# Basin Environmental Service Technologies, LLC

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## **REMEDIATION SUMMARY &**

## SITE CLOSURE REQUEST

#### SOUTHERN UNION GAS SERVICES WEST EUNICE COMPRESSOR STATION HISTORICAL RELEASE SITE Lea County, New Mexico Unit Letter "P" (SE/SE), Section 36, Township 21 South, Range 36 East Latitude 32° 25' 45.29" North, Longitude 103° 12' 38.84" West NMOCD Reference # 1RP-2724

Prepared For:

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

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

#### March 2013

Joel W. Lowry Project Manager

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#### 1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this *Remediation Summary & Site Closure Request* for the West Eunice Compressor Historical Release Site (1RP-2724). The legal description of the release site is Unit Letter "P" (SE/SE), Section 36, Township 21 South, Range 36 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 45.29" North latitude and 103° 12' 38.84" West longitude. The property affected by the release is owned by Southern Union Gas Services. Please reference Figure 1 for a "Site Location Map".

On July 13, 2011, Southern Union discovered a release had occurred at the West Eunice Compressor Station. The "Release Notification and Corrective Action Form" (Form C-141) indicated failure of a sump pump resulted in the release of approximately twelve barrels (12 bbls) of lubricating oil and wash water. During initial response activities, a vacuum truck was utilized to recover approximately nine and one half barrels (9.5 bbls) of free standing fluid. A backhoe was utilized to scrape up the heavily saturated soil; in sensitive areas of the facility, the saturated soil was "hand dug". Excavated material was transported to Sundance Services, Inc. (NMOCD Permit # NM-01-003) for disposal. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on July 18, 2011. The C-141 indicated the release affected an area measuring approximately fifteen feet (15') in width and one hundred and fifty feet (150') in length within the compressor facility. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix C.

On June 22, 2012, at the request of Southern Union, Basin assumed remediation responsibilities at the West Eunice Compressor Station Historical Release Site.

#### 2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 36, Township 21 South, Range 36 East. An inferred groundwater gradient map utilized by the NMOCD indicated groundwater should be encountered at one hundred and ten feet (110') bgs. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the West Eunice Compressor Station Historical Release Site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

• Benzene – 10 mg/Kg (ppm)

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

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

#### 3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On January 31, 2013, Basin responded to the West Eunice Compressor Station Historical Release Site. An initial investigation indicated previous remediation activities had been conducted at the release site. Historical environmental records and the initial Form C-141 indicate an unknown volume of impacted soil was transported to Sundance Services, Inc., for disposal.

A representative grid was established east of the affected sump pump in an effort to determine if soil containing concentrations of TPH or chloride above NMOCD regulatory remediation action levels remained in-situ. A hand-auger was utilized to collect soil samples from nine (9) locations (SB-1 through SB-9) east of the affected sump pump. During the advancement of soil bores, soil samples were collected at six inches (6"), two feet (2'), four feet (4') and six feet (6') bgs. Soil samples collected at six inches (6") and four feet (4') bgs were and submitted to Xenco Laboratories., of Odessa, Texas, for determination of TPH and chloride concentrations in accordance with EPA Methods SW 846-8015M and 300/300.1, respectively. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL for each of the soil samples submitted with the exception of soil sample SB-1 @ 4', which had a concentration of 44.0 mg/Kg; SB-3 @ 6", which had a concentration of 98.3 mg/Kg; SB-4 @ 6", which had a concentration of 70.9 mg/Kg; SB-5 @ 6", which had a concentration of 22.2 mg/Kg; and SB-8 (a) 6", which had a concentration of 82.8 mg/Kg. Chloride concentrations ranged from 1.22 mg/Kg for soil sample SB-1 @ 4' to 37.0 mg/Kg for soil sample SB-7 @ 6". TPH and chloride concentrations were less than NMOCD regulatory standards in each of the submitted soil samples. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Soil sample locations are depicted in Figure 2, "Site & Sample Location Map". Laboratory analytical reports are provided as Appendix B.

Seven (7) additional soil bore locations (SB-10 through SB-16) were established within the inferred release flow path along the eastern boundary of the compressor station facility. During the advancement of soil bores, soil samples were collected at six inches (6"), two feet (2'), four feet (4') and six feet (6') bgs. Soil samples collected at six inches (6") and four feet (4') bgs were and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL for each of the soil samples submitted with the exception of soil sample SB-10 @ 6", which had a concentration of 23.2 mg/Kg; SB-13 @ 6", which had a concentration of 31.8 mg/Kg; and SB-14 @ 6", which had a concentration of 1,290 mg/Kg. Analytical results indicated chloride concentrations ranged from less than the appropriate laboratory MDL for soil samples SB-11 @ 6", SB-13 @ 6", SB-15 @ 6" and SB-16 @ 6" to 30.3 mg/Kg for soil sample SB-14 @ 4"

Upon receiving laboratory analytical results from each of the submitted soil samples, soil samples collected at two feet (2') bgs and six feet (6') bgs from SB-14 were submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Analytical results indicated the chloride concentration was 3.53 mg/Kg for soil sample SB-14 @ 2' and 55.5 mg/Kg for soil sample SB-14 @ 6'.

On March 8, 2013, one (1) confirmation soil sample (SB-14a) was collected in the area represented by soil bore SB-14 and submitted to the laboratory for analysis of BTEX concentrations. Analytical results indicated the BTEX concentration was less than the laboratory MDL. BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards in each of the submitted soil samples.

#### 4.0 QA/QC PROCEDURES

#### 4.1 Soil Sampling

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

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

#### 4.2 Decontamination of Equipment

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

### 4.3 Laboratory Protocol

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

### 5.0 SITE CLOSURE REQUEST

Confirmation soil samples collected from the sixteen (16) on-site soil bores indicated remediation activites conducted during intial response activities at the West Eunice Compressor Historical Release Site met the requirements of the NMOCD's "Guidelines for Remediation of Leaks, Spills and Releases". Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory standards in each of the submitted soil samples. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the West Eunice Compressor Historical Release Site.

#### 6.0 LIMITATIONS

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

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

#### 7.0 **DISTRIBUTION**

- Copy 1: Geoffrey Leking New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, NM 88240 GeoffreyR.Leking@state.nm.us
- Copy 2: Rose Slade Southern Union Gas Services 801 S. Loop 464 Monahans, Texas 79756 rose.slade@sug.com
- Copy 3: Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, New Mexico 88260





#### TABLE 1

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

#### SOUTHERN UNION GAS SERVICES WEST EUNICE COMPRESSOR STATION HISTORICAL RELEASE SITE LEA COUNTY, NEW MEXICO NMOCD REF# 1RP-2724

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TOTAL TPH C <sub>6</sub> -C <sub>28</sub> (mg/Kg)	CHLORIDE (mg/Kg)
SB-1 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<17.6	<17.6	<17.6	<17.6	1.97
SB-1 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<18.0	18.2	25.8	44.0	1.22
SB-2 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<19.6	<19.6	<19.6	<19.6	4.79
SB-2 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<18.0	<18.0	<18.0	<18.0	16.4
SB-3 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<16.1	51.2	47.1	98.3	3.27
SB-3 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<15.6	<15.6	<15.6	<15.6	7.49
SB-4 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<15.4	47.8	23.1	70.9	15.2
SB-4 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<15.5	<15.5	<15.5	<15.5	6.58
SB-5 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<15.9	51.0	38.1	89.1	1.56
SB-5 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<16.2	<16.2	<16.2	<16.2	9.79
SB-6 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<15.9	22.2	<15.9	22.2	3.11
SB-6 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<15.7	<15.7	<15.7	<15.7	13.1
SB-7 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<17.3	<17.3	<17.3	<17.3	37.0
SB-7 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<15.8	<15.8	<15.8	<15.8	11.7
SB-8 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<15.9	82.2	<15.9	82.2	1.83
SB-8 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<15.8	<15.8	<15.8	<15.8	19.3
SB-9 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<17.4	<17.4	<17.4	<17.4	8.89
SB-9 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<16.3	<16.3	<16.3	<16.3	19.6
SB-10 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<17.4	23.2	<17.4	23.2	2.20
SB-10 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<17.0	<17.0	<17.0	<17.0	20.6
SB-11 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<17.8	<17.8	<17.8	<17.8	<1.17
SB-11 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<18.7	<18.7	<18.7	<18.7	7.95
SB-12 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<18.1	<18.1	<18.1	<18.1	1.55
SB-12 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<17.8	<17.8	<17.8	<17.8	7.54
SB-13 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<18.5	31.8	<18.5	31.8	<1.23
SB-13 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<20.1	<20.1	<20.1	<20.1	17.9
SB-14 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<18.0	687	605	1,290	1.64
SB-14 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<18.0	<18.0	<18.0	<18.0	30.3
SB-15 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<18.2	<18.2	<18.2	<18.2	<1.22
SB-15 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<18.5	<18.5	<18.5	<18.5	9.27
SB-16 @ 6"	6"	1/31/2013	In-Situ	-	-	-	-	-	<18.8	<18.8	<18.8	<18.8	<1.24
SB-16 @ 4'	4'	1/31/2013	In-Situ	-	-	-	-	-	<19.1	<19.1	<19.1	<19.1	2.44
SB-14 @ 2'	2'	1/31/2013	In-Situ	-	-		-	-	<17.0	<17.0	<17.0	<17.0	3.53
SB-14 @ 6'	6'	1/31/2013	In-Situ	-	-	-	-	-	<16.5	<16.5	<16.5	<16.5	55.5
	-								10.0	10.0	10.0	10.0	00.0
SB-14a	6"	3/8/2013	In-Situ	<0.00101	<0.00201	<0.00101	<0.00201	<0.00201	-	•	-		
NMOCD Standard				10				50				5,000	1,000



Photograph of soil sample collection at the West Eunice Compressor Station Historical Release Site.



Photograph of soil sample locations at the West Eunice Compressor Station Historical Release Site.



Photograph of soil sample locations at the West Eunice Compressor Station Historical Release Site.



Photograph of the disturbed area at the West Eunice Compressor Station Historical Release Site.

# Analytical Report 456934

for

Southern Union Gas Services- Monahans

**Project Manager: Joel Lowry** 

West Eunice Compressor

(1RP-2724)

13-FEB-13

Collected By: Client





#### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Lakeland: Florida (E84098) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757) Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



13-FEB-13



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

Reference: XENCO Report No(s): **456934** West Eunice Compressor Project Address: Lea County,NM

#### Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 456934. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 456934 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully

Nicholas Straccione Project Manager

> Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America



## Sample Cross Reference 456934



### Southern Union Gas Services- Monahans, Monahans, TX

West Eunice Compressor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 @6"	S	01-31-13 09:00		456934-001
SB-1 @ 4'	S	01-31-13 09:15		456934-002
SB-2 @ 6"	S	01-31-13 09:30		456934-003
SB-2 @ 4'	S	01-31-13 09:45		456934-004
SB-3 @ 6"	S	01-31-13 10:00		456934-005
SB-3 @ 4'	S	01-31-13 10:15		456934-006
SB-4 @6"	S	01-31-13 10:30		456934-007
SB-4 @ 4'	S	01-31-13 10:45		456934-008
SB-5 @ 6"	S	01-31-13 11:00		456934-009
SB-5 @ 4'	S	01-31-13 11:15		456934-010
SB-6 @ 6"	S	01-31-13 11:30		456934-011
SB-6 @ 4'	S	01-31-13 11:45		456934-012
SB-7 @ 6'	S	01-31-13 12:00		456934-013
SB-7 @ 4'	S	01-31-13 12:15		456934-014
SB-8 @ 6"	S	01-31-13 12:30		456934-015
SB-8 @ 4'	S	01-31-13 12:45		456934-016
SB-9 @ 6"	S	01-31-13 13:00		456934-017
SB-9 @ 4'	S	01-31-13 13:15		456934-018
SB-10 @ 6'	S	01-31-13 13:30		456934-019
SB-10 @ 4'	S	01-31-13 13:45		456934-020
SB-11 @ 6"	S	01-31-13 14:00		456934-021
SB-11 @ 4'	S	01-31-13 14:15		456934-022
SB-12 @ 6"	S	01-31-13 14:30		456934-023
SB-12 @ 4'	S	01-31-13 14:45		456934-024
SB-13 @ 6"	S	01-31-13 15:00		456934-025
SB-13 @ 4'	S	01-31-13 15:15		456934-026
SB-14 @ 6"	S	01-31-13 15:30		456934-027
SB-14 @ 4'	S	01-31-13 15:45		456934-028
SB-15 @ 6"	S	01-31-13 16:00		456934-029
SB-15 @ 4'	S	01-31-13 16:15		456934-030
SB-16 @ 6"	S	01-31-13 16:30		456934-031
SB-16 @ 4'	S	01-31-13 16:45		456934-032



## CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans Project Name: West Eunice Compressor



Project ID:(1RP-2724)Work Order Number(s):456934

Report Date: *13-FEB-13* Date Received: *02/04/2013* 

Sample receipt non conformances and comments: None

Sample receipt non conformances and comments per sample:

None



Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Mon Feb-04-13 10:46 am

**Report Date:** 13-FEB-13

Contact: Joel Lowry Project Location: Lea County,NM

**Project Id:** (1RP-2724)

roject Location: Lea County,NM								-					
· · · · · · · · · · · · · · · · · · ·								Project Mar	nager:	Nicholas Strac	cione		
	Lab Id:	456934-0	01	456934-0	02	456934-0	03	456934-0	04	456934-0	05	456934-0	06
An aluais De au este l	Field Id:	SB-1 @	6"	SB-1 @	4'	SB-2 @ (	6"	SB-2 @	4'	SB-3 @ 0	5"	SB-3 @ 4	4'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-31-13 (	09:00	Jan-31-13 0	9:15	Jan-31-13 0	9:30	Jan-31-13 0	9:45	Jan-31-13 1	0:00	Jan-31-13 1	0:15
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-07-13	03:08	Feb-12-13 1	10:41	Feb-07-13 (	04:00	Feb-12-13 1	0:58	Feb-07-13 (	04:18	Feb-12-13 1	1:16
SUB: E871002	Analyzed:	Feb-07-13	03:08	Feb-12-13 1	10:41	Feb-07-13 (	04:00	Feb-12-13 1	0:58	Feb-07-13 (	04:18	Feb-12-13 1	1:16
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1.97	1.17	1.22	1.19	4.79	1.31	16.4	1.16	3.27	1.07	7.49	1.04
Percent Moisture	Extracted:												
	Analyzed:	Feb-05-13	12:45	Feb-05-13 1	12:45	Feb-05-13 1	12:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		14.9	1.00	16.8	1.00	23.6	1.00	16.8	1.00	7.43	1.00	3.84	1.00
TPH By SW8015 Mod	Extracted:	Feb-05-13	13:00	Feb-11-13 (	)9:45	Feb-05-13 1	13:00	Feb-11-13 (	)9:45	Feb-05-13 1	3:00	Feb-11-13 0	9:45
	Analyzed:	Feb-05-13	14:45	Feb-11-13 1	15:49	Feb-05-13 1	15:12	Feb-11-13 1	6:20	Feb-05-13 1	5:44	Feb-11-13 1	6:55
	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	17.6	ND	18.0	ND	19.6	ND	18.0	ND	16.1	ND	15.6
C12-C28 Diesel Range Hydrocarbons		ND	17.6	18.2	18.0	ND	19.6	ND	18.0	51.2	16.1	ND	15.6
C28-C35 Oil Range Hydrocarbons		ND	17.6	25.8	18.0	ND	19.6	ND	18.0	47.1	16.1	ND	15.6
Total TPH		ND	17.6	44.0	18.0	ND	19.6	ND	18.0	98.3	16.1	ND	15.6

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Ch-Nul

Nicholas Straccione Project Manager



Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Mon Feb-04-13 10:46 am

**Report Date:** 13-FEB-13

Contact: Joel Lowry Project Location: Lea County,NM

**Project Id:** (1RP-2724)

collect Location: Lea County, NM								-					
·····								Project Mar	ager:	Nicholas Strac	cione		
	Lab Id:	456934-0	007	456934-0	08	456934-0	09	456934-0	10	456934-0	11	456934-0	12
A malua in Democrate I	Field Id:	SB-4 @	6"	SB-4 @	4'	SB-5 @ 0	5"	SB-5 @	4'	SB-6 @ (	5"	SB-6 @	4'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-31-13	10:30	Jan-31-13 1	0:45	Jan-31-13 1	1:00	Jan-31-13 1	1:15	Jan-31-13 1	1:30	Jan-31-13 1	1:45
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-07-13	05:10	Feb-12-13 1	1:33	Feb-07-13 0	)5:27	Feb-12-13 1	1:50	Feb-07-13 (	)5:45	Feb-12-13 1	12:08
SUB: E871002	Analyzed:	Feb-07-13	05:10	Feb-12-13 1	1:33	Feb-07-13 0	)5:27	Feb-12-13 1	1:50	Feb-07-13 (	)5:45	Feb-12-13 1	12:08
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		15.2	1.03	6.58	1.04	1.56	1.06	9.79	1.08	3.11	1.06	13.1	1.05
Percent Moisture	Extracted:												
	Analyzed:	Feb-05-13	12:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	12:45
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		3.32	1.00	3.72	1.00	6.02	1.00	7.53	1.00	5.42	1.00	4.69	1.00
TPH By SW8015 Mod	Extracted:	Feb-05-13	13:00	Feb-11-13 (	)9:45	Feb-05-13 1	3:00	Feb-11-13 (	9:45	Feb-05-13 1	3:00	Feb-11-13 (	09:45
	Analyzed:	Feb-05-13	16:11	Feb-11-13 1	7:27	Feb-05-13 1	6:38	Feb-11-13 1	8:04	Feb-05-13 1	7:08	Feb-11-13 1	18:39
	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	15.4	ND	15.5	ND	15.9	ND	16.2	ND	15.9	ND	15.7
C12-C28 Diesel Range Hydrocarbons		47.8	15.4	ND	15.5	51.0	15.9	ND	16.2	22.2	15.9	ND	15.7
C28-C35 Oil Range Hydrocarbons		23.1	15.4	ND	15.5	38.1	15.9	ND	16.2	ND	15.9	ND	15.7
Total TPH		70.9	15.4	ND	15.5	89.1	15.9	ND	16.2	22.2	15.9	ND	15.7

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the Nul

Nicholas Straccione Project Manager



Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Mon Feb-04-13 10:46 am

**Report Date:** 13-FEB-13

Contact: Joel Lowry Project Location: Lea County,NM

**Project Id:** (1RP-2724)

oject Location: Lea County, NM								1.					
	,							Project Mar	nager:	Nicholas Strac	cione		
	Lab Id:	456934-0	13	456934-0	14	456934-0	15	456934-0	16	456934-0	17	456934-0	18
An aluaia Done catod	Field Id:	SB-7 @	6'	SB-7 @	4'	SB-8 @ 6	6"	SB-8 @ -	4'	SB-9 @ 0	5"	SB-9@4	4'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-31-13 1	2:00	Jan-31-13 1	2:15	Jan-31-13 1	2:30	Jan-31-13 1	2:45	Jan-31-13 1	3:00	Jan-31-13 1	3:15
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-07-13	06:02	Feb-12-13 1	2:25	Feb-07-13 0	)6:20	Feb-12-13 1	2:43	Feb-07-13 (	6:37	Feb-12-13 1	15:37
SUB: E871002	Analyzed:	Feb-07-13	06:02	Feb-12-13 1	2:25	Feb-07-13 0	)6:20	Feb-12-13 1	2:43	Feb-07-13 (	6:37	Feb-12-13 1	15:37
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		37.0	1.15	11.7	1.05	1.83	1.06	19.3	1.06	8.89	1.16	19.6	1.09
Percent Moisture	Extracted:												
	Analyzed:	Feb-05-13	12:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	12:45
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.3	1.00	4.93	1.00	6.11	1.00	5.42	1.00	14.3	1.00	7.84	1.00
TPH By SW8015 Mod	Extracted:	Feb-05-13	13:00	Feb-11-13 (	9:45	Feb-05-13 1	3:00	Feb-11-13 0	)9:45	Feb-05-13 1	3:00	Feb-11-13 0	)9:45
	Analyzed:	Feb-05-13	17:35	Feb-11-13 1	9:51	Feb-06-13 0	08:11	Feb-11-13 2	20:25	Feb-05-13 1	8:36	Feb-11-13 2	21:02
	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	17.3	ND	15.8	ND	15.9	ND	15.8	ND	17.4	ND	16.3
C12-C28 Diesel Range Hydrocarbons		ND	17.3	ND	15.8	82.2	15.9	ND	15.8	ND	17.4	ND	16.3
C28-C35 Oil Range Hydrocarbons		ND	17.3	ND	15.8	ND	15.9	ND	15.8	ND	17.4	ND	16.3
Total TPH		ND	17.3	ND	15.8	82.2	15.9	ND	15.8	ND	17.4	ND	16.3

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the Nul

Nicholas Straccione Project Manager



Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Mon Feb-04-13 10:46 am

**Report Date:** 13-FEB-13

Contact: Joel Lowry Project Location: Lea County,NM

**Project Id:** (1RP-2724)

collect Location: Lea County, NM								1					
·····								Project Mar	ager:	Nicholas Strac	cione		
	Lab Id:	456934-0	19	456934-0	20	456934-0	21	456934-0	22	456934-0	23	456934-02	24
An aluaia Do an antad	Field Id:	SB-10 @	6'	SB-10 @	4'	SB-11 @	6"	SB-11 @	4'	SB-12 @	6"	SB-12 @	4'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-31-13 1	3:30	Jan-31-13 1	3:45	Jan-31-13 1	4:00	Jan-31-13 1	4:15	Jan-31-13 1	4:30	Jan-31-13 14	4:45
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-07-13	)7:29	Feb-12-13 1	5:54	Feb-07-13 0	)7:47	Feb-12-13 1	6:12	Feb-07-13 0	8:04	Feb-12-13 1	6:29
SUB: E871002	Analyzed:	Feb-07-13	07:29	Feb-12-13 1	5:54	Feb-07-13 0	07:47	Feb-12-13 1	6:12	Feb-07-13 0	8:04	Feb-12-13 1	6:29
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2.20	1.15	20.6	1.14	ND	1.17	7.95	1.23	1.55	1.20	7.54	1.18
Percent Moisture	Extracted:												
	Analyzed:	Feb-05-13	12:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45	Feb-05-13 1	2:45
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		14.2	1.00	12.1	1.00	15.7	1.00	19.7	1.00	17.0	1.00	15.6	1.00
TPH By SW8015 Mod	Extracted:	Feb-05-13	13:00	Feb-11-13 (	9:45	Feb-05-13 1	3:00	Feb-11-13 0	9:45	Feb-05-13 1	3:00	Feb-11-13 0	)9:45
	Analyzed:	Feb-05-13	19:03	Feb-11-13 2	1:36	Feb-06-13 0	8:36	Feb-11-13 2	2:10	Feb-05-13 2	0:42	Feb-11-13 2	22:44
	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	17.4	ND	17.0	ND	17.8	ND	18.7	ND	18.1	ND	17.8
C12-C28 Diesel Range Hydrocarbons		23.2	17.4	ND	17.0	ND	17.8	ND	18.7	ND	18.1	ND	17.8
C28-C35 Oil Range Hydrocarbons		ND	17.4	ND	17.0	ND	17.8	ND	18.7	ND	18.1	ND	17.8
Total TPH		23.2	17.4	ND	17.0	ND	17.8	ND	18.7	ND	18.1	ND	17.8

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the Nul

Nicholas Straccione Project Manager



Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Mon Feb-04-13 10:46 am

**Report Date:** 13-FEB-13

Contact: Joel Lowry Project Location: Lea County,NM

Project Id: (1RP-2724)

								Project Ma	nager:	Nicholas Strac	cione		
	Lab Id:	456934-0	25	456934-0	26	456934-0	27	456934-0	28	456934-0	29	456934-0	30
Are alwain Do are orted	Field Id:	SB-13 @	6"	SB-13 @	4'	SB-14 @	6"	SB-14 @	4'	SB-15 @	6"	SB-15 @	4'
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-31-13 1	5:00	Jan-31-13 1	5:15	Jan-31-13 1	5:30	Jan-31-13 1	5:45	Jan-31-13 1	6:00	Jan-31-13 1	6:15
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-07-13	08:21	Feb-12-13 1	6:46	Feb-07-13 0	)8:39	Feb-12-13	17:04	Feb-07-13 0	8:56	Feb-12-13 1	7:21
SUB: E871002	Analyzed:	Feb-07-13	08:21	Feb-12-13 1	6:46	Feb-07-13 0	)8:39	Feb-12-13	17:04	Feb-07-13 0	8:56	Feb-12-13 1	7:21
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	1.23	17.9	1.34	1.64	1.20	30.3	1.20	ND	1.22	9.27	1.24
Percent Moisture	Extracted:												
	Analyzed:	Feb-05-13	12:45	Feb-05-13 1	2:45	Feb-05-13 1	12:45	Feb-05-13	12:45	Feb-05-13 1	2:45	Feb-05-13 1	6:40
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		18.8	1.00	25.4	1.00	17.0	1.00	16.7	1.00	17.8	1.00	19.5	1.00
TPH By SW8015 Mod	Extracted:	Feb-05-13	13:00	Feb-11-13 (	9:45	Feb-05-13 1	13:00	Feb-11-13 (	)9:45	Feb-05-13 1	3:00	Feb-11-13 0	9:45
	Analyzed:	Feb-05-13	21:16	Feb-11-13 2	3:18	Feb-06-13 0	09:03	Feb-11-13 2	23:51	Feb-05-13 2	2:23	Feb-12-13 0	0:25
	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	18.5	ND	20.1	ND	18.0	ND	18.0	ND	18.2	ND	18.5
C12-C28 Diesel Range Hydrocarbons		31.8	18.5	ND	20.1	687	18.0	ND	18.0	ND	18.2	ND	18.5
C28-C35 Oil Range Hydrocarbons		ND	18.5	ND	20.1	605	18.0	ND	18.0	ND	18.2	ND	18.5
Total TPH		31.8	18.5	ND	20.1	1290	18.0	ND	18.0	ND	18.2	ND	18.5

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Nul

Nicholas Straccione Project Manager



**Project Id:** (1RP-2724)

Project Location: Lea County,NM

Contact: Joel Lowry

## Certificate of Analysis Summary 456934

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Mon Feb-04-13 10:46 am

Report Date: 13-FEB-13

Project Manager: Nicholas Straccione

	Lab Id:	456934-(	031	456934-02	32		
Analysis Requested	Field Id:	SB-16 @	6"	SB-16 @	4'		
Analysis Kequesiea	Depth:						
	Matrix:	SOIL		SOIL			
	Sampled:	Jan-31-13	16:30	Jan-31-13 1	6:45		
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-07-13	09:14	Feb-12-13 1	8:13		
SUB: E871002	Analyzed:	Feb-07-13	09:14	Feb-12-13 1	8:13		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chloride		ND	1.24	2.44	1.27		
Percent Moisture	Extracted:						
	Analyzed:	Feb-05-13	16:40	Feb-05-13 1	6:40		
	Units/RL:	%	RL	%	RL		
Percent Moisture		20.6	1.00	21.5	1.00		
TPH By SW8015 Mod	Extracted:	Feb-05-13	13:00	Feb-11-13 0	9:45		
	Analyzed:	Feb-05-13	22:56	Feb-12-13 0	0:59		
	Units/RL:	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	18.8	ND	19.1		
C12-C28 Diesel Range Hydrocarbons		ND	18.8	ND	19.1		
C28-C35 Oil Range Hydrocarbons		ND	18.8	ND	19.1		
Total TPH		ND	18.8	ND	19.1		

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the Nul

Nicholas Straccione Project Manager



# **Flagging Criteria**

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

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 (813) 620-2033

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 (432) 563-1713

 (770) 449-8800
 (770) 449-5477

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

Final 1.000



# Project Name: West Eunice Compressor

<b>ork Orders :</b> 456934 Lab Batch #: 906325	, Sample: 456934-001 / SMP	Batc		<b>D:</b> (1RP-2724	L)	
	Date Analyzed: 02/05/13 14:45		RROGATE R		STUDY	
Units: mg/kg	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flage
	Analytes			[D]		
1-Chlorooctane		107	99.7	107	70-135	
o-Terphenyl		57.8	49.9	116	70-135	
Lab Batch #: 906325	Sample: 456934-003 / SMP	Batc	h: <sup>1</sup> Matrix	a:Soil		
Units: mg/kg	Date Analyzed: 02/05/13 15:12	SU	RROGATE R	ECOVERY S	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage
1-Chlorooctane	Anarytes	106	99.8	106	70-135	
o-Terphenyl		57.2	49.9	115	70-135	
Lab Batch #: 906325	Sample: 456934-005 / SMP	Batc	h: <sup>1</sup> Matrix	:Soil	1 1	
Units: mg/kg	Date Analyzed: 02/05/13 15:44	SU	RROGATE R	ECOVERY S	STUDY	
TPH ]	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flag
	Analytes			[D]		
1-Chlorooctane		105	99.5	106	70-135	
o-Terphenyl		55.9	49.8	112	70-135	
Lab Batch #: 906325	Sample: 456934-007 / SMP	Batc		-		
Units: mg/kg	Date Analyzed: 02/05/13 16:11	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	-	107	99.5	108	70-135	
o-Terphenyl		55.7	49.8	112	70-135	
Lab Batch #: 906325	Sample: 456934-009 / SMP	Batc	h: 1 Matrix	c:Soil		
Units: mg/kg	Date Analyzed: 02/05/13 16:38	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	<i>u</i>	108	99.8	108	70-135	
o-Terphenyl		57.3	49.9	115	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

<b>ork Orders :</b> 456934 Lab Batch #: 906325	, Sample: 456934-011 / SMP	Batc	-	<b>D:</b> (1RP-2724	4)	
	·		RROGATE R		STUDY	
Units: mg/kg	Date Analyzed: 02/05/13 17:08 By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes	[]		[D]	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1-Chlorooctane		106	100	106	70-135	
o-Terphenyl		56.1	50.0	112	70-135	
Lab Batch #: 906325	Sample: 456934-013 / SMP	Batc	h: <sup>1</sup> Matrix	<b>x:</b> Soil		
Units: mg/kg	Date Analyzed: 02/05/13 17:35	SU	RROGATE R	ECOVERY S	STUDY	
TPH	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		59.7	50.0	119	70-135	
Lab Batch #: 906325	Sample: 456934-017 / SMP	Batc	h: <sup>1</sup> Matrix	soil	1 1	
Units: mg/kg	Date Analyzed: 02/05/13 18:36	SU	RROGATE R	ECOVERY S	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.011	Analytes					
1-Chlorooctane o-Terphenyl		109	99.5	110	70-135	
		58.5	49.8	117	70-155	
Lab Batch #: 906325	Sample: 456934-019 / SMP	Batc			STUDY	
Units: mg/kg	Date Analyzed: 02/05/13 19:03	50	RROGATE R	ECOVERYS		
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	-	106	99.5	107	70-135	
o-Terphenyl		56.4	49.8	113	70-135	
Lab Batch #: 906325	Sample: 456934-023 / SMP	Batc	h: 1 Matrix	:Soil	<u>.                                     </u>	
Units: mg/kg	Date Analyzed: 02/05/13 20:42	SU	RROGATE R	ECOVERY S	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	<i>u</i>	105	100	105	70-135	
o-Terphenyl		55.9	50.1	112	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

ork Orders : 456934	, Sample: 456934-025 / SMP	<b>D</b> . (1)	-	<b>D:</b> (1RP-2724	l)	
Lab Batch #: 906325	·	Bate	h: <sup>1</sup> Matrix RROGATE R		STUDV	
Units: mg/kg TPH ]	Date Analyzed: 02/05/13 21:16 By SW8015 Mod	Amount Found	True Amount	Recovery	Control Limits	Flags
	Analytes	[A]	[B]	%R [D]	%R	i iugo
1-Chlorooctane	-	102	99.9	102	70-135	
o-Terphenyl		55.0	50.0	110	70-135	
Lab Batch #: 906325	Sample: 456934-029 / SMP	Batc	h: <sup>1</sup> Matrix	c:Soil		
Units: mg/kg	Date Analyzed: 02/05/13 22:23	SU	<b>RROGATE R</b>	ECOVERY S	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chloresstere	Analytes	110	00.7		70.125	
1-Chlorooctane o-Terphenyl		110 58.5	99.7	110	70-135	
Ĩ, V	C 1 456024 021 / SMD				70-135	
Lab Batch #: 906325	Sample: 456934-031 / SMP	Batc	h: <sup>1</sup> Matrix RROGATE R		STUDY	
Units: mg/kg	Date Analyzed: 02/05/13 22:56		1			
TPH ]	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.011	Analytes	100			70.105	
1-Chlorooctane o-Terphenyl		108	99.7	108	70-135	
	a 156024.015 (SDD			-	70-135	
Lab Batch #: 906325	Sample: 456934-015 / SMP	Batch	h: 1 Matrix RROGATE R	-	STUDV	
Units: mg/kg	Date Analyzed: 02/06/13 08:11		1			
TPH ]	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	108	99.5	109	70-135	
o-Terphenyl		58.0	49.8	116	70-135	
Lab Batch #: 906325	Sample: 456934-021 / SMP	Batc			I	
Units: mg/kg	Date Analyzed: 02/06/13 08:36		RROGATE R		STUDY	
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		107	99.8	107	70-135	
1 Chiorooctane		107	77.0	107	10-133	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

<b>Ork Orders :</b> 456934	, Sample: 456934-027 / SMP	<b>D</b> . 4	-	<b>D:</b> (1RP-2724	l)		
Lab Batch #: 906325	· · ·	Bate	h: <sup>1</sup> Matrix RROGATE R		STUDV		
Units: mg/kg	Date Analyzed: 02/06/13 09:03 By SW8015 Mod	Amount	True		Control		
		Found [A]	Amount [B]	Recovery %R	Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		107	99.6	107	70-135		
o-Terphenyl		56.8	49.8	114	70-135		
Lab Batch #: 906732	Sample: 456934-002 / SMP	Bate	h: <sup>1</sup> Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 15:49	SURROGATE RECOVERY STUDY					
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flage	
	Analytes			[D]			
1-Chlorooctane		105	99.9	105	70-135		
o-Terphenyl		55.0	50.0	110	70-135		
Lab Batch #: 906732	Sample: 456934-004 / SMP	Batc	h: <sup>1</sup> Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 16:20	SU	RROGATE R	ECOVERY S	STUDY		
TPH I	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes	[]	[ []	[D]	,		
1-Chlorooctane		109	99.8	109	70-135		
o-Terphenyl		57.6	49.9	115	70-135		
Lab Batch #: 906732	Sample: 456934-006 / SMP	Batc	h: 1 Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 16:55	SU	RROGATE R	ECOVERY S	STUDY		
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	-	100	99.7	100	70-135		
o-Terphenyl		51.3	49.9	103	70-135		
Lab Batch #: 906732	Sample: 456934-008 / SMP	Bate	h: <sup>1</sup> Matrix	:Soil	. <u> </u>		
Units: mg/kg	Date Analyzed: 02/11/13 17:27	SU	RROGATE R	ECOVERY S	STUDY		
TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage	
1-Chlorooctane		105	99.8	105	70-135		

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

<b>Vork Orders :</b> 456934		<b>n</b>	-	<b>D:</b> (1RP-2724	)		
Lab Batch #: 906732	Sample: 456934-010 / SMP	Bate	h: 1 Matrix RROGATE R		TUDV		
Units: mg/kg	Date Analyzed: 02/11/13 18:04	50	KROGATE K				
TPH ]	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		92.2	100	92	70-135		
o-Terphenyl		47.4	50.1	95	70-135		
Lab Batch #: 906732	Sample: 456934-012 / SMP	Batc	h: <sup>1</sup> Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 18:39	SURROGATE RECOVERY STUDY					
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag	
1-Chlorooctane	Anarytes	96.3	99.6	97	70-135		
o-Terphenyl		49.3	49.8	99	70-135		
Lab Batch #: 906732	Sample: 456934-014 / SMP	Batc	h: <sup>1</sup> Matrix	·· Soil			
Units: mg/kg	Date Analyzed: 02/11/13 19:51		RROGATE R		STUDY		
Units: mg/kg Date Analyzed: 02/11/13 19:51 TPH By SW8015 Mod		Amount Found	True Amount	Recovery	Control Limits	Flage	
	Analytes	[A]	[B]	%R [D]	%R		
1-Chlorooctane		94.7	99.9	95	70-135		
o-Terphenyl		48.6	50.0	97	70-135		
Lab Batch #: 906732	Sample: 456934-016 / SMP	Batc	h: 1 Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 20:25	SU	RROGATE R	ECOVERY S	STUDY		
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage	
1-Chlorooctane		102	99.6	102	70-135		
o-Terphenyl		52.4	49.8	105	70-135		
Lab Batch #: 906732	Sample: 456934-018 / SMP	Batc	h: 1 Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 21:02	SU	RROGATE R	ECOVERY S	STUDY		
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage	
1-Chlorooctane		104	99.9	104	70-135		
o-Terphenyl							

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

<b>Vork Orders :</b> 456934		<b></b>	-	<b>D:</b> (1RP-2724	)		
Lab Batch #: 906732	Sample: 456934-020 / SMP	Bate					
Units: mg/kg	Date Analyzed: 02/11/13 21:36	50	RROGATE R	ECOVERYS			
<b>TPH</b>	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1-Chlorooctane		106	99.8	106	70-135		
o-Terphenyl		55.1	49.9	110	70-135		
Lab Batch #: 906732	Sample: 456934-022 / SMP	Batc	h: <sup>1</sup> Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 22:10	SURROGATE RECOVERY STUDY					
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		105	100	105	70-135		
o-Terphenyl		54.8	50.1	109	70-135		
Lab Batch #: 906732	Sample: 456934-024 / SMP	Batc	h: <sup>1</sup> Matrix	:Soil	1 1		
Units: mg/kg	Date Analyzed: 02/11/13 22:44	SU	RROGATE R	ECOVERY S	STUDY		
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flage	
	Analytes	[]	[2]	[D]	,011		
1-Chlorooctane		109	99.9	109	70-135		
o-Terphenyl		56.5	50.0	113	70-135		
Lab Batch #: 906732	Sample: 456934-026 / SMP	Batc	h: 1 Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 23:18	SU	RROGATE R	ECOVERY S	STUDY		
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		109	99.9	109	70-135		
o-Terphenyl		56.5	50.0	113	70-135		
Lab Batch #: 906732	Sample: 456934-028 / SMP	Batc	h: 1 Matrix	:Soil			
Units: mg/kg	Date Analyzed: 02/11/13 23:51	SU	RROGATE R	ECOVERY S	STUDY		
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage	
1-Chlorooctane	<i>u</i>	107	99.8	107	70-135		
o-Terphenyl		55.5	49.9	111	70-135		

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

<b>ork Orders :</b> 456934 Lab Batch #: 906732	, Sample: 456934-030 / SMP	Batc		<b>D:</b> (1RP-2724 <b>:</b> Soil	F)	
	Î r		RROGATE R		STUDY	
Units: mg/kg	Date Analyzed: 02/12/13 00:25 By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes	[]	[2]	[D]	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1-Chlorooctane		109	99.5	110	70-135	
o-Terphenyl		56.8	49.8	114	70-135	
Lab Batch #: 906732	Sample: 456934-032 / SMP	Batc	h: <sup>1</sup> Matrix	:Soil		
Units: mg/kg	Date Analyzed: 02/12/13 00:59	SU	RROGATE R	ECOVERY S	STUDY	
TPH )	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Anary CS	98.2	99.9	98	70-135	
o-Terphenyl		50.9	50.0	102	70-135	
Lab Batch #: 906325	Sample: 633397-1-BLK / BI	.K Batc	h: <sup>1</sup> Matrix	:Solid	1 1	
Units: mg/kg	Date Analyzed: 02/05/13 13:43	SU	RROGATE R	ECOVERY S	STUDY	
TPH ]	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	110	99.7	110	70-135	
o-Terphenyl		59.1	49.9	118	70-135	
Lab Batch #: 906732	Sample: 633683-1-BLK / BI	.K Batc	h: 1 Matrix	:Solid		
Units: mg/kg	Date Analyzed: 02/11/13 13:11		RROGATE R		STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	112	100		70-135	
o-Terphenyl		58.3	100 50.0	113	70-135	
Lab Batch #: 906325	Sample: 633397-1-BKS / BI				10 155	
	Date Analyzed: 02/05/13 12:48		h: 1 Matrix RROGATE R		STUDY	
Units: mg/kg	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		103	99.9	103	70-135	
o-Terphenyl		57.1	50.0	114	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

'ork Orders : 456934 Lab Batch #: <sup>906732</sup>	, Sample: 633683-1-BKS / B	KS Bate		<b>D:</b> (1RP-2724 <b>x:</b> Solid	+)	
Units: mg/kg	Date Analyzed: 02/11/13 12:09	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flage
	Analytes			[D]		
1-Chlorooctane		119	99.9	119	70-135	
o-Terphenyl		46.1	50.0	92	70-135	
Lab Batch #: 906325	Sample: 633397-1-BSD / B					
Units: mg/kg	Date Analyzed: 02/05/13 13:16	s	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage
1-Chlorooctane		110	99.9	110	70-135	
o-Terphenyl		59.2	50.0	118	70-135	
Lab Batch #: 906732	Sample: 633683-1-BSD / B	SD Bate	h: <sup>1</sup> Matrix	x:Solid	1	
Units: mg/kg	Date Analyzed: 02/11/13 12:40		RROGATE R		STUDY	
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flag
	Analytes	[A]	[0]	[D]	70K	
1-Chlorooctane		121	99.9	121	70-135	
o-Terphenyl		47.0	50.0	94	70-135	
Lab Batch #: 906325	Sample: 456934-003 S / MS	S Bate	h: 1 Matrix	<b>x:</b> Soil		
Units: mg/kg	Date Analyzed: 02/06/13 01:37	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage
1-Chlorooctane		102	97.1	105	70-135	
o-Terphenyl		57.6	48.5	119	70-135	
Lab Batch #: 906732	Sample: 456934-008 S / MS	S Bate	h: 1 Matrix	<b>x:</b> Soil		
Units: mg/kg	Date Analyzed: 02/12/13 01:33	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flag
	Analytto				70-135	
1-Chlorooctane		116	100	116	1 /(1-1-45	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution



# Project Name: West Eunice Compressor

Vork Orders : 456934 Lab Batch #: 906325	, Sample: 456934-003 SD / N	ASD Bate		<b>D:</b> (1RP-2724 : Soil	4)				
Units: mg/kg	Date Analyzed: 02/06/13 02:08	SURROGATE RECOVERY STUDY							
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		105	100	105	70-135				
o-Terphenyl		61.4	50.1	123	70-135				
Lab Batch #: 906732	Sample: 456934-008 SD / M	ASD Bate	h: <sup>1</sup> Matrix	:Soil					
Units: mg/kg	Date Analyzed: 02/12/13 02:06	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		117	99.8	117	70-135				
o-Terphenyl		50.7	49.9	102	70-135				

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution





## **Project Name: West Eunice Compressor**

Work Order #: 456934			Pr	oject ID:		(1R	P-2724)
Lab Batch #: 906481		ample: 633492-		Matrix:			
Date Analyzed: 02/07/2013 Dat	e Pre	pared: 02/07/20	013	Analyst:	RKO		
Reporting Units: mg/kg	Ba	atch #: 1	BLANK /F	BLANK SPI	KE REC	COVERY S	STUDY
Inorganic Anions by EPA 300/300.1		Blank Result [A]	Spike Added [B]	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags
Analytes			[0]	[C]	[D]	/01	
Chloride		<1.00	100	106	106	80-120	
Lab Batch #: 906768	Sa	ample: 633706-	1-BKS	Matrix:	Solid		
Date Analyzed: 02/12/2013 Dat	e Pre	pared: 02/12/20	013	Analyst:	RKO		
<b>Reporting Units:</b> mg/kg	Ba	atch #: 1	BLANK /H	BLANK SPI	KE REC	COVERY S	STUDY
Inorganic Anions by EPA 300/300.1 Analytes		Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride		<1.00	100	101	101	80-120	

Blank Spike Recovery [D] = 100\*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit



#### **Project Name: West Eunice Compressor**

Work Order #: 456934								Pro	ject ID: (	1RP-2724)		
Analyst: KEB		Da	ate Prepar	red: 02/05/201	3					02/05/2013		
Lab Batch ID: 906325	Sample: 633397-1-I	BKS	Batc	<b>h #:</b> 1					Matrix: S	Solid		
Units: mg/kg			BLAN	K /BLANK S	SPIKE / H	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	ŶY	
TPH By SW80 Analytes	15 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydroc	arbons	<15.0	999	1010	101	999	1040	104	3	70-135	35	
C12-C28 Diesel Range Hydrocar	rbons	<15.0	999	1050	105	999	1080	108	3	70-135	35	
Analyst: KEB		Da	ate Prepar	red: 02/11/201	.3			Date A	nalyzed: (	02/11/2013		
Lab Batch ID: 906732	Sample: 633683-1-I	3KS	Batc	<b>h #:</b> 1					Matrix: S	Solid		
Units: mg/kg			BLAN	K /BLANK S	SPIKE / H	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	ŶY	
TPH By SW80 Analytes	15 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydroc	arbons	<15.0	999	1040	104	999	1060	106	2	70-135	35	<u> </u>
C12-C28 Diesel Range Hydroca	rbons	<15.0	999	1080	108	999	1100	110	2	70-135	35	

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



## Form 3 - MS / MSD Recoveries

#### **Project Name: West Eunice Compressor**



Work Order #: 456934						Project II	<b>D:</b> (1RP-2	.724)			
	)C- Sample ID: Date Prepared:				tch #: alyst:	1 Matrix RKO	<b>x:</b> Soil				
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inorganic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	%R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
Chloride	3.27	107	117	106	107	116	105	1	80-120	20	
	QC- Sample ID: Date Prepared:				tch #: alyst:	1 <b>Matri</b> RKO	<b>x:</b> Soil				
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inorganic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	itesute [1]	[G]		/011	/01112	
Chloride	9.27	100	112	103	100	116	107	4	80-120	20	
	)C- Sample ID: Date Prepared:				tch #: alyst:	1 <b>Matri</b> RKO	<b>x:</b> Soil				
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inorganic Anions by EPA 300/300.1 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

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



## Form 3 - MS / MSD Recoveries

#### **Project Name: West Eunice Compressor**



Work Order #: 456934						Project II	<b>D:</b> (1RP-2	724)			
Lab Batch ID: 906768	QC- Sample ID:	457380	-001 S	Ba	tch #:	1 Matrix	k: Soil				
<b>Date Analyzed:</b> 02/12/2013	Date Prepared:	02/12/2	013	An	alyst:	RKO					
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inorganic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]	[0]	[D]	[E]	itesuit [1]	[G]	70	7010		
Chloride	8.79	99.9	109	100	99.9	110	101	1	80-120	20	
Lab Batch ID: 906325	QC- Sample ID:	456934	-003 S	Ba	tch #:	1 Matrix	<b>k:</b> Soil				
Date Analyzed: 02/06/2013	Date Prepared:	02/05/2	013	An	alyst:	KEB					
Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	<19.1	1270	1260	99	1310	1310	100	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<19.1	1270	1290	102	1310	1340	102	4	70-135	35	
Lab Batch ID: 906732	QC- Sample ID:	456934	-008 S	Ba	tch #:	1 Matrix	<b>k:</b> Soil				
Date Analyzed: 02/12/2013	Date Prepared:	02/11/2	013	An	alyst:	KEB					
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result	Spiked Sample %R	Spike Added	Duplicate Spiked Sample	Spiked Dup. %R	RPD	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	70K	70KFD	
C6-C12 Gasoline Range Hydrocarbons	<15.6	1040	1060	102	1040	1070	103	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.6	1040	1100	106	1040	1110	107	1	70-135	35	

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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




### **Project Name: West Eunice Compressor**

Work Order #: 456934					
Lab Batch #: 906255			Project I	<b>D:</b> (1RP-272	24)
<b>Date Analyzed:</b> 02/05/2013 12:45 <b>Date Pr</b>	epared: 02/05/2013	3 Ana	lyst:WRU		
<b>QC- Sample ID:</b> 456826-001 D <b>H</b>	Batch #: 1	Mat	t <b>rix:</b> 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	7.30	7.30	0	20	
Lab Batch #: 906257	·				
	epared: 02/05/2013	3 Ana	lyst:WRU		
QC- Sample ID: 456934-008 D	Batch #: 1	Mat	t <b>rix:</b> 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	3.72	3.97	7	20	
	5.72	5.77	, ,	20	
Lab Batch #: 906259 Date Analyzed: 02/05/2013 12:45 Date Pr	epared: 02/05/2013	3 Ana	lyst:WRU		
	Batch #: 1		rix: Soil		
Reporting Units: %	SAMPLE	/ SAMPLE		ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	16.7	18.1	8	20	
Lab Batch #: 906291					·
	epared: 02/05/2013	3 Ana	lyst:WRU		
<b>QC- Sample ID:</b> 456934-030 D	Batch #: 1	Mat	t <b>rix:</b> 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	19.5	20.4	5	20	

Spike Relative Difference RPD 200 \*  $|\,(B\text{-}A)/(B\text{+}A)\,|$  All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

	Project Manager:	Joel Lowry		<u></u>		<u> </u>		•		·				:		F	⊃roje	ect N	ame	: <u>W</u>	est	Eur	nice	Co	mp	ress	or		. : · 	
	Company Name	Basin Environmental Ser	vice T	echnol	ogies, LLC	· · · ·									:	1.		Proje	ect #	: (1	RP-	272	4)				1			
	Company Address:	P.O. Box 301			÷	· · · · · · · · · · · · · · · · · · ·		-		-					1.1		Pre	oject	Loc	: <u>Le</u>	<u>a Co</u>	unty	, NI	V	21 - 1 21					
	City/State/Zip:	Lovington, NM 88260			· · · · · · · · · · · · · · · · · · ·													I	°O #	: Bil	l So	uthe	ern L	Inior	n Ga	S		: :		
	Telephone No:	(575)396-2378				Fax No:		(57	5) 3	96-1	429					Rep	ort F	orm	at:	X	Sta	ndar	rd		- 1	TRRP	)	ПN	PDES	3
	Sampler Signature:	Arel lerue	~			- e-mail:						.con	ı, cy	ndi.i	nsk	eep@:														
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JRDE	<b>∖#: '                                   </b>		T.	· ·			<b>—</b>		Pr	eserv	ation	&# c</td><td>of Cor</td><td>itaine</td><td>_</td><td>Matrix S To</td><td></td><td></td><td></td><td></td><td></td><td>g Se</td><td></td><td></td><td>260</td><td></td><td></td><td></td><td>24, 48,</td><td>H</td></tr><tr><td>only)</td><td></td><td></td><td></td><td></td><td></td><td>بر ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹ - ۱۹۹۹</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>SL=Sludg S=Soll/Soll</td><td>2</td><td>TX 1006</td><td>2</td><td>alinity)</td><td></td><td>Cr Pb H</td><td></td><td></td><td>r BTEX 8</td><td>-</td><td></td><td>tolids</td><td>redule) 2</td><td>DAY</td></tr><tr><td></td><td>* </td><td></td><td>Depth</td><td>_ع</td><td><u>                                     </u></td><td><u><u>                                    </u></u></td><td></td><td>Containers</td><td><u>.</u></td><td></td><td></td><td></td><td></td><td>  </td><td>\$</td><td>vater vater</td><td></td><td></td><td>g, Na,</td><td>4, Alka</td><td><u>ှ</u></td><td>3a Cd</td><td>· .</td><td></td><td>ŝ</td><td></td><td></td><td></td><td></td><td>7</td></tr><tr><td>LAB # (lab u</td><td></td><td></td><td>Beginning [</td><td>Ending Depth</td><td>Date Sampled</td><td>Time Sample</td><td>Field Filtered</td><td>Total #. of Cont</td><td>a</td><td>HNO<sub>3</sub></td><td>HCI</td><td>Pool</td><td>Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub></td><td>None</td><td>Other (Specify</td><td>DW = Drinking Water GW = Groundwater</td><td></td><td>TPH: 418.1</td><td>17</td><td>Anions (CI, SO4, Alkalinity)</td><td>SAR / ESP / CEC</td><td>Metals: As Ag Ba Cd Cr Pb Hg Se</td><td>Volatiles</td><td>Semivolatiles</td><td>BTEX 8021B/5030 or BTEX 8260</td><td>RCI N.O.R.M.</td><td>CHLORIDES</td><td>Total Dissolved Solids</td><td>ISH TAT (P</td><td>Standard TAT 4 DAY</td></tr><tr><td><u>                                     </u></td><td>(</td><td></td><td><u>                                     </u></td><td><u>                                     </u></td><td></td><td></td><td>Fie Fie</td><td>Tot Tot</td><td>< Ice</td><td>Ξ</td><td>Ξ⊐</td><td>ÊŻ</td><td>ž</td><td>ž</td><td>ō</td><td>N NO</td><td>-</td><td><u>⊧</u> X</td><td>- S</td><td>Ani</td><td>SA</td><td>Me</td><td>No.</td><td>Sel</td><td></td><td></td><td><u>ह</u> र</td><td><u>۴</u></td><td>Ē</td><td>St V</td></tr><tr><td>07</td><td>5</td><td>-1@6"</td><td></td><td></td><td>1/31/2013</td><td>900</td><td></td><td></td><td>ιχ · γ</td><td></td><td>-+</td><td></td><td>_</td><td></td><td></td><td></td><td></td><td><math>\frac{1}{x}</math></td><td></td><td>:</td><td></td><td></td><td></td><td></td><td>+</td><td></td><td>+</td><td>╞╴┠╴</td><td>+</td><td><u>^</u></td></tr><tr><td>03</td><td>÷</td><td>-1@4'</td><td></td><td></td><td>1/31/2013</td><td>915</td><td></td><td></td><td>X</td><td></td><td></td><td>+</td><td>+</td><td><math>\left  - 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H.J.</td><td></td><td>eretusi</td><td></td><td></td><td><u>1997)</u></td><td></td><td>97887<mark>8</mark></td><td><u>1965</u>50</td><td></td><td>74.2.35 2.335</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>Pa</td><td>qe 2</td><td>26 oʻ</td><td>f 30</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Final <sup>•</sup></td><td>1.00</td><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>																		

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765

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

Zof 4

	Project Manager:	Joel Lowry			:	· · · · · · · · · · · · · · · · · · ·			: '								Pre	ojec	t Nai	me:	We	st	Eun	nice	Co	mp	ress	sor				
	Company Name	Basin Environmental Ser	rvice T	echnol	ogies, LLC											•	: :	Pr	ojec	:t #:	(1R	RP-2	2724	4)				1. 				
	Company Address:	P.O. Box 301															· · F	<sup>o</sup> roje	ect L	.oc:	Lea	Co	unty	y, NI	M	. 11		:	•		• •	
	City/State/Zip:	Lovington, NM 88260	:		·						÷÷								РС	)#:	Bill	Sou	uthe	ern L	Jnio	n Ga	IS					
	Telephone No:	(575)396-2378				Fax No:		(575	i) <u>3</u> 9	6-14	29				•	R	epor	t Foi	mat	:	X	Star	ndar	d			TRRI	P		NPDE	ES	
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(Vino			pth					ers	•							ter SL=	Specify Oth	8015M	¥	Na, K)	Vlkalinit	•	Cd Cr P			0 or BTI			I Solids	Prhadul	A DAY	4 L Y
LAB # (lab use		D CODE	Beginning Depth	Ending Depth	Date Sampled	Time Samplec	Field Filtered	Fotal #. of Containers	lce	HNO <sub>3</sub>	HC.	H <sub>2</sub> SO <sub>4</sub> NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DW = Drinking Water	= Non-Potable	418.1	TPH: TX 1005	Cations (Ca, Mg, h	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	s Ag Ba	Votatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260		N.U.K.M. CHLORIDES	Total Dissolved	RUSH TAT (Pre-Schedule)	Standard TAT A DAV	andaru IAI
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ia.		-6 @ 4'			1/31/2013	1145		1	X	+	-					·		¥										X			Ť	
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14	SB	-7 @ 4'			1/31/2013	1215		1	*									X										X			T	
15	SB	-8 @ 6"			1/31/2013	1230		١	X			. :						X										X			$\Box$	X
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<u>11</u>	SB	-9 @ 6"			1/31/2013	1300		1	X									X		:								X		7	i J	K
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Final 1.000

#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765

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

	Project Manager:	Joel Lowry										:					Pro	ject	Nam	e: <u>N</u>	lest	Eu	nice	e Co	omp	ress	sor		<u></u>	
	Company Name	Basin Environmental Ser	vice T	echnol	ogies, LLC			. • •								::		Pro	oject	#: <b>(</b> 1	IRP	-272	24)							
	Company Address:	P.O. Box 301										-			<u> </u>	e."	P	roje	ct Lo	c: <u>L</u> e	ea C	ount	y, N	M						
	City/State/Zip:	Lovington, NM 88260								1.									PO	#: Bi	ill So	outhe	ern l	Unio	n G	as				
	Telephone No:					Fax No:		/57	E) 2	06.4	120		1.			Β.					 ר	anda				TRR				
	Sampler Signature:	(575)396-2378				e-mail:				96-14		.con		ndii	nek		port							005		IKK			PDE	5
	Sampler Signature.	Juel for		$\overline{\gamma}$		e-mail.		<u>––</u>		031			<u>, cy</u>		nond			1.00	<u>, n</u>	156.	Siau			ze Fo						1
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LAB #	FIEL	D CODE	Beginning Depth	Ending	Date	Time	-ield Filtered	Total #. of Container	lce	HNO3	Ρ	H <sub>2</sub> SO <sub>4</sub> NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other ( Specify)	DW = Drinking Water CW = Groundwater	- <b></b> -		. HPH:	Caliolis (Ca, Ng, Na, N) Anions (Cl. SO4, Alkalin	SAR / ESP / CEC	Vetals:	Volatiles	Semivolatiles	<b>3TEX 8</b>	RCI	N.O.R.M. CHLORIDES	Total Dissolved Solids	RUSH	Standa
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22	SB-	11 @ 4'			1/31/2013	1415	•	1	(				1					X									l	·		
23	SB-	12 @ 6"			1/31/2013	1430		1	X									1				: 1					X			X
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J 5	SB-	13 @ 6"			1/31/2013	1500		1	X									X	1. I.								<u> </u>			X
26	SB-	13 @ 4'	· .		1/31/2013	1515		1	X				Ĺ		_			У									<u> </u>			
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#### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

	Project Manager: Joel Lowr	/	· .						• .		· · ·				_ F	roje	ct Na	ame:	We	st E	unic	<u>;e C</u>	omp	oress	or			
	Company Name Basin Envir	onmental Sei	rvice T	echnol	ogies, LLC	· · ·				:						P	roje	ct #:	(1R	P-27	724)	· · ·			-	2		
:	Company Address: P.O. Box 30	1					, t									Pro	iect	Loc:	Lea	Cou	nty, I	NM			-			
		· ·													-		,				÷:							
	City/State/Zip: Lovington,	NM 88260													-		Ρ	O #:	Bill	Sout	hern	Unic	on G	as				
	Telephone No: (575)396-23	78				Fax No:		(57	5) 39	96-14	29				Repo	ort Fo	orma	t:	Χ,	Stand	lard			TRR	þ	1 🗌	NPDE	ΞS
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(lab use			Beginning Depth	Ending Depth	Date Samplec	Time Sample	g	Total #. of Containers					· ·	Other (Specify)	DW = Drinking Wa GW = Groundwat	Non-Potable 418.1 8	TX 1005	a, Mg	S04			es	1B/50		នួ	Fotal Dissolved	E F	ſ
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LAB#	FIELD CODE		Beg	End	Dai	Tin	Field Filtered	Total	<u>8</u>	HNO3	HCI H,SO4	NaO	Na <sub>2</sub> S <sub>2</sub>	e de de	= DW =	TPH:	TPH:	Cations (Ca, Mg, Na, K)	Anion	SAR / ESP / CEC	Volatiles	Semivolatiles	BTEX	RCI RCI	CHLORIDES	Tota	RUSH TAT (Pre-Schedule) 24	
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### **XENCO** Laboratories



### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan	Acceptable Temperature Range: 0 - 6 degC
Date/ Time Received: 02/04/2013 10:46:00 AM	Air and Metal samples Acceptable Range: Ambient
Work Order #: 456934	Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Sample instructions complete on Chain of Custody?	Yes
#9 Any missing/extra samples?	Νο
#10 Chain of Custody signed when relinquished/ received?	Yes
#11 Chain of Custody agrees with sample label(s)?	Yes
#12 Container label(s) legible and intact?	Yes
#13 Sample matrix/ properties agree with Chain of Custody?	Yes
#14 Samples in proper container/ bottle?	Yes
#15 Samples properly preserved?	Yes
#16 Sample container(s) intact?	Yes
#17 Sufficient sample amount for indicated test(s)?	Yes
#18 All samples received within hold time?	Yes
#19 Subcontract of sample(s)?	Yes
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	Yes
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	Yes
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	Yes

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Date:

Checklist reviewed by:

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

# Analytical Report 457374

for Southern Union Gas Services- Monahans

**Project Manager: Joel Lowry** 

West Eunice Compressor

1RP-2724

13-FEB-13

Collected By: Client





### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Lakeland: Florida (E84098) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757) Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



13-FEB-13



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

Reference: XENCO Report No(s): **457374 West Eunice Compressor** Project Address: Lea County, NM

#### Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 457374. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 457374 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully

Nicholas Straccione Project Manager

> Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America



## Sample Cross Reference 457374



### Southern Union Gas Services- Monahans, Monahans, TX

West Eunice Compressor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-14 @ 2'	S	01-31-13 15:35	2 ft	457374-001
SB-14 @ 6'	S	01-31-13 15:55	6 ft	457374-002



### CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans Project Name: West Eunice Compressor



Project ID:1RP-2724Work Order Number(s):457374

Report Date: 13-FEB-13 Date Received: 02/08/2013

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Project Id: 1RP-2724 Contact: Joel Lowry Project Location: Lea County, NM

### Certificate of Analysis Summary 457374

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Fri Feb-08-13 09:45 am

Report Date: 13-FEB-13

Project Manager: Nicholas Straccione

							0	
	Lab Id:	457374-0	001	457374-0	02			
Analysis Requested	Field Id:	SB-14 @	2'	SB-14 @	6'			
Analysis Requested	Depth:	2- ft		6- ft				
	Matrix:	SOIL		SOIL				
	Sampled:	Jan-31-13	15:35	Jan-31-13 1	5:55			
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-12-13	20:15	Feb-12-13 2	0:33			
SUB: TX104704215	Analyzed:	Feb-12-13	20:15	Feb-12-13 2	0:33			
	Units/RL:	mg/kg	RL	mg/kg	RL			 
Chloride		3.53	1.13	55.5	1.09			
Percent Moisture	Extracted:							
	Analyzed:	Feb-11-13	17:00	Feb-11-13 1	7:00			
	Units/RL:	%	RL	%	RL			 
Percent Moisture		11.7	1.00	8.95	1.00			
TPH By SW8015 Mod	Extracted:	Feb-12-13	11:25	Feb-12-13 1	1:25			
	Analyzed:	Feb-12-13	16:35	Feb-12-13 1	7:10			
	Units/RL:	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND	17.0	ND	16.5			
C12-C28 Diesel Range Hydrocarbons		ND	17.0	ND	16.5			
C28-C35 Oil Range Hydrocarbons		ND	17.0	ND	16.5			
Total TPH		ND	17.0	ND	16.5			

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

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

Ctr. Nul

Nicholas Straccione Project Manager

Page 5 of 13



## **Flagging Criteria**

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

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Certified and approved by numerous States and Agencies.

LOQ Limit of Quantitation

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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
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	

Final 1.000



# Form 2 - Surrogate Recoveries

## Project Name: West Eunice Compressor

'ork Orders : 457374 Lab Batch #: 906817	, Sample: 457374-001 / SMP	Bate	-	<b>D:</b> 1RP-2724 : Soil		
Units: mg/kg	Date Analyzed: 02/12/13 16:35		RROGATE R		STUDY	
	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		107	99.8	107	70-135	
o-Terphenyl		55.5	49.9	111	70-135	
Lab Batch #: 906817	Sample: 457374-002 / SMP	Bate	h: <sup>1</sup> Matrix	:Soil		
Units: mg/kg	Date Analyzed: 02/12/13 17:10	SU	RROGATE R	ECOVERY S	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	89.4	100	89	70-135	
o-Terphenyl		45.6	50.0	91	70-135	
	G 1 622720 1 DL K / DL			-	10 155	
Lab Batch #: 906817	Sample: 633729-1-BLK / BL		h: <sup>1</sup> Matrix	-	STUDY	
Units: mg/kg	Date Analyzed: 02/12/13 14:58		1			
TPH ]	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Analytes	106	100	106	70-135	
o-Terphenyl		54.1	50.1	108	70-135	
Lab Batch #: 906817	Sample: 633729-1-BKS / BK			• Solid		
Units: mg/kg	Date Analyzed: 02/12/13 13:46		RROGATE R	-	STUDY	
	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		117	99.7	117	70-135	
o-Terphenyl		46.2	49.9	93	70-135	
Lab Batch #: 906817	Sample: 633729-1-BSD / BS	D Bate	h: 1 Matrix	:Solid		
Units: mg/kg	Date Analyzed: 02/12/13 14:18		RROGATE R	ECOVERY S	STUDY	
TPH ]	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flage
1-Chlorooctane	-	123	100	123	70-135	
o-Terphenyl		52.0	50.0	104	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

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



# Form 2 - Surrogate Recoveries

## Project Name: West Eunice Compressor

Vork Orders : 457374 Lab Batch #: <sup>906817</sup>	., Sample: 457374-001 S / MS	S Bate		<b>D:</b> 1RP-2724 :Soil		
Units: mg/kg	Date Analyzed: 02/12/13 19:50	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		119	99.8	119	70-135	
o-Terphenyl		52.2	49.9	105	70-135	
Lab Batch #: 906817	Sample: 457374-001 SD / M	ASD Bate	h: <sup>1</sup> Matrix	:Soil		
Units: mg/kg	Date Analyzed: 02/12/13 20:22	SU	RROGATE R	ECOVERYS	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	-	119	100	119	70-135	
o-Terphenyl		51.6	50.1	103	70-135	

\* Surrogate outside of Laboratory QC limits

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

\*\*\* Poor recoveries due to dilution

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





### **Project Name: West Eunice Compressor**

<b>Work Order #:</b> 457374			Pro	oject ID:		1RP-2724					
Lab Batch #: 906818 Date Analyzed: 02/12/2013		ample: 633730- pared: 02/12/20		Matrix: Analyst:							
<b>Reporting Units:</b> mg/kg	Ba	atch #: 1	BLANK /E	BLANK SPI	KE REC	COVERY S	STUDY				
Inorganic Anions by EPA 300/30	0.1	Blank Result [A]	Spike Added [B]	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags				
Analytes		1		[C]	[D]						
Chloride		<1.00	100	105	105	80-120					

Blank Spike Recovery [D] = 100\*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit





### **Project Name: West Eunice Compressor**

Work Order #: 457374 Analyst: KEB	Sample Result     Added     Spike     Spike     Added     Spike     Dup.     RPD     Limits     Limits     I       [A]     [A]     Result     %R     Duplicate     %R     %%     %R     %RPD     %RPD     %RPD     %R     %RPD     %R     %RPD     %														
Lab Batch ID: 906817	Sample: 633729-1-BE	KS	Bate	<b>h #:</b> 1					Matrix: S	Solid					
Units: mg/kg		Date Prepared: 02/12/2013       Date Prepared: 02/12/2013       Date Prepared: 02/12/2013       Mate Note Note Note Note Note Note Note No													
TPH By SW80	915 Mod	Sample Result	Added	Spike Result	Spike %R	Added	Spike Duplicate	Dup. %R		Limits	Limits	Flag			
Analytes			[ <b>B</b> ]	[C]	[D]	[E]	Result [F]	[G]							
C6-C12 Gasoline Range Hydroc	arbons	<15.0	997	1040	104	1000	1090	109	5	70-135	35				
C12-C28 Diesel Range Hydroca	rbons	<15.0	997	1090	109	1000	1120	112	3	70-135	35				

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



### Form 3 - MS / MSD Recoveries

#### **Project Name: West Eunice Compressor**



Project ID: 1RP-2724 Work Order #: 457374 Lab Batch ID: 906817 Matrix: Soil QC- Sample ID: 457374-001 S Batch #: 1 **Date Prepared:** 02/12/2013 Analyst: KEB Date Analyzed: 02/12/2013 Reporting Units: mg/kg MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY Parent Spiked Sample Spiked Duplicate Spiked Control Control TPH By SW8015 Mod Sample Result Spiked Sample RPD Limits Spike Sample Spike Dup. Limits Flag Result Added [C] %R Added Result [F] %R %R %RPD % Analytes [A] [B] [D] [E] [G] C6-C12 Gasoline Range Hydrocarbons <15.0 998 1040 104 1000 1020 102 2 70-135 35 998 1070 107 104 3 C12-C28 Diesel Range Hydrocarbons <15.0 1000 1040 70-135 35

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

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

Page 11 of 13

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765

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

	Project Manager:	Joel Lowry						:		<u> </u>			-				Pro	oject	Nar	ne:	We	st E	unic	e C	om	pres	ssor				
	Company Name	Basin Environmental S	ervice T	echnol	ogies, LLC						:	·						Pr	ojec	t #: _	(1R	P-27	724)								
	Company Address:	P.O. Box 301		• • •			•										F	roje	ct L	oc: <u> </u>	ea	Cou	nty, i	MM	: - 1	-					
	City/State/Zip:	Lovington, NM 88260			1							• • • • • •							PC	) #: ]	Bill (	Sout	hern	Uni	on G	ias	-				
:	Telephone No:	(575)396-2378				Fax No:		(57	5) 3	96-14	129		: 			R	epor	For	mat		x ,	Stand	hard		П	TRF	PP	[			
	Sampler Signature:	$\square$ $0$ $1$				e-mail:					1.0	/.con	л, су	ndi.	insk									a.co			u . . /			DLO	
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			 ::]												_	SL=Sludg		8015E	TX 1006		s		ac fill o		EX 8260	· · ·			<u>0</u>	) 24,	_
# (lab use only)			og Depth	Depth		mpled	pe	Containers									Spec	1.1 8015M	TX 1005 TX	a, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAK / ESP / CEC Metale: As As Bo Cd Cr Dh Ha So		es	BTEX 8021B/5030 or BTEX 8260			CHLORIDES Total Discolved Solids	Solved Solid	RUSH TAT (Pre-Schedule)	Standard TAT 4 DAY
LAB # (lai	FIEL	D CODE	Beginning Depth	Ending D	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	lce	HNO3	ЧC	H₂SO₄ NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify	DW = Drinking Water	NP=Non-Potable	TPH: 418.1	TPH: TX	Cations (Ca, Mg, Na,	Anions (Cl,	Metate: Ac Ac Bo	Volatiles	Semivolatiles	BTEX 8021	RCI	N.O.R.M.	CHLORIDES Total Diser		RUSH TA	Standard
233 1747 - 14	SB-	14 @ 2'	1		1/31/2013	1535		1	X			 						X										x			X
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### **XENCO** Laboratories



#### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- Monahan Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 02/08/2013 09:45:00 AM **Temperature Measuring device used :** Work Order #: 457374

Comments Sample Receipt Checklist #1 \*Temperature of cooler(s)? 4 #2 \*Shipping container in good condition? Yes #3 \*Samples received on ice? Yes #4 \*Custody Seals intact on shipping container/ cooler? Yes #5 Custody Seals intact on sample bottles? Yes #6 \*Custody Seals Signed and dated? Yes #7 \*Chain of Custody present? Yes #8 Sample instructions complete on Chain of Custody? Yes #9 Any missing/extra samples? No #10 Chain of Custody signed when relinquished/ received? Yes #11 Chain of Custody agrees with sample label(s)? Yes #12 Container label(s) legible and intact? Yes #13 Sample matrix/ properties agree with Chain of Custody? Yes #14 Samples in proper container/ bottle? Yes #15 Samples properly preserved? Yes #16 Sample container(s) intact? Yes #17 Sufficient sample amount for indicated test(s)? Yes #18 All samples received within hold time? Yes #19 Subcontract of sample(s)? Yes #20 VOC samples have zero headspace (less than 1/4 inch bubble)? Yes #21 <2 for all samples preserved with HNO3,HCL, H2SO4? Yes #22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH? Yes

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Date: 02/11/2013

Checklist reviewed by: Alyandro M. Alejandro Montoya

Date: 02/11/2013

# Analytical Report 459012

for

Southern Union Gas Services- Monahans

**Project Manager: Joel Lowry** 

West Eunice Compressor

(1RP-2724)

14-MAR-13

Collected By: Client





### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD ( L10-135) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Lakeland: Florida (E84098) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757) Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



14-MAR-13



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

Reference: XENCO Report No(s): **459012** West Eunice Compressor Project Address: Lea County, NM

#### Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 459012. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 459012 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully

Nicholas Straccione Project Manager

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## Sample Cross Reference 459012



### Southern Union Gas Services- Monahans, Monahans, TX

West Eunice Compressor

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-14a	S	03-08-13 15:00		459012-001



### CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans Project Name: West Eunice Compressor



Project ID:(1RP-2724)Work Order Number(s):459012

Report Date: 14-MAR-13 Date Received: 03/08/2013

Sample receipt non conformances and comments: None

Sample receipt non conformances and comments per sample:

None



Project Id: (1RP-2724) Contact: Joel Lowry Project Location: Lea County, NM

### Certificate of Analysis Summary 459012

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: West Eunice Compressor



Date Received in Lab: Fri Mar-08-13 03:32 pm Report Date: 14-MAR-13

Project Manager: Nicholas Straccione

	Lab Id:	459012-001			
Analysis Requested	Field Id:	SB-14a			
Anulysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Mar-08-13 15:00			
BTEX by EPA 8021B	Extracted:	Mar-13-13 15:30			
	Analyzed:	Mar-13-13 22:39			
	Units/RL:	mg/kg RL			
Benzene		ND 0.00101			
Toluene		ND 0.00201			
Ethylbenzene		ND 0.00101			
m_p-Xylenes		ND 0.00201			
o-Xylene		ND 0.00101			
Total Xylenes		ND 0.00101			
Total BTEX		ND 0.00101			
Percent Moisture	Extracted:				
	Analyzed:	Mar-12-13 11:35			
	Units/RL:	% RL			
Percent Moisture		ND 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.

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

Nul Ctr

Nicholas Straccione Project Manager



## **Flagging Criteria**

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

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(432) 563-1800	(432) 563-1713
(770) 449-8800	(770) 449-5477
(602) 437-0330	

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# Form 2 - Surrogate Recoveries

## Project Name: West Eunice Compressor

<b>'ork Orders :</b> 459012		D. 4 -1		D: (1RP-2724	)	
Lab Batch #: 908965	Sample: 459012-001 / SMP	Batcl	RROGATE R		STUDY	
Units: mg/kg BTE2	Date Analyzed: 03/13/13 22:39 X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes	[A]	[D]	[D]	70 K	
1,4-Difluorobenzene		0.0328	0.0300	109	80-120	
4-Bromofluorobenzene		0.0267	0.0300	89	80-120	
Lab Batch #: 908965	Sample: 635091-1-BLK / B	LK Batel	h: <sup>1</sup> Matrix	:Solid		
Units: mg/kg	Date Analyzed: 03/13/13 22:23	SU	RROGATE R	ECOVERY S	STUDY	
BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	Anary CS	0.0321	0.0300	107	80-120	
4-Bromofluorobenzene		0.0292	0.0300	97	80-120	
Lab Batch #: 908965	Sample: 635091-1-BKS / B	KS Batcl	h: <sup>1</sup> Matrix	:Solid	1 1	
Units: mg/kg	Date Analyzed: 03/13/13 21:51	SU	RROGATE R	ECOVERY S	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
140.0 1	Analytes	0.0201	0.0200	[D]	00.400	
1,4-Difluorobenzene 4-Bromofluorobenzene		0.0301	0.0300	100	80-120 80-120	
	a				80-120	
Lab Batch #: 908965	Sample: 635091-1-BSD / B		h: 1 Matrix RROGATE R		TUDV	
Units: mg/kg	Date Analyzed: 03/13/13 22:07		1			
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4 Difluorahangana	Analytes	0.0224	0.0200		00.120	
1,4-Difluorobenzene 4-Bromofluorobenzene		0.0324	0.0300	108	80-120 80-120	
Lab Batch #: 908965	<b>Sample:</b> 459027-001 S / MS				00 120	
	<b>Date Analyzed:</b> 03/14/13 02:59		h: 1 Matrix RROGATE R		STUDY	
Units: mg/kg BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	rxnaiy wo	0.0350	0.0300	117	80-120	
4-Bromofluorobenzene		0.0330	0.0300	117	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.



# Form 2 - Surrogate Recoveries

## Project Name: West Eunice Compressor

Work Orders: 459012	,		Project II	D:(1RP-2724	l)	
Lab Batch #: 908965	Sample: 459027-001 SD / M	MSD Batc	h: <sup>1</sup> Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/14/13 03:16	SU	RROGATE RI	ECOVERY S	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	Anarycs	0.0312	0.0300	104	80-120	
4-Bromofluorobenzene		0.0345	0.0300	115	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: West Eunice Compressor

Work Order #: 459012 Analyst: KEB		Date Prepared:         03/13/2013         Date Analyzed:         03/13/2013           Sample:         635091-1-BKS         Batch #:         1         Matrix:         Solid													
Lab Batch ID: 908965	Sample: 635091-1-E	3KS	Batc	<b>h #:</b> 1					Matrix: S	Solid					
Units: mg/kg			BLAN	K /BLANK S	SPIKE / F	BLANK S	PIKE DUPI	LICATE I	RECOVI	ERY STUD	ΟY				
BTEX by EP. Analytes	A 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag			
Benzene		<0.000992	0.0992	0.0854	86	0.0998	0.0835	84	2	70-130	35				
Toluene		<0.00198	0.0992	0.0854	86	0.0998	0.0781	78	9	70-130	35				
Ethylbenzene		< 0.000992	0.0992	0.0793	80	0.0998	0.0783	78	1	71-129	35				
m_p-Xylenes		<0.00198	0.198	0.152	77	0.200	0.146	73	4	70-135	35				
o-Xylene		<0.000992	0.0992	0.0811	82	0.0998	0.0759	76	7	71-133	35				

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



### Form 3 - MS / MSD Recoveries

#### **Project Name: West Eunice Compressor**



Work Order #: 459012						Project II	<b>D:</b> (1RP-2	724)			
Lab Batch ID: 908965 Date Analyzed: 03/14/2013 Reporting Units: mg/kg	QC- Sample ID: Date Prepared:	03/13/2	013	An		1 Matrix KEB		OVEDV			
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	1	Spiked Sample Result [C]		Spike Added [E]	KE DUPLICA Duplicate Spiked Sample Result [F]	Spiked	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	< 0.00106	0.106	0.0882	83	0.106	0.0966	91	9	70-130	35	
Toluene	< 0.00212	0.106	0.0797	75	0.106	0.0819	77	3	70-130	35	
Ethylbenzene	< 0.00106	0.106	0.0785	74	0.106	0.0844	80	7	71-129	35	
m_p-Xylenes	<0.00212	0.212	0.149	70	0.213	0.157	74	5	70-135	35	
o-Xylene	< 0.00106	0.106	0.0788	74	0.106	0.0829	78	5	71-133	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative 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

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### **Project Name: West Eunice Compressor**

Work Order #: 459012

Lab Batch #: 908810			Project I	<b>D:</b> (1RP-27)	24)
Date Analyzed: 03/12/2013 11:35	Date Prepared: 03/12/201	3 Ana	lyst:WRU		
QC- Sample ID: 459012-001 D	<b>Batch #:</b> 1	Mat	rix: 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
<b>,</b>					
Percent Moisture	<1.00	<1.00	0	20	U U

Spike Relative Difference RPD 200 \*  $|\,(B\text{-}A)/(B\text{+}A)\,|$  All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

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he Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 12600 West I-20 East Phone: 432-563-1800

Odessa, Texas 79765

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Fax: 432-563-1713

	Project Manager:	Joel Lowry	ala di Tanàn			ana an an Taonachtachtachtachtachtachtachtachtachtacht	÷					<u>.</u>	<u></u>		<u>-</u> , <sup>1</sup> 2.	Proje										one	Sor	•
	Company Name	Busin Environmen		crvic	e Techno	logics, LL	c							<del></del>		P	roje	ct #:	(1	RP	-2:	72	Ð			-		
	Company Address	P. O. BOX 301													-	Pro	ect l	Loc:	Le	a L	àn.	nh		VA	1	· · ·		
	City/State/Zip:	Lovington, NM	88	260													P	0 #:	BI	1	Sou	th.	Ln.	Ц	nta	n	las	
	Telephone No:	(575) 396-23-				Fax No:		(51	5)	396	5-14	12	9		Re	port F			- C			5 A. 1	1.1.1.1.1	TRF				
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lab use c	4596	<i>)</i> )	$\sim$					r.					0.1.1		1 AAct				TOT									48, 72 hrs
ORDER			T	Τ					Pre	serva	ation &	# 01 0	Contain	ers	Mat		1006				Hg Se		8260					24,
AB # (lab use only)	FI	ELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	<b>ice</b>	HCI	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None Other ( Specify)	DVV=Drinking Water SL=Studge GV = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other TDH- 418 1 8015M	TX 1005 TX	ns (Ca, Mg, Na, K)	Anions (CI, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Volatiles Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.			RUSH TAT (Pre-Schedule)
	5B-14a		<u> </u>	113	3-8-13	15.00	<u> </u>	1	X						Soi								X					T X
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			<u> </u>		1 00 01		Page	e 12	of 13						Fi	nal 1.0	1.1											



### **XENCO** Laboratories



### Prelogin/Nonconformance Report- Sample Log-In

Client: Southern Union Gas Services- MonahanAcceptable Temperature Range: 0 - 6 degCDate/ Time Received: 03/08/2013 03:32:00 PMAir and Metal samples Acceptable Range: AmbientWork Order #: 459012Temperature Measuring device used :

Sample Receipt Checklist	Sample Receipt Checklist		
#1 *Temperature of cooler(s)?	5		
#2 *Shipping container in good condition?	Yes		
#3 *Samples received on ice?	Yes		
#4 *Custody Seals intact on shipping container/ cooler?	Yes		
#5 Custody Seals intact on sample bottles?	Yes		
#6 *Custody Seals Signed and dated?	Yes		
#7 *Chain of Custody present?	Yes		
#8 Sample instructions complete on Chain of Custody?	Yes		
#9 Any missing/extra samples?	No		
#10 Chain of Custody signed when relinquished/ received?	Yes		
#11 Chain of Custody agrees with sample label(s)?	Yes		
#12 Container label(s) legible and intact?	Yes		
#13 Sample matrix/ properties agree with Chain of Custody?	Yes		
#14 Samples in proper container/ bottle?	Yes		
#15 Samples properly preserved?	Yes		
#16 Sample container(s) intact?	Yes		
#17 Sufficient sample amount for indicated test(s)?	Yes		
#18 All samples received within hold time?	Yes		
#19 Subcontract of sample(s)?	Yes		
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	Yes		
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	Yes		
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	Yes		

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

Analyst:

PH Device/Lot#:

Checklist completed by:

Date:

Checklist reviewed by:

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

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Refe			State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 ease Notification and Corrective A			HOBBS OCD Form C-14 Revised October 10, 200: JUL 1 8 2011 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form Action					
Name of Co	ompany	Couthorn	Ilaian C.			OPERA			Initial	Report	Final Repo
			Contact Curt Stanley Telephone No. 432-940-5147								
Facility Nat	me	West Eun	ice Com	pressor Station	50	Facility Ty	be Natural Gas	Pipeline			
Surface Ow	mer Sout	hern Union (	12	a de la compañía de l				100 W 100			
- Surface Ow	ner sour		Jas Servi	ces Mineral (	Jwner			A	PI No 3	0-025-28822	
		and the second second	a feller	LOC	ATIC	N OF RE	LEASE				
Unit Letter P	Section 36	Township 21S	Range 36E	Feet from the	Nort	h/South Line	Feet from the	East/West		County Lea	
		1	Latitude	32 degrees 25	' 45.29	" Longitud	le 103 degrees	12' 38.84"			
- and the state of the				NAT	URF	OF REL	EASE				**************************************
Type of Relea	ase Lubric	ating Oil and	Wash Wat	er		Volume of	Release 12 BE	LS Vol	ume Rec	covered 9.5 B	BLS
Source of Rel	lease Sun	ip Tank				Date and H	our of Occurrence	nce Date and Hour of Discovery			y ,
Was Immedia	te Notice C	Given?				If YES. To	11 – 0200 hours Whom?	July	13, 201	1 – 1000 hours	3
1 and a			Yes	No 🛛 Not Re	equired	NA	and the second				
By Whom? N						Date and Hour NA					
was a waterc	Was a Watercourse Reached?			If YES, Volume Impacting the Watercourse.							
wastewater tan to impact the g	oulk lubrica it curbing a ik, failed. E ground. A v	ting oil tank v and into the no Due to the failu acuum truck v	alve was l orth sump ire of the s was utilize	eft open, which r tank. A pump loc sump pump, the s d to recover appr	ump ov	verfilled and al	ich should activation				
Sundance for o	ring approx In sensitive disposal.	cimately 15 fe areas of the f	et in widtl acility, the	n and 150 feet in e saturated soil wa	as nan	a aug". Follow	ing initial excave	tion activitie	s the im	pacted soil was	s transport to
public health or should their ope	r the enviro erations have nent. In add	nment. The a ve failed to ad dition, NMOC	cceptance equately i	s true and comple l/or file certain re of a C-141 repor nvestigate and re ince of a C-141 re	t by the	NMOCD mai	ked as "Final Re	ive actions fo port" does no	r release t relieve	es which may e the operator o	ndanger f liability
Signature:	1 A	I.S.	Fan	e_			OIL CONS		ON DI	VISION	•
Printed Name: Curt Stanley Ap				Approved by B	pproved by District Supervisor.						
itle: EHS Con	npliance Sp	ecialist			F	Approval Date:	07/18/11	Expirat	ion Date	81180	111
-mail Address:				00.0505		Conditions of A	pproval: SVB 09/18/11	m rt fin	P	Attached	
ate: July 18, 2 tach Addition	nal Sheets	If Necessar	ne: 575-3 y	90-7595					11	P-07-1	1-2724

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Date: 10/13/2014

State of New Mexico Energy Minerals and Natural Resources

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

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

### **Release Notification and Corrective Action**

	<b>OPERATOR</b>	Initial	Report 🛛 🖾 Final Report				
Name of Company Southern Union Gas Services, Ltd.	Contact		Crystal Callaway				
Address 801 S. Loop 464, Monahans, TX, 79756	Telephone No.		817-302-9407				
Facility Name:         West Eunice Compressor Station (RP-2724)	Facility Type		Natural Gas Gathering				
Surface Owner Southern Union Gas Services   Mineral Owner:		API No 3	API No 30-025-28822				
LOCATIO	N OF RELEASE						
Unit Letter         Section         Township         Range         Feet from the         North           P         36         21S         36E         Section         Section	h/South Line Feet from the	East/West Line	County Lea				
Latitude 32 degrees 25' 45.29" Longitude 103 degrees 12' 38.84"							
•	E OF RELEASE						
Type of Release: Lubricating Oil and Wash Water		Volume of Release 12 BBLS Volume Recovered 9.5 BBLS					
Source of Release: Sump Tank	Date and Hour of Occurrent June 12, 2011 -0200 hours	lour of Discovery 11 – 1000 hours					
Was Immediate Notice Given?	If YES, To Whom?						
By Whom? NA	Date and Hour: NA						
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.						
If a Watercourse was Impacted, Describe Fully.*							
An overhead bulk lubricating oil tank valve was left open, which resulted in the overfilling of a tank located on the compressor unit. The oil flowed into the compressor unit curbing and into the north sump tank. A pump located on the sump, which should activate and transfer the contents of the sump to the wastewater tank, failed. Due to the failure of the sump pump, the sump overfilled and allowed a mixture of approximately 12 barrels of oil and wash water to impact the ground. A vacuum truck was utilized to recover approximately 9.5 barrels.							
Describe Area Affected and Cleanup Action Taken.* An area measuring approximately 15 feet in width and 150 feet in length was affected by the release. A backhoe was utilized to scrape up the heavily saturated soil. In sensitive areas of the facility, the saturated soil was "hand dug". Following initial excavation activities the impacted soil was transported to Sundance for disposal.							
Confirmation soil samples collected from the West Eunice Compressor Historical Remediation site indicate concentrations of BTEX, TPH and chloride are less than NMOCD Regulatory Statndards. Please reference the attached Basin Environmental Services Technologies Remediation Summary and Site Closure Request for details of							
remediation activities. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.							
Signature: Crystal Callaway OIL CONSERVATION DIVISION Approved by District Supervisor:							
Title: Senior Environmental Remediation Specialist	Approval Date:	Expiration I	Date:				
E-mail Address: Crystal.Callaway@Regencygas.com	Conditions of Approval:						

Phone: 817-302-9407