	
003	Floo	r-2 @ 10'			8/30/2011	1130		1								+	Soil	+	-	-		_			H	-	_		X	+	X	
004	Floo	r-3 @ 13'			8/30/2011	1530		1	×							+	Soil									_			×	+	X	ŧ
									E							+													+	+	t	ŧ
											_					+		t								_			+	+	t	ŧ
Special	Instructions:																		1	Sa	mple	Co	ntair	ners	Intac	ct?	_		0	P.	NN	Ā
Relinquis	near Koya		04	ime ime	Received by: Received by:			-	_	_	_					Date		Tin		Lat Cu Cu	stod stod	on c y se y se Ha	als of al	ainer on co on co Delive	r(s)	iner(s)			D. OO	Y	zzzzzzzz	
Relinquis	shed by:	Date	T	me	Received by ELO	lunder	k								8-	Date 31-		Tin 1-C		Ter	by (Cour	ier?		UPS		DHL	. 1	Fede	Ex LO Z.G		



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Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client:	Southern Union Gras
Date/Time:	8 31-11 9-02
Lab ID # :	426772
Initials:	LU

Sample Receipt Checklist

1. Samples on ice?		Blue	Water	No	
2. Shipping container in good condition?		Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?		Yes	No	(N/A)	
4. Chain of Custody present?		Tes	No		
5. Sample instructions complete on chain of custody?		Tes	No		
6. Any missing / extra samples?		Yes	No		
7. Chain of custody signed when relinquished / received?		Yes	No		
8. Chain of custody agrees with sample label(s)?		Yes	No		
9. Container labels legible and intact?		Yes	No		
10. Sample matrix / properties agree with chain of custody?		Yes	No		
11. Samples in proper container / bottle?		(Yes)	No		
12. Samples properly preserved?		Yes	No	N/A	
13. Sample container intact?		Yes	No		
14. Sufficient sample amount for indicated test(s)?		Yes	No		
15. All samples received within sufficient hold time?		(Yes)	No		
16. Subcontract of sample(s)?		Yes	No	N/A	
17. VOC sample have zero head space?		Yes	No	NIA	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
Ibs 2.6 °C Ibs °C Ibs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact: _____ Contacted by: ____ Date/Time: ______
Regarding: _____
Corrective Action Taken: ______
Corrective Action Taken: ______
Check all that apply: □Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

Initial and Backup Temperature confirm out of temperature conditions

Client understands and would like to proceed with analysis

Analytical Report 426773

for

Southern Union Gas Services- Monahans

Project Manager: Curt Stanley Trunk "O" Fulfer

01-SEP-11

Collected By: Client



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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)

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Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
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 Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)



01-SEP-11

Project Manager: **Curt Stanley Southern Union Gas Services- Monahans** 1507 W. 15th Street Monahans, TX 79756

Reference: XENCO Report No: 426773 Trunk "O" Fulfer Project Address: Lea County, New Mexico

Curt Stanley:

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 426773. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 426773 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,

TOM

Brent Barron II Odessa Laboratory Manager

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Sample Cross Reference 426773



Southern Union Gas Services- Monahans, Monahans, TX

Trunk "O" Fulfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-C	S	08-30-11 16:00		426773-001

CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: Trunk "O" Fulfer



Project ID: Work Order Number: 426773 Report Date: 01-SEP-11 Date Received: 08/31/2011

Sample receipt non conformances and comments: None

Sample receipt non conformances and comments per sample:

None



Certificate of Analysis Summary 426773 Southern Union Gas Services- Monahans, Monahans, TX



Project Name: Trunk "O" Fulfer

Project Id: Contact: Curt Stanley Project Location: Lea County, New Mexico

Date Received in Lab: Wed Aug-31-11 09:02 am Report Date: 01-SEP-11

Project Manager: Brent Barron II

	Lab Id:	426773-001			
Analysis Beaustad	Field Id:	SP-C			
Analysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Aug-30-11 16:00			
Anions by E300	Extracted:				
	Analyzed:	Aug-31-11 18:04			
	Units/RL:	mg/kg RL			
Chloride		1440 21.5			
Percent Moisture	Extracted:				
	Analyzed:	Aug-31-11 11:57			
	Units/RL:	% RL			
Percent Moisture		2.21 1.00			

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 beet 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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Brent Barron II

Odessa Laboratory Manager

Final 1.001



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 quantiation 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.

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

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

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

LOQ Limit of Quantitation

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

4143 Greenbriar Dr, Stafford, Tx 77477 9701 Harry Hines Blvd, Dallas, TX 75220 5332 Blackberry Drive, San Antonio TX 78238 2505 North Falkenburg Rd, Tampa, FL 33619 5757 NW 158th St, Miami Lakes, FL 33014 12600 West I-20 East, Odessa, TX 79765 6017 Financial Drive, Norcross, GA 30071 3725 E. Atlanta Ave, Phoenix, AZ 85040 Phone Fax (281) 240-4200 (281) 240-4280 (214) 902 0300 (214) 351-9139 (210) 509-3334 (210) 509-3335 (813) 620-2000 (813) 620-2033 (305) 823-8500 (305) 823-8555 (432) 563-1800 (432) 563-1713 (770) 449-5477 (770) 449-8800 (602) 437-0330



BS / BSD Recoveries



Project Name: Trunk "O" Fulfer

Work Order #: 426773 Analyst: BRB Lab Batch ID: 868916	Sample: 868916-1-BK		ate Prepare Batch	d: 08/31/20	11			Date A	ject ID: nalyzed: (Matrix: S	08/31/2011 Solid		
Units: mg/kg			BLANK	/BLANK S	SPIKE / B	LANK S	PIKE DUPL	ICATE R	RECOVE	RY STUD	Y	
Anions by Analytes	E300 s	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride		< 0.840	20.0	21.8	109	20.0	21.8	109	0	75-125	20	

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



Form 3 - MS Recoveries



Project Name: Trunk "O" Fulfer

Work Order #: 426773 Lab Batch #: 868916 Date Analyzed: 08/31/2011	Date Prepared: 08/31/20	011		oject ID nalyst: B		
QC- Sample ID: 426772-001 S Reporting Units: mg/kg	Batch #: 1			fatrix: S	oil	DY
Inorganic Anions by EPA 300 Analytes		Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	618	201	811	96	75-125	

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

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Trunk "O" Fulfer

Work Order #: 426773

Lab Batch #: 868916 Date Analyzed: 08/31/2011 18:04 QC- Sample ID: 426772-001 D	Date Prepared:08/31/ Batch #: 1	2011		Project I lyst:BRB rix: Soil	D:	
Reporting Units: mg/kg	SAMP	LE / SAN	MPLE	DUPLIC	ATE RECO	OVERY
Anions by E300	Paren Sample R [A]	sult Du	imple plicate esult [B]	RPD	Control Limits %RPD	Flag
Analyte			[10]			
Chloride	618		619	0	20	
Lab Batch #: 868906						
Date Analyzed: 08/31/2011 11:40	Date Prepared:08/31/	2011	Ana	lyst:BRB		
QC- Sample ID: 426766-001 D	Batch #: 1		Mat	rix: Soil		
Reporting Units: %	SAMP	LE / SAN	MPLE	DUPLIC	ATE RECO	OVERY
Percent Moisture	Paren Sample R [A]	sult Du	imple plicate cesult [B]	RPD	Control Limits %RPD	Flag
Analyte		_				
Percent Moisture	2.32		2.33	0	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

Xenco Laboratories

Bill to sug

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

The Environmental Lab of Texas

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager: Camille Bryant					_							_		_		Pro	oject	t Nar	me:		Tru	ink	"0"	Fulf	ier	_					
	Company Name Nova Safety and Enviro	nmental													_			Pr	ojec	t#:	_											
	Company Address: 2057 Commerce																P	Proje	ect L	oc:	_		Lea	Cou	inty,	Nev	N Me	exico				_
	City/State/Zip: Midland, TX 79703														_				PC) #:	_	_										
	Telephone No: 432.520.7720				Fax No:		432	2.520	0.77	01					_	Re	por	t Fo	rmat	t	ø	Sta	nda	rd	1		TRR	P		NPI		
	Sampler Signature:	Bu	fuit	t for	e-mail:		_		cbr	yan	t@r	nova	trair	ning	.00		_	_	_	_			A	nalyza	- F-	-	_			_		
(lab use		Dav	id	Lopez					cur	t.sta	inle	Ya	sug.	,con	n			E				CLP:	Ar	laiyzi	BFO	1	Т	Т			72 hrs	
1	R#: 426773						1		Prese	rvatio	n & #	# of C	ontain	ners	Т	Mat	trix	88			TO	TAL:	Se	H	+	8				1		
AB # (lab use only)		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	ield Fittered	Fotal #. of Containers	lae	HNO	HCI	H ₂ SO,	NaOH	Na ₂ S ₂ O ₃	None Other (Specify)	DW=Drinking Water St sShudge		NP=Non-Potable Specify Other	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (CI, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg (Volatiles	Semivolatiles	BTEX 80218/5030 or BTEX 8260	RCI	C D M. Jo	Inal	Control TAT IN CALIFORNIA	KUCH IAI (Pre-Scheduler 29)	standard TAT
	FIELD CODE SP-C	<u>a</u>	ũ	8/30/2011	1600	Œ	Ĕ 1		-	-	-	-	+	-	f	So		F	F	0	4	S	2	2	05 1		-	X	1		X	n
001	57-0	+-		0/30/2011	1000		-	Â			1	1	+	+	t											T	T	1		1		
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	Instructions: Hold for TPH at				ereg.												_			San VO	nple Cs F	Cor	ntair of H	mme hers l leads	Intac space	:t?		(T T	Q z		A
Relinquis	100 Pound for SB1/11	60	ime ID2 ime	Received by: Received by:	1)ate			Tim	e	Cus Cus San	stody stody nple by S	y sei y sei Har Samo	als o als o nd D oler/(ainer(on co on co on co oelive Client	intain oler(ered t Rep	(s)		Fe	(>)~()~~()(3) EX	N N N N Lone	Star	
Relinquis	hed by: Date		îme	Received by ELC	Mundo	1	1						5	8-3	ate			Tim	e Z	Теп	nper	atur	e Ul	t O pon F	Rece		Z		2.			



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client:	Southern Union 1	л лд 5
Date/Time:	8-31-11 9.02	
Lab ID # :	426773	
Initials:	LM	

Sample Receipt Checklist

1. Samples on ice?	Blue	e (Water)	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	NA	
4. Chain of Custody present?	Pes	No		
5. Sample instructions complete on chain of custody?	Yes	No		
6. Any missing / extra samples?	Yes	s (No?		
7. Chain of custody signed when relinquished / received?	Yes	No No		
8. Chain of custody agrees with sample label(s)?	Yes	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No		
11. Samples in proper container / bottle?	Yes	No No		
12. Samples properly preserved?	Yes	No	N/A	
13. Sample container intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	Yes	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	s (No)	N/A	
17. VOC sample have zero head space?	Yes	s No	(N/A)	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler	4 No.	Cooler 5 No.	
Ibs 2.6 °C Ibs °C Ibs	°C	lbs °C	lbs	°C

Nonconformance Documentation

Contact:_____Contacted by:_____Date/Time:_____ Regarding: _____ Corrective Action Taken:_____ Corrective Action Taken:______ Corrective Action Taken:_____ Corrective Action Taken:______ Corrective Action Taken:_____ Corrective Action Taken:_

□ Initial and Backup Temperature confirm out of temperature conditions

Client understands and would like to proceed with analysis

APPENDIX B: Photographs



Client: Southern Union Gas Services Project Name: Trunk "O" Fulfer

Prepared by: NOVA Location: Lea County, New Mexico

Photograph No. 1

Direction: Facing Southeast

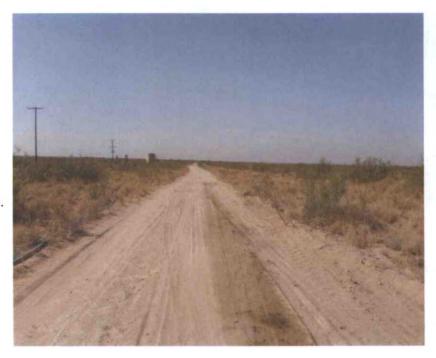


Description: View of the initial release.

Photograph No. 2

Direction: Facing South

Description: View of the initial release.





Client: Southern Union Gas Services Project Name: Trunk "O" Fulfer

Photograph No. 3

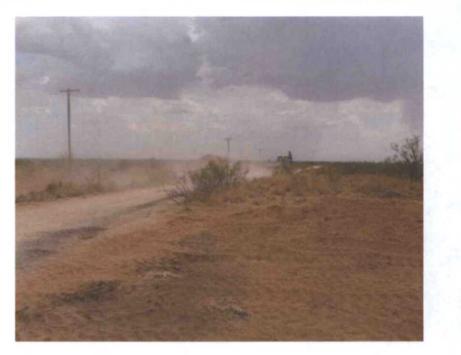
Direction: Facing Southeast

Description: View of excavation activities along the flow path.

Photograph No. 4

Direction: Facing Southeast

Description: View of excavation activities.





Prepared by: NOVA Location: Lea County, New Mexico



Client: Southern Union Gas Services Project Name: Trunk "O" Fulfer

Prepared by: NOVA Location: Lea County, New Mexico

Photograph No. 5

Direction: Facing South

Description: View of excavation activities along the flow path.



Photograph No. 6

Direction: Facing North

Description: View of excavation.





Client: Southern Union Gas Services Project Name: Trunk "O" Fulfer Prepared by: NOVA Location: Lea County, New Mexico

Photograph No. 7

Direction: Facing South

Description: View of backfilling activities.



Photograph No. 8

Direction: Facing South

Description: View of backfilling activities.





Client: Southern Union Gas Services Project Name: Trunk "O" Fulfer Prepared by: NOVA Location: Lea County, New Mexico

Photograph No. 9

Direction: Facing South.

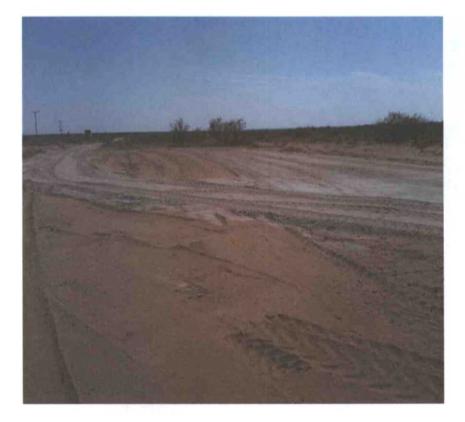
Description: View of site restoration activities.



Photograph No. 10

Direction: Facing South.

Description: View of restored site.





Client: Southern Union Gas Services Project Name: Trunk "O" Fulfer Prepared by: NOVA Location: Lea County, New Mexico

Photograph No. 11

Direction: Facing South

Description: View of restored road.



APPENDIX C: Soil Disposal Manifests

P.O. Box 1737 Eunice, New Me (575) 394-2511		TICKET No.	180466
LEASE OPERATOR/SHIPPER/COMPANY:	UG		21
LEASE NAME: TUNKO FU	Ifer Rd.	T.	-
TRANSPORTER COMPANY: ATS 1	TUCK	TIM	ESILY AMUEN
DATE: 9/15/11 VEHICLE NO: 3		ATOR COMPANY MAN'S NAME:	stonley
CHARGETO: SUG		NAME D NUMBER	0
I	YPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:		2 1 C C	
RRC or API #		C-133#	
VOLUME OF MATERIAL [] BBLS.	: 🕅 YARD 🥏	10 :	[]
MATERIAL EXEMPT FROM THE RESOURCE, CO TO TIME, 40 U.S.C. § 6901, et seq., THE NM HE THERETO, BY VIRTUE OF THE EXEMPTION AF ASSOCIATED WITH THE EXPLORATION, DEV GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERV TICKET. TRANSPORTER REPRESENTS AN OPERATOR/SHIPPER TO TRANSPORTER IS N FACILITY FOR DISPOSAL.	EALTH AND SAF. CODE § 361,001 FORDED DRILLING FLUIDS, PRO ELOPMENT OR PRODUCTION O /ICES, INC.'S ACCEPTANCE OF TH ID WARRANTS THAT ONLY	et seq., AND REGUL DDUCED WATERS, AN OF CRUDE OIL OR N E MATERIALS SHIPPI THE MATERIAL	ATIONS RELATED ND OTHER WASTE IATURAL GAS OR ED WITH THIS JOB DELIVERED BY
THIS WILL CERTIFY that the above Transport above described location, and that it was tend materials were added to this load, and that the DRIVER: <u>Claudica</u> A ³	lered by the above described ship	oper. This will certify t	

P.O. Box 1737 Eunice, New Mexico 8 (575) 394-2511	
LEASE OPERATOR/SHIPPER/COMPANY:	SUG
LEASE NAME: Trunk Ot	-ulfer Rd.
	UCK TIME 3:18 AN
DATE: 9/15/11 VEHICLE NO: 0/	GENERATOR COMPANY C. STORLE
CHARGE TO: SUG	RIG NAME AND NUMBER
ТҮРЕ	OF MATERIAL
[] Production Water [] Drilling Fluids [] Rinsate
[] Tank Bottoms	Contaminated Soil [] Jet Out
[] Solids	BS&W Content: [] Call Out
Description:	
RRC or API #	C-133#
VOLUME OF MATERIAL [] BBLS. :	XLYARD 20: []
MATERIAL EXEMPT FROM THE RESOURCE, CONSER TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH THERETO, BY VIRTUE OF THE EXEMPTION AFFORD ASSOCIATED WITH THE EXPLORATION, DEVELOPM GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES, TICKET. TRANSPORTER REPRESENTS AND W	ARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS VATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED DED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE MENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OF INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB VARRANTS THAT ONLY THE MATERIAL DELIVERED BY DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S
above described location, and that it was tendered to materials were added to this load, and that the materials DRIVER: (SIGNATURE) FACILITY REPRESENTATIVE: (SIGNATURE)	aded the material represented by this Transporter Statement at the by the above described shipper. This will certify that no additional trial was delivered without incident.
,	

P.O. Box 1737 Eunice, New 1 (575) 394-2511	Mexico 88231	TICKET No. 180464
LEASE OPERATOR/SHIPPER/COMPANY:	SUG	Sec. 19
LEASE NAME: Trunk O F	ulfer Rd.	-
TRANSPORTER COMPANY: 4+5 T	ruck	TIME 3:16 AM/PI
DATE: 9/15/11 VEHICLE NO:		MAN'S NAME C. Staller
CHARGE TO: SUG	RIG N AND	
	TYPE OF MATERIAL	
[] Production Water	[] Drilling Fluids	[] Rinsate
[] Tank Bottoms	Contaminated Soil	[] Jet Out
[] Solids	[] BS&W Content:	[] Call Out
Description:	N	
RRC or API #	12	C-133#
VOLUME OF MATERIAL [] BBLS.	: 1 YARD 2	0 : []
TO TIME, 40 U.S.C. § 6901, et seq., THE NM H THERETO, BY VIRTUE OF THE EXEMPTION A ASSOCIATED WITH THE EXPLORATION, DE GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SET TICKET. TRANSPORTER REPRESENTS A OPERATOR/SHIPPER TO TRANSPORTER IS FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transp above described location, and that it was ter materials were added to this load, and that the DRIVER: AMALA ISIGNATURE	AFFORDED DRILLING FLUIDS, PROE EVELOPMENT OR PRODUCTION OF RVICES, INC.'S ACCEPTANCE OF THE AND WARRANTS THAT ONLY NOW DELIVERED BY TRANSPORT orter loaded the material represente indered by the above described shipp	DUCED WATERS, AND OTHER WASTE F CRUDE OIL OR NATURAL GAS OR MATERIALS SHIPPED WITH THIS JOB THE MATERIAL DELIVERED BY ER TO SUNDANCE SERVICES, INC.'S ad by this Transporter Statement at the over. This will certify that no additional
FACILITY REPRESENTATIVE:	1	
(SIGNATURE)	Canary - Sundance Acct #1	Pink - Transporter

P.O. Box 1737 Eunice, New Mexico (575) 394-2511	
EASE OPERATOR/SHIPPER/COMPANY: 5U	G
EASENAME: Trunk D Ful.	fer Rd.
RANSPORTER COMPANY: RJR TITL	CICIPICI TIME /: DO AMPM
DATE: 9/15/11 VEHICLE NO: 01	GENERATOR COMPANY C. Stanley
HARGE TO: SUG	RIG NAME AND NUMBER
TVD	E OF MATERIAL
· · · · · · · · · · · · · · · · · · ·	[] Drilling Fluids [] Rinsate
[] Tank Bottoms	Contaminated Soil [] Jet Out
[] Solids	[] BS&W Content: [] Call Out
Description: 01D	
RC or API #	C-133#
OLUME OF MATERIAL []BBLS.	: XI YARD 20 : []
TICKET, OPERATOR/SHIPPER REPRESENTS AND V	NC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS RVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME
TICKET, OPERATOR/SHIPPER REPRESENTS AND V MATERIAL EXEMPT FROM THE RESOURCE, CONSECT TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH THERETO, BY VIRTUE OF THE EXEMPTION AFFORD ASSOCIATED WITH THE EXPLORATION, DEVELOP GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES TICKET. TRANSPORTER REPRESENTS AND V OPERATOR/SHIPPER TO TRANSPORTER IS NOW FACILITY FOR DISPOSAL.	WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS RVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME H AND SAF, CODE § 361.001 et seq., AND REGULATIONS RELATED DED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE PMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR 5, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB WARRANTS THAT ONLY THE MATERIAL DELIVERED BY DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S Coaded the material represented by this Transporter Statement at the by the above described shipper. This will certify that no additional
TICKET, OPERATOR/SHIPPER REPRESENTS AND W MATERIAL EXEMPT FROM THE RESOURCE, CONSET TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH THERETO, BY VIRTUE OF THE EXEMPTION AFFORM ASSOCIATED WITH THE EXPLORATION, DEVELOP GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERVICES TICKET. TRANSPORTER REPRESENTS AND W POERATOR/SHIPPER TO TRANSPORTER IS NOW FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transporter for above described location, and that it was tendered materials were added to this load, and that the materials White - Sundance Canary	WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS RVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME H AND SAF, CODE § 361.001 et seq., AND REGULATIONS RELATED DED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE PMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR 5, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB WARRANTS THAT ONLY THE MATERIAL DELIVERED BY DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S Paded the material represented by this Transporter Statement at the by the above described shipper. This will certify that no additional

P.O. Box 1737 Eunice, New Me (575) 394-2511		TICKET No.	180448
LEASE OPERATOR/SHIPPER/COMPANY:	SUG		
LEASE NAME: TIUNK O	Fulfer Rd		
TRANSPORTER COMPANY: At 5 T	rucking	TIME/	2:59 ANUPM
DATE 9 15 11 VEHICLE NO: 3	GENER	MAN'S NAME:	Inuleur
CHARGE TO: SUG		NAME D NUMBER	A
July		DNUMBER	0
т	YPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Out	
Description:	D		
	12	6 4334	
RRC or API #	1	C-133#	
VOLUME OF MATERIAL [] BBLS	: YARD	10	
AS A CONDITION TO SUNDANCE SERVICE TICKET, OPERATOR/SHIPPER REPRESENTS AN	ES, INC.'S ACCEPTANCE OF THE	MATERIALS SHIPPED V TE MATERIAL SHIPPED	HEREWITH IS
TICKET, OPERATOR/SHIPPER REPRESENTS AN MATERIAL EXEMPT FROM THE RESOURCE, CO TO TIME, 40 U.S.C. § 6901, et seq., THE NM HE THERETO, BY VIRTUE OF THE EXEMPTION AFI ASSOCIATED WITH THE EXPLORATION, DEVE GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERV TICKET. TRANSPORTER REPRESENTS AN OPERATOR/SHIPPER TO TRANSPORTER IS NO FACILITY FOR DISPOSAL.	ES, INC.'S ACCEPTANCE OF THE ND WARRANTS THAT THE WAS NSERVATION AND RECOVERY A ALTH AND SAF. CODE § 361.00 FORDED DRILLING FLUIDS, PRO ELOPMENT OR PRODUCTION (//CES, INC.'S ACCEPTANCE OF TH ID WARRANTS THAT ONLY OW DELIVERED BY TRANSPOR	MATERIALS SHIPPED V TE MATERIAL SHIPPED CT OF 1976, AS AMENDI 1 et seq., AND REGULAT DUCED WATERS, AND O DE CRUDE OIL OR NAT RE MATERIALS SHIPPED V THE MATERIAL DE THE MATERIAL DE THE TO SUNDANCE SE	WITH THIS JOB HEREWITH IS ED FROM TIME IONS RELATED OTHER WASTE URAL GAS OR WITH THIS JOB ELIVERED BY RVICES, INC'S
TICKET, OPERATOR/SHIPPER REPRESENTS AN MATERIAL EXEMPT FROM THE RESOURCE, CO TO TIME, 40 U.S.C. § 6901, et seq., THE NM HE THERETO, BY VIRTUE OF THE EXEMPTION AFI ASSOCIATED WITH THE EXPLORATION, DEVE GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SERV TICKET. TRANSPORTER REPRESENTS AN OPERATOR/SHIPPER TO TRANSPORTER IS NO FACILITY FOR DISPOSAL. THIS WILL CERTIFY that the above Transpor above described location, and that it was tend materials were added to this load, and that the URIVER: (SIGNATURE) FACILITY REPRESENTATIVE: (SIGNATURE) White - Sundance Ca	ES, INC.'S ACCEPTANCE OF THE ND WARRANTS THAT THE WAS NSERVATION AND RECOVERY A ALTH AND SAF. CODE § 361.00 FORDED DRILLING FLUIDS, PRO ELOPMENT OR PRODUCTION (//CES, INC.'S ACCEPTANCE OF TH ID WARRANTS THAT ONLY OW DELIVERED BY TRANSPOF ter loaded the material represent lered by the above described shift	MATERIALS SHIPPED V TE MATERIAL SHIPPED V TE MATERIAL SHIPPED CT OF 1976, AS AMENDI 1 et seq., AND REGULATI DDUCED WATERS, AND O DF CRUDE OIL OR NATI HE MATERIALS SHIPPED V THE MATERIAL DE THE MATERIAL DE T	WITH THIS JOB HEREWITH IS ED FROM TIME IONS RELATED OTHER WASTE URAL GAS OR WITH THIS JOB ELIVERED BY RVICES, INC.'S ratement at the t no additional

NAME:

P.O. Box 1737 Eunice, New N (575) 394-2511	Mexico 88231	TICKET No.	18044
LEASE OPERATOR/SHIPPER/COMPANY:	SUG		
LEASE NAME: Trunk Of	ulfer. Rd.	7	
TRANSPORTER COMPANY: At 5 7	rucking		ME12:54 AM/E
DATE: 9/15/11 VEHICLE NO: 4	J GENER	MAN'S NAME:	Stanley
CHARGETO: SUG		NAME D NUMBER	0
	TYPE OF MATERIAL		
[] Production Water	[] Drilling Fluids	[] Rinsate	
[] Tank Bottoms	Contaminated Soil	[] Jet Out	
[] Solids	[] BS&W Content:	[] Call Ou	ıt
Description:	D		
RRC or API #		C-133#	1.
VOLUME OF MATERIAL [] BBLS.	: 10 YARD	10 :	[]
MATERIAL EXEMPT FROM THE RESOURCE, C TO TIME, 40 U.S.C. § 6901, et seq., THE NM H THERETO, BY VIRTUE OF THE EXEMPTION A ASSOCIATED WITH THE EXPLORATION, DE GEOTHERMAL ENERGY. ALSO AS A CONDITION TO SUNDANCE SEL TICKET. TRANSPORTER REPRESENTS A OPERATOR/SHIPPER TO TRANSPORTER IS FACILITY FOR DISPOSAL.	HEALTH AND SAF. CODE § 361.00 AFFORDED DRILLING FLUIDS, PRO VELOPMENT OR PRODUCTION (RVICES, INC.'S ACCEPTANCE OF TH AND WARRANTS THAT ONLY	1 et seq., AND REGU DDUCED WATERS, A DF CRUDE OIL OR HE MATERIALS SHIP THE MATERIAL	JLATIONS RELATED AND OTHER WASTE NATURAL GAS OR PED WITH THIS JOB DELIVERED BY
THIS WILL CERTIFY that the above Transp above described location, and that it was ter materials were added to this load, and that th	ndered by the above described ship	pper. This will certify	
DRIVER: Anala In	nerte		
	Ma Ouz		
Long with White			
White - Sundance	Canary - Sundance Acct #1	Pink - Transp	orter

APPENDIX D: Release Notification and Corrective Action (Form-C-141)