RECEIVED By JKeyes at 11:17 am, Oct 27, 2015 State of New Mexico District II

APPROVED

By JKeyes at 11:17 am, Oct 27, 2015

IRP No. 1116

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

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

| | OPERATOR | Initial Report | Final Report |
|--|---------------------------------|-----------------|--------------|
| Name of Company: Southern Union Gas Services | Contact: Rose Slade | | |
| Address: P.O. Box 1226 Jal, NM 88252 | Telephone No.: 210-403-6525 | or 432.940.5147 | |
| Facility Name: Lea County Field Dept. | Facility Type: Natural Gas Gatl | hering | |
| | · | | |

Surface Owner: Rubert Madera Trust

Mineral Owner: Federal

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| А | 3 | 24S | 34E | | | | | Lea |
| | | | | | | | | |

Latitude: N32 15.154 Longitude: W103 27.139

NATURE OF RELEASE

| Source of Release: 6 inch steel pipelineDate and Hour of Occurrence: UnknownDate and Hour of Discovery 6/13/2011@11:30 AM | | |
|---|-------|--|
| | | |
| Was Immediate Notice Given? If YES, To Whom? | | |
| Yes No Not Required | | |
| By Whom? Tony Savoie, Southern Union Gas Services Date and Hour: Verbally reported to Larry Johnson @ 7:56 a.m. 8/22/06 | | |
| Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. | | |
| \Box Yes \boxtimes No | | |
| If a Watercourse was Impacted, Describe Fully.* | | |
| | | |
| | | |
| | | |
| Describe Cause of Problem and Remedial Action Taken.* | | |
| The $C^{\prime\prime}$ at all and the size size line at 25 million of a large descent of and the size state of a state of a $0/10/00$. The size | | |
| The 6" steel gathering pipeline, operating at 25 psi developed a leak, the line was excavated and the affected area was clamped on 8/19/06. The oil saturated area was blended onsite to prevent exposure to livestock and wildlife. Normal operating pressure on the line is 20 psi to 30 psi, with a pote | ntial | |
| H2s content of 4000 ppm. | ittai | |
| Describe Area Affected and Cleanup Action Taken.* | | |
| Based upon the information reviewed, the extent of the affected soil was delineated vertically and horizontally, In addition, the affected soil has been | | |
| removed from the site or no longer exhibits COC concentrations in exceedance of the NMOCD Remediation Action Levels. Apex issued a work Pla | n in | |
| April 2015, which was approved by the NMOCD pending documentation of final excavation backfill activities. On July 6, 2015, Trench 2 & 3 | | |
| excavations were backfilled under the direction of Regency Personnel, and the surface soils were contoured with the surrounding grade. | | |
| Development the mean and the sector of the time. | | |
| Based upon the response actions and laboratory analytical results, no further action appears to be necessary at this time. 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 | 4 | |
| regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endange | | |
| 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 liabili | | |
| should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human he | | |
| 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. | | |
| OIL CONSERVATION DIVISION | | |
| Signature: Rose L. Slade | | |
| | | |
| Printed Name: Rose L. Slade Approved by NMOCD: | | |
| 10/27/2015 | | |
| Title: Senior Environmental Specialist Approval Date: Expiration Date: | | |
| E-mail Address: rose.slade@energytransfer.com | | |
| Attached | | |
| Date:10/19/15 Phone: 210.403.6525 | | |

* Attach Additional Sheets If Necessary



SITE CLOSURE REPORT

Property:

Regency Field Services LLC A-14 6-Inch Pipeline Release Site Unit Letter "A", Section 3, Township 24 South, Range 34 East Lea County, New Mexico NMOCD Job No. 1RP-1116

> October 7, 2015 Apex Project No. 7250715006-001

> > Prepared for:

Regency Field Services LLC 800 E. Sonterra Blvd, Ste 400 San Antonio, Tx 78258 Attn: Ms. Rose Slade

Prepared by:

Hamide Laura B. Hamrick

Staff Scientist

epu W. Martine Joseph W. Martinez Branch Manager

1 · · ·

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EXECUTIVE SUMMARY_

Apex TITAN, Inc. (Apex) has prepared this Site Closure Report for the Regency Field Services LLC (Regency) A-14 6-inch Pipeline Release Site, referred to hereinafter as the "Site" or "subject pipeline". This Site Closure Report is based upon the interpretation of the data collected by Southern Union Gas (SUG), NOVA Safety and Environmental (NOVA), and the corrective action activities performed by Apex.

On August 19, 2006, approximately 50 barrels (bbls) of crude oil was released from the subject pipeline. Approximately 348 cubic yards (cy) of affected soil was excavated and disposed of off-Site. SUG collected 11 soil samples from the affected or excavated portions of the Site. Nine (9) of the soil samples exhibited total petroleum hydrocarbon (TPH) concentrations in exceedance of the regulatory protection limit.

On May 31, 2013, NOVA initiated trenching and soil sampling activities at the Site. NOVA collected seven (7) soil samples at the pipeline excavation and 19 soil samples from the trench floors or stockpiled soils. Two (2) soil samples (Trench-2 Topsoil and Trench-3 Topsoil) exhibited TPH concentrations in exceedance of the regulatory protection limits.

On March 18, 2015, Apex collected two (2) composite soil samples from the Trench 2 and Trench 3 Topsoil stockpile. The soil samples did not exhibit TPH, benzene, toluene, ethylbenzene, xylenes (BTEX), or chloride concentrations in exceedance of the regulatory protection limits. On July 6, 2015, Trench 2 and 3 excavations were backfilled.

Based upon the response actions and laboratory analytical results, no further action appears to be necessary at this time. Apex recommends that the New Mexico Oil Conservation Division (NMOCD) review the Site for final closure.



1.0 INTRODUCTION

1.1 Site Description & Background

Apex TITAN, Inc. (Apex) has prepared this Site Closure Report for the Regency Field Services LLC (Regency) A-14 6-inch Pipeline located in Unit Letter A, Section 3, Township 24 South, Range 34 East, Lea County, New Mexico (32.252566N, 103.452315W), referred to hereinafter as the "Site" or "subject Site". A topographic map depicting the location of the Site is included as **Figure 1**, a site vicinity map is included as **Figure 2**, and a Site Plans are included as **Figures 3A**, **3B**, and **3C** of **Appendix A**.

This Site Closure Report is based upon the interpretation of the data collected by Southern Union Gas (SUG), NOVA Safety and Environmental (NOVA), and the corrective action activities performed by Apex. The objective of this report is to provide documentation of restoration and closure activities performed at the Site in accordance with the work plan approved by the New Mexico Oil Conservation Division (NMOCD).

On August 19, 2006, approximately 50 barrels (bbls) of crude oil was released from the subject pipeline. The release was reported to the NMOCD on September 22, 2006. The NMOCD issued Job No. 1RP-1116 for the Site. Constituents of concern (COCs) associated with crude oil included total petroleum hydrocarbon (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX). A copy of the NMOCD C-141 form is available in **Appendix E.**



2.0 SITE RANKING_

The Site is subject to regulatory oversight by the NMOCD. To address activities related to releases, the NMOCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the NMOCD rules, specifically NMAC 19.15.29 *Release Notification.* These documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

In accordance with the NMOCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized general site characteristics to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the table below:

| Rankin | g Criteria | | Ranking Score |
|---|-------------------|----|---------------|
| | <50 feet 20 | | |
| Depth to Groundwater | 50 to 99 feet | 10 | 20 |
| | >100 feet | 0 | |
| Wellhead Protection Area, | Yes | 20 | |
| <1,000 feet from a water source, or; <200 feet from private domestic water source. | No | 0 | 0 |
| Distance to Surface Water | <200 feet | 20 | |
| Body | 200 to 1,000 feet | 10 | 0 |
| | >1,000 feet | 0 | |
| Total Rar | nking Score | | 20 |

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 20. This ranking is based on the following:



• The depth to the initial groundwater-bearing zone may be less than 50 feet below ground surface (bgs).

Apex performed a search of the New Mexico Office of the State Engineers (OSE) water well records for Township 24S, Rage 34E. Four (4) water wells were identified, which were located between 1.2 and 6 miles from the Site. One (1) of the water wells reported depth to groundwater at 40 feet bgs. A site specific assessment of depth to groundwater was not performed. Based on the information reviewed and the absence of site-specific assessment information, a ranking score of 20 was assigned to the depth to groundwater ranking criteria. It should be noted that the site ranking score was previously characterized as zero (0). A copy of the water well search results and the point of diversion summary records are available in **Appendix F**.

The NMOCD Response Action Levels for sites with a Total Ranking Score of 20 include the following: 10 milligrams per kilogram (mg/Kg) for benzene, 50 mg/Kg for total benzene, toluene, ethylbenzene and xylene (BTEX), 100 mg/Kg for total petroleum hydrocarbons (TPH). It should be noted that the NMOCD has not officially promulgated a protection limit for chlorides in soils. However, in accordance with the New Mexico Administrative Code (NMAC) 19.15.36, a chloride limit of 500 mg/Kg has been established for other operational facilities where groundwater has been identified at less than 100 feet bgs.



3.0 CORRECTIVE ACTION ACTIVITIES

3.1 Initial Response

Subsequent to the release being identified, the subject pipeline was shut in and excavation activities were initiated to expose and repair the source of the leak. The crude oil flow path affected approximately 15,670 square feet (sq. ft.) of surface soil. Approximately 348 cubic yards (cy) of affected soil was excavated and transported to the Pitch Fork Landfarm located in Lea County, New Mexico. In addition, approximately 492 cubic yards of backfill material was delivered from the Pitch Fork Landfarm to the Site.

SUG collected 11 soil samples, including five (5) composite and six (6) discrete soil samples, from the affected or excavated portions of the Site. The soils samples were submitted for TPH and/or BTEX analysis. Based on the laboratory analytical results, nine (9) of the soil samples exhibited TPH concentrations in exceedance of the NMOCD Remediation Action Levels. The remaining soils samples did not exhibit TPH and/or BTEX concentrations in exceedance of the NMOCD Remediation Action Levels. Based on a review of field notes, it was inferred that the pipeline excavation remained open pending further corrective action.

A Site Plan which depicts the estimated crude oil flow path and SUG soil sampling locations is available as **Figure 3A** in **Appendix A**. A summary of laboratory analytical results for the soil samples collected by SUG is available in **Appendix C**. Copies of the Bill of Ladings and backfill check receipt form is available in **Appendix G**.

3.2 Site Investigation

On May 31, 2013, NOVA initiated trenching and soil sampling activities at the Site. NOVA collected seven (7) discrete excavation sidewall and floor samples at the pipeline release point. In addition, NOVA directed the advancement of 13 soil trenches within the footprint of the former crude oil flow path with depths ranging from two (2) to six (6) feet bgs. NOVA collected an additional 19 soil samples, including three (3) composite and 16 discrete soil samples, from the trench floors or stockpiled soils. Each of the soil samples were submitted for TPH, BTEX, and chloride analysis.



Based on the laboratory analytical results, two (2) of the soil samples (Trench-2 Topsoil and Trench-3 Topsoil) exhibited TPH concentrations in exceedance of the NMOCD Remediation Action Levels. The remaining soils samples did not exhibit TPH, BTEX, and/or chloride concentrations in exceedance of the NMOCD Remediation Action Levels. The excavation and stockpiled material for Trench 2 and Trench 3 remained open or in place. Based on a review of field notes, it was inferred that the remaining trenches and pipeline excavation was subsequently backfilled with the on-Site stockpile material.

A Site Plan which depicts the NOVA soil sampling locations is available as **Figure 3B** in **Appendix A**. A summary of laboratory analytical results for the soil samples collected by NOVA is available in **Appendix C**.

3.3 Final Site Closure Activities

On March 18, 2015, Apex collected two (2) composite soil samples including one (1) from the Trench 2 Topsoil stockpile and one (1) from the Trench 3 Topsoil stockpile. The soil samples were submitted for TPH, BTEX and chloride analysis. Based on the laboratory analytical results, the soil samples did not exhibit TPH, BTEX, or chloride concentrations in exceedance of the NMOCD Remediation Action Levels. Apex also performed a visual inspection of the former crude oil flow path, which confirmed vegetative regrowth had been established. On July 6, 2015, Trench 2 and 3 excavations were backfilled under the direction of Regency personnel, and the surface soils were contoured with the surrounding grade.

A Site Plan which depicts the Apex soil sampling locations is available as **Figure 3C** in **Appendix A**. Photographic documentation of the Site is available in **Appendix B**. A summary of laboratory analytical results for the soil samples collected by Apex is available in **Appendix C**.



4.0 LABORATORY ANALYTICAL PROGRAM

4.1 Laboratory Analytical Methods

The soil samples collected by Apex were analyzed for TPH GRO/DRO utilizing EPA method SW-846 8015 modified, BTEX utilizing EPA method SW-846 8021B and chlorides utilizing EPA method SW-846 300.1. The sample coolers and completed chain-of-custody forms were relinquished to Trace Analysis, Inc. in Midland, Texas for normal turn-around time. The analytical results for the soil sampling activities completed at the Site are summarized in **Table 1** of **Appendix B**. Copies of the laboratory analysis are provided in **Appendix D**.

4.2 Quality Assurance/Quality Control (QA/QC)

Sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before the collection of each sample. Samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler, which was secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Trace Analysis (Trace) in Midland, Texas for standard turnaround.

Trace performed the analyses of samples under an adequate and documented quality assurance program to meet the project and data quality objectives. The laboratory's quality assurance program is generally consistent the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by Trace meets the intralaboratory performance standards for the selected analytical method and the performance standards are sufficient to meet the bias, precision, sensitivity, representativeness, comparability, and completeness, as specified in the project data quality objectives.



5.0 FINDINGS AND RECOMMENDATIONS

Based upon the information reviewed, the extent of the affected soil was delineated vertically and horizontally. In addition, the affected soil has been removed from the Site or no longer exhibits COC concentrations in exceedance of the NMOCD Remediation Action Levels. Apex issued a Work Plan in April 2015, which was approved by the NMOCD pending documentation of final excavation backfill activities. On July 6, 2015, Trench 2 and 3 excavations were backfilled under the direction of Regency personnel, and the surface soils were contoured with the surrounding grade.

Based upon the response actions and laboratory analytical results, no further action appears to be necessary at this time. Apex recommends that the NMOCD review the Site for final closure.





APPENDIX A

Figures





Site Closure Report Regency Field Services LLC A-14 6-Inch Pipeline Release Site Unit Letter A, Section 3, Township 24 South, Range 34 East Lea County, New Mexico 32.252566N; 103.452315W



Apex TITAN, Inc. 7979 Broadway Street, Suite 100 San Antonio, Texas 78209 Phone: (210) 804-9922 www.apekcos.com A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Project No. 7250715006-001









APPENDIX B

Photographic Documentation

A-14 6-inch Pipeline Release Site, Lea County, New Mexico

Photograph 1

View of vegetative overgrowth on former crude oil flow path near Trench 3.



Photograph 2

View of Trench 2 excavation prior to backfill activities.



Photograph 3

View of Trench 3 excavation prior to backfill activities.



A-14 6-inch Pipeline Release Site, Lea County, New Mexico





APPENDIX C

Tables



| | | | | | TABLE 1 | | | | | | |
|---------------------------------|-----------|--------------|------------|------------|------------------------|------------|------------|---------|----------|-----------|-------------------|
| | | | REC | SENCY A-14 | 6-INCH PIPELIN | | SITE | | | | |
| | | | | | 3. TOWNSHIP | | | | | | |
| | | | | | OUNTY, NEW N | | | | | | |
| | | | | | LYTICAL RES | | | | | | |
| | | | | | NFIRMATION S | | | | | | |
| | | | | | | | | TPH | ТРН | | |
| Sample ID | Date | Sample Depth | Benzene | Toluene | Ethylbenzene | Xylene | Total BTEX | (DRO) | (GRO) | Total TPH | Chloride (mg/Kg) |
| oumpie ib | Date | (feet) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | onionae (ing/itg) |
| | | | | | | | | (| (| | |
| NMOCD Remediation Action Levels | | | 10 | NE | NE | NE | 50 | N | IE | 100 | 500 |
| | | | | | | | | | | | |
| | P | T | | | y Southern Unio | | 1 | | [| | - |
| **Area #1 Surface Composite | 8/21/2006 | - | NS | NS | NS | NS | NS | 24,600 | 7,560 | 34,700 | NS |
| Area #1 6" B.G.S. @ Center | 8/21/2006 | 0.5 | NS | NS | NS | NS | NS | 257 | 40.2 | 323 | NS |
| **Area #2 Surface Composite | 8/21/2006 | - | NS | NS | NS | NS | NS | 38,500 | 5,490 | 47,100 | NS |
| Area #2 6" B.G.S. @ Center | 8/21/2006 | 0.5 | NS | NS | NS | NS | NS | 916 | 221 | 1,220 | NS |
| Area #2 6" B.G.S. @ West End | 8/21/2006 | 0.5 | <0.025 | <0.025 | <0.025 | < 0.025 | <0.025 | 53.9 | 6.66 (J) | 65.4 | NS |
| **Area #3 Surface Composite | 8/21/2006 | - | NS | NS | NS | NS | NS | 29,900 | 6,700 | 39,300 | NS |
| Area #3 6" B.G.S. @ Center | 8/21/2006 | 0.5 | NS | NS | NS | NS | NS | 1550 | 279 | 1,970 | NS |
| **Area #4 Surface Composite | 8/21/2006 | - | <0.025 | <0.025 | <0.025 | < 0.025 | <0.025 | 33,300 | 6,020 | 42,300 | NS |
| Area #4 6" B.G.S. @ Center | 8/21/2006 | 0.5 | NS | NS | NS | NS | NS | 135 | 16 | 171 | NS |
| **Surface Composite | 8/21/2006 | 0.1 | NS | NS | NS | NS | NS | 69,400 | 7,920 | 85,800 | NS |
| **6" B.G.S. @ Center | 8/21/2006 | 0.5 | NS | NS | NS les Collected by | NS | NS | 5,600 | 3,290 | 9,390 | NS |
| RP Floor @ 11' | 05/31/13 | 11 | <0.00111 | <0.00223 | <0.00111 | <0.00111 | <0.00111 | <15.0 | <15.0 | <15.0 | 492 |
| RP East S/W @ 10' | 05/31/13 | 10 | <0.00106 | <0.00223 | <0.00106 | <0.00106 | <0.00106 | <14.9 | <14.9 | <14.9 | 25.5 |
| RP West S/W @ 10' | 05/31/13 | 10 | <0.00103 | <0.00213 | <0.00103 | < 0.00103 | <0.00100 | <14.9 | <14.9 | <14.9 | 8.01 |
| RP South S/W @ 10 | 06/07/13 | 11 | < 0.00103 | <0.00205 | <0.00103 | < 0.00103 | <0.00103 | <15.6 | <15.6 | <15.6 | 37.9 |
| RP North S/W @ 11' | 06/04/13 | 11 | < 0.000998 | <0.00200 | <0.000998 | < 0.000998 | <0.000998 | <15.6 | <15.6 | <15.6 | 214 |
| **RP @ 12' | 06/03/13 | 12 | <0.00108 | <0.00200 | <0.000000 | <0.00108 | <0.00108 | <16.4 | <16.4 | <16.4 | 97.5 |
| **RP @ 18' | 06/03/13 | 12 | <0.00107 | <0.00213 | <0.00100 | <0.00107 | <0.00107 | <16.1 | <16.1 | <16.1 | 49.9 |
| Trench-1 Floor @ 2' | 06/03/13 | 2 | < 0.000990 | <0.00198 | < 0.000990 | < 0.00990 | <0.00990 | <14.9 | <14.9 | <14.9 | 18.5 |
| Trench-1 Floor @ 6' | 06/04/13 | 6 | < 0.000992 | < 0.00198 | < 0.000992 | < 0.000992 | < 0.000992 | <15.4 | <15.4 | <15.4 | 17.8 |
| Trench-2 Floor @ 2' | 06/03/13 | 2 | < 0.000994 | < 0.00199 | < 0.000994 | < 0.000994 | < 0.000994 | 69.1 | <14.9 | 69.1 | 63.8 |
| *Trench-2 Topsoil | 06/04/13 | - | < 0.000992 | < 0.00198 | < 0.000992 | < 0.000992 | < 0.000992 | 10,600 | 260 | 12,900 | 4.22 |
| Trench-2 Floor @ 4' | 06/04/13 | 4 | < 0.000994 | <0.00199 | < 0.000994 | < 0.000994 | < 0.000994 | <15.5 | <15.5 | <15.5 | 50.4 |
| *Trench-3 Topsoil | 06/04/13 | - | < 0.000998 | < 0.00200 | < 0.000998 | < 0.00200 | <0.00200 | 5,970 | 99.2 | 7,800 | 2.84 |
| Trench-3 Floor @ 2' | 06/04/13 | 2 | < 0.00100 | <0.00200 | <0.00100 | <0.00100 | <0.00100 | <15.5 | <15.5 | <15.5 | 2.66 |
| Trench-4 Floor @ 2' | 06/05/13 | 2 | <0.000990 | <0.00198 | < 0.000990 | <0.000990 | <0.000990 | <15.5 | <15.5 | <15.5 | <2.00 |
| Trench-5 Floor @ 2' | 06/05/13 | 2 | < 0.000990 | <0.00198 | < 0.000990 | < 0.000990 | <0.000990 | <15.5 | <15.5 | <15.5 | 62.8 |
| Trench-6 Floor @ 2' | 06/05/13 | 2 | <0.00100 | <0.00200 | <0.00100 | <0.00100 | <0.00100 | <15.3 | <15.3 | <15.3 | 12.7 |
| Trench-7 Floor @ 2' | 06/05/13 | 2 | <0.000994 | <0.00199 | <0.000994 | <0.000994 | <0.000994 | <15.2 | <15.2 | <15.2 | 5.63 |
| Trench-8 Floor @ 2' | 06/05/13 | 2 | <0.000994 | <0.00199 | <0.000994 | <0.000994 | <0.000994 | <15.5 | <15.5 | <15.5 | 2.91 |
| Trench-9 Floor @ 2' | 06/05/13 | 2 | <0.00100 | <0.00200 | <0.00100 | <0.00100 | <0.00100 | <15.3 | <15.3 | <15.3 | 22.3 |
| Trench-10 Floor @ 2' | 06/05/13 | 2 | <0.000996 | <0.00199 | <0.000996 | <0.000996 | <0.000996 | <15.5 | <15.5 | <15.5 | 100 |
| Trench-10 Floor @ 4' | 06/05/13 | 4 | <0.000998 | <0.00200 | <0.000998 | <0.000998 | <0.000998 | <15.6 | <15.6 | <15.6 | 33.4 |
| Trench-11 Floor @ 2' | 06/05/13 | 2 | <0.000994 | < 0.00199 | <0.000994 | < 0.000994 | < 0.000994 | <15.4 | <15.4 | <15.4 | 4.97 |
| Trench-12 @ 2' | 06/06/13 | 2 | <0.00104 | <0.00208 | <0.00104 | <0.00104 | <0.00104 | <15.6 | <15.6 | <15.6 | 5.97 |
| Trench-13 @ 2' | 06/06/13 | 2 | < 0.00103 | < 0.00207 | < 0.00103 | < 0.00103 | < 0.00103 | 43.7 | <15.6 | 43.7 | 18.6 |
| **SP-1 | 06/04/13 | - | <0.000990 | <0.00198 | <0.000990 | <0.000990 | <0.000990 | 56.6 | <15.2 | 56.6 | 54.9 |

| | | | | A, SECTION LEA C ANA | TABLE 1 6-INCH PIPELIN 3, TOWNSHIP 2 OUNTY, NEW N ALYTICAL RESU NFIRMATION S | 24 SOUTH, R/ IEXICO JLTS | | | | | |
|---------------------------------|----------|------------------------|--------------------|----------------------------|---|--------------------------------|-----------------------|-------------------------|-------------------------|----------------------|------------------|
| Sample ID | Date | Sample Depth (feet) | Benzene (mg/Kg) | Toluene (mg/Kg) | Ethylbenzene (mg/Kg) | Xylene (mg/Kg) | Total BTEX (mg/Kg) | TPH (DRO) (mg/Kg) | TPH (GRO) (mg/Kg) | Total TPH (mg/Kg) | Chloride (mg/Kg) |
| NMOCD Remediation Action Levels | | | 10 | NE | NE | NE | 50 | 1 | IE | 100 | 500 |
| | | • | | Samp | oles Collected by | APEX | | | | | |
| Stockpile-1@Trench-2 Topsoil | 03/18/15 | - | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 | <50.0 | <20.0 |
| Stockpile-2@Trench-3 Topsoil | 03/18/15 | - | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 | <50.0 | <20.0 |

* indicates area that was resampled by APEX in 2015

** Soil sample locations not identified or available for review by Apex

mg/Kg- milligrams per Kilograms

NE - Not Established

NS - Not Sampled

(J) Indicates detected, but below the Reporting Limit; therefore, result is an estimated concentration

Note: Concentrations in Bold and yellow exceed the NMOCD Remediation Action Levels



APPENDIX D

Laboratory Data Reports and Chain of Custody Documentation



Analytical Report

Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Location: Antelope Ridge

Lab Order Number: 6H22005

Report Date: 08/23/06

Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---------------------------|---------------|--------|----------------|------------------|
| Area #1 Surface Composite | 6H22005-01 | Soil | 08/21/06 08:20 | 08-22-2006 10:10 |
| Area #1 6" B.G.S@ Center | 6H22005-02 | Soil | 08/21/06 08:22 | 08-22-2006 10:16 |
| Area #4 Surface Composite | 6H22005-03 | Soil | 08/21/06 08:48 | 08-22-2006 10:16 |
| Area #4 6" B.G.S@ Center | 6H22005-04 | Soil | 08/21/06 08:50 | 08-22-2006 10:16 |

Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie

| | | Or Environ | ganics h nental L | 5.0 Million 14 | [exas] | | | | |
|-----------------------------------|-------------|--------------------|----------------------|----------------|-----------------|----------|----------|-----------|-------|
| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
| Area #1 Surface Composite (6H2200 | 5-01) Soil | | - | | | | | | |
| Carbon Ranges C6-C12 | 7560 | 100 | mg/kg dry | 10 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 24600 | 100 | | | | | | | |
| Carbon Ranges C28-C35 | 2510 | 100 | | | | | | • | |
| Total Hydrocarbons | 34700 | 100 | | | | • | | | |
| Surrogate: 1-Chlorooctane | | 25.2 % | 70-1 | 130 | " | | " | " | S-00 |
| Surrogate: 1-Chlorooctadecane | | 9.22 % | 70-1 | 130 | " | " | " | " | S-06 |
| Area #1 6'' B.G.S@ Center (6H2200 | 5-02) Soil | | | | | | | | |
| Carbon Ranges C6-C12 | 40.2 | 10.0 | mg/kg dry | 1 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | _ |
| Carbon Ranges C12-C28 | 257 | 10.0 | | 0 | | | | | |
| Carbon Ranges C28-C35 | 25.7 | 10.0 | | 0 | | | • | | |
| Total Hydrocarbons | 323 | 10.0 | | ù - | | | | | |
| Surrogate: 1-Chlorooctane | | 129 % | 70-1 | 30 | ." | " | " | " | |
| Surrogate: I-Chlorooctadecane | | 127 % | 70-1 | 130 | | " | " | " | |
| Area #4 Surface Composite (6H2200 | 95-03) Soil | | | | | | | | |
| Carbon Ranges C6-C12 | 6020 | 100 | mg/kg dry | 10 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | - |
| Carbon Ranges C12-C28 | 33300 | 100 | | . 11 | т. н | | | | |
| Carbon Ranges C28-C35 | 2940 | 100 | | | | | | | |
| Total Hydrocarbons | 42300 | 100 | | " | W | | н | | |
| Surrogate: 1-Chlorooctane | | 24.6 % | 70-1 | 130 | " | " | " | " | S-06 |
| Surrogate: 1-Chlorooctadecane | | 61.4 % | 70-1 | 130 | " | " | " | n | S-06 |
| Area #4 6" B.G.S@ Center (6H2200 | 5-04) Soil | | 1 | | · . · · · · | | | | |
| Benzene | ND | 0.0250 | mg/kg dry | 25 | EH62213 | 08/22/06 | 08/22/06 | EPA 8021B | |
| Toluene | ND | 0.0250 | | " | | | " | | |
| Ethylbenzene | ND | 0.0250 | | | | • | | * | |
| Xylene (p/m) | ND | 0.0250 | | | | | | | |
| Xylene (o) | ND | 0.0250 | " | " | | | | | |
| Surrogate: a,a,a-Trifluorotoluene | | 89.2 % | 80-1 | 120 | " | " | " | | _ |
| Surrogate: 4-Bromofluorobenzene | | 108 % | 80-1 | 120 | ** | " | " | | |
| Carbon Ranges C6-C12 | 16.0 | 10.0 | mg/kg dry | 1 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 135 | 10.0 | | | | | | | |
| Carbon Ranges C28-C35 | 19.9 | 10.0 | | | | | | • | |
| Total Hydrocarbons | 171 | 10.0 | | | | | | | |
| Surrogate: 1-Chlorooctane | 61.5 | 127 % | 70-1 | 130 | " | " | " | " | |
| Surrogate: 1-Chlorooctadecane | | 128 % | 70-1 | 120 | | " | 1.1 | " | |

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General Chemistry Parameters by EPA / Standard Methods

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| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|---------------------|--------------------|-------|----------|---------|----------|----------|---------------|-------|
| Area #1 Surface Composite | e (6H22005-01) Soil | | | | | | | | |
| % Moisture | 15.1 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #1 6" B.G.S@ Center | · (6H22005-02) Soil | | 1 | | | | | | |
| % Moisture | 13.2 | 0.1 | % | I | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #4 Surface Composit | e (6H22005-03) Soil | | | | | | | | |
| % Moisture | 7.0 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #4 6'' B.G.S@ Center | · (6H22005-04) Soil | | | | | | | | |
| % Moisture | 8.0 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |

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Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|------------------------------------|--------|--------------------|-----------|----------------|------------------|-------------|----------------|-----|--------------|-------|
| Batch EH62203 - Solvent Extraction | (GC) | | | | - | | | | | |
| Blank (EH62203-BLK1) | | | | Prepared | & Analyze | ed: 08/22/ | 06 | - | | |
| Carbon Ranges C6-C12 | ND | 10.0 | mg/kg wet | and a strength | 1000 | | The second | | | |
| Carbon Ranges C12-C28 | ND | 10.0 | | | | | | | | |
| Carbon Ranges C28-C35 | ND | 10.0 | | | | | | | 1 | |
| Total Hydrocarbons | ND | 10.0 | | | | | 1 | | | |
| Surrogate: 1-Chlorooctane | 56.7 | | mg/kg | 50.0 | | 113 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 50.8 | | " | 50.0 | | 102 | 70-130 | | | |
| LCS (EH62203-BS1) | | | | Prepared | & Analyze | ed: 08/22/0 | 06 | | | |
| Carbon Ranges C6-C12 | 493 | 10.0 | mg/kg wet | 500 | | 98.6 | 75-125 | | | |
| Carbon Ranges C12-C28 | 448 | 10.0 | | 500 | | 89.6 | 75-125 | | | |
| Carbon Ranges C28-C35 | ND | 10.0 | | 0.00 | | | 75-125 | | | |
| Total Hydrocarbons | 941 | 10.0 | | 1000 | | 94.1 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 58.0 | | mg/kg | 50.0 | | 116 | 70-130 | | _ | |
| Surrogate: 1-Chlorooctadecane | 51.2 | | " | 50.0 | | 102 | 70-130 | | | |
| Calibration Check (EH62203-CCV1) | | | | Prepared | & Analyze | d: 08/22/0 | 06 | | | |
| Carbon Ranges C6-C12 | 202 | | mg/kg | 250 | | 80.8 | 80-120 | | | |
| Carbon Ranges C12-C28 | 208 | | | 250 | 1 | 83.2 | 80-120 | | | |
| Total Hydrocarbons | 410 | | | 500 | | 82.0 | 80-120 | | | |
| Surrogate: 1-Chlorooctane | 64.7 | | " | 50.0 | | 129 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 64.6 | | " | 50.0 | | 129 | 70-130 | | | |
| Matrix Spike (EH62203-MS1) | So | urce: 6H220 | 05-04 | Prepared | & Analyze | d: 08/22/0 | 06 | | | |
| Carbon Ranges C6-C12 | 634 | 10.0 | mg/kg dry | 543 | 16.0 | 114 | 75-125 | | | |
| Carbon Ranges C12-C28 | 731 | 10.0 | | 543 | 135 | 110 | 75-125 | | | |
| Carbon Ranges C28-C35 | 19.0 | 10.0 | н. | 0.00 | 19.9 | | 75-125 | | | |
| Total Hydrocarbons | 1380 | 10.0 | | 1090 | 171 | 111 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 65.8 | | mg/kg | 50.0 | | 132 | 70-130 | | | S- |
| Surrogate: 1-Chlorooctadecane | 60.4 | | | 50.0 | | 121 | 70-130 | | | |

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Organics by GC - Quality Control

Environmental Lab of Texas

| | | Reporting | | Spike | Source | | %REC | | RPD | |
|---------|--------|-----------|-------|-------|--------|------|--------|-----|-------|-------|
| Analyte | Result | Limit | Units | Level | Result | %REC | Limits | RPD | Limit | Notes |

Batch EH62203 - Solvent Extraction (GC)

| Matrix Spike Dup (EH62203-MSD1) | Sour | ce: 6H220 | 05-04 | Prepared | & Analyze | ed: 08/22/ | /06 | 1. | | |
|---------------------------------|------|-----------|-----------|----------|-----------|------------|--------|--|----|------|
| Carbon Ranges C6-C12 | 653 | 10.0 | mg/kg dry | 543 | 16.0 | 117 | 75-125 | 2.95 | 20 | |
| Carbon Ranges C12-C28 | 716 | 10.0 | | 543 | 135 | 107 | 75-125 | 2.07 | 20 | |
| Carbon Ranges C28-C35 | 18.1 | 10.0 | | 0.00 | 19.9 | | 75-125 | 4.85 | 20 | |
| Total Hydrocarbons | 1380 | 10.0 | | 1090 | 171 | 111 | 75-125 | 0.00 | 20 | |
| Surrogate: 1-Chlorooctane | 68.7 | | mg/kg | 50.0 | | 137 | 70-130 | | | S-04 |
| Surrogate: 1-Chlorooctadecane | 60.7 | | " | 50.0 | | 121 | 70-130 | | | |

Batch EH62213 - EPA 5030C (GC)

| Blank (EH62213-BLK1) | | | | Prepared & | Analyzed: 08/22/ | 06 | |
|-----------------------------------|------|--------|-----------|-------------|------------------|--------|------|
| Benzene | ND | 0.0250 | mg/kg wet | 1997 - 19 C | an a harra | | |
| Toluene | ND | 0.0250 | | | | | |
| Ethylbenzene | ND | 0.0250 | | | | | |
| Xylene (p/m) | ND | 0.0250 | | 0 | | | |
| Xylene (o) | ND | 0.0250 | " | | | | |
| Surrogate: a,a,a-Trifluorotoluene | 37.1 | | ug/kg | 40.0 | 92.8 | 80-120 | |
| Surrogate: 4-Bromofluorobenzene | 40.1 | | " | 40.0 | 100 | 80-120 | |
| LCS (EH62213-BS1) | | | | Prepared & | Analyzed: 08/22/ | 06 | ; |
| Benzene | 1.16 | 0.0250 | mg/kg wet | 1.25 | 92.8 | 80-120 | |
| Toluene | 1.30 | 0.0250 | | 1.25 | 104 | 80-120 | |
| Ethylbenzene | 1.21 | 0.0250 | | 1.25 | 96.8 | 80-120 | |
| Xylene (p/m) | 2.94 | 0.0250 | | 2.50 | 118 | 80-120 | |
| Xylene (o) | 1.41 | 0.0250 | | 1.25 | 113 | 80-120 | |
| Surrogate: a,a,a-Trifluorotoluene | 38.8 | | ug/kg | 40.0 | 97.0 | 80-120 | |
| Surrogate: 4-Bromofluorobenzene | 47.1 | | | 40.0 | 118 | 80-120 | |

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Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie

Organics by GC - Quality Control

Environmental Lab of Texas

| | | | | abuli | eaus | | | | | |
|-----------------------------------|--------|--------------------|-----------|----------------|------------------|------------|----------------|-------|--------------|-------|
| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
| Batch EH62213 - EPA 5030C (GC) | | | 1774 | | 1.0 | | | | | |
| Calibration Check (EH62213-CCV1) | • | | | Prepared | & Analyze | ed: 08/22/ | 06 | | | |
| Benzene | 50.8 | | ug/kg | 50.0 | | 102 | 80-120 | | - | |
| Toluene - | 56.2 | | | 50.0 | | 112 | 80-120 | | | |
| Ethylbenzene | 59.2 | | | 50.0 | | 118 | 80-120 | | | |
| Xylene (p/m) | 119 | | | 100 | | 119 | 80-120 | | | |
| Xylene (o) | 57.5 | | | 50.0 | | 115 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 43.2 | | " | 40.0 | | 108 | 80-120 | | | _ |
| Surrogate: 4-Bromofluorobenzene | 42.3 | | " | 40.0 | | 106 | 80-120 | | | |
| Matrix Spike (EH62213-MS1) | So | urce: 6H220 | 10-01 | Prepared | & Analyze | d: 08/22/0 | 06 | | | |
| Benzene | 1.27 | 0.0250 | mg/kg dry | 1.37 | ND | 92.7 | 80-120 | | | |
| Toluene | · 1.47 | 0.0250 | | 1.37 | ND | 107 | 80-120 | | | |
| Ethylbenzene | 1.40 | 0.0250 | | 1.37 | ND | 102 | 80-120 | | | |
| Xylene (p/m) | 3.24 | 0.0250 | | 2.74 | ND | 118 | 80-120 | | | |
| Xylene (o) | 1.55 | 0.0250 | | 1.37 | ND | 113 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 43.9 | | ug/kg | 40.0 | | 110 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 43.9 | | " | 40.0 | | 110 | 80-120 | | | |
| Matrix Spike Dup (EH62213-MSD1) | So | urce: 6H220 | 10-01 | Prepared | & Analyze | d: 08/22/0 | 06 | | | |
| Benzene | 1.29 | 0.0250 | mg/kg dry | 1.37 | ND | 94.2 | 80-120 | 1.61 | 20 | |
| Toluene | 1.45 | 0.0250 | | 1.37 | ND | 106 | 80-120 | 0.939 | 20 | |
| Ethylbenzene | 1.45 | 0.0250 | | 1.37 | ND | 106 | 80-120 | 3.85 | 20 | |
| Xylene (p/m) | 3.24 | 0.0250 | | 2.74 | ND | 118 | 80-120 | 0.00 | 20 | |
| Xylene (o) | 1.46 | 0.0250 | | 1.37 | ND | 107 | 80-120 | 5.45 | 20 | |
| Surrogate: a,a,a-Trifluorotoluene | 38.0 | | ug/kg | 40.0 | | 95.0 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 46.5 | | | 40.0 | | 116 | 80-120 | | | |

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Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--------------------------------|--------------|--------------------|-------|----------------|------------------|----------|----------------|-------|--------------|-------|
| Batch EH62307 - General Prepar | ation (Prep) | | | | 199 | | | | | |
| Blank (EH62307-BLK1) | | | | Prepared: | 08/22/06 | Analyzed | : 08/23/06 | - | | |
| % Solids | 100 | | % | | | | | + | | |
| Duplicate (EH62307-DUP1) | So | urce: 6H220(| 04-01 | Prepared: | 08/22/06 | Analyzed | : 08/23/06 | | | |
| % Solids | 91.8 | | % | | 92.0 | | | 0.218 | 20 | |

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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

alonak Julie) Report Approved By:

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

Date:

8-22-06

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|-----------------------|----------------------|----------|-----------------|------------|-----------------|--------------|-------------------|--------------|-------------------------|---|-------|-----------------|------------------|-------------------------|---|---------------|-------------------------|-------------------------|-------------------------|---|---------------------|-----------------------|--|-------|-------|---------|----------------------|--------------|
| Project Manager: | HER I DAY JAVOIE | Savoi | 2 | | | | | | | | | | | | ۵. | Project Name: | t Nar | ne: | A | 4-14 | - | 0 | La | atera | ra | 1 | SE, | Š |
| Company Name | ne Southern Union | Union | | 605 | Service | 9. | | | | | | | | | | ē | Project #: | Ŧ | | Leak Site | S | ite | Ŧ | - | | | | |
| Company Address: | 010 | Commerce | rce | | | | | | | | | | | | | Project Loc: | ect L | ö | | Ante Lope | 9 | 00 | 2 | 10 | 00 | | | |
| City/State/Zip: | JAL, | NIM. | 198 | 58252 | 52 | | | | | | | | | | | | PG | :# Od | | | | | | | 0 | | | |
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| Sampler Signature: | ature: | IX . | De | 111 | 9 | e-mail: | | | | | | | | | 1 | L | | | | ľ | | 4 | | | | | H | |
| (lab.use only) | |) | | | | | | | | | | | | | | 1 | | 10 | TCLP: | - | | 0 | + | F | | F | su | |
| 81.24 | (H1/1002 | | | | | | 1 | | | | | | | Ľ | | Ц | | TOTAL | -H | \vdash | | 14 | - | | | | 4 21 ' | _ |
| | | 12 | | | | | | | PAIAS | | | | | ē 95p | ž. | 9001 50 | | (603) | •5 •H 40 | 80.64.04 | | 0928 X3. | _ | | | - | 11 (12) | 1 |
| (ýino esu dei) # 8AJ | FIELD CODE | | diqaD gninnigaB | ding Depth | balqms2 ats0 | bəlqms2 əmiT | No. of Containers | RNO- | HCI HNO ³ | *OS ^z H | HOPN | enoN 802228N | Other (Specify) | ul2=J2 hateW gnbinnd=WO | GW = Groundwater S=Soil/S NP=Non-Potable Specify C | | Cations (Ca, Mg, Va, K) | Anions (Cl, SO4, CO3, H | SAR / ESP / CEC | Volatiles Volatiles | selitelovimeS | BTEX 80218/5030 or BT | RCI N.O.R.M. | | | | IDena2-eiq) TAT HSUR | TAT brebnets |
| O Area # 1 | Surface Composite | 1 | =0 | 10 | 8/21/06 | 0250 | 1 | 7 | _ | | | - | | 0. | 1.1.1 | 7 | | | | - | | | - | | | - | 7 | 1 |
| A Area #1 | 6" B.6.5. @ Cor | 1 | - | و ً | 11 | 0922 | 1 | 1 | | | | _ | | | 5 | 7 | | - | | _ | | - | - | | | - | 7 | - |
| Area # 2 | Sur Face Composite | - | | 1" | u. | 0830 | ţ | 2 | | | | | | | S | 7 | | | - | _ | | | - | | | - | _ | 7 |
| Area # 2 | 6" Ch.S. & Center | 1 | | و : | 11 | 0832 | 1 | 7 | - | | | | | | in | 1 | | - | - | - | | | - | | | - | | 7 |
| Area # 2 | 6" B.6.5. Clurst End | - | | 29 | 11 | 0834 | 1 | 1 | - | | | _ | | | 3 | 7 | | | - | - | | 7 | - | | | - | _ | 7 |
| Area #3 | Surface Composite | | _ | " | " | 0840 | I | 1 | | | | _ | + | • · | N | 7 | | | - | | | | _ | | | - | | 7 |
| Area #3 | 6" 3.6.5. @ Center | N | _ | و | u | 0840 | 1 | 2 | | | | _ | - | | 0 | 7 | | | - | | | | - | | | - | | 1 |
| PH- | | - | | " | - 11 | 0848 | 1 | 1 | - | | - | | | ~ | 1 | 7 | | | | | | | _ | | | - | 7 | X |
| 3.5 | 6" Blise Centor | | 6" 1 | و | 11 | 0820 | - | 2 | | | | - | | ν. | S | 1 | | | | _ | | 1 | | | | - | 7 | |
| | | | | | | | | | | | | | 1 | * | X | X | | | - | _ | | | _ | | | | ¥ | 1 |
| Special Instructions: | | | | | | | | | | | | | | | | | | Labo Sam VOC | ple C s Fre | Laboratory Comments: Sample Containers Intact? VOCs Free of Headsnace? | mme ners lead | nts: ntact | ~ ~ | | 0 | | zz | 1.00- |
| Relinquished by: | 10 SI | 8 | Time (0.0) | Q | Received by: | | | | | | | | ö | Date | | Time | | Cust | ody s ody s H elo | Custody seals on container(s) Custody seals on cooler(s) Semmed Hand Deligend | | oler(| er(s) | | | | 822 | |
| Relinquiched by: | | Date | Time | | Received by: | | | | | | | | ö | Date | - | Time | | Ser. | y Col | by Counter? UPS | Clien | t Rep UPS | DHI | 5.9 | e ¥⇔ă | 1.5.7.1 | N Lone Star | b |
| Relinquished by: | | Date | Time | | Received by ELC | OT: | 1.0 | | | 20.00 | | 12 4 | DO. | ate | 3.3. | Time | 1 | A mer | Temperature | 402 glass Temperature Upon Receipt | COSS HOOM | Prop | t t | 0.1 | 0 | | ç | 201 |

Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

| Client: | SUGS | |
|-------------|---------------|--|
| Date/ Time: | 8/22/06 10:15 | |
| Lab ID # : | 1eH1220 | |
| Initials: | Cl- | |

Sample Receipt Checklist

| | | | | CI | ient Initials |
|-----|--|------|----|--------------------------|---------------|
| #1 | Temperature of container/ cooler? | Yes | No | 1.0 °C | |
| #2 | Shipping container in good condition? | Yes | No | | |
| #3 | Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present | |
| #4 | Custody Seals intact on sample bottles/ container? | Yes | No | Not Present | |
| #5 | Chain of Custody present? | Xes | No | | |
| #6 | Sample instructions complete of Chain of Custody? | Yes | No | | |
| #7 | Chain of Custody signed when relinquished/ received? | des | No | | |
| #8 | Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont.(Lid) | |
| #9 | Container label(s) legible and intact? | Yes | No | Not Applicable | |
| #10 | Sample matrix/ properties agree with Chain of Custody? | Yes | No | | |
| #11 | Containers supplied by ELOT? | Yes | No | | |
| #12 | Samples in proper container/ bottle? | Xes | No | See Below | |
| #13 | Samples properly preserved? | Xes | No | See Below | |
| #14 | Sample bottles intact? | Yes | No | | |
| #15 | Preservations documented on Chain of Custody? | Yes | No | | 1 |
| #16 | Containers documented on Chain of Custody? | Yes | No | | - |
| #17 | Sufficient sample amount for indicated test(s)? | Tes | No | See Below | |
| #18 | All samples received within sufficient hold time? | d'es | No | See Below | |
| #19 | VOC samples have zero headspace? | Yes | No | Not Applicable | |

Variance Documentation

| Contact: | | Contacted by: | Date/ Time: |
|-------------------------|---|---|-------------|
| Regarding: | | | |
| Corrective Action Taken | : | | 3 |
| Check all that Apply: | | See attached e-mail/ fax Client understands and would like to pro Cooling process had begun shortly after | |


Analytical Report

Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Location: Antelope Ridge

Lab Order Number: 6H22006

Report Date: 08/23/06

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6" Lateral SExNW Project Number: Leak Site #1 Project Manager: Tony Savoie

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|----------------------------|---------------|--------|----------------|------------------|
| Area #2 Surface Composite | 6H22006-01 | Soil | 08/21/06 08:30 | 08-22-2006 10:16 |
| Area #2 6" B.G.S@ Center | 6H22006-02 | Soil | 08/21/06 08:32 | 08-22-2006 10:16 |
| Area #2 6" B.G.S@ West End | 6H22006-03 | Soil | 08/21/06 08:34 | 08-22-2006 10:16 |
| Area #3 Surface Composite | 6H22006-04 | Soil | 08/21/06 08:40 | 08-22-2006 10:16 |
| Area #3 6" B.G.S@ Center | 6H22006-05 | Soil | 08/21/06 08:42 | 08-22-2006 10:16 |
| | | 200.00 | | |

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Organics by GC

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|------------------|--------------------|------------------------------|----------|----------|----------|----------|-------------|-------|
| Area #2 Surface Composite (6H2200 |)6-01) Soil | | | | | 1 | _ | | |
| Carbon Ranges C6-C12 | 5490 | 100 | mg/kg dry | 10 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 38500 | 100 | | | | | | | |
| Carbon Ranges C28-C35 | 3120 | 100 | | | | | | | |
| Total Hydrocarbons | 47100 | 100 | | | | | | | |
| Surrogate: 1-Chlorooctane | | 22.8 % | 70-1 | 30 | " | " | " | n n | S-06 |
| Surrogate: 1-Chlorooctadecane | | 18.6 % | 70-1 | 30 | . " | " | | " | S-06 |
| Area #2 6'' B.G.S@ Center (6H2200 | 16-02) Soil | | | | | _ | | | |
| Carbon Ranges C6-C12 | 221 | 10.0 | mg/kg dry | 1 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 916 | 10.0 | | | | | | | |
| Carbon Ranges C28-C35 | 80.9 | 10.0 | | | 0 | | | | |
| Total Hydrocarbons | 1220 | 10.0 | | | | | | | |
| Surrogate: 1-Chlorooctane | | 129 % | 70-1 | 30 | " | " | " | " | 0 |
| Surrogate: 1-Chlorooctadecane | | 125 % | 70-1 | 30 | " | " | " | . " | |
| Area #2 6'' B.G.S@ West End (6H2: | 2006-03) Soil | | | | | 1 | | | |
| Benzene | ND | 0.0250 | mg/kg dry | 25 | EH62213 | 08/22/06 | 08/22/06 | EPA 8021B | |
| Toluene | ND | 0.0250 | | | | | | | |
| Ethylbenzene | ND | 0.0250 | | | | • | | • | |
| Xylene (p/m) | ND | 0.0250 | | | | | | | |
| Xylene (o) | ND | 0.0250 | | | ų | | | 11 O | |
| Surrogate: a,a,a-Trifluorotoluene | | 92.0 % | 80-1 | 20 | " | " | " | . 11 | |
| Surrogate: 4-Bromofluorobenzene | | 112 % | 80-1 | 20 | " | | " | " | |
| Sur ogarer i si ensyrier ee enserie | | | and the second second second | 1 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | J |
| Carbon Ranges C6-C12 | J [6.66] | 10.0 | mg/kg dry | 1 | EH02203 | 00120200 | | | |
| | J [6.66] 53.9 | 10.0 10.0 | mg/kg dry " | 1 | EFI02203 | " | | | |
| Carbon Ranges C6-C12 | | | mg/kg dry " | | | " | | n 11 | |
| Carbon Ranges C6-C12 Carbon Ranges C12-C28 | 53.9 | 10.0 | mg/kg dry " " | | | | | 0 0 0 | |
| Carbon Ranges C6-C12 Carbon Ranges C12-C28 Carbon Ranges C28-C35 | 53.9 11.5 | 10.0 10.0 | mg/kg dry " " 70-1 | | n | | ∆ (n | " " " | |

Environmental Lab of Texas

Organics by GC

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|----------------------------------|-------------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Area #3 Surface Composite (6H220 | 06-04) Soil | | | | | | | | |
| Carbon Ranges C6-C12 | 6700 | 100 | mg/kg dry | 10 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 29900 | 100 | | | | | " | | |
| Carbon Ranges C28-C35 | 2690 | 100 | | | | | | | |
| Total Hydrocarbons | 39300 | 100 | | | | | | | |
| Surrogate: 1-Chlorooctane | | 24.2 % | 70-1 | 30 | n | " | " | " | S-06 |
| Surrogate: 1-Chlorooctadecane | | 12.4 % | 70-1 | 30 | | " | " | " | S-06 |
| Area #3 6" B.G.S@ Center (6H2200 | 06-05) Soil | | | | | | | | |
| Carbon Ranges C6-C12 | 279 | 10.0 | mg/kg dry | 1 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | _ |
| Carbon Ranges C12-C28 | 1550 | 10.0 | | | | | | | |
| Carbon Ranges C28-C35 | 142 | 10.0 | | | | | | | |
| Total Hydrocarbons | 1970 | 10.0 | | | | | | | |

| Carbon Ranges C6-C12 | 279 | 10.0 | mg/kg dry | 1 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
|-------------------------------|------|-------|-----------|----|---------|----------|----------|-----------|------|
| Carbon Ranges C12-C28 | 1550 | 10.0 | | | | | | | |
| Carbon Ranges C28-C35 | 142 | 10.0 | | | | | | | |
| Total Hydrocarbons | 1970 | 10.0 | | | | | | | |
| Surrogate: 1-Chlorooctane | | 131 % | 70-13 | 80 | " | " | " | " | S-04 |
| Surrogate: 1-Chlorooctadecane | | 138 % | 70-13 | 80 | " | " | " | " | S-04 |

Environmental Lab of Texas

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---------------------------|-----------------------|--------------------|-------|----------|---------|----------|----------|---------------|-------|
| Area #2 Surface Composite | e (6H22006-01) Soil | | | | | | | | |
| % Moisture | 11.6 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #2 6" B.G.S@ Center | (6H22006-02) Soil | | | | | | | | |
| % Moisture | 11.2 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #2 6" B.G.S@ West H | Cnd (6H22006-03) Soil | | | | | | | | |
| % Moisture | 14.2 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #3 Surface Composite | (6H22006-04) Soil | - <u>- 1</u> | | | | | | | |
| % Moisture | 10.1 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| Area #3 6" B.G.S@ Center | (6H22006-05) Soil | | | | | | | | |
| % Moisture | 8.4 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| | | | | | | | | | |

Environmental Lab of Texas

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|------------------------------------|--------|--------------------|-----------|----------------|------------------|------------|----------------|-----|--------------|-------|
| Batch EH62203 - Solvent Extraction | (GC) | | | | , | | | | | |
| Blank (EH62203-BLK1) | | | | Prepared | & Analyze | ed: 08/22/ | 06 | | | |
| Carbon Ranges C6-C12 | ND | 10.0 | mg/kg wet | | | | | | | |
| Carbon Ranges C12-C28 | ND | 10.0 | | | | | | | | |
| Carbon Ranges C28-C35 | ND | 10.0 | | | | | | | | |
| Total Hydrocarbons | ND | 10.0 | | | | | | | | |
| Surrogate: 1-Chlorooctane | 56.7 | | mg/kg | . 50.0 | | 113 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 50.8 | | " | 50.0 | | 102 | 70-130 | | | |
| LCS (EH62203-BS1) | | | | Prepared | & Analyze | d: 08/22/0 | 06 | | | |
| Carbon Ranges C6-C12 | 493 | 10.0 | mg/kg wet | 500 | | 98.6 | 75-125 | | | |
| Carbon Ranges C12-C28 | 448 | 10.0 | | 500 | | 89.6 | 75-125 | | | |
| Carbon Ranges C28-C35 | ND | 10.0 | | 0.00 | | 12.12 | 75-125 | | | |
| Total Hydrocarbons | 941 | 10.0 | | 1000 | | 94.1 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 58.0 | | mg/kg | 50.0 | | 116 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 51.2 | | " | 50.0 | | 102 | 70-130 | | | |
| Calibration Check (EH62203-CCV1) | | | | Prepared a | & Analyze | d: 08/22/0 | 06 | | | |
| Carbon Ranges C6-C12 | 202 | · · · · | mg/kg | 250 | | 80.8 | 80-120 | | _ | |
| Carbon Ranges C12-C28 | 208 | | | 250 | | 83.2 | 80-120 | | | |
| Total Hydrocarbons | 410 | | | 500 | | 82.0 | 80-120 | | | |
| Surrogate: 1-Chlorooctane | 64.7 | | " | 50.0 | | 129 | 70-130 | * | | |
| Surrogate: 1-Chlorooctadecane | 64.6 | | " | 50.0 | | 129 | 70-130 | | | |
| Matrix Spike (EH62203-MS1) | Sou | rce: 6H220 | 05-04 | Prepared a | & Analyze | d: 08/22/0 |)6 | | | |
| Carbon Ranges C6-C12 | 634 | 10.0 | mg/kg dry | 543 | 16.0 | 114 | 75-125 | | | |
| Carbon Ranges C12-C28 | 731 | 10.0 | | 543 | 135 | 110 | 75-125 | | | |
| Carbon Ranges C28-C35 | 19.0 | 10.0 | | 0.00 | 19.9 | 201 | 75-125 | | | |
| Total Hydrocarbons | 1380 | 10.0 | | 1090 | 171 | 111 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 65.8 | | mg/kg | 50.0 | | 132 | 70-130 | - | | S- |
| Surrogate: 1-Chlorooctadecane | 60.4 | | " | 50.0 | | 121 | 70-130 | | | 5- |

Environmental Lab of Texas

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch EH62203 - Solvent Extraction (GC)

| Matrix Spike Dup (EH62203-MSD1) | Sour | ce: 6H220 | 005-04 | Prepared | & Analyze | ed: 08/22 | /06 | | | |
|---------------------------------|------|-----------|-----------|----------|-----------|-----------|--------|------|----|------|
| Carbon Ranges C6-C12 | 653 | 10.0 | mg/kg dry | 543 | 16.0 | 117 | 75-125 | 2.95 | 20 | |
| Carbon Ranges C12-C28 | 716 | 10.0 | | 543 | 135 | 107 | 75-125 | 2.07 | 20 | |
| Carbon Ranges C28-C35 | 18.1 | 10.0 | | 0.00 | 19.9 | | 75-125 | 4.85 | 20 | |
| Total Hydrocarbons | 1380 | 10.0 | ۳., | 1090 | 171 | 111 | 75-125 | 0.00 | 20 | |
| Surrogate: 1-Chlorooctane | 68.7 | | mg/kg | 50.0 | | 137 | 70-130 | | | S-04 |
| Surrogate: 1-Chlorooctadecane | 60.7 | | " | 50.0 | | 121 | 70-130 | | | |

Batch EH62213 - EPA 5030C (GC)

| Blank (EH62213-BLK1) | | | | | Prepared & Ar | nalyzed: 08/22/ | 06 | |
|-----------------------------------|----|------|--------|-----------|---------------|-----------------|--------|--|
| Benzene | | ND | 0.0250 | mg/kg wet | | | | |
| Toluene | | ND | 0.0250 | U | | | | |
| Ethylbenzene | 11 | ND | 0.0250 | | | | | |
| Xylene (p/m) | | ND | 0.0250 | | | | | |
| Xylene (o) | | ND | 0.0250 | | | | | |
| Surrogate: a,a,a-Trifluorotoluene | | 37.1 | | ug/kg | 40.0 | 92.8 | 80-120 | |
| Surrogate: 4-Bromofluorobenzene | | 40.1 | | " | 40.0 | 100 | 80-120 | |
| LCS (EH62213-BS1) | | | | | Prepared & Ar | nalyzed: 08/22/ | 06 | |
| Benzene | | 1.16 | 0.0250 | mg/kg wet | 1.25 | 92.8 | 80-120 | |
| Toluene | | 1.30 | 0.0250 | н | 1.25 | 104 | 80-120 | |
| Ethylbenzene | | 1.21 | 0.0250 | | 1.25 | 96.8 | 80-120 | |
| Xylene (p/m) | | 2.94 | 0.0250 | | 2.50 | 118 | 80-120 | |
| Xylene (o) | | 1.41 | 0.0250 | | 1.25 | 113 | 80-120 | |
| Surrogate: a,a,a-Trifluorotoluene | | 38.8 | | ug/kg | 40.0 | 97.0 | 80-120 | |
| Surrogate: 4-Bromofluorobenzene | | 47.1 | | " | 40.0 | 118 | 80-120 | |

Environmental Lab of Texas

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------|--------|--------------------|-----------|----------------|------------------|-------------|----------------|-------|--------------|-------|
| Batch EH62213 - EPA 5030C (GC) | | | | | 1.00 | S | 1 | 1 | | |
| Calibration Check (EH62213-CCV1) | | | | Prepared | & Analyze | ed: 08/22/0 | 06 | ă. | | |
| Benzene | 50.8 | | ug/kg | 50.0 | | 102 | 80-120 | | | |
| Toluene | 56.2 | | * | 50.0 | | 112 | 80-120 | | | |
| Ethylbenzene | 59.2 | | ji ji | 50.0 | | 118 | 80-120 | | | |
| Xylene (p/m) | 119 | | " | 100 | | 119 | 80-120 | | | |
| Xylene (o) | 57.5 | | | 50.0 | | 115 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 43.2 | 54 | " | 40.0 | | 108 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 42.3 | | " | 40.0 | | 106 | 80-120 | | | |
| Matrix Spike (EH62213-MS1) | So | urce: 6H220 | 010-01 | Prepared | & Analyze | d: 08/22/0 | 06 | | | |
| Benzene | 1.27 | 0.0250 | mg/kg dry | 1.37 | ND | 92.7 | 80-120 | | | |
| Toluene | 1.47 | 0.0250 | | 1.37 | ND | 107 | 80-120 | | | |
| Ethylbenzene | 1.40 | 0.0250 | | 1.37 | ND | 102 | 80-120 | | | |
| Xylene (p/m) | 3.24 | 0.0250 | | 2.74 | ND | 118 | 80-120 | | | |
| Xylene (o) | 1.55 | 0.0250 | | 1.37 | ND | 113 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 43.9 | | ug/kg | 40.0 | | 110 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 43.9 | | " | 40.0 | | 110 | 80-120 | | | |
| Matrix Spike Dup (EH62213-MSD1) | So | urce: 6H220 | 10-01 | Prepared | & Analyze | d: 08/22/0 |)6 | | | |
| Benzene | 1.29 | 0.0250 | mg/kg dry | 1.37 | ND | 94.2 | 80-120 | 1.61 | 20 | |
| Toluene | 1.45 | 0.0250 | 0.00 | 1.37 | ND | 106 | 80-120 | 0.939 | 20 | |
| Ethylbenzene | 1.45 | 0.0250 | | 1.37 | ND | 106 | 80-120 | 3.85 | 20 | |
| Xylene (p/m) | 3.24 | 0.0250 | | 2.74 | ND | 118 | 80-120 | 0.00 | 20 | |
| Xylene (o) | 1.46 | 0.0250 | | 1.37 | ND | 107 | 80-120 | 5.45 | 20 | |
| Surrogate: a,a,a-Trifluorotoluene | 38.0 | | ug/kg | 40.0 | | 95.0 | 80-120 | | 1.4 | |
| Surrogate: 4-Bromofluorobenzene | 46.5 | | " | 40.0 | | 116 | 80-120 | | | |

Environmental Lab of Texas

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--------------------------------|--------------|--------------------|-------|----------------|------------------|----------|----------------|-------|--------------|-------|
| Batch EH62307 - General Prepar | ation (Prep) | | | | | | | | | |
| Blank (EH62307-BLK1) | | | | Prepared: | 08/22/06 | Analyzed | : 08/23/06 | | | |
| % Solids | 100 | 1 | % | | | | | | | |
| Duplicate (EH62307-DUP1) | So | urce: 6H2200 | 4-01 | Prepared: | 08/22/06 | Analyzed | : 08/23/06 | | | |
| % Solids | 91.8 | 1.000 | % | | 92.0 | | 1.0310781.04 | 0.218 | 20 | |

Environmental Lab of Texas

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

Date:

24-06

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

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Environmental Lab of Texas

| Szevices. Szevices. Szevices. Szevices. | Szavicze. Szavicze. S2 Szavicze. S2 Szavicze. S2 Fax No: S3 S3 | CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST 12600 West I-20 East Phone: 432-563-1800 Odessa, Texas 79765 Fax: 432-563-1713 | Project Name: A-14 6"Lattral SEXNU | Project #: LeakSize # 1 | Project Loc: Ande Lope Ridge, | PO#: | Report Format: N Standard TRRP 1 NPDES | La Standard | Andrea Cor | | 2 | 09 | oc BTEX 82 CO3, HCO3) MA 1005 10 MA 1005 10 Fesoily other Stesily other | ИЪ= ИО- Ботъра СМ = Gonu Botapa DM = Gonudwater 5 00196 (26604) 00196 (26604) Изона | | | | | | Z Z | | × × | | \mathbb{A} | Laboratory Comments: Sample Containers Intact? | Date Time Custody seals on container(s) Y (b) Custody seals on cooler(s) Y (b) | Date Time by Sample rand Delivered & N |
|---|---|---|------------------------------------|--|-------------------------------|------|--|-------------|------------|---|---|----|--|---|---------|----|----|--------|--------|--------|--------|--------|--------|--------------|---|---|--|
| Received by: | Received by: | | | 9. | 8 | | Fax No: | Lax No: | e-mail: | - | | | | Time Sampled | 20 | 3 | | 1 2680 | 1 4680 | 0840 1 | 0849 1 | 1 8480 | 0830 1 | | (C)() | | |
| | Contract Contract | | | 1. | | 252 | | | - | | | | | Date Sampled | 8/21/06 | 11 | 11 | 'n | | " | | 11 | 11 | | - | | Received by: |
| | | 20 | | | Ce | 88 | 376 | 9 | cure | | | + | | | | - | | | | - | 2 | - | و | | | Time O | Time |

Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

| Client: | SUGS | | |
|-------------|---------------|---|--|
| Date/ Time: | 8/22/06 10:15 | _ | |
| _ab ID # : | 10412006 | | |
| Initials: | CL_ | | |

Sample Receipt Checklist

| | | | E.m.P. | CI | ient Initials |
|-----|--|------|--------|---|---------------|
| #1 | Temperature of container/ cooler? | Yes | No | 1.0 °C | |
| #2 | Shipping container in good condition? | Yes | No | | |
| #3 | Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present | |
| #4 | Custody Seals intact on sample bottles/ container? | Yes | No | Not Present | 1. C |
| #5 | Chain of Custody present? | des: | No | 2 - 4 1 C C C C C C C C C C C C C C C C C C | |
| #6 | Sample instructions complete of Chain of Custody? | Yes | No | | |
| #7 | Chain of Custody signed when relinquished/ received? | des | No | | |
| #8 | Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont. (Lid) | |
| #9 | Container label(s) legible and intact? | Yes | No | Not Applicable | |
| #10 | Sample matrix/ properties agree with Chain of Custody? | Xes | No | | |
| #11 | Containers supplied by ELOT? | ¥es | No | | |
| #12 | Samples in proper container/ bottle? | Yes | No | See Below | |
| #13 | Samples properly preserved? | Xes | No | See Below | |
| #14 | Sample bottles intact? | Yes | No | н | |
| #15 | Preservations documented on Chain of Custody? | Yes | No | | |
| #16 | Containers documented on Chain of Custody? | Yes | No | | |
| #17 | Sufficient sample amount for indicated test(s)? | Tes | No | See Below | |
| #18 | All samples received within sufficient hold time? | d'es | No | See Below | |
| #19 | VOC samples have zero headspace? | Yes | No | Not Applicable | |

Variance Documentation

Contact:

Contacted by:

Date/ Time:

Regarding:

Corrective Action Taken:

Check all that Apply: .

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event



Analytical Report

Prepared for:

Tony Savoie Southern Union Gas Services- Jal P.O. Box 1226 Jal, NM 88252

Project: A-14 6" Lateral SExNW Project Number: Leak Site #2 Location: Antelope Ridge

Lab Order Number: 6H22007

Report Date: 08/23/06

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-------------------|---------------|--------|----------------|------------------|
| Surface Composite | 6H22007-01 | Soil | 08/21/06 10:02 | 08-22-2006 10:15 |
| 6" B.G.S@ Center | 6H22007-02 | Soil | 08/21/06 10:04 | 08-22-2006 10:15 |

Organics by GC Environmental Lab of Texas

| Analyte | Result | Reporting Limit | | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-------------------------------------|--------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| Surface Composite (6H22007-01) Soi | | | - | | - | | | | |
| Carbon Ranges C6-C12 | 7920 | 1000 | mg/kg dry | 100 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 69400 | 1000 | | | | | | | 4.0 |
| Carbon Ranges C28-C35 | 8440 | 1000 | | | | | | | |
| Total Hydrocarbons | 85800 | 1000 | | | | | . R | | |
| Surrogate: 1-Chlorooctane | | % | 70-1 | 130 | " | " | " | " | S-00 |
| Surrogate: 1-Chlorooctadecane | | 2.90 % | 70-1 | 30 | " | " | " | " | S-00 |
| 6'' B.G.S@ Center (6H22007-02) Soil | | | | | | | | | |
| Benzene | 14.5 | 0.200 | mg/kg dry | 200 | EH62213 | 08/22/06 | 08/23/06 | EPA 8021B | |
| Toluene | 56.4 | 0.200 | | | | | | | 2 |
| Ethylbenzene | 29.5 | 0.200 | | | | | | | |
| Xylene (p/m) | 58.1 | 0.200 | | | 0.0 | | | | |
| Xylene (o) | 28.9 | 0.200 | | | | | | | |
| Surrogate: a,a,a-Trifluorotoluene | | 958 % | 80-1 | 20 | | " | " | w | S-04 |
| Surrogate: 4-Bromofluorobenzene | | 174 % | 80-1 | 20 | | " | " | ii ii | S-04 |
| Carbon Ranges C6-C12 | 3290 | 100 | mg/kg dry | 10 | EH62203 | 08/22/06 | 08/22/06 | EPA 8015M | |
| Carbon Ranges C12-C28 | 5600 | 100 | | | • | | | | |
| Carbon Ranges C28-C35 | 498 | 100 | | 18 | | | | | |
| Total Hydrocarbons | 9390 | 100 | | | | | | | |
| Surrogate: 1-Chlorooctane | | 17.7 % | 70-1 | 30 | " | " | " | " | S-06 |
| Surrogate: 1-Chlorooctadecane | | 18.4 % | 70-1 | 30 | " | ** | " | | S-06 |

Environmental Lab of Texas

Southern Union Gas Services- Jal P.O. Box 1226 Jal NM, 88252

Project: A-14 6" Lateral SExNW Project Number: Leak Site #2 Project Manager: Tony Savoie

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Note |
|-------------------------------------|--------|--------------------|-------|----------|---------|----------|----------|---------------|------|
| Surface Composite (6H22007-01) Soil | | | | | | | | | |
| % Moisture | 13.3 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |
| 6" B.G.S@ Center (6H22007-02) Soil | | | | | | | | | |
| % Moisture | 16.2 | 0.1 | % | 1 | EH62307 | 08/22/06 | 08/23/06 | % calculation | |

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 3 of 8

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|------------------------------------|--------|--------------------|-----------|----------------|------------------|------------|----------------|-----|--------------|-------|
| Batch EH62203 - Solvent Extraction | (GC) | _ | | | 200 | 1 | | | | |
| Blank (EH62203-BLK1) | | | | Prepared | & Analyza | ed: 08/22/ | 06 | | | |
| Carbon Ranges C6-C12 | ND | 10.0 | mg/kg wet | | | | - | | | |
| Carbon Ranges C12-C28 | ND | 10.0 | н | | | | | | | |
| Carbon Ranges C28-C35 | ND | 10.0 | | | | | | | | |
| Total Hydrocarbons | ND | 10.0 | | | | | | | | |
| Surrogate: 1-Chlorooctane | 56.7 | | mg/kg | 50.0 | | 113 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 50.8 | | | 50.0 | | 102 | 70-130 | | | |
| LCS (EH62203-BS1) | | | | Prepared | & Analyza | ed: 08/22/ | 06 | | | |
| Carbon Ranges C6-C12 | 493 | 10.0 | mg/kg wet | 500 | | 98.6 | 75-125 | | | |
| Carbon Ranges C12-C28 | 448 | 10.0 | | 500 | | 89.6 | 75-125 | | | |
| Carbon Ranges C28-C35 | ND | 10.0 | | 0.00 | | | 75-125 | | | |
| Total Hydrocarbons | 941 | 10.0 | | 1000 | | 94.1 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 58.0 | | mg/kg | 50.0 | 0.00 | 116 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 51.2 | | " | 50.0 | | 102 | 70-130 | | | |
| Calibration Check (EH62203-CCV1) | | | | Prepared | & Analyze | ed: 08/22/ | 06 | | | |
| Carbon Ranges C6-C12 | 202 | | mg/kg | 250 | | 80.8 | 80-120 | | | |
| Carbon Ranges C12-C28 | 208 | | " | 250 | | 83.2 | 80-120 | | | |
| Total Hydrocarbons | 410 | | | 500 | | 82.0 | 80-120 | | | |
| Surrogate: 1-Chlorooctane | 64.7 | | " | 50.0 | _ | 129 | 70-130 | | - | |
| Surrogate: 1-Chlorooctadecane | 64.6 | | " | 50.0 | | 129 | 70-130 | | | |
| Matrix Spike (EH62203-MS1) | So | urce: 6H220 | 05-04 | Prepared | & Analyze | ed: 08/22/ | 06 | | | × |
| Carbon Ranges C6-C12 | 634 | 10.0 | mg/kg dry | 543 | 16.0 | 114 | 75-125 | | | |
| Carbon Ranges C12-C28 | 731 | 10.0 | | 543 | 135 | 110 | 75-125 | | | |
| Carbon Ranges C28-C35 | 19.0 | 10.0 | 01 | 0.00 | 19.9 | | 75-125 | | | |
| Total Hydrocarbons | 1380 | 10.0 | | 1090 | 171 | 111 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 65.8 | | mg/kg | 50.0 | | 132 | 70-130 | | | S-0 |
| Surrogate: 1-Chlorooctadecane | 60.4 | | " | 50.0 | | 121 | 70-130 | | | |

Environmental Lab of Texas

Organics by GC - Quality Control

Environmental Lab of Texas

| | Analyte | | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|---------|--|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|--|---------|--|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch EH62203 - Solvent Extraction (GC)

| Matrix Spike Dup (EH62203-MSD1) | | Sour | ce: 6H220 | 005-04 | Prepared | & Analyze | ed: 08/22 | /06 | | | | |
|---------------------------------|-----|------|-----------|------------|----------|-----------|-----------|--------|-------|----|---|------|
| Carbon Ranges C6-C12 | | 653 | 10.0 | mg/kg dry | 543 | 16.0 | 117 | 75-125 | 2.95 | 20 | × | |
| Carbon Ranges C12-C28 | | 716 | 10.0 | | 543 | 135 | 107 | 75-125 | 2.07 | 20 | | |
| Carbon Ranges C28-C35 | a . | 18.1 | 10.0 | н | 0.00 | 19.9 | | 75-125 | 4.85 | 20 | | |
| Total Hydrocarbons | | 1380 | 10.0 | <u>n</u> . | 1090 | 171 | 111 | 75-125 | 0.00 | 20 | - | |
| Surrogate: 1-Chlorooctane | | 68.7 | | mg/kg | 50.0 | | 137 | 70-130 | 10.00 | | | S-04 |
| Surrogate: 1-Chlorooctadecane | | 60.7 | | " | 50.0 | | 121 | 70-130 | | | | |

Batch EH62213 - EPA 5030C (GC)

| Blank (EH62213-BLK1) | | | | Prepared & Ar | nalyzed: 08/22/ | 06 | |
|-----------------------------------|------|--------|-----------|---------------|-----------------|--------|---|
| Benzene | ND | 0.0250 | mg/kg wet | | | | - |
| Toluene | ND | 0.0250 | | | | | |
| Ethylbenzene | ND | 0.0250 | | | | | |
| Xylene (p/m) | ND | 0.0250 | | | | | |
| Xylene (o) | ND | 0.0250 | | | | | |
| Surrogate: a,a,a-Trifluorotoluene | 37.1 | | ug/kg | 40.0 | 92.8 | 80-120 | |
| Surrogate: 4-Bromofluorobenzene | 40,1 | | n. | 40.0 | 100 | 80-120 | |
| LCS (EH62213-BS1) | | | | Prepared & Ar | nalyzed: 08/22/ | 06 | |
| Benzene | 1.16 | 0.0250 | mg/kg wet | 1.25 | 92.8 | 80-120 | |
| Toluene | 1.30 | 0.0250 | | 1.25 | 104 | 80-120 | |
| Ethylbenzene | 1.21 | 0.0250 | | 1.25 | 96.8 | 80-120 | |
| Xylene (p/m) | 2.94 | 0.0250 | | 2.50 | 118 | 80-120 | |
| Xylene (o) | 1.41 | 0.0250 | - × | 1.25 | 113 | 80-120 | |
| Surrogate: a,a,a-Trifluorotoluene | 38.8 | | ug/kg | 40.0 | 97.0 | 80-120 | |
| Surrogate: 4-Bromofluorobenzene | 47.1 | | " | 40.0 | 118 | 80-120 | |

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Organics by GC - Quality Control

| ** | | Environn | nental I | Lab of T | exas | | | | | |
|-----------------------------------|--------|--------------------|-----------|----------------|------------------|-------------|----------------|-------|--------------|-------|
| Analyte | Result | Reporting Limit | | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
| Batch EH62213 - EPA 5030C (GC) | | | | | | | | | | |
| Calibration Check (EH62213-CCV1) | | | | Prepared | & Analyz | ed: 08/22/ | 06 | | | |
| Benzene | 50.8 | | ug/kg | 50.0 | | 102 | 80-120 | | | |
| Toluene | 56.2 | | | 50.0 | | 112 | 80-120 | | | |
| Ethylbenzene | 59.2 | | | 50.0 | | 118 | 80-120 | | | |
| Xylene (p/m) | 119 | | | 100 | | 119 | 80-120 | | | |
| Xylene (o) | 57.5 | | 9 | 50.0 | | 115 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 43.2 | | " | 40.0 | | 108 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 42.3 | | " | 40.0 | | 106 | 80-120 | | | |
| Matrix Spike (EH62213-MS1) | So | Prepared | & Analyze | ed: 08/22/ | 06 | | | | | |
| Benzene | 1.27 | 0.0250 | mg/kg dry | 1.37 | ND | 92.7 | 80-120 | | | |
| Toluene | 1.47 | 0.0250 | | 1.37 | ND | 107 | 80-120 | | | |
| Ethylbenzene | 1.40 | 0.0250 | | 1.37 | ND | 102 | 80-120 | | | |
| Xylene (p/m) | 3.24 | 0.0250 | | 2.74 | ND | 118 | 80-120 | | | |
| Xylene (o) | 1.55 | 0.0250 | | 1.37 | ND | 113 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 43.9 | | ug/kg | 40.0 | | 110 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 43.9 | | " | 40.0 | | 110 | 80-120 | 2 | | 2 |
| Matrix Spike Dup (EH62213-MSD1) | So | urce: 6H220 | 10-01 | Prepared a | & Analyze | ed: 08/22/0 | 06 | | | |
| Benzene | 1.29 | 0.0250 | mg/kg dry | 1.37 | ND | 94.2 | 80-120 | 1.61 | 20 | - |
| Foluene | 1.45 | 0.0250 | " | 1.37 | ND | 106 | 80-120 | 0.939 | 20 | |
| Ethylbenzene | 1.45 | 0.0250 | | 1.37 | ND | 106 | 80-120 | 3.85 | 20 | |
| Xylene (p/m) | 3.24 | 0.0250 | | 2.74 | ND | 118 | 80-120 | 0.00 | 20 | |
| Vulana (a) | | | | 1222 | 1.12 | 2.2.5 | 111111 | | | |

| Surrogate: | a,a,a-Trifluorotoluene |
|------------|------------------------|
| Surrogate: | 4-Bromofluorobenzene |

1.46

38.0

46.5

0.0250

.

ug/kg

"

1.37

40.0

40.0

ND

107

95.0

116

80-120

80-120

80-120

5.45

20

Xylene (o)

Environmental Lab of Texas

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-------------------------------|---------------|--------------------|-------|----------------|------------------|----------|----------------|-------|--------------|-------|
| Batch EH62307 - General Prepa | ration (Prep) | | | | | 1020 | | | | |
| Blank (EH62307-BLK1) | | | | Prepared: | 08/22/06 | Analyzed | 1: 08/23/06 | | | |
| % Solids | 100 | | % | | | | | | | |
| Duplicate (EH62307-DUP1) | So | urce: 6H2200 | 04-01 | Prepared: | 08/22/06 | Analyzed | 1: 08/23/06 | | | |
| % Solids | 91.8 | | % | | 92.0 | | | 0.218 | 20 | |

Environmental Lab of Texas

| | Notes and Definitions | |
|----------------------------------|--------------------------------|-------------------|
| Jal NM, 88252 | Project Manager: Tony Savoie | |
| P.O. Box 1226 | Project Number: Leak Site #2 | |
| Southern Union Gas Services- Jal | Project: A-14 6" Lateral SExNW | Fax: 505-395-2326 |

- The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or S-06 matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD **Relative Percent Difference**
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By: Date: 24-06

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

| Client: | SUGS | 2 |
|-------------|---------------|---|
| Date/ Time: | 8/22/06 10:15 | |
| _ab ID # : | 104122007 | _ |
| Initials: | CL | _ |

Sample Receipt Checklist

Client Initiale

| | | | onent initial |
|--|---|--|---|
| Temperature of container/ cooler? | Yes | No | 1.0 °C |
| Shipping container in good condition? | Yes | No | |
| Custody Seals intact on shipping container/ cooler? | Yes | No | Not Present |
| Custody Seals intact on sample bottles/ container? | Yes | No | Not Present |
| Chain of Custody present? | Xes | No | |
| Sample instructions complete of Chain of Custody? | Yes | No | |
| Chain of Custody signed when relinquished/ received? | des | No | |
| Chain of Custody agrees with sample label(s)? | Yes | No | ID written on Cont. (Lid) |
| Container label(s) legible and intact? | Yes | No | Not Applicable |
| Sample matrix/ properties agree with Chain of Custody? | Yes | No | |
| Containers supplied by ELOT? | Yes | No | × |
| Samples in proper container/ bottle? | Xes | No | See Belów |
| Samples properly preserved? | Yes | No | See Below |
| Sample bottles intact? | Yes | No | |
| Preservations documented on Chain of Custody? | Xes | No | |
| Containers documented on Chain of Custody? | Yes | No | |
| Sufficient sample amount for indicated test(s)? | Tes | No | See Below |
| | des | No | See Below |
| | Yes | No | Not Applicable |
| | Shipping container in good condition? Custody Seals intact on shipping container/ cooler? Custody Seals intact on sample bottles/ container? Chain of Custody present? Sample instructions complete of Chain of Custody? Chain of Custody signed when relinquished/ received? Chain of Custody agrees with sample label(s)? Container label(s) legible and intact? Sample matrix/ properties agree with Chain of Custody? Containers supplied by ELOT? Samples in proper container/ bottle? Samples properly preserved? Sample bottles intact? Preservations documented on Chain of Custody? | Shipping container in good condition?YesCustody Seals intact on shipping container/ cooler?YesCustody Seals intact on sample bottles/ container?YesChain of Custody present?YesSample instructions complete of Chain of Custody?YesChain of Custody signed when relinquished/ received?YesChain of Custody agrees with sample label(s)?YesContainer label(s) legible and intact?YesSample matrix/ properties agree with Chain of Custody?YesSamples in proper container/ bottle?YesSamples properly preserved?YesSample bottles intact?YesSample bottles intact?YesSample bottles intact?YesSamples properly preserved?YesSample bottles intact?YesSample bottles intact?YesAll samples received within sufficient hold time?Yes | Shipping container in good condition?YesNoCustody Seals intact on shipping container/ cooler?YesNoCustody Seals intact on sample bottles/ container?YesNoChain of Custody present?YesNoSample instructions complete of Chain of Custody?YesNoChain of Custody signed when relinquished/ received?YesNoChain of Custody agrees with sample label(s)?YesNoContainer label(s) legible and intact?YesNoSample matrix/ properties agree with Chain of Custody?YesNoSamples in proper container/ bottle?YesNoSamples in proper container/ bottle?YesNoSample bottles intact?YesNoSample bottles intact?YesNoSufficient sample amount for indicated test(s)?YesNoAll samples received within sufficient hold time?YesNo |

Variance Documentation

A-14 6" Lateral Job #2006-038

| Date Collected | Location | C6-C12 | C12-C28 | C28-C35 | C6-C35 | Chloride | C6-C12 C12-C28 C28-C35 C6-C35 Chloride Benzene | Toluene | Ethvlbenzene p/m-Xvlene p-Xlvene | p/m-Xvlene | o-Xivene |
|----------------|------------------------------|---------|---------|---------|--------|----------|--|---------|----------------------------------|------------|----------|
| | | mg/kg | mg/kg | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| 8/21/2006 | Area #1 Surface Comp | 7560 | 24600 | 2510 | 34700 | | | | | | |
| 8/21/2006 | Area #1 6" B.G.S. @ center | 40.2 | 257 | 257 | 323 | | | | | | |
| 8/21/2006 | Area #2 Surface Comp. | 5490 | 38500 | 3120 | 47100 | | | | | | |
| 8/21/2006 | Area #2 6" B.G.S. @ center | 221 | 916 | 80.9 | 1220 | | | | | | |
| 8/21/2006 | Area #2 6" B.G.S. @ west end | J(6.66) | 53.9 | 115 | 65.4 | | UN | UN | | CIN | |
| 8/21/2006 | Area #3 Surface Comp. | 6700 | 29900 | 2690 | 39300 | | 2 | | | | ND |
| 8/21/2006 | Area #3 6" B.G.S. @ center | 279 | 1550 | 142 | 1970 | | | | | | |
| 8/21/2006 | Area #4 Surface Comp. | 6020 | 33300 | 2940 | 42300 | | | | | | |
| 8/21/2006 | Area #4 6" B.G.S. @ center | 16.0 | 135 | 19.9 | 171 | | QN | QN | QN | UN | CIN |

Analytical Report 464284

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant SUGS Historical A-14 6 Inch Line 1RP-1116

04-JUN-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)



04-JUN-13



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

Reference: XENCO Report No(s): 464284 SUGS Historical A-14 6 Inch Line 1RP-1116 Project Address: Lea County, New Mexico

Camille Bryant:

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) 464284. 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. 464284 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully.

Kelsey Brooks Project Manager

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



Sample Cross Reference 464284



Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|-------------------|--------|----------------|--------------|---------------|
| RP Floor @ 11' | S | 05-31-13 11:30 | | 464284-001 |
| RP East S/W @ 10' | S | 05-31-13 12:00 | | 464284-002 |
| RP West S/W @ 10' | S | 05-31-13 12:30 | | 464284-003 |



CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID: Work Order Number(s): 464284 Report Date: 04-JUN-13 Date Received: 06/03/2013

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Project Id:

Contact: Camille Bryant

Project Location: Lea County, New Mexico

Certificate of Analysis Summary 464284

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Mon Jun-03-13 11:25 am

Report Date: 04-JUN-13

Project Manager: Kelsey Brooks

| | | | | | | | | 1 Tojece Munuger | neise, Brooms | |
|------------------------------------|------------|-------------|---------------|-------------|---------------|-------------|---------------|------------------|---------------|--|
| | Lab Id: | 464284-0 | 001 | 464284-0 | 02 | 464284-0 | 003 | | | |
| | Field Id: | RP Floor | @ 11' | RP East S/W | @ 10' | RP West S/W | ' @ 10' | | | |
| Analysis Requested | Depth: | | | | | | | | | |
| | Matrix: | SOIL | | SOIL | | SOIL | | | | |
| | Sampled: | May-31-13 | 11:30 | May-31-13 | 12:00 | May-31-13 | 12:30 | | | |
| BTEX by EPA 8021B | Extracted: | ** ** ** | | ** ** ** | ** | ** ** ** | | | | |
| | Analyzed: | Jun-03-13 | 15.15 | Jun-03-13 1 | 5.32 | Jun-03-13 | 15.48 | | | |
| | | | | | | | | | | |
| Demonstra | Units/RL: | mg/kg ND | RL 0.00111 | mg/kg ND | RL 0.00106 | mg/kg ND | RL 0.00103 | | | |
| Benzene | | ND ND | 0.00223 | | 0.00100 | ND ND | 0.00103 | | | |
| Toluene | | | | 112 | | | | | | |
| Ethylbenzene | | ND | 0.00111 | | 0.00106 | ND | 0.00103 | | | |
| m,p-Xylenes | | ND | 0.00223 | | 0.00213 | | 0.00206 | | | |
| o-Xylene | | ND | 0.00111 | ND | 0.00106 | ND | 0.00103 | | | |
| Total Xylenes | | ND | 0.00111 | | 0.00106 | | 0.00103 | | | |
| Total BTEX | | ND | 0.00111 | ND | 0.00106 | ND | 0.00103 | | | |
| Inorganic Anions by EPA 300/300.1 | Extracted: | Jun-03-13 | 12:00 | Jun-03-13 1 | 2:00 | Jun-03-13 | 12:00 | | | |
| | Analyzed: | Jun-04-13 | 01:12 | Jun-04-13 (| 2:17 | Jun-04-13 | 02:39 | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | |
| Chloride | | 492 | 10.0 | 25.5 | 2.00 | 8.01 | 2.00 | | | |
| Percent Moisture | Extracted: | | | | | | | | | |
| | Analyzed: | Jun-03-13 | 13:05 | Jun-03-13 1 | 3:05 | Jun-03-13 | 13:05 | | | |
| | Units/RL: | % | RL | % | RL | % | RL | | | |
| Percent Moisture | | 10.3 | 1.00 | 6.27 | 1.00 | 3.38 | 1.00 | | | |
| TPH By SW8015 Mod | Extracted: | Jun-03-13 | 16:00 | Jun-03-13 1 | 6:00 | Jun-03-13 | 16:00 | | | |
| | Analyzed: | Jun-04-13 | 05:22 | Jun-04-13 (| 5:48 | Jun-04-13 (| 06:14 | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 15.0 | ND | 14.9 | ND | 15.0 | | | |
| C12-C28 Diesel Range Hydrocarbons | | ND | 15.0 | ND | 14.9 | ND | 15.0 | | | |
| C28-C35 Oil Range Hydrocarbons | | ND | 15.0 | ND | 14.9 | ND | 15.0 | | | |
| Total TPH | | ND | 15.0 | ND | 14.9 | ND | 15.0 | | | |
| | | | | | | | | | | |

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

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Huns Boah

Kelsey Brooks Project Manager

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Flagging Criteria



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

* Surrogate recovered outside laboratory control limit.

- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit
 SDL Sample Detection Limit
 LOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464284 | | _ | Project I | | | | | |
|---|--------------------------------------|--|------------------------|-----------------------|-------------------------|-------|--|--|
| Lab Batch #: 915314 | Sample: 464284-001 / SMP | Bate | | | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 15:15 | 50 | RROGATE R | ECOVERY | STUDY | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| | Analytes | | | [D] | | | | |
| 1,4-Difluorobenzene | | 0.0263 | 0.0300 | 88 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0284 | 0.0300 | 95 | 80-120 | | | |
| Lab Batch #: 915314 | Sample: 464284-002 / SMP | Batc | h: ¹ Matrix | :Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 15:32 | SU | RROGATE R | ECOVERY | STUDY | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1.4-Difluorobenzene | Analytes | 0.0226 | 0.0200 | | 80.120 | | | |
| 4-Bromofluorobenzene | | 0.0326 | 0.0300 | 109 | 80-120 80-120 | | | |
| | a | | | | 00 120 | | | |
| Lab Batch #: 915314 | Sample: 464284-003 / SMP | P Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 15:48 | | | | | | | |
| BTEX | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 14 D'fluench manne | Analytes | 0.0275 | 0.0200 | | 00.120 | | | |
| 1,4-Difluorobenzene 4-Bromofluorobenzene | | 0.0275 | 0.0300 | 92 | 80-120 80-120 | | | |
| | | | | - | 80-120 | | | |
| Lab Batch #: 915289 | Sample: 464284-001 / SMP | P Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 05:22 | 50 | KRUGATE K | LCOVERY | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1-Chlorooctane | | 103 | 100 | 103 | 70-135 | | | |
| o-Terphenyl | | 57.6 | 50.0 | 115 | 70-135 | | | |
| Lab Batch #: 915289 | Sample: 464284-002 / SMP | Batc | h: ¹ Matrix | :Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 05:48 | SU | RROGATE R | ECOVERYS | STUDY | | | |
| TPH] | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| | 1 1 1111 y (C) | | 1 | | | | | |
| 1-Chlorooctane | | 102 | 99.6 | 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: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464284 | | | Project I | | | | | | |
|-----------------------------|--------------------------------------|---|------------------------|-----------------------|-------------------------|-------|--|--|--|
| Lab Batch #: 915289 | Sample: 464284-003 / SMP | IP Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 06:14 | 50 | KROGATE K | | | | | | |
| TPH] | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | | |
| | Analytes | | | [D] | | | | | |
| 1-Chlorooctane | | 105 | 99.8 | 105 | 70-135 | | | | |
| o-Terphenyl | | 57.8 | 49.9 | 116 | 70-135 | | | | |
| Lab Batch #: 915314 | Sample: 639110-1-BLK / BI | K Batc | h: ¹ Matrix | :Solid | | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 14:59 | SU | RROGATE R | ECOVERY | STUDY | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | |
| 1,4-Difluorobenzene | Analy us | 0.0300 | 0.0300 | 100 | 80-120 | | | | |
| 4-Bromofluorobenzene | | 0.0277 | 0.0300 | 92 | 80-120 | | | | |
| Lab Batch #: 915289 | Sample: 639104-1-BLK / BI | .K Batc | h: ¹ Matrix | :Solid | 11 | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 04:57 | SURROGATE RECOVERY STUDY | | | | | | | |
| TPH] | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flage | | | |
| | Analytes | [] | [_] | [D] | , | | | | |
| 1-Chlorooctane | | 111 | 99.8 | 111 | 70-135 | | | | |
| o-Terphenyl | | 62.7 | 49.9 | 126 | 70-135 | | | | |
| Lab Batch #: 915314 | Sample: 639110-1-BKS / BK | KS Bate | h: 1 Matrix | :Solid | | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 14:10 | SU | RROGATE R | ECOVERY | STUDY | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | |
| 1,4-Difluorobenzene | | 0.0297 | 0.0300 | 99 | 80-120 | | | | |
| 4-Bromofluorobenzene | | 0.0306 | 0.0300 | 102 | 80-120 | | | | |
| Lab Batch #: 915289 | Sample: 639104-1-BKS / BK | KS Bate | h: 1 Matrix | :Solid | | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 04:07 | SU | RROGATE R | ECOVERY | STUDY | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | |
| 1-Chlorooctane | <i>.</i> | 106 | 100 | 106 | 70-135 | | | | |
| o-Terphenyl | | 64.7 | | 129 | 70-135 | | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464284 | | | Project I h: 1 Matrix | | | | | | |
|----------------------------|---|---|--------------------------|-----------------------|-------------------------|-------|--|--|--|
| Lab Batch #: 915314 | Sample: 639110-1-BSD / BS | Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY | | | | | | | |
| Units: mg/kg BTE | Date Analyzed: 06/03/13 14:26 X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | | |
| | Analytes | [A] | [D] | [D] | 701 | | | | |
| 1,4-Difluorobenzene | | 0.0259 | 0.0300 | 86 | 80-120 | | | | |
| 4-Bromofluorobenzene | | 0.0271 | 0.0300 | 90 | 80-120 | | | | |
| Lab Batch #: 915289 | Sample: 639104-1-BSD / BS | SD Batc | h: ¹ Matrix | :Solid | | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 04:32 | 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 | 1111119000 | 111 | 99.7 | 111 | 70-135 | | | | |
| o-Terphenyl | | 64.2 | 49.9 | 129 | 70-135 | | | | |
| Lab Batch #: 915314 | Sample: 464286-005 S / MS | Batc | h: ¹ Matrix | :Soil | 1 1 | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 21:02 | SURROGATE RECOVERY STUDY | | | | | | | |
| BTEX | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | | |
| | Analytes | | | | | | | | |
| 1,4-Difluorobenzene | | 0.0276 | 0.0300 | 92 | 80-120 | | | | |
| 4-Bromofluorobenzene | | 0.0347 | 0.0300 | 116 | 80-120 | | | | |
| Lab Batch #: 915289 | Sample: 464284-001 S / MS | AS Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 06:40 | 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 | | 109 | 99.6 | 109 | 70-135 | | | | |
| o-Terphenyl | | 64.0 | 49.8 | 129 | 70-135 | | | | |
| Lab Batch #: 915314 | Sample: 464286-005 SD / M | ISD Batc | h: 1 Matrix | :Soil | | | | | |
| Units: mg/kg | Date Analyzed: 06/03/13 21:19 | SU | RROGATE R | ECOVERY | STUDY | | | | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | | |
| 1,4-Difluorobenzene | • | 0.0340 | 0.0300 | 113 | 80-120 | | | | |
| 4-Bromofluorobenzene | | 0.0319 | | 1 | 80-120 | | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Orders : 464284 | Project ID: | | | | | | | | | |
|----------------------------|-------------------------------|----------------------------|-----------------------|-----------------------|-------------------------|-------|--|--|--|--|
| Lab Batch #: 915289 | Sample: 464284-001 SD / M | MSD Batch: 1 Matrix: Soil | | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/04/13 07:05 | 5 SURROGATE RECOVERY STUDY | | | | | | | | |
| TPH By SW8015 Mod Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | | |
| | Analytes | | | [-] | | | | | | |
| 1-Chlorooctane | | 112 | 99.9 | 112 | 70-135 | | | | | |
| o-Terphenyl | | 64.9 | 50.0 | 130 | 70-135 | | | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464284 | | | | | Project ID: | | | | | | | |
|--|---|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|----------|-------------------------|---------------------------|------|--|
| Analyst: DYV | Date Prepared: 06/03/2013 | | | | | Date Analyzed: 06/03/2013 | | | | | | |
| Lab Batch ID: 915314 Sample: 639110-1-1 | BKS Batch #: 1 | | | | | Matrix: Solid | | | | | | |
| Units: mg/kg | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | | |
| BTEX by EPA 8021B | Blank Sample Result [A] | Spike Added | Blank Spike Result | Blank Spike %R | Spike Added | Blank Spike Duplicate | Blk. Spk Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag | |
| Analytes | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | | |
| Benzene | <0.000990 | 0.0990 | 0.100 | 101 | 0.0996 | 0.0825 | 83 | 19 | 70-130 | 35 | | |
| Toluene | <0.00198 | 0.0990 | 0.101 | 102 | 0.0996 | 0.0882 | 89 | 14 | 70-130 | 35 | | |
| Ethylbenzene | <0.000990 | 0.0990 | 0.103 | 104 | 0.0996 | 0.0874 | 88 | 16 | 71-129 | 35 | | |
| m,p-Xylenes | <0.00198 | 0.198 | 0.197 | 99 | 0.199 | 0.165 | 83 | 18 | 70-135 | 35 | | |
| o-Xylene | <0.000990 | 0.0990 | 0.0986 | 100 | 0.0996 | 0.0823 | 83 | 18 | 71-133 | 35 | | |
| Analyst: AMB | Date Analyzed: 06/04/2013 | | | | | | | | | | | |
| Lab Batch ID: 915357 Sample: 639154-1-BKS Batch #: 1 | | | | | Matrix: Solid | | | | | | | |
| Units: mg/kg | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | | |
| Inorganic Anions by EPA 300/300.1 Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag | |
| Chloride | <2.00 | 50.0 | 47.8 | 96 | 50.0 | 47.7 | 95 | 0 | 80-120 | 20 | | |

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





Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464284 Analyst: DYV | | Date Prepared: 06/03/2013 | | | | | Project ID: Date Analyzed: 06/04/2013 | | | | | | |
|--------------------------------------|---|----------------------------------|----------------|--------------------------|----------------------|----------------|--|------------------------|----------|-------------------------|---------------------------|------|--|
| Lab Batch ID: 915289 | Sample: 639104-1-BKS | Sample: 639104-1-BKS Batch #: 1 | | | | Matrix: Solid | | | | | | | |
| Units: mg/kg | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | | | |
| TPH By SW80 | 15 Mod Sa | Blank ample Result [A] | Spike Added | Blank Spike Result | Blank Spike %R | Spike Added | Blank Spike Duplicate | Blk. Spk Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag | |
| Analytes | | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | | |
| C6-C12 Gasoline Range Hydroca | arbons | <15.0 | 1000 | 1070 | 107 | 997 | 1090 | 109 | 2 | 70-135 | 35 | | |
| C12-C28 Diesel Range Hydrocar | bons | <15.0 | 1000 | 1110 | 111 | 997 | 1140 | 114 | 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 Recoveries



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464284 Lab Batch #: 915357 | | | Pro | oject ID: | | | | |
|---|---------------------------------------|--------------------------------------|--------------------------------|--------------|-------------------------|------|--|--|
| Date Analyzed: 06/03/2013 | Date Prepared: 06/03/2013Analyst: AMB | | | | | | | |
| QC- Sample ID: 464286-001 S | Batch #: 1 | | Ν | Matrix: Soil | | | | |
| Reporting Units: mg/kg | MATRI | MATRIX / MATRIX SPIKE RECOVERY STUDY | | | | | | |
| Inorganic Anions by EPA 300 | Parent Sample Result | Spike Added | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag | | |
| Analytes | [A] | [B] | | | | | | |
| Chloride | 5.45 | 50.0 | 53.0 | 95 | 80-120 | | | |

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : 464284 | Project ID: | | | | | | | | | | |
|------------------------------------|----------------------------|----------------|--------------------------------|------------------------|----------------|--|----------------------|----------|-------------------------|---------------------------|------|
| Lab Batch ID: 915314 | QC- Sample ID: | 464286 | -005 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/03/2013 | Date Prepared: | 06/03/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Ν | IATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| BTEX by EPA 8021B | 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] | Result [1] | [G] | 70 | Jux | | |
| Benzene | <0.00104 | 0.104 | 0.0969 | 93 | 0.104 | 0.102 | 98 | 5 | 70-130 | 35 | |
| Toluene | < 0.00209 | 0.104 | 0.117 | 113 | 0.104 | 0.102 | 98 | 14 | 70-130 | 35 | |
| Ethylbenzene | < 0.00104 | 0.104 | 0.112 | 108 | 0.104 | 0.110 | 106 | 2 | 71-129 | 35 | |
| m,p-Xylenes | < 0.00209 | 0.209 | 0.207 | 99 | 0.208 | 0.207 | 100 | 0 | 70-135 | 35 | |
| o-Xylene | < 0.00104 | 0.104 | 0.108 | 104 | 0.104 | 0.0988 | 95 | 9 | 71-133 | 35 | |
| Lab Batch ID: 915289 | QC- Sample ID: | 464284 | -001 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/04/2013 | Date Prepared: | 06/03/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Ν | IATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| TPH By SW8015 Mod | Parent Sample | Spike | Spiked Sample Result | Sample | Spike | Duplicate Spiked Sample | | 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 | <14.9 | 996 | 1050 | 105 | 999 | 1070 | 107 | 2 | 70-135 | 35 | |

996

<14.9

1100

110

999

1120

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

C12-C28 Diesel Range Hydrocarbons

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

112

2

70-135

35



Sample Duplicate Recovery



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464284

| Lab Batch #: 915294 | | | | Project I | D : | |
|------------------------------------|-------------|--------------------------------|-------------------------------|-----------|---------------------------|-------|
| Date Analyzed: 06/03/2013 13:05 | Date Prepar | ed: 06/03/2013 | Anal | lyst:WRU | | |
| QC- Sample ID: 464284-001 D | Batch | n#: 1 | Mat | rix: Soil | | |
| Reporting Units: % | | SAMPLE / | SAMPLE | DUPLIC | ATE REC | OVERY |
| Percent Moisture | | Parent Sample Result [A] | Sample Duplicate Result | RPD | Control Limits %RPD | Flag |
| Analyte | | | [B] | | | |
| Percent Moisture | | 10.3 | 10.3 | 0 | 20 | |

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

| Relinquished by Relinquished by | Reinquished by | | | | Π | 03 | Od | 0 | LAB # (lab use only) | ORDEF | (lab use only) | | | | | | | The Environme |
|--|---|-----------|---|----|----|-------------------|-------------------|----------------|---|-----------------|-----------------|-------------------|----------------|-------------------|--------------------|-------------------------------|---|---|
| hed by: | Relinquished by: | | 1 | | | | | | | ORDER # JUHAO | only) / | Sampler Signature | Telephone No: | City/State/Zip: | Company Address: | Company Name | Project Manager: | 3 |
| feg a | X) IS | | | | | RP | RP | R | | 140 | | Signat | ne No: | e/Zip: | y Addre | y Name | Manage | I Lab of |
| n | 4.4 | | | | | RP West S/W @ 10' | RP East S/W @ 10' | RP Floor @ 11' | FIELD CODE | L 04 | 1011 | ure: Linn | 432.520.7720 | Midland, TX 79703 | ess: 2057 Commerce | | a | tal Lab of Texas |
| | (0)2)12 | | | | | 10' | 10' | | | | | hoor la | 720 | X 79703 | merce | Nova Safety and Environmental | Cami | |
| Time | 5 - | | | | | | | | Beginning Depth | 1 | _ | ¥. | ľ | | | nental | Camille Bryant | |
| Time | Time 0:70 | | | | | | | | Ending Depth | | C | É | | | | | Int | |
| Received by: Received by ELOT: | Received by: | | | | | 5/31/2013 | 5/31/2013 | 5/31/2013 | Date Sampled | | | | | | | | | |
| | Contra | | | | | 12:30 | 12:00 | 11:30 | Time Sampled | | | e-mail: | Fax No: | | | | | |
| | V | | | | | | | | Field Filtered | 1 | | ī. | | | | | | |
| | | | - | ++ | ++ | 1 × | 1 | × | Total #. of Containers | + | | | 432.520.7701 | | | | | 0 |
| 5 | | \vdash | + | | | Ê | × | ŕ | HNO ₃ | Pre | | cbr | 20.7 | | | | | 12600 West I-20 East Odessa, Texas 79765 |
| _ | | | | | | + | - | - | HCI | Preservation | | cbryant@r | 701 | | | | |) We sa, 1 |
| 2 | | | | | | 1 | | | H ₂ SO ₄ | tion 8 | | | | | | | | st I- |
| 5 | | | | | | | | | NaOH | # of | | ova | | | | | | 20 E IS 79 |
| | | | - | | | | | | Na ₂ S ₂ O ₃ | # of Containers | | ovatraining.cc | | | | | | ast 765 |
| | | | 1 | - | | - | - | - | None | iners | | ing | | | | | | |
| Date | Date | | - | | ++ | + | - | - | Other (Specify) DW=Drinking Water SL=Sludge | Н | | 8 | 1 | 1 | Į. | | 1 | |
| | | | | | | Soil | Soil | Soil | GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other | Matrix | | | Report Format: | | Pr | | Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116 | |
| Time | Time | \vdash | _ | | | × | × | × | TPH: 418.1 8015M 80 TPH: TX 1005 TX 1006 | 015B | | | orm | | Project Loc: | Project #: | ect N | |
| 500 | | | | | | - | - | + | Cations (Ca, Mg, Na, K) | | | | at | PO #: | Loc | ect # | lame | |
| ampl by by | Laboratory Comment Sample Containers Int VOCs Free of Headspu- Labels on container(s) Custody seals on container | \vdash | | | | - | | | Anions (CI, SO4, Alkalinity) | | 7 | | * | 1 | 1 | 1 | Is: | |
| e Ha Sam Cour | e Co Free Free by se | | | | | | | | SAR / ESP / CEC | | TCLP: TOTAL: | | Sta | | | |)GS | |
| nier? | y Co of H ontain | | | | | | | | Metals: As Ag Ba Cd Cr Pb Hg | _ | | Þ | Standard | | 1.1 | | Histo | Phone Fax: |
| Clier | mm hers flead | | | | | | | | Volatiles | | | nalyz | đ | | Lea | | nical | x: |
| Sample Hand Delivered by Sampler/Client Rep. ? by Courier? UPS | Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Labels on container(s) Custody seals on container | | | | | | | | Semivolatiles | | | Analyze For: | | | a Co | | A-14 | 432 |
| | Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Labels on container(s) Custody seals on container(s) | | | | | × | × | × | BTEX 8021B/5030 or BTEX 8 | 260 | | ă | | | County, New Mexico | | 16 In | t I-20 East Phone: 432-563-1800 Fax: 432-563-1713 |
| DHL | (S) | \square | | | | | | | RCI | | | | TRRP | | . Ne | | Ich L | 3-18 |
| | | \vdash | - | | | | | | N.O.R.M. | _ | - 1 | | D | | W M | | ine 1 | 13 |
| V FedEx Y | < | \vdash | - | | | × | × | × | Chloride E 300.0 | | | | | | exic | | RP- | |
| | | \vdash | | | | 1 | - | - | | | | | NP | | 0 | | 1116 | |
| N N N N N N N N N N N N N N N N N N N | zzzz | H | | | | × | × | × | RUSH TAT (Pre-Schedule) 24 | 48. | 72 hrs | - | P | | | | | |
| ÷ | | - | | | | 1 | 1 | 1 | Standard TAT | 1 | | - L | | | | | | |

Finai 1.000



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: 06/03/2013 11:25:00 AM **Temperature Measuring device used :** Work Order #: 464284

Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 3 #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: Hung Horah Kelsey Brooks Checklist reviewed by: Hung Horah Kelsey Brooks

Date: 06/04/2013

Date: 06/04/2013

Analytical Report 464486

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant SUGS Historical A-14 6 Inch Line 1RP-1116

06-JUN-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)



06-JUN-13



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

Reference: XENCO Report No(s): 464486 SUGS Historical A-14 6 Inch Line 1RP-1116 Project Address: Lea County, New Mexico

Camille Bryant:

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) 464486. 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. 464486 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully.

Kelsey Brooks Project Manager

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Sample Cross Reference 464486



Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|---------------------|--------|----------------|--------------|---------------|
| Trench-1 Floor @ 2' | S | 06-03-13 13:30 | | 464486-001 |
| Trench-2 Floor @ 2' | S | 06-03-13 14:30 | | 464486-002 |



CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID: Work Order Number(s): 464486
 Report Date:
 06-JUN-13

 Date Received:
 06/05/2013

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-915597 Inorganic Anions by EPA 300/300.1 E300

Batch 915597, Chloride recovered below QC limits in the Matrix Spike. Samples affected are: 464486-001, -002. The Laboratory Control Sample for Chloride is within laboratory Control Limits



Contact: Camille Bryant

Project Location: Lea County, New Mexico

Certificate of Analysis Summary 464486

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Wed Jun-05-13 03:27 pm

Report Date: 06-JUN-13

Project Manager: Kelsey Brooks

| | | | | | | I I Oject Manager. | Reisey Biooks | |
|---|------------|--------------|----------------------------|---------------|----------------|--------------------|---------------|--|
| | Lab Id: | 464486-0 | 001 | 464486-0 | 02 | | | |
| A starting Democrate I | Field Id: | Trench-1 Flo | or @ 2' | Trench-2 Floo | r @ 2' | | | |
| Analysis Requested | Depth: | | | | | | | |
| | Matrix: | SOIL | | SOIL | | | | |
| | Sampled: | Jun-03-13 | 13:30 | Jun-03-13 1 | 4:30 | | | |
| BTEX by EPA 8021B | Extracted: | Jun-05-13 | 16.45 | Jun-05-13 1 | 6.15 | | | |
| | Analyzed: | Jun-05-13 | | Jun-05-13 1 | | | | |
| | | | | | | | | |
| Benzene | Units/RL: | mg/kg | RL 0.000990 | mg/kg | RL 0.000994 | | | |
| Toluene | | ND | 0.00198 | | 0.00199 | | | |
| Ethylbenzene | | | 0.000990 | | 0.000199 | | | |
| m,p-Xylenes | | ND | 0.000990 | | 0.001994 | | | |
| o-Xylene | | | 0.000990 | | 0.000199 | | | |
| Total Xylenes | | | | | 0.000994 | | | |
| Total BTEX | | | ND 0.000990 ND 0.000990 | | 0.000994 | | | |
| | | | | | | | | |
| Inorganic Anions by EPA 300/300.1 SUB: TX104704215 | Extracted: | Jun-06-13 | | Jun-06-13 0 | | | | |
| SUB: 1A104/04215 | Analyzed: | Jun-06-13 | 16:36 | Jun-06-13 1 | 6:53 | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | | | |
| Chloride | | 18.5 | 2.00 | 63.8 | 2.00 | | | |
| Percent Moisture | Extracted: | | | | | | | |
| | Analyzed: | Jun-05-13 | 17:15 | Jun-05-13 1 | 7:15 | | | |
| | Units/RL: | % | RL | % | RL | | | |
| Percent Moisture | | 3.59 | 1.00 | 3.53 | 1.00 | | | |
| TPH By SW8015 Mod | Extracted: | Jun-05-13 | 16:30 | Jun-05-13 1 | 6:30 | | | |
| | Analyzed: | Jun-06-13 | 01:42 | Jun-06-13 0 | 2:08 | | | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | | | |
| C6-C12 Gasoline Range Hydrocarbons | ' | ND | 14.9 | ND | 14.9 | | | |
| C12-C28 Diesel Range Hydrocarbons | | ND | 14.9 | 69.1 | 14.9 | | | |
| C28-C35 Oil Range Hydrocarbons | | ND | 14.9 | ND | 14.9 | | | |
| Total TPH | | ND | 14.9 | 69.1 | 14.9 | | | |

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

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Huns Boah

Kelsey Brooks Project Manager



Flagging Criteria



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

* Surrogate recovered outside laboratory control limit.

- BRL Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit
 SDL Sample Detection Limit
 LOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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| 6017 Financial Drive, Norcross, GA 30071 | (770) 449-8800 | (770) 449-5477 |
| 3725 E. Atlanta Ave, Phoenix, AZ 85040 | (602) 437-0330 | |
| | | |



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| 'ork Orders: 464486 Lab Batch #: 915497 | , 464486 Sample: 464486-001 / SMP | Batc | Project I h: 1 Matrix | | | |
|--|--------------------------------------|------------------------|--------------------------|-----------------------|---|-------|
| Units: mg/kg | Date Analyzed: 06/05/13 22:39 | | RROGATE R | | STUDY | |
| | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1,4-Difluorobenzene | | 0.0264 | 0.0300 | 88 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0242 | 0.0300 | 81 | 80-120 | |
| Lab Batch #: 915497 | Sample: 464486-002 / SMP | Batc | h: ¹ Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/05/13 22:55 | SU | RROGATE R | ECOVERY | STUDY | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1.4-Difluorobenzene | Anarytes | 0.0323 | 0.0300 | 108 | 80.120 | |
| 4-Bromofluorobenzene | | 0.0323 | 0.0300 | 108 | 80-120 | |
| | a 164496.001 / DMD | | | - | 00 120 | |
| Lab Batch #: 915496 | Sample: 464486-001 / SMP | Batc | | | STUDV | |
| Units: mg/kg | Date Analyzed: 06/06/13 01:42 | 50 | | | y Control Limits %R FI 80-120 9 80-120 9 Y STUDY y Control Limits %R FI 80-120 9 80-120 9 80-120 9 80-120 9 Y STUDY Y Control Limits %R FI 70-135 70-135 Y STUDY Y Control Limits %R FI 70-135 70-135 70-135 70-135 70-135 70-135 Y STUDY Y STUDY Y Control Limits 70-135 70-135 70-135 | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Limits | Flage |
| 1-Chlorooctane | Anarytes | 102 | 00.5 | | 70.125 | |
| o-Terphenyl | | 102 55.6 | 99.5 | 103 | | |
| | | | | | 70-133 | |
| Lab Batch #: 915496 | Sample: 464486-002 / SMP | Batc | - | - | | |
| Units: mg/kg | Date Analyzed: 06/06/13 02:08 | SU | RROGATE R | ECOVERY | STUDY | |
| TPH I | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Limits | Flage |
| 1-Chlorooctane | | 95.9 | 99.6 | 96 | 70-135 | |
| o-Terphenyl | | 52.2 | 49.8 | 105 | | |
| Lab Batch #: 915497 | Sample: 639240-1-BLK / BL | | | | | |
| | · · | | RROGATE R | | STUDY | |
| Units: mg/kg | Date Analyzed: 06/05/13 17:59 | | 1 | | | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Limits | Flage |
| 1,4-Difluorobenzene | | 0.0337 | 0.0300 | 112 | 80-120 | |
| | | | | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464486 Lab Batch #: 915496 | 5, 464486 Sample: 639238-1-BLK / B | LK Batc | Project I h: ¹ Matrix | | | |
|---|---------------------------------------|------------------------|-------------------------------------|-----------------------|-------------------------|-------|
| Units: mg/kg | Date Analyzed: 06/06/13 01:15 | | RROGATE R | | STUDY | |
| TPH | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1-Chlorooctane | | 101 | 99.8 | 101 | 70-135 | |
| o-Terphenyl | | 55.0 | 49.9 | 110 | 70-135 | |
| Lab Batch #: 915497 | Sample: 639240-1-BKS / B | KS Bate | h: ¹ Matrix | :Solid | | |
| Units: mg/kg | Date Analyzed: 06/05/13 17:26 | SU | RROGATE R | ECOVERY | STUDY | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | Analytes | 0.0347 | 0.0300 | 116 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0347 | 0.0300 | 110 | 80-120 | |
| Lab Batch #: 915496 | Sample: 639238-1-BKS / B | KS Batc | h: ¹ Matrix | . Solid | | |
| Units: mg/kg | Date Analyzed: 06/06/13 00:23 | | RROGATE R | | STUDY | |
| | - | Amount | True | | Control | |
| 1PH. | By SW8015 Mod Analytes | Found [A] | Amount [B] | Recovery %R [D] | Limits %R | Flags |
| 1-Chlorooctane | 1111119005 | 99.1 | 99.9 | 99 | 70-135 | |
| o-Terphenyl | | 61.3 | 50.0 | 123 | 70-135 | |
| Lab Batch #: 915497 | Sample: 639240-1-BSD / B | SD Batc | h: 1 Matrix | : Solid | | |
| Units: mg/kg | Date Analyzed: 06/05/13 17:43 | | RROGATE R | | STUDY | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 4.4.5-20 | Analytes | | | | | |
| 1,4-Difluorobenzene | | 0.0317 | 0.0300 | 106 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0255 | 0.0300 | 85 | 80-120 | |
| Lab Batch #: 915496 | Sample: 639238-1-BSD / B | | | | | |
| Units: mg/kg | Date Analyzed: 06/06/13 00:49 | SU | RROGATE R | ECOVERY | STUDY | |
| TPH | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flage |
| 1.011 | Analytes | | | [D] | | |
| 1-Chlorooctane | | 103 | 100 | 103 | 70-135 | |
| o-Terphenyl | | 61.6 | 50.1 | 123 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464486 | | | Project I h: 1 Matrix | | | |
|-----------------------------|-------------------------------|------------------------|-------------------------------------|-----------------------|-------------------------|-------|
| Lab Batch #: 915497 | Sample: 464484-003 S / M | | h: ¹ Matrix RROGATE R | - | STUDY | |
| Units: mg/kg | Date Analyzed: 06/05/13 23:11 | 50 | KRUGAIE K | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | | 0.0257 | 0.0300 | 86 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0314 | 0.0300 | 105 | 80-120 | |
| Lab Batch #: 915496 | Sample: 464484-002 S / M | S Batcl | h: ¹ Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/06/13 03:25 | SU | RROGATE R | ECOVERYS | STUDY | |
| TPH | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | Analytes | 100 | 100 | 100 | 70-135 | |
| o-Terphenyl | | 58.2 | 50.1 | 116 | 70-135 | |
| Lab Batch #: 915497 | Sample: 464484-003 SD / N | | | r: Soil | | |
| Units: mg/kg | Date Analyzed: 06/05/13 23:27 | | RROGATE R | - | STUDY | |
| | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | [A] | լոյ | [D] | 70K | |
| 1,4-Difluorobenzene | | 0.0355 | 0.0300 | 118 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0321 | 0.0300 | 107 | 80-120 | |
| Lab Batch #: 915496 | Sample: 464484-002 SD / N | MSD Batel | h: 1 Matrix | :: Soil | | |
| Units: mg/kg | Date Analyzed: 06/06/13 03:50 | 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 | | 99.2 | 99.7 | 99 | 70-135 | |
| o-Terphenyl | | 60.0 | 49.9 | 120 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution





Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464486 | Project ID: | | | | | | | |
|----------------------------------|-------------|--|----------------|----------------------------|----------------|-------------------|-------|--|
| Lab Batch #: 915597 | S | ample: 639259- | 1-BKS | Matrix: | Solid | | | |
| Date Analyzed: 06/06/2013 | Date Pre | Date Prepared: 06/06/2013 Analyst: RKO | | | | | | |
| Reporting Units: mg/kg | B | atch #: 1 | BLANK /H | BLANK SPIKE RECOVERY STUDY | | | | |
| Inorganic Anions by EPA 30 | 0/300.1 | Blank Result | Spike Added | Blank Spike | Blank Spike | Control Limits | Flags | |
| Analytes | | [A] | [B] | Result [C] | %R [D] | %R | | |
| Chloride | | <2.00 | 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: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464486, 464486 | | Project ID: | | | | | | | | | |
|---|-------------------------------|-----------------------|---------------------------------|-----------------------------|-----------------------|---|-------------------------------|-------------|-------------------------|---------------------------|------|
| Analyst: DYV | Da | ate Prepar | ed: 06/05/201 | 3 | | | Date A | nalyzed: () | 6/05/2013 | | |
| Lab Batch ID: 915497 Sample: 639240-1-E | BKS | Bate | h #: 1 | | | | | Matrix: S | Solid | | |
| Units: mg/kg | | BLAN | K/BLANK S | SPIKE / E | BLANK S | SPIKE DUPI | LICATE | RECOVE | ERY STUD | Y | |
| BTEX by EPA 8021B | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Analytes | | լոյ | | | լեյ | Kesuit [F] | [0] | | | | |
| Benzene | < 0.00100 | 0.100 | 0.0903 | 90 | 0.0994 | 0.0827 | 83 | 9 | 70-130 | 35 | |
| Toluene | < 0.00200 | 0.100 | 0.0986 | 99 | 0.0994 | 0.0932 | 94 | 6 | 70-130 | 35 | |
| Ethylbenzene | < 0.00100 | 0.100 | 0.109 | 109 | 0.0994 | 0.0986 | 99 | 10 | 71-129 | 35 | |
| m,p-Xylenes | < 0.00200 | 0.200 | 0.203 | 102 | 0.199 | 0.180 | 90 | 12 | 70-135 | 35 | |
| o-Xylene | <0.00100 | 0.100 | 0.111 | 111 | 0.0994 | 0.0937 | 94 | 17 | 71-133 | 35 | |
| Analyst: DYV | Da | ate Prepar | ed: 06/05/201 | 3 | | | Date A | nalyzed: () | 6/06/2013 | | |
| Lab Batch ID: 915496 Sample: 639238-1-E | BKS | Batc | h #: 1 | | | | | Matrix: S | Solid | | |
| Units: mg/kg | | BLAN | K /BLANK S | SPIKE / E | BLANK S | SPIKE DUPI | LICATE | RECOVE | ERY STUD | Y | |
| TPH By SW8015 Mod Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| C6-C12 Gasoline Range Hydrocarbons | <15.0 | 999 | 1100 | 110 | 1000 | 1120 | 112 | 2 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | <15.0 | 999 | 1160 | 116 | 1000 | 1170 | 117 | 1 | 70-135 | 35 | |

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

XENCO Laboratories

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : 464486 | | | | | | Project II |): | | | | |
|---|--|---|---|---|---|---|--|--------------|-----------------------------------|---------------------------|------|
| Lab Batch ID: 915497 | QC- Sample ID: | 464484 | -003 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/05/2013 | Date Prepared: | 06/05/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| BTEX by EPA 8021B Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Benzene | <0.000990 | 0.0990 | 0.0806 | 81 | 0.100 | 0.0815 | 82 | 1 | 70-130 | 35 | |
| | | | | | | | | - | | | |
| Toluene | <0.00198 | 0.0990 | 0.0850 | 86 | 0.100 | 0.0828 | 83 | 3 | 70-130 | 35 | |
| Ethylbenzene | <0.000990 | 0.0990 | 0.0887 | 90 | 0.100 | 0.0906 | 91 | 2 | 71-129 | 35 | |
| m,p-Xylenes | <0.00198 | 0.198 | 0.165 | 83 | 0.200 | 0.165 | 83 | 0 | 70-135 | 35 | |
| o-Xylene | <0.000990 | 0.0990 | 0.0889 | 90 | 0.100 | 0.0821 | 82 | 8 | 71-133 | 35 | |
| Lab Batch ID: 915597 | QC- Sample ID: | 464484 | 001 \$ | Ro | tch #: | 1 Matrix | x: Soil | | | | |
| $\mathbf{Lab \ Jakli ID}, \qquad \mathbf{\mathcal{I}} \mathbf{\mathcal{I}} \mathbf{\mathcal{I}} \mathbf{\mathcal{I}} \mathbf{\mathcal{I}}$ | QC Dumple ID. | 101101 | -001 5 | Da | $un \pi$. | | A. 5011 | | | | |
| Date Analyzed: 06/06/2013 | Date Prepared: | | | | alyst: H | | A. Son | | | | |
| | | 06/06/2 | 013 | An | alyst: I | | | OVERY | STUDY | | |
| Date Analyzed: 06/06/2013 | Date Prepared: Parent Sample | 06/06/2 M Spike | 013 ATRIX SPIK Spiked Sample Result | An E / MAT Spiked Sample | alyst: H RIX SPI Spike | RKO KE DUPLICA Duplicate Spiked Sample | TE REC Spiked Dup. | RPD | Control Limits | Control Limits | Flag |
| Date Analyzed: 06/06/2013 Reporting Units: mg/kg | Date Prepared: Parent | 06/06/2 M | 013 ATRIX SPIK Spiked Sample | An E / MAT Spiked | alyst: H RIX SPI | RKO KE DUPLICA Duplicate | TE REC | | Control | | Flag |
| Date Analyzed: 06/06/2013 Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 | Date Prepared: Parent Sample Result | 06/06/2 M Spike Added | 013 ATRIX SPIK Spiked Sample Result | An E / MAT Spiked Sample %R | alyst: F RIX SPI Spike Added | RKO KE DUPLICA Duplicate Spiked Sample | TE REC Spiked Dup. %R | RPD | Control Limits | Limits | Flag |
| Date Analyzed: 06/06/2013 Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes | Date Prepared: Parent Sample Result [A] | 06/06/2 M Spike Added [B] 100 | 013 ATRIX SPIK Spiked Sample Result [C] 187 | An E / MAT Spiked Sample %R [D] 81 | alyst: F RIX SPI Spike Added [E] | KO KE DUPLICA Duplicate Spiked Sample Result [F] 188 | TE REC Spiked Dup. %R [G] | RPD % | Control Limits %R | Limits %RPD | Flag |
| Date Analyzed: 06/06/2013 Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride | Date Prepared: Parent Sample Result [A] 106 | 06/06/2 M Spike Added [B] 100 464486 | 013 ATRIX SPIK Spiked Sample Result [C] 187 -002 S | An E / MAT Spiked Sample %R [D] 81 Ba | alyst: F RIX SPI Spike Added [E] 100 | KO KE DUPLICA Duplicate Spiked Sample Result [F] 188 1 Matrix | TE REC Spiked Dup. %R [G] 82 | RPD % | Control Limits %R | Limits %RPD | Flag |
| Date Analyzed: 06/06/2013 Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride Lab Batch ID: 915597 | Date Prepared: Parent Sample Result [A] 106 QC- Sample ID: | 06/06/2 M Spike Added [B] 100 464486 06/06/2 | 013 ATRIX SPIK Spiked Sample Result [C] 187 -002 S 013 | An E / MAT Spiked Sample %R [D] 81 Ba An | alyst: F RIX SPI Spike Added [E] 100 tch #: alyst: F | KO KE DUPLICA Duplicate Spiked Sample Result [F] 188 1 Matrix | TE REC Spiked Dup. %R [G] 82 x: Soil | RPD % | Control Limits %R 80-120 | Limits %RPD | Flag |
| Date Analyzed: 06/06/2013 Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride Lab Batch ID: 915597 Date Analyzed: 06/06/2013 | Date Prepared: Parent Sample Result [A] 106 QC- Sample ID: | 06/06/2 M Spike Added [B] 100 464486 06/06/2 | 013 ATRIX SPIK Spiked Sample Result [C] 187 -002 S 013 | An E / MAT Spiked Sample %R [D] 81 Ba An E / MAT | alyst: F RIX SPI Spike Added [E] 100 tch #: alyst: F | KO KE DUPLICA Duplicate Spiked Sample Result [F] 188 1 Matrix | TE REC Spiked Dup. %R [G] 82 x: Soil | RPD % | Control Limits %R 80-120 | Limits %RPD | Flag |

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

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



Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : | 464486 | | | | | | Project II |): | | | | |
|-------------------------|--------------------|------------------|--------------|-------------------------|-----------|--------------|----------------------------|----------------|---------|-------------------|-------------------|------|
| Lab Batch ID: | 915496 | QC- Sample ID: | 464484 | -002 S | Ba | tch #: | 1 Matrix | k: Soil | | | | |
| Date Analyzed: | 06/06/2013 | Date Prepared: | 06/05/2 | .013 | An | alyst: I | DYV | | | | | |
| Reporting Units: | mg/kg | | Μ | IATRIX SPIKI | E / MAT | RIX SPI | KE DUPLICA' | TE RECO | OVERY S | STUDY | | |
| Т | PH By SW8015 Mod | Parent Sample | Spike | Spiked Sample Result | Sample | Spike | Duplicate Spiked Sample | - | 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 | <15.4 | 1030 | 1090 | 106 | 1020 | 1070 | 105 | 2 | 70-135 | 35 | |
| C12-C28 Diesel I | Range Hydrocarbons | <15.4 | 1030 | 1190 | 116 | 1020 | 1140 | 112 | 4 | 70-135 | 35 | |

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

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



Sample Duplicate Recovery



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464486

| Lab Batch #: 915509 | | | Project I | D: | |
|------------------------------------|--------------------------------|-------------------------------|-----------|---------------------------|-------|
| Date Analyzed: 06/05/2013 17:15 | Date Prepared: 06/05/2013 | 3 Ana | lyst:WRU | | |
| QC- Sample ID: 464484-011 D | Batch #: 1 | Mat | rix: Soil | | |
| Reporting Units: % | SAMPLE | / SAMPLE | DUPLIC | ATE REC | OVERY |
| Percent Moisture | Parent Sample Result [A] | Sample Duplicate Result | RPD | Control Limits %RPD | Flag |
| Analyte | | [B] | | | |
| Percent Moisture | 3.42 | 3.52 | 3 | 20 | |

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

Analytical Report 464683

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant SUGS Historical A-14 6 Inch Line 1RP-1116

13-JUN-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-JUN-13



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

Reference: XENCO Report No(s): 464683 SUGS Historical A-14 6 Inch Line 1RP-1116 Project Address: Lea County, New Mexico

Camille Bryant:

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) 464683. 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. 464683 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully.

Kelsey Brooks Project Manager

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

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



Sample Cross Reference 464683



Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|----------------------|--------|----------------|--------------|---------------|
| RP North S/W @ 11' | S | 06-04-13 12:30 | | 464683-001 |
| Trench-1 Floor @ 6' | S | 06-04-13 13:00 | | 464683-002 |
| Trench-2 Topsoil | S | 06-04-13 13:10 | | 464683-003 |
| Trench-2 Floor @ 4' | S | 06-04-13 13:20 | | 464683-004 |
| Trench-3 Topsoil | S | 06-04-13 13:40 | | 464683-005 |
| Trench-3 Floor @ 2' | S | 06-04-13 13:50 | | 464683-006 |
| SP-1 | S | 06-04-13 14:30 | | 464683-007 |
| Trench-4 Floor @ 2' | S | 06-05-13 09:00 | | 464683-008 |
| Trench-5 Floor @ 2' | S | 06-05-13 09:10 | | 464683-009 |
| Trench-6 Floor @ 2' | S | 06-05-13 09:40 | | 464683-010 |
| Trench-7 Floor @ 2' | S | 06-05-13 10:10 | | 464683-011 |
| Trench-8 Floor @ 2' | S | 06-05-13 10:40 | | 464683-012 |
| Trench-9 Floor @ 2' | S | 06-05-13 11:00 | | 464683-013 |
| Trench-10 Floor @ 2' | S | 06-05-13 12:30 | | 464683-014 |
| Trench-10 Floor @ 4' | S | 06-05-13 13:15 | | 464683-015 |
| Trench-11 Floor @ 2' | S | 06-05-13 14:00 | | 464683-016 |



CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID: Work Order Number(s): 464683
 Report Date:
 13-JUN-13

 Date Received:
 06/07/2013

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-916025 Inorganic Anions by EPA 300/300.1 E300

Batch 916025, Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 464683-007, -008, -011, -001, -002, -004, -006, -003, -012, -010, -013, -005, -009. The Laboratory Control Sample for Chloride is within laboratory Control Limits



Contact: Camille Bryant

Certificate of Analysis Summary 464683

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Fri Jun-07-13 02:18 pm

| oject Location: Lea County, New Mexico | | | | | | | | Report | Date: | 13-JUN-13 | | | |
|--|------------|--------------|----------|---------------|----------|-------------|----------|---------------|----------|--------------|----------|--------------|----------|
| | | | | | | | | Project Ma | nager: | Kelsey Brook | s | | |
| | Lab Id: | 464683-0 | 001 | 464683-0 | 02 | 464683-0 | 003 | 464683-0 | 004 | 464683-0 | 005 | 464683- | 006 |
| A malua in Demonstral | Field Id: | RP North S/W | V@11' | Trench-1 Floo | or @ 6' | Trench-2 To | opsoil | Trench-2 Floo | or @ 4' | Trench-3 To | opsoil | Trench-3 Flo | oor @ 2' |
| Analysis Requested | Depth: | | | | | | | | | | | | |
| | Matrix: | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | | SOIL | _ |
| | Sampled: | Jun-04-13 | 12:30 | Jun-04-13 1 | 3:00 | Jun-04-13 | 13:10 | Jun-04-13 1 | 13:20 | Jun-04-13 | 13:40 | Jun-04-13 | 13:50 |
| BTEX by EPA 8021B | Extracted: | Jun-10-13 | 08:00 | Jun-10-13 0 | 8:00 | Jun-10-13 (| 08:00 | Jun-10-13 (| 08:00 | Jun-10-13 (| 08:00 | Jun-10-13 | 08:00 |
| | Analyzed: | Jun-10-13 | 11:22 | Jun-10-13 1 | 1:39 | Jun-10-13 | 11:55 | Jun-10-13 1 | 17:10 | Jun-10-13 | 17:27 | Jun-10-13 | 13:34 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Benzene | | ND | 0.000998 | ND (| 0.000992 | | 0.000992 | ND | 0.000994 | ND | 0.000998 | ND | 0.0010 |
| Toluene | | ND | 0.00200 | | 0.00198 | | 0.00198 | | 0.00199 | | | ND | 0.0020 |
| Ethylbenzene | | ND | 0.000998 | ND (| 0.000992 | ND | 0.000992 | ND | 0.000994 | ND | 0.000998 | ND | 0.0010 |
| m,p-Xylenes | | ND | 0.00200 | | 0.00198 | | 0.00198 | | 0.00199 | ND | 0.00200 | ND | 0.0020 |
| o-Xylene | | | 0.000998 | | 0.000992 | | 0.000992 | | 0.000994 | | 0.000998 | ND | |
| Total Xylenes | | ND | 0.000998 | ND (| 0.000992 | | 0.000992 | | 0.000994 | | 0.000998 | ND | 0.0010 |
| Total BTEX | | ND | 0.000998 | ND (| 0.000992 | ND | 0.000992 | ND | 0.000994 | ND | 0.000998 | ND | 0.0010 |
| Inorganic Anions by EPA 300/300.1 | Extracted: | Jun-11-13 | 11:27 | Jun-11-13 1 | 1:27 | Jun-11-13 | 11:27 | Jun-11-13 1 | 11:27 | Jun-11-13 | 11:27 | Jun-11-13 | 11:27 |
| SUB: TX104704215 | Analyzed: | Jun-12-13 | 00:51 | Jun-12-13 0 | 1:10 | Jun-12-13 (| 01:28 | Jun-12-13 (| 02:23 | Jun-12-13 (| 02:42 | Jun-12-13 | 03:00 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL |
| Chloride | | 214 | 2.00 | 17.8 | 2.00 | 4.22 | 2.00 | 50.4 | 2.00 | 2.84 | 2.00 | 2.66 | 2.0 |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Jun-10-13 | 14:20 | Jun-10-13 1 | 4:20 | Jun-10-13 | 14:20 | Jun-10-13 1 | 14:20 | Jun-10-13 | 14:20 | Jun-10-13 | 14:20 |
| | Units/RL: | % | RL | % | RL | % | RL | % | RL | % | RL | % | RL |
| Percent Moisture | | 4.38 | 1.00 | 3.08 | 1.00 | 1.81 | 1.00 | 2.98 | 1.00 | ND | 1.00 | 2.86 | 1.0 |
| TPH By SW8015 Mod | Extracted: | Jun-12-13 | 13:00 | Jun-12-13 1 | 3:00 | Jun-12-13 | 13:00 | Jun-12-13 1 | 13:00 | Jun-12-13 | 13:00 | Jun-12-13 | 13:00 |
| | Analyzed: | Jun-13-13 | 03:58 | Jun-13-13 0 | 5:13 | Jun-13-13 (|)5:37 | Jun-13-13 (| 06:02 | Jun-13-13 | 13:03 | Jun-13-13 | 06:52 |
| | 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 | 15.6 | ND | 15.4 | 260 | 76.4 | ND | 15.5 | 99.2 | 75.1 | ND | 15. |
| C12-C28 Diesel Range Hydrocarbons | | ND | 15.6 | ND | 15.4 | 10600 | 76.4 | ND | 15.5 | 5970 | 75.1 | ND | 15. |
| C28-C35 Oil Range Hydrocarbons | | ND | 15.6 | ND | 15.4 | 2050 | 76.4 | ND | 15.5 | 1730 | 75.1 | ND | 15. |
| Total TPH | | ND | 15.6 | ND | 15.4 | 12900 | 76.4 | ND | 15.5 | 7800 | 75.1 | ND | 15. |

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

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

rah

Kelsey Brooks Project Manager



Contact: Camille Bryant

Certificate of Analysis Summary 464683

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Fri Jun-07-13 02:18 pm

| oject Location: Lea County, New Mexico | | | | | | | | Repor | t Date: 1 | 13-JUN-13 | | | |
|--|------------|-----------|----------|---------------|----------|--------------|----------|--------------|-----------|----------------|----------|--------------|----------|
| Geet Docution. Lea County, New Montes | | | | | | | | Project Ma | nager: 1 | Kelsey Brooks | 5 | | |
| | Lab Id: | 464683-0 | 007 | 464683-0 | 08 | 464683-0 |)09 | 464683- | 010 | 464683-0 | 11 | 464683- | 012 |
| An aluaia Dona catal | Field Id: | SP-1 | | Trench-4 Floo | or @ 2' | Trench-5 Flo | or @ 2' | Trench-6 Flo | or @ 2' | Trench- 7 Floo | or @ 2' | Trench-8 Flo | oor @ 2' |
| Analysis Requested | Depth: | | | | | | | | | | | | |
| | Matrix: | SOIL | . | SOIL | | SOIL | | SOIL | . | SOIL | | SOIL | <u>ـ</u> |
| | Sampled: | Jun-04-13 | 14:30 | Jun-05-13 0 | 9:00 | Jun-05-13 (| 09:10 | Jun-05-13 | 09:40 | Jun-05-13 1 | 0:10 | Jun-05-13 | 10:40 |
| BTEX by EPA 8021B | Extracted: | Jun-10-13 | 08:00 | Jun-10-13 0 | 08:00 | Jun-10-13 | 08:00 | Jun-10-13 | 08:00 | Jun-10-13 (| 08:00 | Jun-10-13 | 08:00 |
| | Analyzed: | Jun-10-13 | 13:50 | Jun-10-13 0 | 9:36 | Jun-10-13 | 14:06 | Jun-10-13 | 14:23 | Jun-10-13 1 | 4:39 | Jun-10-13 | 14:55 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RI |
| Benzene | | ND | 0.000990 | ND (| 0.000990 | | 0.000990 | ND | 0.00100 | ND | 0.000994 | ND | 0.00099 |
| Toluene | | ND | 0.00198 | ND | 0.00198 | | 0.00198 | ND | 0.00200 | | 0.00199 | ND | 0.0019 |
| Ethylbenzene | | ND | 0.000990 | - | 0.000990 | | 0.000990 | ND | 0.00100 | | 0.000994 | | 0.00099 |
| m,p-Xylenes | | ND | 0.00198 | - | 0.00198 | | 0.00198 | ND | 0.00200 | | 0.00199 | ND | 0.0019 |
| o-Xylene | | | 0.000990 | | 0.000990 | | 0.000990 | ND | 0.00100 | | 0.000994 | | 0.00099 |
| Total Xylenes | | | 0.000990 | - | 0.000990 | | 0.000990 | ND | 0.00100 | | 0.000994 | - | 0.0009 |
| Total BTEX | | ND | 0.000990 | ND (| 0.000990 | ND | 0.000990 | ND | 0.00100 | ND | 0.000994 | ND | 0.0009 |
| Inorganic Anions by EPA 300/300.1 | Extracted: | Jun-11-13 | 11:27 | Jun-11-13 1 | 1:27 | Jun-11-13 | 11:27 | Jun-11-13 | 11:27 | Jun-11-13 1 | 1:27 | Jun-11-13 | 11:27 |
| SUB: TX104704215 | Analyzed: | Jun-12-13 | 03:18 | Jun-12-13 0 | 4:14 | Jun-12-13 | 04:32 | Jun-12-13 | 04:51 | Jun-12-13 (| 05:09 | Jun-12-13 | 05:27 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RI |
| Chloride | | 54.9 | 2.00 | ND | 2.00 | 62.8 | 2.00 | 12.7 | 2.00 | 5.63 | 2.00 | 2.91 | 2.0 |
| Percent Moisture | Extracted: | | | | | | | | | | | | |
| | Analyzed: | Jun-10-13 | 14:20 | Jun-10-13 1 | 4:20 | Jun-10-13 | 14:50 | Jun-10-13 | 14:50 | Jun-10-13 1 | 4:50 | Jun-10-13 | 14:50 |
| | Units/RL: | % | RL | % | RL | % | RL | % | RL | % | RL | % | RI |
| Percent Moisture | | 1.59 | 1.00 | 2.97 | 1.00 | 2.86 | 1.00 | 2.02 | 1.00 | 1.49 | 1.00 | 3.09 | 1.0 |
| TPH By SW8015 Mod | Extracted: | Jun-12-13 | 13:00 | Jun-12-13 1 | 3:00 | Jun-12-13 | 13:00 | Jun-12-13 | 13:00 | Jun-12-13 1 | 3:00 | Jun-12-13 | 13:00 |
| | Analyzed: | Jun-13-13 | 07:17 | Jun-13-13 0 | 8:08 | Jun-13-13 | 08:33 | Jun-13-13 | 08:58 | Jun-13-13 (| 9:50 | Jun-13-13 | 10:17 |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RI |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 15.2 | ND | 15.5 | ND | 15.5 | ND | 15.3 | ND | 15.2 | ND | 15. |
| C12-C28 Diesel Range Hydrocarbons | | 56.6 | 15.2 | ND | 15.5 | ND | 15.5 | ND | 15.3 | ND | 15.2 | ND | 15. |
| C28-C35 Oil Range Hydrocarbons | | ND | 15.2 | ND | 15.5 | ND | 15.5 | ND | 15.3 | ND | 15.2 | ND | 15. |
| Total TPH | | 56.6 | 15.2 | ND | 15.5 | ND | 15.5 | ND | 15.3 | ND | 15.2 | ND | 15. |

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

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ah

Kelsey Brooks Project Manager



Certificate of Analysis Summary 464683

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Fri Jun-07-13 02:18 pm

Report Date: 13-JUN-13

Contact: Camille Bryant Project Location: Lea County, New Mexico Project Manager: Kelsey Brooks Lab Id: 464683-013 464683-014 464683-015 464683-016 Trench-11 Floor @ 2' Field Id: Trench-9 Floor @ 2' Trench-10 Floor @ 2' Trench-10 Floor @ 4' Analysis Dogusstad

| Analysis Requested | Depth: | | | | | | | | | |
|------------------------------------|------------|-----------|---------|-------------|----------|-----------|----------|-----------|----------|--|
| | Matrix: | SOIL | , | SOIL | | SOIL | | SOII | , | |
| | Sampled: | Jun-05-13 | | Jun-05-13 1 | 2.20 | Jun-05-13 | | Jun-05-13 | - | |
| | | | | | | | | | | |
| BTEX by EPA 8021B | Extracted: | Jun-10-13 | 08:00 | Jun-10-13 0 | 08:00 | Jun-10-13 | 08:00 | Jun-10-13 | 16:00 | |
| | Analyzed: | Jun-10-13 | 15:12 | Jun-10-13 1 | 5:29 | Jun-10-13 | 15:47 | Jun-10-13 | 19:23 | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | |
| Benzene | | ND | 0.00100 | ND | 0.000996 | ND | 0.000998 | ND | 0.000994 | |
| Toluene | | ND | 0.00200 | ND | 0.00199 | ND | 0.00200 | ND | 0.00199 | |
| Ethylbenzene | | ND | 0.00100 | ND | 0.000996 | ND | 0.000998 | ND | 0.000994 | |
| m,p-Xylenes | | ND | 0.00200 | ND | 0.00199 | ND | 0.00200 | ND | 0.00199 | |
| o-Xylene | | ND | 0.00100 | ND | 0.000996 | ND | 0.000998 | ND | 0.000994 | |
| Total Xylenes | | ND | 0.00100 | ND | 0.000996 | ND | 0.000998 | ND | 0.000994 | |
| Total BTEX | | ND | 0.00100 | ND | 0.000996 | ND | 0.000998 | ND | 0.000994 | |
| Inorganic Anions by EPA 300/300.1 | Extracted: | Jun-11-13 | 11:27 | Jun-11-13 1 | 1:30 | Jun-11-13 | 11:30 | Jun-11-13 | 11:30 | |
| SUB: TX104704215 | Analyzed: | Jun-12-13 | 05:46 | Jun-12-13 (| 7:18 | Jun-12-13 | 08:13 | Jun-12-13 | 08:31 | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | |
| Chloride | | 22.3 | 2.00 | 100 | 2.00 | 33.4 | 2.00 | 4.97 | 2.00 | |
| Percent Moisture | Extracted: | | | | | | | | | |
| | Analyzed: | Jun-10-13 | 14:50 | Jun-10-13 1 | 5:38 | Jun-10-13 | 15:38 | Jun-10-13 | 15:38 | |
| | Units/RL: | % | RL | % | RL | % | RL | % | RL | |
| Percent Moisture | | 2.31 | 1.00 | 3.56 | 1.00 | 4.12 | 1.00 | 3.18 | 1.00 | |
| TPH By SW8015 Mod | Extracted: | Jun-12-13 | 13:00 | Jun-12-13 1 | 3:00 | Jun-12-13 | 13:00 | Jun-12-13 | 13:00 | |
| | Analyzed: | Jun-13-13 | 10:44 | Jun-13-13 1 | 1:11 | Jun-13-13 | 11:39 | Jun-13-13 | 12:06 | |
| | Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | mg/kg | RL | |
| C6-C12 Gasoline Range Hydrocarbons | | ND | 15.3 | ND | 15.5 | ND | 15.6 | ND | 15.4 | |
| C12-C28 Diesel Range Hydrocarbons | | ND | 15.3 | ND | 15.5 | ND | 15.6 | ND | 15.4 | |
| C28-C35 Oil Range Hydrocarbons | | ND | 15.3 | ND | 15.5 | ND | 15.6 | ND | 15.4 | |
| Total TPH | | ND | 15.3 | ND | 15.5 | ND | 15.6 | ND | 15.4 | |

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

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Kms Boah

Kelsey Brooks Project Manager

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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.

LOD Limit of Detection

Phone

(281) 240-4200

(214) 902 0300

(210) 509-3334

(813) 620-2000

(432) 563-1800

(770) 449-8800

(602) 437-0330

* Surrogate recovered outside laboratory control limit.

- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit
 SDL Sample Detection Limit
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(214) 351-9139

(210) 509-3335

(813) 620-2033

(432) 563-1713

(770) 449-5477



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| fork Orders : 464683 | | | Project I | | | | | |
|---|-------------------------------|--------------------------|-----------------------------|-----------------------|-------------------------|-------|--|--|
| Lab Batch #: 915856 | Sample: 464683-008 / SMP | Batch | h: 1 Matrix RROGATE R | | STUDY | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 09:36 | 30 | KROGATE K | | | | | |
| BTEX | X by EPA 8021B | Amount Found [A] | FoundAmountRecovery[A][B]%R | | Control Limits %R | Flags | | |
| | Analytes | | | [D] | | | | |
| 1,4-Difluorobenzene | | 0.0247 | 0.0300 | 82 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0251 | 0.0300 | 84 | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-001 / SMP | Batch | h: ¹ Matrix | x: Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 11:22 | SURROGATE RECOVERY STUDY | | | | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | | |
| 140.0 | Analytes | 0.02.00 | 0.0000 | | 00.100 | | | |
| 1,4-Difluorobenzene 4-Bromofluorobenzene | | 0.0268 | 0.0300 | 89 | 80-120 80-120 | | | |
| | | 0.0207 | | | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-002 / SMP | Batch | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 11:39 | SU | RROGATE R | ECOVERYS | STUDY | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | | |
| 1,4-Difluorobenzene | Anarytes | 0.0290 | 0.0200 | | 80.120 | | | |
| 4-Bromofluorobenzene | | 0.0280 | 0.0300 | 93 | 80-120 80-120 | | | |
| | | | | 110 | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-003 / SMP | Batch | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 11:55 | SU | RROGATE R | ECOVERY | STUDY | | | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | | |
| 1,4-Difluorobenzene | | 0.0305 | 0.0300 | 102 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0336 | 0.0300 | 112 | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-006 / SMP | Batch | h: 1 Matrix | x:Soil | 1 1 | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 13:34 | SU | RROGATE R | | STUDY | | | |
| | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | |
| | Amalataa | | | | | | | |
| 1,4-Difluorobenzene | Analytes | 0.0247 | 0.0300 | [D] 82 | 80-120 | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464683 | | n | Project I h: 1 Matrix | | | | | | | |
|----------------------|-------------------------------|----------------------------------|-----------------------------|-----------------------|-------------------------|-------|--|--|--|--|
| Lab Batch #: 915856 | Sample: 464683-007 / SMP | | | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 13:50 | | | | | | | | | |
| BTE | X by EPA 8021B | Amount Found [A] | FoundAmountRecovery[A][B]%R | | Control Limits %R | Flags | | | | |
| | Analytes | | | [D] | | | | | | |
| 1,4-Difluorobenzene | | 0.0310 | 0.0300 | 103 | 80-120 | | | | | |
| 4-Bromofluorobenzene | | 0.0329 | 0.0300 | 110 | 80-120 | | | | | |
| Lab Batch #: 915856 | Sample: 464683-009 / SMP | Batel | h: ¹ Matrix | :Soil | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 14:06 | SURROGATE RECOVERY STUDY | | | | | | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | | |
| 1.4-Difluorobenzene | Analytes | 0.0242 | 0.0200 | | 00.120 | | | | | |
| 4-Bromofluorobenzene | | 0.0343 | 0.0300 | 114 82 | 80-120 80-120 | | | | | |
| | | | | - | 80-120 | | | | | |
| Lab Batch #: 915856 | Sample: 464683-010 / SMP | Batcl | | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 14:23 | SU. | RROGATE R | ECOVERY | STUDY | | | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | | | | |
| 1.4-Difluorobenzene | Analytes | 0.0217 | 0.0200 | | 80.120 | | | | | |
| 4-Bromofluorobenzene | | 0.0317 | 0.0300 | 106 | 80-120 80-120 | | | | | |
| | | | | | 80-120 | | | | | |
| Lab Batch #: 915856 | Sample: 464683-011 / SMP | Batel | - | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 14:39 | SU | RROGATE R | ECOVERY | STUDY | | | | | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | | |
| 1.4-Difluorobenzene | Anaryus | 0.0306 | 0.0300 | 102 | 80-120 | | | | | |
| 4-Bromofluorobenzene | | 0.0293 | 0.0300 | 98 | 80-120 | | | | | |
| Lab Dadab # 015856 | Sample: 464683-012 / SMP | | | | | | | | | |
| Lab Batch #: 915856 | · - | Batcl | RROGATE R | | STUDV | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 14:55 | | 1 | | 1 | | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | | | |
| | ADAIVIES | | | | | | | | | |
| 1,4-Difluorobenzene | | 0.0316 | 0.0300 | 105 | 80-120 | | | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464683 | | | Project I | | | | | |
|----------------------------|--|--------------------------------|------------------------|-----------------------|--|-------|--|--|
| Lab Batch #: 915856 | Sample: 464683-013 / SMP | Batc | | | STUDY | | | |
| Units: mg/kg BTE2 | Date Analyzed: 06/10/13 15:12 X by EPA 8021B | Amount Found | True Amount | Recovery | R%R380-120380-120580-120ERY STUDYVery RControl Limits %R180-120180-120ERY STUDYVery RControl Limits %R080-120ERY STUDYControl Limits %R080-120ERY STUDYControl Limits | Flags | | |
| | Analytes | [A] | [B] | %R [D] | %R | 5 | | |
| 1,4-Difluorobenzene | | 0.0308 | 0.0300 | 103 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0286 | 0.0300 | 95 | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-014 / SMP | Batc | h: 1 Matrix | soil | · | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 15:29 | 15:29 SURROGATE RECOVERY STUDY | | | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Limits | Flags | | |
| 1.4-Difluorobenzene | Anaryus | 0.0334 | 0.0300 | 111 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0332 | 0.0300 | 111 | | | | |
| Lab Batch #: 915856 | Sample: 464683-015 / SMP | Batc | h: ¹ Matrix | soil | 1 | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 15:47 | SU | RROGATE R | | STUDY | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Limits | Flags | | |
| | Analytes | | | [D] | | | | |
| 1,4-Difluorobenzene | | 0.0242 | 0.0300 | 81 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0267 | 0.0300 | 89 | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-004 / SMP | Batc | h: 1 Matrix | x: Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 17:10 | SU | RROGATE R | ECOVERY | STUDY | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Limits | Flags | | |
| 1,4-Difluorobenzene | | 0.0280 | 0.0300 | 93 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0280 | 0.0300 | 93 | 80-120 | | | |
| Lab Batch #: 915856 | Sample: 464683-005 / SMP | Batc | h: 1 Matrix | x: Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 17:27 | SU | RROGATE R | ECOVERY | STUDY | | | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Limits | Flags | | |
| 140.0 | Analytes | | | [D] | | | | |
| 1,4-Difluorobenzene | | 0.0247 | 0.0300 | 82 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0242 | 0.0300 | 81 | 80-120 | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464683 | | D (| Project I | | | | | |
|-----------------------------|---|--------------------------|---------------------------------------|-----------------------|-------------------------|-------|--|--|
| Lab Batch #: 915863 | Sample: 464683-016 / SMP | Bate | ch: ¹ Matrix JRROGATE R | | STUDV | | | |
| Units: mg/kg BTE2 | Date Analyzed: 06/10/13 19:23 X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| | Analytes | [A] | [D] | [D] | 70K | | | |
| 1,4-Difluorobenzene | | 0.0262 | 0.0300 | 87 | 80-120 | | | |
| 4-Bromofluorobenzene | | 0.0252 | 0.0300 | 84 | 80-120 | | | |
| Lab Batch #: 916148 | Sample: 464683-001 / SMP | Bate | ch: ¹ Matrix | :Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 03:58 | SURROGATE RECOVERY STUDY | | | | | | |
| TPH | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1-Chlorooctane | Analytes | 07.0 | 00.5 | | 70.125 | | | |
| o-Terphenyl | | 97.0 | 99.5 | 97 | 70-135 | | | |
| 1 2 | G 1 464692.002 / SMD | | | | 10 155 | | | |
| Lab Batch #: 916148 | Sample: 464683-002 / SMP | Bate | ch: ¹ Matrix JRROGATE R | | STUDV | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 05:13 | | | | 1 | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1-Chlorooctane | Analytes | 06.9 | 99.5 | 97 | 70-135 | | | |
| o-Terphenyl | | 96.8 51.2 | 49.8 | 103 | 70-135 | | | |
| | | | | | 70-135 | | | |
| Lab Batch #: 916148 | Sample: 464683-003 / SMP | Bate | ch: 1 Matrix | | STUDV | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 05:37 | 50 | 1 | | 51001 | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1-Chlorooctane | | 96.7 | 100 | 97 | 70-135 | | | |
| o-Terphenyl | | 54.0 | 50.0 | 108 | 70-135 | | | |
| Lab Batch #: 916148 | Sample: 464683-004 / SMP | Bate | ch: 1 Matrix | :Soil | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 06:02 | SU | JRROGATE R | ECOVERY | STUDY | | | |
| TPH | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | | |
| | Analytes | | | [D] | | | | |
| 1-Chlorooctane | | 99.8 | 100 | 100 | 70-135 | | | |
| o-Terphenyl | | 53.0 | 50.2 | 106 | 70-135 | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464683 Lab Batch #: 916148 | , Sample: 464683-006 / SMP | Dot | Project I | | | |
|---|-------------------------------|--|-------------------------|-----------------------|-------------------------|-------|
| Units: mg/kg | Date Analyzed: 06/13/13 06:52 | P Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1-Chlorooctane | | 91.0 | 100 | 91 | 70-135 | |
| o-Terphenyl | | 47.6 | 50.1 | 95 | 70-135 | |
| Lab Batch #: 916148 | Sample: 464683-007 / SMP | Bate | ch: ¹ Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/13/13 07:17 | SU | JRROGATE R | ECOVERY | STUDY | |
| TPH By SW8015 Mod | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | Analytes | 93.1 | 99.5 | 94 | 70-135 | |
| o-Terphenyl | | 49.0 | 49.8 | 94 | 70-135 | |
| Lab Batch #: 916148 | Sample: 464683-008 / SMP | Bate | h: 1 Matrix | · Soil | 1 | |
| Units: mg/kg | Date Analyzed: 06/13/13 08:08 | Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| TPH By SW8015 Mod | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | Analytes | 01.1 | 100 | | 70-135 | |
| o-Terphenyl | | 81.1 42.1 | 50.1 | 81 | 70-135 | |
| | a 1 464692.000 / SMD | | | - | /0-135 | |
| Lab Batch #: 916148 | Sample: 464683-009 / SMP | | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 08:33 | SURROGATE RECOVERY STUDY | | | | 1 |
| TPH I | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | | 91.0 | 100 | 91 | 70-135 | |
| o-Terphenyl | | 48.0 | 50.1 | 96 | 70-135 | |
| Lab Batch #: 916148 | Sample: 464683-010 / SMP | Bate | ch: 1 Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/13/13 08:58 | SURROGATE RECOVERY STUDY | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage |
| | 1 x11ux y tC5 | 91.5 | | 92 | 70-135 | |
| 1-Chlorooctane | 1 | | 99.9 | | 1 /0-133 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464683 | | D (| Project I | | | | |
|-------------------------------|---|--|-----------------------|-------------------------|-------------------------|-------|--|
| Lab Batch #: 916148 | Sample: 464683-011 / SMP | Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 09:50 By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| | Analytes | | | [D] | | | |
| 1-Chlorooctane | | 81.0 | 99.9 | 81 | 70-135 | | |
| o-Terphenyl | | 41.5 | 50.0 | 83 | 70-135 | | |
| Lab Batch #: 916148 | Sample: 464683-012 / SMP | Bato | ch: 1 Matrix | c: Soil | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 10:17 | SU | JRROGATE R | ECOVERY | STUDY | | |
| TPH | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | | |
| 1 Chloroostana | Analytes | 97.6 | 00.0 | | 70.125 | | |
| 1-Chlorooctane o-Terphenyl | | 87.6 46.4 | 99.9 50.0 | 88 93 | 70-135 70-135 | | |
| | | | | | 70-135 | | |
| Lab Batch #: 916148 | Sample: 464683-013 / SMP | Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 10:44 | SU | JRROGATE R | ECOVERY | STUDY | | |
| TPH By SW8015 Mod Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1-Chlorooctane | | 90.7 | 99.8 | 91 | 70-135 | | |
| o-Terphenyl | | 46.9 | 49.9 | 94 | 70-135 | | |
| Lab Batch #: 916148 | Sample: 464683-014 / SMP | Bato | ch: 1 Matrix | r: Soil | 1 | I | |
| Units: mg/kg | Date Analyzed: 06/13/13 11:11 | SURROGATE RECOVERY STUDY | | | | | |
| | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1-Chlorooctane | | 85.6 | 99.5 | 86 | 70-135 | | |
| o-Terphenyl | | 45.1 | 49.8 | 91 | 70-135 | | |
| Lab Batch #: 916148 | Sample: 464683-015 / SMP | Bate | ch: 1 Matrix | :Soil | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 11:39 | SURROGATE RECOVERY STUDY | | | | | |
| TPH By SW8015 Mod | | Amount Found | True Amount | Recovery %R | Control Limits %R | Flags | |
| | Analytes | [A] | [B] | [D] | | | |
| 1-Chlorooctane | Analytes | [A] 91.9 | [B] 99.5 | | 70-135 | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464683 | | D (| Project I | | | |
|-------------------------------------|---|--|------------------------|-----------------------|-------------------------|-------|
| Lab Batch #: 916148 Units: mg/kg | Sample: 464683-016 / SMP Date Analyzed: 06/13/13 12:06 | Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1-Chlorooctane | | 86.7 | 99.6 | 87 | 70-135 | |
| o-Terphenyl | | 45.5 | 49.8 | 91 | 70-135 | |
| Lab Batch #: 916148 | Sample: 464683-005 / SMP | Bate | h: ¹ Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/13/13 13:03 | SU | RROGATE R | ECOVERY | STUDY | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | | 102 | 99.5 | 103 | 70-135 | |
| o-Terphenyl | | 54.7 | 49.8 | 110 | 70-135 | |
| Lab Batch #: 915856 | Sample: 639463-1-BLK / BI | .K Batc | h: ¹ Matrix | Solid | | |
| Units: mg/kg | Date Analyzed: 06/10/13 09:10 | SURROGATE RECOVERY STUDY | | | | |
| BTEX by EPA 8021B Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | 1 mary tes | 0.0353 | 0.0300 | 118 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0257 | 0.0300 | 86 | 80-120 | |
| Lab Batch #: 915863 | Sample: 639469-1-BLK / BI | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 19:06 | LK Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY | | | | |
| | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | | 0.0269 | 0.0300 | 90 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0308 | 0.0300 | 103 | 80-120 | |
| Lab Batch #: 916148 | Sample: 639552-1-BLK / BI | .K Bate | h: 1 Matrix | :Solid | | |
| Units: mg/kg | Date Analyzed: 06/13/13 03:33 | SURROGATE RECOVERY STUDY | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag |
| 1-Chlorooctane | • | 112 | 99.7 | 112 | 70-135 | |
| o-Terphenyl | | 59.3 | 49.9 | 119 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464683 | | | Project I | | | | |
|---|---|---|------------------------|-----------------------|-------------------------|-------|--|
| Lab Batch #: 915856 Sample: 639463-1-BKS / BKS Batch: 1 Matrix: Units: mg/kg Date Analyzed: 06/10/13 08/21 SURROGATE RE | | | | | STUDY | | |
| Units: mg/kg BTE2 | Date Analyzed: 06/10/13 08:21 X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags | |
| | Analytes | [23] | [0] | [D] | | | |
| 1,4-Difluorobenzene | | 0.0334 | 0.0300 | 111 | 80-120 | | |
| 4-Bromofluorobenzene | | 0.0322 | 0.0300 | 107 | 80-120 | | |
| Lab Batch #: 915863 | Sample: 639469-1-BKS / Bl | KS Batcl | h: ¹ Matrix | :Solid | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 18:33 | SU | RROGATE R | ECOVERY | STUDY | | |
| BTEX by EPA 8021B | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 140.0 1 | Analytes | 0.02.00 | 0.0200 | | 00.100 | | |
| 1,4-Difluorobenzene 4-Bromofluorobenzene | | 0.0360 | 0.0300 | 120 | 80-120 80-120 | | |
| | | | | | 80-120 | | |
| Lab Batch #: 916148 | Sample: 639552-1-BKS / B | BKS Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY | | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 02:44 | 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 | | 100 | 100 | 100 | 70-135 | | |
| o-Terphenyl | | 55.4 | 50.1 | 111 | 70-135 | | |
| Lab Batch #: 915856 | Sample: 639463-1-BSD / B | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 08:37 | SURROGATE RECOVERY STUDY | | | | | |
| BTEZ | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | |
| 1,4-Difluorobenzene | | 0.0286 | 0.0300 | 95 | 80-120 | | |
| 4-Bromofluorobenzene | | 0.0285 | 0.0300 | 95 | 80-120 | | |
| Lab Batch #: 915863 | Sample: 639469-1-BSD / BS | SD Bate | h: 1 Matrix | :Solid | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 18:49 | SURROGATE RECOVERY STUDY | | | | | |
| BTEZ | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | |
| 1,4-Difluorobenzene | | 0.0274 | 0.0300 | 91 | 80-120 | | |
| | | | | 1 2 2 | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| fork Orders : 464683 | | | Project I | | | | |
|-----------------------------|---|---|------------------------|-----------------------|-------------------------|-------|--|
| Lab Batch #: 916148 | Sample: 639552-1-BSD / BS | BSD Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY | | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 03:08 By SW8015 Mod | Amount Found | True Amount | Recovery | Control Limits | Flag | |
| | Analytes | [A] | [B] | %R [D] | %R | | |
| 1-Chlorooctane | | 88.1 | 100 | 88 | 70-135 | | |
| o-Terphenyl | | 54.1 | 50.1 | 108 | 70-135 | | |
| Lab Batch #: 915856 | Sample: 464683-004 S / MS | Batch | n: 1 Matrix | :Soil | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 12:28 | SU | RROGATE R | ECOVERYS | STUDY | | |
| BTEX by EPA 8021B | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1.4-Difluorobenzene | Analytes | 0.0296 | 0.0300 | 99 | 80-120 | | |
| 4-Bromofluorobenzene | | 0.0314 | 0.0300 | 105 | 80-120 | | |
| Lab Batch #: 915863 | Sample: 464685-004 S / MS | Batch | n: ¹ Matrix | :Soil | 1 1 | | |
| Units: mg/kg | Date Analyzed: 06/10/13 20:45 | SURROGATE RECOVERY STUDY | | | | | |
| BTEX by EPA 8021B | | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flage | |
| | Analytes | | | [D] | | | |
| 1,4-Difluorobenzene | | 0.0303 | 0.0300 | 101 | 80-120 | | |
| 4-Bromofluorobenzene | | 0.0348 | 0.0300 | 116 | 80-120 | | |
| Lab Batch #: 916148 | Sample: 464683-001 S / MS | | | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 04:23 | SURROGATE RECOVERY STUDY | | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1-Chlorooctane | | 99.6 | 99.6 | 100 | 70-135 | | |
| o-Terphenyl | | 56.6 | 49.8 | 114 | 70-135 | | |
| Lab Batch #: 915856 | Sample: 464683-004 SD / M | SD Batch | h: 1 Matrix | :Soil | <u> </u> | | |
| Units: mg/kg | Date Analyzed: 06/10/13 12:44 | SURROGATE RECOVERY STUDY | | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage | |
| 1,4-Difluorobenzene | · · · · · · · · · · · · · · · · · · · | 0.0270 | 0.0300 | 90 | 80-120 | | |
| .,. Diffuorocolizene | | 0.0270 | 0.0500 | | 00-120 | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution


Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464683 Lab Batch #: 915863 | 3, Sample: 464685-004 SD / M | MSD Batc | Project II h: ¹ Matrix: | | | |
|---|---------------------------------|------------------------|--|-----------------------|-------------------------|-------|
| Units: mg/kg | Date Analyzed: 06/10/13 21:01 | SU | RROGATE RI | ECOVERY | STUDY | |
| BTE | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| 1,4-Difluorobenzene | Analytes | 0.0349 | 0.0300 | [D] 116 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0312 | 0.0300 | 104 | 80-120 | |
| Lab Batch #: 916148 | Sample: 464683-001 SD / N | MSD Bate | h: ¹ Matrix | Soil | | |
| Units: mg/kg | Date Analyzed: 06/13/13 04:48 | SU | RROGATE RI | ECOVERY | STUDY | |
| ТРН | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | | 105 | 99.9 | 105 | 70-135 | |
| o-Terphenyl | | 61.9 | 50.0 | 124 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution





| Work Order #: 464683 | | | Pro | oject ID: | | | |
|-----------------------------------|----------|------------------------|-----------------------|--------------------------|----------------------|-------------------------|-------|
| Lab Batch #: 916025 | Si | ample: 639472- | ·1-BKS | Matrix: | Solid | | |
| Date Analyzed: 06/11/2013 | Date Pre | pared: 06/11/20 |)13 | Analyst: | RKO | | |
| Reporting Units: mg/kg | Ba | atch #: 1 | BLANK /F | BLANK SPII | KE REC | OVERY S | STUDY |
| Inorganic Anions by EPA 300/300.1 | 1 | Blank Result | Spike Added | Blank Spike | Blank Spike | Control Limits | Flags |
| Analytes | | [A] | [B] | Result [C] | %R [D] | %R | |
| Chloride | | <2.00 | 100 | 102 | 102 | 80-120 | |
| Lab Batch #: 916039 | S | ample: 639474- | -1-BKS | Matrix: | Solid | | |
| Date Analyzed: 06/12/2013 | Date Pre | pared: 06/11/20 |)13 | Analyst: | RKO | | |
| Reporting Units: mg/kg | Ba | atch #: 1 | BLANK /F | BLANK SPII | KE REC | OVERY S | JUDY |
| Inorganic Anions by EPA 300/300.1 | 1 | Blank Result [A] | Spike Added [B] | Blank Spike Result | Blank Spike %R | Control Limits %R | Flags |
| Analytes | | [A] | [0] | [C] | [D] | /01 | |
| Chloride | | <2.00 | 100 | 102 | 102 | 80-120 | |

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



| Work Order #: 464683 | | | | | | | | ject ID: | | | |
|---|---|--|---|--|--|---|---|---|--|---------------------------------------|------|
| Analyst: DYV | Da | ate Prepar | ed: 06/10/201 | 13 | | | Date A | nalyzed: (| 06/10/2013 | | |
| Lab Batch ID: 915856 Sample: 639463 | -1-BKS | Batcl | h #: 1 | | | | | Matrix: S | Solid | | |
| Units: mg/kg | | BLAN | K /BLANK S | SPIKE / I | BLANK S | PIKE DUPI | LICATE | RECOVI | ERY STUD | Y | |
| BTEX by EPA 8021B Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Benzene | <0.00100 | 0.100 | 0.0920 | 92 | 0.0998 | 0.0872 | 87 | 5 | 70-130 | 35 | |
| Toluene | <0.00200 | 0.100 | 0.0949 | 95 | 0.0998 | 0.0928 | 93 | 2 | 70-130 | 35 | |
| Ethylbenzene | <0.00100 | 0.100 | 0.106 | 106 | 0.0998 | 0.105 | 105 | 1 | 71-129 | 35 | |
| m,p-Xylenes | <0.00200 | 0.200 | 0.193 | 97 | 0.200 | 0.191 | 96 | 1 | 70-135 | 35 | |
| o-Xylene | < 0.00100 | 0.100 | 0.102 | 102 | 0.0998 | 0.0995 | 100 | 2 | 71-133 | 35 | |
| 0 Typene | <0.00100 | 0.100 | 0.102 | 102 | 0.0998 | 0.0995 | 100 | 2 | /1-155 | 35 | |
| Analyst: DYV | | | | | 0.0998 | 0.0995 | | |)6/10/2013 | 55 | |
| | Da | ate Prepar | ed: 06/10/201 | | 0.0998 | 0.0993 | Date A | |)6/10/2013 | | |
| Analyst: DYV | Da | ate Prepar Batcl | ed: 06/10/201 | 13 | | | Date A | nalyzed: (Matrix: S |)6/10/2013 Solid | | |
| Analyst: DYVLab Batch ID: 915863Sample: 639469 | Da | ate Prepar Batcl BLAN Spike Added | ed: 06/10/201 h #: 1 K /BLANK S Blank Spike Result | SPIKE / H Blank Spike %R | BLANK S Spike Added | BPIKE DUPI Blank Spike Duplicate | Date A | nalyzed: (Matrix: S |)6/10/2013 Solid | | Flag |
| Analyst: DYV Lab Batch ID: 915863 Sample: 639469 Units: ^{mg/kg} | Da D-1-BKS Blank Sample Result | ate Prepar Batcl BLAN Spike | ed: 06/10/201 h #: 1 K /BLANK S Blank Spike | SPIKE / H Blank Spike | BLANK S Spike | BPIKE DUPI Blank Spike | Date A | nalyzed: (Matrix: ⁽ RECOVI RPD | D6/10/2013 Solid ERY STUD Control Limits | OY Control Limits | Flag |
| Analyst: DYV Lab Batch ID: 915863 Sample: 639469 Units: ^{mg/kg} BTEX by EPA 8021B | Da D-1-BKS Blank Sample Result | ate Prepar Batcl BLAN Spike Added | ed: 06/10/201 h #: 1 K /BLANK S Blank Spike Result | SPIKE / H Blank Spike %R | BLANK S Spike Added | BPIKE DUPI Blank Spike Duplicate | Date A | nalyzed: (Matrix: ⁽ RECOVI RPD | D6/10/2013 Solid ERY STUD Control Limits | OY Control Limits | Flag |
| Analyst: DYV Lab Batch ID: 915863 Sample: 639469 Units: ^{mg/kg} BTEX by EPA 8021B Analytes | D: -1-BKS Blank Sample Result [A] | nte Prepar Batcl BLAN Spike Added [B] | ed: 06/10/201 h #: 1 K /BLANK S Blank Spike Result [C] | SPIKE / H Blank Spike %R [D] | BLANK S Spike Added [E] | PIKE DUPI Blank Spike Duplicate Result [F] | Date A | nalyzed: (Matrix: S RECOVI RPD % | 06/10/2013 Solid ERY STUD Control Limits %R | Y Control Limits %RPD | Flag |
| Analyst: DYV Lab Batch ID: 915863 Sample: 639469 Units: ^{mg/kg} BTEX by EPA 8021B Analytes Benzene | D-1-BKS Blank Sample Result [A] <0.000998 | ate Prepar Batcl BLAN Spike Added [B] 0.0998 | ed: 06/10/201 h #: 1 K /BLANK S Blank Spike Result [C] 0.0851 | SPIKE / F Blank Spike %R [D] 85 | Spike Added [E] | Blank Spike Duplicate Result [F] 0.0824 | Date A LICATE D Blk. Spk Dup. %R [G] 83 | nalyzed: (Matrix: S RECOVI RPD % 3 | 06/10/2013 Solid ERY STUD Control Limits %R 70-130 | Y Control Limits %RPD 35 | Flag |
| Analyst: DYV Lab Batch ID: 915863 Sample: 639469 Units: ^{mg/kg} BTEX by EPA 8021B Analytes Benzene Toluene | D:1-BKS D: D:1-BKS Blank Sample Result [A] <0.000998 | ate Prepar Batcl BLAN Spike Added [B] 0.0998 0.0998 | ed: 06/10/201 h #: 1 K /BLANK \$ Blank Spike Result [C] 0.0851 0.0838 | SPIKE / F Blank Spike %R [D] 85 84 | BLANK S Spike Added [E] 0.0996 0.0996 | Blank Spike Duplicate Result [F] 0.0824 0.0905 | Date A | nalyzed: (Matrix: S RECOVI RPD % 3 8 | 06/10/2013 Solid ERY STUD Control Limits %R 70-130 70-130 | Control Limits %RPD 35 35 | Flag |

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





| Work Order #: 464683 Analyst: DYV | | Da | ate Prepar | ed: 06/12/201 | 3 | | | | ject ID: nalyzed: () | 6/13/2013 | | |
|--------------------------------------|---------------------|-------------------------------|----------------|--------------------------|----------------------|----------------|-----------------------------|------------------------|-------------------------|-------------------------|---------------------------|------|
| Lab Batch ID: 916148 | Sample: 639552-1-BI | KS | Batcl | h#: 1 | | | | | Matrix: S | Solid | | |
| Units: mg/kg | [| | BLAN | K /BLANK S | SPIKE / F | BLANK S | PIKE DUPL | ICATE | RECOVE | ERY STUD | Y | |
| TPH By SW801 | 15 Mod | Blank Sample Result [A] | Spike Added | Blank Spike Result | Blank Spike %R | Spike Added | Blank Spike Duplicate | Blk. Spk Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Analytes | | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | |
| C6-C12 Gasoline Range Hydroca | rbons | <15.0 | 1000 | 1020 | 102 | 1000 | 947 | 95 | 7 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocart | bons | <15.0 | 1000 | 1070 | 107 | 1000 | 995 | 100 | 7 | 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: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : 464683 | | | | | | Project II |): | | | | |
|----------------------------------|-----------------------------------|-----------------------|--------------------------------|-------------------------------|-----------------------|--|-----------------------------|----------|-------------------------|---------------------------|------|
| Lab Batch ID: 915856 | QC- Sample ID: | 464683 | -004 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/10/2013 | Date Prepared: | 06/10/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| BTEX by EPA 8021B Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Benzene | <0.000996 | 0.0996 | 0.0821 | 82 | 0.100 | 0.0824 | 82 | 0 | 70-130 | 35 | |
| Toluene | < 0.00199 | 0.0996 | 0.0869 | 87 | 0.100 | 0.0861 | 86 | 1 | 70-130 | 35 | |
| Ethylbenzene | <0.000996 | 0.0996 | 0.0996 | 100 | 0.100 | 0.0881 | 88 | 12 | 71-129 | 35 | |
| m,p-Xylenes | < 0.00199 | 0.199 | 0.183 | 92 | 0.200 | 0.165 | 83 | 10 | 70-135 | 35 | |
| o-Xylene | <0.000996 | 0.0996 | 0.0874 | 88 | 0.100 | 0.0850 | 85 | 3 | 71-133 | 35 | |
| Lab Batch ID: 915863 | QC- Sample ID: | 464685 | -004 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/10/2013 | Date Prepared: | 06/10/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| BTEX by EPA 8021B Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Benzene | <0.000998 | 0.0998 | 0.0953 | 95 | 0.0996 | 0.0875 | 88 | 9 | 70-130 | 35 | |
| Toluene | <0.00200 | 0.0998 | 0.104 | 104 | 0.0996 | 0.0912 | 92 | 13 | 70-130 | 35 | |
| Ethylbenzene | <0.000998 | 0.0998 | 0.107 | 107 | 0.0996 | 0.0998 | 100 | 7 | 71-129 | 35 | |
| m,p-Xylenes | <0.00200 | 0.200 | 0.200 | 100 | 0.199 | 0.185 | 93 | 8 | 70-135 | 35 | |
| o-Xylene | <0.000998 | 0.0998 | 0.108 | 108 | 0.0996 | 0.0920 | 92 | 16 | 71-133 | 35 | |

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



Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : | 464683 | | | | | | Project II |) : | | | | |
|-------------------------|----------------------------|----------------------------|----------------|--------------------------------|------------------------|----------------|--|----------------------|----------|-------------------------|---------------------------|------------|
| Lab Batch ID: | 916025 | QC- Sample ID: | 464552 | -001 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: | 06/11/2013 | Date Prepared: | 06/11/2 | 013 | An | nalyst: F | RKO | | | | | |
| Reporting Units: | mg/kg | | Μ | ATRIX SPIKI | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| Inorgan | ic 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] | | [D] | [E] | Kesun [F] | [G] | 70 | 70K | | |
| Chloride | | 24200 | 200 | 24200 | 0 | 200 | 23900 | 0 | 1 | 80-120 | 20 | X |
| Lab Batch ID: | 916025 | QC- Sample ID: | 464683 | -003 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: | 06/12/2013 | Date Prepared: | 06/11/2 | 013 | An | nalyst: F | RKO | | | | | |
| Reporting Units: | mg/kg | | Μ | ATRIX SPIKI | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| Inorgan | ic Anions by EPA 300/300.1 | Parent Sample Result | Spike Added | Spiked Sample Result | Spiked Sample %R | Spike | Duplicate Spiked Sample Result [F] | Spiked Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| | Analytes | [A] | Added [B] | [C] | %K [D] | Added [E] | Kesuit [F] | %ĸ [G] | 70 | % K | %KPD | |
| Chloride | | 4.22 | 100 | 106 | 102 | 100 | 107 | 103 | 1 | 80-120 | 20 | |
| Lab Batch ID: | 916039 | QC- Sample ID: | 464683 | -014 S | Ba | tch #: | 1 Matrix | x: Soil | | | <u>.</u> | . <u>.</u> |
| Date Analyzed: | 06/12/2013 | Date Prepared: | 06/11/2 | 013 | Ar | nalyst: F | RKO | | | | | |
| Reporting Units: | mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| Inorgan | ic 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] | Added [B] | | %K [D] | E] | Kesun [r] | %ĸ [G] | 70 | 70K | 70KrD | |
| | | | | | | | | | | | | |

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



Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : 464683 | | | | | | Project II |): | | | | |
|------------------------------------|------------------|--------------|-------------------------|-----------|--------------|----------------------------|-----------|-------|-------------------|-------------------|------|
| Lab Batch ID: 916148 | QC- Sample ID: | 464683 | -001 S | Ba | tch #: | 1 Matri | x: Soil | | | | |
| Date Analyzed: 06/13/2013 | Date Prepared: | 06/12/2 | 013 | An | alyst: I | OYV | | | | | |
| Reporting Units: mg/kg | | Μ | IATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| TPH By SW8015 Mod | Parent Sample | Spike | Spiked Sample Result | Sample | Spike | Duplicate Spiked Sample | | 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 | <15.6 | 1040 | 1020 | 98 | 1040 | 1050 | 101 | 3 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | <15.6 | 1040 | 1090 | 105 | 1040 | 1120 | 108 | 3 | 70-135 | 35 | |

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



Percent Moisture

Work Order #: 464683

Sample Duplicate Recovery



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Lab Batch #: 915867 **Project ID:** Date Prepared: 06/10/2013 Analyst: WRU Date Analyzed: 06/10/2013 14:20 QC- Sample ID: 464673-001 D Batch #: 1 Matrix: Soil SAMPLE / SAMPLE DUPLICATE RECOVERY **Reporting Units:** % Sample Control **Percent Moisture** Parent Sample RPD Duplicate Limits Result Flag Result %RPD [A] [B] Analyte Percent Moisture 1.63 1.57 4 20 Lab Batch #: 915869 Date Prepared: 06/10/2013 Analyst: WRU Date Analyzed: 06/10/2013 15:38 Batch #: 1 Matrix: Soil QC- Sample ID: 464683-014 D SAMPLE / SAMPLE DUPLICATE RECOVERY **Reporting Units:** % **Percent Moisture** Parent Sample Sample Control RPD Duplicate Result Limits Flag %RPD Result [A] [B] Analyte 3.56 3.41 4 20

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

| Relinquished by: | Reinquished | Relinquished by: | Special Instructions: | 10 | 09 | 8 | 07 | 00 | 8 | 24 | 60 | 60 | 0 | LAB # (lab use only) | ORDER #: | (lab use only) | | 1 | | | | | The Environmer |
|----------------------------|--|---|--|---------------------|---------------------|---------------------|----------|---------------------|------------------|---------------------|------------------|---------------------|--------------------|--|----------------|----------------|-------------------|----------------|----------------------|----------------------|-------------------------------|---|---|
| t by: | 1 Com | 1 Roxent | tructions: | Trench-6 Floor @ 2' | Trench-5 Floor @ 2' | Trench-4 Floor @ 2' | SP-1 | Trench-3 Floor @ 2' | Trench-3 Topsoil | Trench-2 Floor @ 4' | Trench-2 Topsoil | Trench-1 Floor @ 6' | RP North S/W @ 11' | FIELD CODE | < 2 MANA # | - | Sampler Signature | Telephone No: | City/State/Zip: Midi | Company Address: 205 | Company Name Nov | Project Manager: | The Environmental Lab of Texas |
| Date | 6 /7//3 | L/J/B | | or @ 2' | or @ 2' | or @ 2' | | or @ 2' | opsoil | or @ 4' | opsoil | or @ 6' | V@ 11' | D | 5 | 7 | annulle ! | 482.520.7720 | Midland, TX 79703 | 2057 Commerce | Nova Safety and Environmental | Carr | |
| | T4 | I. | | - | | | | | | | | | | Beginning Depth | | | R | | | | Imenta | Camille Bryant | |
| Time | Time | - Sine Sine | | | 1.0.0 | - | - | | - | | - | - | | Ending Depth | | | YE | | | ١. | = | yant | |
| Received by ELOT: | Receiv | Received by: | | 6/5/2013 | 6/5/2013 | 6/5/2013 | 6/4/2013 | 6/4/2013 | 6/4/2013 | 6/4/2013 | 6/4/2013 | 6/4/2013 | 6/4/2013 | Date Sampled | | | | | | | | | |
| LOT: | 1 | the Rey | | 9:40 | 9:10 | 9:00 | 2:30 | 1:50 | 1:40 | 1:20 | 1:10 | 1:00 | 12:30 | Time Sampled | | | e-mail: | Fax No: | | | | | |
| | | me | | | | | | | | | | | | Field Filtered | 1 | | | 1.4 | | | | | |
| 0 | 1 | 1 | | - | - | - | | - | | - | - | - | - | Total #. of Containers | - | | | 432.520.7701 | | | | | |
| | | | | × | × | × | × | × | × | × | × | × | × | Ice | - P | | 19 | 520. | | | | 10 | 1260 Ode |
| | | | | | + | - | - | _ | | - | - | - | - | HNO ₃ | resen | | orya | 770 | | | | | ssa |
| 7 | | | 1 - 1 | - | - | - | - | - | - | - | - | - | - | HCI | Preservation & | | cbryant@nc | - | | | | | /est |
| - | | | | | + | - | - | - | - | - | - | - | - | H ₂ SO ₄ NaOH | - * | | nov | | | | | | 12600 West I-20 East Odessa, Texas 79765 |
| | | | | - | + | + | - | + | - | - | 1 | + | + | Na ₂ S ₂ O ₃ | of Co | | /atra | | | | | |) Ea: 797 |
| - | - | - | | - | + | - | + | - | | | 1 | - | + | None | of Containers | | vatraining.cc | | | | | 1 | 65 |
| D | 0 | 60 | | | 1 | 1 | | | | 1 | 1 | 1 | | Other (Specify) | - SIG | | ld c | | | | | 1 | |
| Date | Date | | | | | | | | | | | | | DW=Drinking Water SL=Sludge | 2 | | 10 | | ć. | | 12 | 2 | |
| N | | N | | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | Soil | GW = Groundwater S=Soil/Solid | Matrix | | 1 | Rep | | | | | |
| - | - | 5/C | | L | 11 | | | - | - | - | - | - | | NP=Non-Potable Specify Other TPH: 418.1 (8015M) 8 | 015B | T | | Report Format: | | Pro | 1 | roje | |
| ime | Time | Time 142 | | × | × | × | × | × | × | × | × | × | × | TPH: 418.1 (8015M) 8 TPH: TX 1005 TX 100 | - | | | orm | _ | Project Loc: | Project #: | ct N | |
| 3 | Ś | 225 | S S L | | + | + | + | - | - | + | + | - | 1 | Cations (Ca, Mg, Na, K) | | | | at | PO # | Loc | ct # | ame | t I-20 East xas 79765 Fax: 432-563-171: |
| | by Sampler/Client Rep by Courier? UPS | Labels on container(s) Custody seals on container(s) Custody seals on cooler(s) | Sample Containers Intact? VOCs Free of Headspace? | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Anions (CI, SO4, Alkalinity) | | 7 | | * | | ľ | I. | SU | |
| | by Sampler | dy se | e Cu | | 1 | | 1 | 1 | T | 1 | 1 | 1 | 1 | SAR / ESP / CEC | | TOTAL | | | | | | GS | |
| - | hple Hand Delivered by Sampler/Client Rep. by Courier? UPS | cont | of | | | 1 | 1 | | | | | | | Metals: As Ag Ba Cd Cr Pb H | - | | 1.1 | Standard | | | | Histo | Phone: 432-563-1800 Fax: 432-563-1713 |
| | /Clie | on c | Head | | | | | | | | | | | Volatiles | | | Analyze For: | đ | | Lea | | rical | x: |
| 0 | UP: | onta: | s Inta | ont | | | | | | | | | | Semivolatiles | | | ze F | | | aC | | A-1 | 43 |
| Transporting lines Descint | Sep. ? | ainei er(s) | act? | × | × | × | × | × | × | × | × | × | × | BTEX 8021B/5030 or BTEX 8 | 3260 | | 3 | | | ount | | 461 | 432-563-1800 432-563-1713 |
| | DHL | (s) | 1 | | | | | | | | | | | RCI | | | | TRRP | | Y.N | | nch | 3-1 |
| | F | | | | | | | | | | | | | N.O.R.M. | | | | RP | | ew | | Line | 800 |
| _ | Y FedEx | | | × | × | × | × | × | × | × | × | × | × | Chloride E 300.0 | | | | | | County, New Mexico | | Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116 | |
| 2 | - | ~ ~ ~ | ~ ~ | - | + | + | + | + | - | + | + | - | - | | - | - | | NP | | 8 | | 1116 | |
| 5) | one Star | zzz | z z | E | | | | | | | | | | RUSH TAT (Pre-Schedule) | 24, 48, | 72 hrs | 5 | 0 | | | | | |
| | 7 | | | × | × | × | × | × | × | × | × | × | × | Standard TAT | | | | | Į. | | 1 | 1. | |

| Relinquished by Relinquished by | Relinquished by | Special I | | | | 01 | 15 | r | 5 | 12 | | LAB # (lab use only) | ORDER #: | (lab use only) | | | | | | | The Environme |
|---|--|---|-----------|-----|---|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---|-----------------|----------------|-------------------------|----------------------------|-----------------------------------|--------------------------------|--|---|--|
| ed by: by: ed by: | and the stand | Special Instructions: | | | | Trench-11 Floor @ 2' | Trench-10 Floor @ 4' | Trench-10 Floor @ 2' | Trench-9 Floor @ 2' | Trench-8 Floor @ 2' | Trench-7 Floor @ 2' | FIELD CODE | C SNHALL # | - | Sampler Signature | Telephone No: 432.520.7720 | City/State/Zip: Midland, TX 79703 | Company Address: 2057 Commerce | Company Name Nova Safety and Environmental | Project Manager: | The Environmental Lab of Texas |
| lol'7113 Date | 6AB | | | | | | | | | | | | - | | Der t | 1 | 9703 | 8 | nd Environme | Camille Bryant | |
| Time | 11:42 | | | - | | | | | | | | Beginning Depth | | | \$ | 4 | | | ntal | Bryant | |
| | ø. | | | | | - | | | | | 1 | Ending Depth | | | E | | | | | | |
| Received by: Received by ELOT: | Received by | | | | | 6/5/2013 | 6/5/2013 | 6/5/2013 | 6/5/2013 | 6/5/2013 | 6/5/2013 | Date Sampled | | | 7 | | | | | | |
|) DT: | Rep- | | | | | 2:00 | 1:15 | 12:30 | 11:00 | 10:40 | 10:10 | Time Sampled | | | e-mail: | Fax No: | | | | | |
| | | | | | | | | | | | | Field Filtered | | | i. | 4 | | | | | |
| P | | | \vdash | - | + | 1 × | × | × | × | × | × | Total #. of Containers | \mathbf{h} | | | 432.520.7701 | | | | | 0.1 |
| 2p | | | \vdash | | + | Ê | Ê | Ê | Ê | Ê | Ê | HNO ₃ | Pres | | cbr | 20.7 | | | | | 12600 West I-20 East Odessa, Texas 79765 |
| 5 | | | | | - | 1 | 1 | - | | | | НСІ | Preservation & | | cbryant@novatraining.cc | 701 | | | | | i We sa, T |
| | | | | | | | | | | | | H ₂ SO ₄ | ion & | | (Q) | | | | | | st - |
| Y | | | | 1 | | | | | | | | NaOH | 25 | | ova | | | | | | 20 E s 79 |
| 4 | | | | 1.1 | | | | | | | | Na ₂ S ₂ O ₃ | t of Containers | | train | | | | | | ast 765 |
| - | 0 | | | _ | - | - | | | | | | None | iners | | ling | | | | | | |
| Date | Date 6/7// | | \vdash | - | + | + | + | - | - | - | + | Other (Specify) DW=Drinking Water SL=Sludge | н | | 8 | 1 | 1 | | 1 | 1 | |
| - | 113 | | | | | Soil | Soil | Soil | Soil | Soil | Soil | GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other | Matrix | | | Report Format: | | | | Pr | t I-20 East xas 79765 Fax: 432-563-171 |
| Time | Time N:42 | | | | | × | × | × | × | × | × | | 015B | T | | rt Fo | | Proj | P | ojec | |
| S a a | e Z | | | | | | | | | | | TPH: TX 1005 TX 1006 | 5 | | | rma | PC | Project Loc: | Project #: | Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116 | |
| Ten | Cus | San | | | | | | | | | | Cations (Ca, Mg, Na, K) | | | | п | PO #: | .00: | 1# | me: | |
| Sample Hand Delivered by Sampler/Client Rej by Courier? UPS Temperature Upon Reo | Labels on container(s) Custody seals on container(s) Custody seals on coolainer(s) | Laboratory Comments: Sample Containers Intact? | | | | | | | | | | Anions (CI, SO4, Alkalinity) | | TOTAL: | | * | | | | SUG | |
| type Hand Delivered by Sampler/Client Rep. by Courier? UPS typerature Upon Recei | sea sea | Con | | | - | - | - | | - | | | SAR / ESP / CEC | _ | TCLP: | | Standard | | | | SH | - 7 |
| er/Cl | Is on | Com | \vdash | - | - | - | - | - | - | - | - | Metals: As Ag Ba Cd Cr Pb Hg | g Se | - | Ana | dard | | | | storic | hone Fax: |
| un R | coo | iner rs in | \vdash | - | - | - | - | + | + | - | - | Volatiles Semivolatiles | - | - | Analyze | | | Lea | | alA | e: 4 |
| D O | i) taine ler(s | Itact | | | - | × | × | × | × | × | × | BTEX 8021B/5030 BTEX 8 | 260 | - | For: | | | Cou | | 14 6 | Phone: 432-563-1800 Fax: 432-563-1713 |
| PHL ? | er(s) | 3.0 | \vdash | | - | 1 | 1 | Ê | 1 | Ê | Ê | RCI | | | | T | | nty, | | Inch | 63- |
| ÷ | | | \square | | - | + | 1 | | | | | N.O.R.M. | - | | | TRRP | | New | | Line | 1800 |
| FedEx | | | | | | × | × | × | × | × | × | Chloride E 300.0 | | | | | | Lea County, New Mexico | | e 1RI | |
| | < | < < | | | | | | | | | | | | | | NP | | tico | | 0-11 | |
| × | | 10.00 | | | | T | | | | | | | | | | Z | | 111 | | 6 | |
| No | zzzz | 1 | | | - | - | + | - | - | - | - | RUSH TAT (Pre-Schedule) 24 | - | - | _ | | | | 10.0 | | |

Page 27 of 28

Final 1.000



XENCO Laboratories



Comments

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: 06/07/2013 02:18:00 PM **Temperature Measuring device used :** Work Order #: 464683

| S | ample Receipt Checklist | |
|---|--------------------------|-----|
| #1 *Temperature of cooler(s)? | | 1.5 |
| #2 *Shipping container in good condition? | | Yes |
| #3 *Samples received on ice? | | Yes |
| #4 *Custody Seals intact on shipping contain | er/ 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 relinquish | ned/ received? | Yes |
| #11 Chain of Custody agrees with sample lab | pel(s)? | Yes |
| #12 Container label(s) legible and intact? | | Yes |
| #13 Sample matrix/ properties agree with Cha | ain 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 te | est(s)? | Yes |
| #18 All samples received within hold time? | | Yes |
| #19 Subcontract of sample(s)? | | Yes |
| #20 VOC samples have zero headspace (les | s than 1/4 inch bubble)? | Yes |
| #21 <2 for all samples preserved with HNO3, | HCL, H2SO4? | Yes |
| #22 >10 for all samples preserved with NaAs | O2+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: Mmg Koah Kelsey Brooks Checklist reviewed by: Mmg Koah Kelsey Brooks

Date: 06/07/2013

Date: 06/07/2013

Analytical Report 464554

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant SUGS Historical A-14 6 Inch Line 1RP-1116

13-JUN-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-JUN-13



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

Reference: XENCO Report No(s): 464554 SUGS Historical A-14 6 Inch Line 1RP-1116 Project Address: Lea County, New Mexico

Camille Bryant:

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) 464554. 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. 464554 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully.

Kelsey Brooks Project Manager

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



Sample Cross Reference 464554



Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|-----------|--------|----------------|--------------|---------------|
| RP @ 12' | S | 06-03-13 12:50 | | 464554-001 |
| RP @ 18' | S | 06-03-13 15:15 | | 464554-002 |



CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID: Work Order Number(s): 464554
 Report Date:
 13-JUN-13

 Date Received:
 06/06/2013

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Project Id:

Contact: Camille Bryant

Project Location: Lea County, New Mexico

Certificate of Analysis Summary 464554

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Thu Jun-06-13 10:51 am

Report Date: 13-JUN-13

Project Manager: Kelsey Brooks

| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | Analysis Requested |
|--|--|
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | Analysis Requested |
| Depth: Depth: Natrix: SOIL SOIL Matrix: SOIL Jun-03-13 12:50 Jun-03-13 15:15 | Anaiysis Kequestea |
| Sampled: Jun-03-13 12:50 Jun-03-13 15:15 Image: Signature Signatetetet Signature Signature S | |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | BTEX by EPA 8021B |
| Units/RL: mg/kg RL mg/kg RL Benzene ND 0.00108 ND 0.00107 Image: Constraint of the state of | |
| Benzene ND 0.00108 ND 0.00107 Image: constraint of the structure of | |
| Ethylbenzene ND 0.00108 ND 0.00107 m.p-Xylenes ND 0.00216 ND 0.00213 < | Benzene |
| Inspectation Inspectation <th< th=""><th>Toluene</th></th<> | Toluene |
| ND 0.00108 ND 0.00107 Image: constraint of the strate of the stra | Ethylbenzene |
| Total Xylenes ND 0.00108 ND 0.00107 Total BTEX ND 0.00108 ND 0.00107 Inorganic Anions by EPA 300/300.1 SUB: TX104704215 Extracted: Analyzed: Jun-11-13 Jun-11-13 I:31 MD 0.0108 ND 0.00107 Image: Chloride Jun-11-13 Jun-11-13 I:31 Chloride 97.5 2.00 49.9 2.00 Image: Chloride | m,p-Xylenes |
| Total BTEX ND 0.00108 ND 0.00107 Inorganic Anions by EPA 300/300.1 SUB: TX104704215 Extracted: Analyzed: Jun-11-13 Jun-11-13 Jun-11-13 II:31 Units/RL: mg/kg RL mg/kg RL mg/kg RL Chloride 97.5 2.00 49.9 2.00 | o-Xylene |
| Inorganic Anions by EPA 300/300.1 SUB: TX104704215 Extracted: Jun-11-13 11:31 Jun-11-13 11:31 Analyzed: Jun-13-13 03:35 Jun-13-13 04:30 Jun-13-13 04:30 Chloride 97.5 2.00 49.9 2.00 | - |
| SUB: TX104704215 Analyzed: Jun-13-13 03:35 Jun-13-13 04:30 Units/RL: mg/kg RL mg/kg RL Chloride 97.5 2.00 49.9 2.00 | |
| Analyzed. Juli 15-15 05.35 Juli 15-15 04.30 Units/RL: mg/kg RL mg/kg RL Chloride 97.5 2.00 49.9 2.00 | |
| Chloride 97.5 2.00 49.9 2.00 | SUB: TX104704215 |
| | |
| Percent Moisture Extracted: | Chloride |
| | Percent Moisture |
| Analyzed: Jun-06-13 16:35 Jun-06-13 16:35 | |
| Units/RL: % RL % RL | |
| Percent Moisture 8.32 1.00 6.84 1.00 | Percent Moisture |
| TPH By SW8015 Mod Extracted: Jun-07-13 17:00 Jun-07-13 17:00 | |
| SUB: TX104704215 Analyzed: Jun-11-13 03:23 Jun-11-13 11:05 | |
| Units/RL: mg/kg RL mg/kg RL | TPH By SW8015 Mod SUB: TX104704215 |
| C6-C12 Gasoline Range Hydrocarbons ND 16.4 ND 16.1 | |
| C12-C28 Diesel Range Hydrocarbons ND 16.4 ND 16.1 | SUB: TX104704215 C6-C12 Gasoline Range Hydrocarbons |
| C28-C35 Oil Range Hydrocarbons ND 16.4 ND 16.1 | SUB: TX104704215 C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons |
| Total TPH ND 16.4 ND 16.1 | SUB: TX104704215 C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons C28-C35 Oil Range Hydrocarbons |

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

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Huns Roah

Kelsey Brooks Project Manager

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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.

LOD Limit of Detection

Phone

(281) 240-4200

(214) 902 0300

(210) 509-3334

(813) 620-2000

(432) 563-1800

(770) 449-8800

(602) 437-0330

* Surrogate recovered outside laboratory control limit.

- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit
 SDL Sample Detection Limit
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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(214) 351-9139

(210) 509-3335

(813) 620-2033

(432) 563-1713

(770) 449-5477



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464554 Lab Batch #: 915856 | ., Sample: 464554-001 / SMP | Data | Project I h: ¹ Matrix | | | |
|---|--------------------------------|------------------------|-------------------------------------|-----------------------|-------------------------|-------|
| Units: mg/kg | Date Analyzed: 06/10/13 10:49 | Batcl SU | RROGATE R | | STUDY | |
| | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1,4-Difluorobenzene | | 0.0244 | 0.0300 | 81 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0262 | 0.0300 | 87 | 80-120 | |
| Lab Batch #: 915856 | Sample: 464554-002 / SMP | Bate | h: ¹ Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/10/13 11:06 | SU | RROGATE R | ECOVERY | STUDY | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | | 0.0245 | 0.0300 | 82 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0273 | 0.0300 | 91 | 80-120 | |
| Lab Batch #: 915871 | Sample: 464554-001 / SMP | Batc | h: ¹ Matrix | :Soil | I | |
| Units: mg/kg | Date Analyzed: 06/11/13 03:23 | | RROGATE R | | STUDY | |
| | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flage |
| | Analytes | | | [D] | | |
| 1-Chlorooctane | | 90.8 | 100 | 91 | 70-135 | |
| o-Terphenyl | | 48.6 | 50.0 | 97 | 70-135 | |
| Lab Batch #: 915871 | Sample: 464554-002 / SMP | Bate | - | | | |
| Units: mg/kg | Date Analyzed: 06/11/13 11:05 | 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 | | 93.5 | 99.8 | 94 | 70-135 | |
| o-Terphenyl | | 50.5 | 49.9 | 101 | 70-135 | |
| Lab Batch #: 915856 | Sample: 639463-1-BLK / BL | K Batc | h: ¹ Matrix | :Solid | | |
| Units: mg/kg | Date Analyzed: 06/10/13 09:10 | SU | RROGATE R | ECOVERY | STUDY | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag |
| 1,4-Difluorobenzene | · | 0.0353 | 0.0300 | 118 | 80-120 | |
| | | | | 1 | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464554 Lab Batch #: 915871 | Sample: 639417-1-BLK / B | LK Bate | Project I h: 1 Matrix | | | | | | | | |
|--|---------------------------------|--------------------------|--------------------------|-----------------------|-------------------------|-------|--|--|--|--|--|
| Units: mg/kg | Date Analyzed: 06/11/13 02:58 | SU | RROGATE R | ECOVERYS | STUDY | | | | | | |
| TPH | By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flage | | | | | |
| | Analytes | | | [D] | | | | | | | |
| 1-Chlorooctane | | 95.1 | 99.7 | 95 | 70-135 | | | | | | |
| o-Terphenyl | | 51.9 | 49.9 | 104 | 70-135 | | | | | | |
| Lab Batch #: 915856 | Sample: 639463-1-BKS / Bl | KS Bate | ch: 1 Matrix | x: Solid | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 08:21 | SURROGATE RECOVERY STUDY | | | | | | | | | |
| BTEZ | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | | | | |
| 1,4-Difluorobenzene | | 0.0334 | 0.0300 | 111 | 80-120 | | | | | | |
| 4-Bromofluorobenzene | | 0.0322 | 0.0300 | 107 | 80-120 | | | | | | |
| Lab Batch #: 915871 | Sample: 639417-1-BKS / Bl | KS Bate | h: ¹ Matrix | x:Solid | 1 1 | | | | | | |
| Units: mg/kg | Date Analyzed: 06/11/13 02:08 | | RROGATE R | | STUDY | | | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | | | | |
| 1-Chlorooctane | Analytes | 06.0 | 00.0 | | 70.125 | | | | | | |
| o-Terphenyl | | 96.9 59.3 | 99.9 50.0 | 97 | 70-135 | | | | | | |
| | | | | - | 70-155 | | | | | | |
| Lab Batch #: 915856 | Sample: 639463-1-BSD / BS | | h: 1 Matrix | - | STUDY | | | | | | |
| Units: mg/kg | Date Analyzed: 06/10/13 08:37 | 30 | KRUGAIE R | ECOVERY | | | | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | | | | |
| 1,4-Difluorobenzene | | 0.0286 | 0.0300 | 95 | 80-120 | | | | | | |
| 4-Bromofluorobenzene | | 0.0285 | 0.0300 | 95 | 80-120 | | | | | | |
| Lab Batch #: 915871 | Sample: 639417-1-BSD / BS | SD Bate | h: 1 Matrix | solid | | | | | | | |
| Units: mg/kg | Date Analyzed: 06/11/13 02:33 | SU | RROGATE R | ECOVERY | STUDY | | | | | | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | | | | | |
| 1-Chlorooctane | | 103 | 100 | 103 | 70-135 | | | | | | |
| o-Terphenyl | | | 100 | 1 | | | | | | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Vork Orders : 464554 Lab Batch #: 915856 | , Sample: 464683-004 S / MS | S Batcl | Project I h: ¹ Matrix | | | |
|---|--------------------------------|------------------------|-------------------------------------|-----------------------|---|-------|
| Units: mg/kg | Date Analyzed: 06/10/13 12:28 | | RROGATE R | ECOVERY | STUDY | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | | 0.0296 | 0.0300 | 99 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0314 | 0.0300 | 105 | 80-120 | |
| Lab Batch #: 915871 | Sample: 464554-002 S / MS | S Batcl | h: ¹ Matrix | Soil | | |
| Units: mg/kg | Date Analyzed: 06/11/13 04:13 | 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 | Analytes | 89.8 | 100 | 90 | 70-135 | |
| o-Terphenyl | | 56.3 | 50.1 | 112 | 70-135 | |
| Lab Batch #: 915856 | Sample: 464683-004 SD / N | ASD Batcl | h: ¹ Matrix | :Soil | I | |
| Units: mg/kg | Date Analyzed: 06/10/13 12:44 | | RROGATE R | ECOVERY | STUDY | |
| | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | [] | [2] | [D] | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| 1,4-Difluorobenzene | | 0.0270 | 0.0300 | 90 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0332 | 0.0300 | 111 | 80-120 | |
| Lab Batch #: 915871 | Sample: 464554-002 SD / N | ASD Batel | h: 1 Matrix | ::Soil | | |
| Units: mg/kg | Date Analyzed: 06/11/13 04:38 | 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 | | 103 | 100 | 103 | 70-135 | |
| o-Terphenyl | | 59.6 | 50.1 | 119 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution





| Work Order #: 464554 | | | Pro | oject ID: | | | |
|----------------------------------|----------|-----------------|----------------|----------------|----------------|-------------------|-------|
| Lab Batch #: 916083 | S | ample: 639475- | 1-BKS | Matrix: | | | |
| Date Analyzed: 06/13/2013 | Date Pre | pared: 06/11/20 |)13 | Analyst: | RKO | | |
| Reporting Units: mg/kg | Ba | atch #: 1 | BLANK /H | BLANK SPI | KE REC | OVERY S | STUDY |
| Inorganic Anions by EPA 300/3 | 300.1 | Blank Result | Spike Added | Blank Spike | Blank Spike | Control Limits | Flags |
| Analytes | | [A] | [B] | Result [C] | %R [D] | %R | |
| Chloride | | <10.0 | 500 | 511 | 102 | 80-120 | |

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



| Work Order #: 464554 | | | | | | | | ject ID: | | | | |
|---|---|-----------------------|---------------------------------|-----------------------------|----------------------------------|---|-------------------------------|------------|-------------------------|---------------------------|------|--|
| Analyst: DYV | Da | ate Prepar | ed: 06/10/201 | 3 | | | Date A | nalyzed: 0 | 6/10/2013 | | | |
| Lab Batch ID: 915856 Sample: 639463-1-B | SKS | Batcl | h#: 1 | | | | | Matrix: S | olid | | | |
| Units: mg/kg | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | | | |
| BTEX by EPA 8021B | Blank Sample Result [A] | Spike Added | Blank Spike Result | Blank Spike %R | Spike Added | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag | |
| Analytes | | [B] | [C] | [D] | [E] | Kesult [F] | [6] | | | | | |
| Benzene | < 0.00100 | 0.100 | 0.0920 | 92 | 0.0998 | 0.0872 | 87 | 5 | 70-130 | 35 | | |
| Toluene | <0.00200 | 0.100 | 0.0949 | 95 | 0.0998 | 0.0928 | 93 | 2 | 70-130 | 35 | | |
| Ethylbenzene | <0.00100 | 0.100 | 0.106 | 106 | 0.0998 | 0.105 | 105 | 1 | 71-129 | 35 | | |
| m,p-Xylenes | <0.00200 | 0.200 | 0.193 | 97 | 0.200 | 0.191 | 96 | 1 | 70-135 | 35 | | |
| o-Xylene | <0.00100 | 0.100 | 0.102 | 102 | 0.0998 | 0.0995 | 100 | 2 | 71-133 | 35 | | |
| Analyst: DYV | Da | ate Prepar | ed: 06/07/201 | 3 | Date Analyzed: 06/11/2013 | | | | | | | |
| Lab Batch ID: 915871 Sample: 639417-1-B | SKS | Batcl | h#: 1 | | | | | Matrix: S | olid | | | |
| Units: mg/kg | | BLAN | K /BLANK S | SPIKE / B | BLANK S | PIKE DUPI | ICATE 1 | RECOVE | RY STUD | Y | | |
| TPH By SW8015 Mod Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag | |
| C6-C12 Gasoline Range Hydrocarbons | <15.0 | 999 | 1030 | 103 | 1000 | 1030 | 103 | 0 | 70-135 | 35 | | |
| C12-C28 Diesel Range Hydrocarbons | <15.0 | 999 | 1100 | 110 | 1000 | 1080 | 108 | 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

XENCO Laboratories

Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : 464554 | | | | | | Project II |): | | | | |
|--|---|---|---|---|--|--|--|--------------------------|---|---|------|
| Lab Batch ID: 915856 | QC- Sample ID: | 464683 | -004 S | Ba | tch #: | 1 Matrix | k: Soil | | | | |
| Date Analyzed: 06/10/2013 | Date Prepared: | 06/10/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| BTEX by EPA 8021B Analytes | Parent Sample Result [A] | Spike Added [B] | Spiked Sample Result [C] | Spiked Sample %R [D] | Spike Added [E] | Duplicate Spiked Sample Result [F] | Spiked Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Benzene | <0.000996 | 0.0996 | 0.0821 | 82 | 0.100 | 0.0824 | 82 | 0 | 70-130 | 35 | |
| Toluene | <0.00199 | 0.0996 | 0.0869 | 87 | 0.100 | 0.0861 | 86 | 1 | 70-130 | 35 | |
| Ethylbenzene | <0.000996 | 0.0996 | 0.0996 | 100 | 0.100 | 0.0881 | 88 | 12 | 71-129 | 35 | |
| m,p-Xylenes | <0.00199 | 0.199 | 0.183 | 92 | 0.200 | 0.165 | 83 | 10 | 70-135 | 35 | |
| o-Xylene | <0.000996 | 0.0996 | 0.0874 | 88 | 0.100 | 0.0850 | 85 | 3 | 71-133 | 35 | |
| Lab Batch ID: 916083 | QC- Sample ID: | 464554 | -001 S | Ba | tch #: | 1 Matrix | k: Soil | | | | |
| D + A = 1 = 0.0000000000000000000000000000000 | Date Prepared: | 06/11/2 | 012 | | • · • | wo | | | | | |
| Date Analyzed: 06/13/2013 | Date Frepareu: | 00/11/2 | 015 | An | alyst: F | RKO | | | | | |
| Date Analyzed:06/13/2013Reporting Units:mg/kg | Date Flepareu. | | | | • | KO KE DUPLICA | TE REC | OVERY | STUDY | | |
| | Parent Sample Result [A] | | | E / MAT | • | | Spiked | OVERY S | STUDY Control Limits %R | Control Limits %RPD | Flag |
| Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 | Parent Sample Result | M Spike Added | ATRIX SPIK Spiked Sample Result | E / MAT Spiked Sample %R | RIX SPI Spike Added | KE DUPLICA Duplicate Spiked Sample | Spiked Dup. %R | RPD | Control Limits | Limits | Flag |
| Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride Lab Batch ID: 915871 Date Analyzed: 06/11/2013 | Parent Sample Result [A] | M Spike Added [B] 100 464554 | ATRIX SPIK Spiked Sample Result [C] 182 -002 S | E / MAT Spiked Sample %R [D] 85 Ba | RIX SPI Spike Added [E] | KE DUPLICA Duplicate Spiked Sample Result [F] 183 1 Matrix | Spiked Dup. %R [G] 86 | RPD % | Control Limits %R | Limits %RPD | Flag |
| Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride Lab Batch ID: 915871 | Parent Sample Result [A] 97.5 QC- Sample ID: | M Spike Added [B] 100 464554 06/07/2 | ATRIX SPIK Spiked Sample Result [C] 182 -002 S 013 | E / MAT Spiked Sample %R [D] 85 Ba An | Spike Added [E] 100 tch #: alyst: I | KE DUPLICA Duplicate Spiked Sample Result [F] 183 1 Matrix | Spiked Dup. %R [G] 86 k: Soil | RPD % | Control Limits %R 80-120 | Limits %RPD | Flag |
| Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride Lab Batch ID: 915871 Date Analyzed: 06/11/2013 | Parent Sample Result [A] 97.5 QC- Sample ID: | M Spike Added [B] 100 464554 06/07/2 | ATRIX SPIK Spiked Sample Result [C] 182 -002 S 013 | E / MAT Spiked Sample %R [D] 85 Ba An E / MAT | Spike Added [E] 100 tch #: alyst: I | KE DUPLICA Duplicate Spiked Sample Result [F] 183 1 Matrix DYV | Spiked Dup. %R [G] 86 x: Soil TE REC Spiked | RPD % | Control Limits %R 80-120 | Limits %RPD | Flag |
| Reporting Units: mg/kg Inorganic Anions by EPA 300/300.1 Analytes Chloride Lab Batch ID: 915871 Date Analyzed: 06/11/2013 Reporting Units: mg/kg | Parent Sample Result [A] 97.5 QC- Sample ID: Date Prepared: Parent Sample Result | M Spike Added [B] 100 464554 06/07/2 M Spike Added | ATRIX SPIK Spiked Sample Result [C] 182 -002 S 013 ATRIX SPIK Spiked Sample Result | E / MAT Spiked Sample %R [D] 85 Ba An E / MAT Spiked Sample %R | RIX SPI Spike Added [E] 100 tch #: alyst: I RIX SPI Spike Added | KE DUPLICA Duplicate Spiked Sample Result [F] 183 1 Matrix DYV KE DUPLICA Duplicate Spiked Sample | Spiked Dup. %R [G] 86 k: Soil TE REC Spiked Dup. %R | RPD % 1 OVERY S | Control Limits %R 80-120 STUDY Control Limits | Limits %RPD 20 Control Limits | |

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



Sample Duplicate Recovery



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464554

| Lab Batch #: 915637 | | | | Project I | D: | |
|---------------------------------|-------------|--------------------------------|-------------------------------|-----------|---------------------------|-------|
| Date Analyzed: 06/06/2013 16:35 | Date Prepar | ed: 06/06/2013 | Ana | lyst:WRU | | |
| QC- Sample ID: 464554-001 D | Batch | n#: 1 | Mat | rix: Soil | | |
| Reporting Units: % | | SAMPLE / | SAMPLE | DUPLIC | ATE REC | OVERY |
| Percent Moisture | | Parent Sample Result [A] | Sample Duplicate Result | RPD | Control Limits %RPD | Flag |
| Analyte | | | [B] | | | |
| Percent Moisture | | 8.32 | 8.20 | 1 | 20 | |

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

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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: 06/06/2013 10:51:00 AM **Temperature Measuring device used :** Work Order #: 464554

Comments Sample Receipt Checklist #1 *Temperature of cooler(s)? 3 #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: Mmg Moah Kelsey Brooks Checklist reviewed by: Mmg Moah Kelsey Brooks

Date: 06/06/2013

Date: 06/06/2013

Analytical Report 464805

for

Southern Union Gas Services- Monahans

Project Manager: Camille Bryant SUGS Historical A-14 6 Inch Line 1RP-1116

18-JUN-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)



18-JUN-13



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

Reference: XENCO Report No(s): 464805 SUGS Historical A-14 6 Inch Line 1RP-1116 Project Address: Lea County, New Mexico

Camille Bryant:

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) 464805. 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. 464805 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully.

Kelsey Brooks Project Manager

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

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



Sample Cross Reference 464805



Southern Union Gas Services- Monahans, Monahans, TX

SUGS Historical A-14 6 Inch Line 1RP-1116

| Sample Id | Matrix | Date Collected | Sample Depth | Lab Sample Id |
|--------------------|--------|----------------|--------------|---------------|
| Trench 12 @ 2' | S | 06-06-13 10:00 | | 464805-001 |
| Trench 13 @ 2' | S | 06-06-13 11:00 | | 464805-002 |
| RP South S/W @ 11' | S | 06-07-13 09:00 | | 464805-003 |



CASE NARRATIVE



Client Name: Southern Union Gas Services- Monahans Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Project ID: Work Order Number(s): 464805 Report Date:18-JUN-13Date Received:06/11/2013

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Project Id:

Contact: Camille Bryant

Project Location: Lea County, New Mexico

Certificate of Analysis Summary 464805

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



Date Received in Lab: Tue Jun-11-13 11:20 am

Report Date: 18-JUN-13

Project Manager: Kelsey Brooks

| | | | | | | | 110jeet Manager | | | |
|--|--|---|--|---|--|---|---|--|---|---|
| Lab Id: | 464805-0 | 001 | 464805-0 | 02 | 464805-0 | 003 | | | | |
| Field Id: Trench 12 @ 2' Trench 13 @ 2' Depth: Image: Control of the second secon | | RP South S/W | V@11' | | | | | | | |
| | | | | | | | | | | |
| Matrix: | SOIL | _ | SOIL | | SOIL | | | | | |
| Sampled: | Jun-06-13 | 10:00 | Jun-06-13 1 | 1:00 | Jun-07-13 (| 09:00 | | | | |
| _ | Jun_12_13 | 10.00 | Iun_12_13_1 | 0.00 | Jun_12_13 | 10.00 | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Units/RL: | | | | | | | | | | |
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| | | | | | | | | | | |
| | | | | | | | | | | |
| | ND | 0.00104 | ND | 0.00103 | ND | 0.00103 | | | | |
| Extracted: | Jun-14-13 | 10:00 | Jun-14-13 1 | 0:00 | Jun-14-13 | 10:00 | | | | |
| Analyzed: | Jun-15-13 | 04:24 | Jun-15-13 (| 05:08 | Jun-15-13 (| 05:29 | | | | |
| Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | | |
| | 5.97 | 2.00 | 18.6 | 2.00 | 37.9 | 2.00 | | | | |
| Extracted: | | | | | | | | | | |
| Analyzed: | Jun-11-13 | 13:00 | Jun-11-13 1 | 3:00 | Jun-11-13 | 13:00 | | | | |
| Units/RL: | % | RL | % | RL | % | RL | | | | |
| | 3.39 | 1.00 | 3.94 | 1.00 | 3.57 | 1.00 | | | | |
| Extracted: | Jun-13-13 | 12:30 | Jun-13-13 1 | 2:30 | Jun-13-13 | 12:30 | | | | |
| Analyzed: | Jun-13-13 | 21:43 | Jun-13-13 2 | 22:07 | Jun-13-13 | 22:32 | | | | |
| Units/RL: | mg/kg | RL | mg/kg | RL | mg/kg | RL | | | | |
| ' | ND | 15.6 | ND | 15.6 | ND | 15.6 | | | | |
| | ND | 15.6 | 43.7 | 15.6 | ND | 15.6 | | | | |
| | ND | 15.6 | ND | 15.6 | ND | 15.6 | | | | |
| | ND | 15.6 | 43.7 | 15.6 | ND | 15.6 | | | | |
| | Field Id: Depth: Matrix: Sampled: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Units/RL: Extracted: Analyzed: Units/RL: | Field Id: Trench 12 Depth: Trench 12 Matrix: SOII Sampled: Jun-06-13 Extracted: Jun-12-13 Analyzed: Jun-12-13 Units/RL: mg/kg ND ND ND ND Extracted: Jun-14-13 Analyzed: Jun-15-13 Units/RL: mg/kg 5.97 Extracted: Analyzed: Jun-11-13 Units/RL: % 3.39 Extracted: Junits/RL: % Sampled: Jun-13-13 Units/RL: Mg/kg ND ND Solutis/RL: % Malyzed: Jun-13-13 Units/RL: mg/kg ND ND ND ND ND ND ND ND Malyzed: Jun-13-13 Nnits/RL: mg/kg ND ND ND ND ND ND ND | Field Id: Trench 12 @ 2' Depth: Matrix: Sampled: Jun-06-13 10:00 Extracted: Jun-12-13 10:00 Analyzed: Jun-12-13 11:53 Units/RL: mg/kg RL ND 0.00104 Extracted: Jun-14-13 10:00 Analyzed: Jun-15-13 04:24 Units/RL: mg/kg RL Analyzed: Jun-11-13 13:00 Units/RL: % RL 3.39 1.00 S.339 Linits/RL: Mg/kg RL < | Field Id: Trench 12 @ 2' Trench 13 Matrix: SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 1 Extracted: Jun-12-13 10:00 Jun-12-13 1 Analyzed: Jun-12-13 11:53 Jun-12-13 1 Units/RL: mg/kg RL mg/kg ND 0.00104 ND Malyzed: Jun-15-13 04:24 Jun-14-13 10 Units/RL: mg/kg RL mg/kg Malyzed: Jun-11-13 13:00 Jun-11-13 1 Units/RL: Mg/kg RL % Extracted: Jun-13-13 12:30 Jun-13-13 2 Units/RL: Mg/kg RL % Extracted: Jun-13-13 21:43 Jun-13-13 | Field Id: Trench 12 @ 2' Trench 13 @ 2' Depth: Trench 13 [0:00 Jun-06-13 10:00 Jun-06-13 11:00 Sampled: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 12:10 Matrix: Matrix: Matrix: Matrix: Matrix: Sampled: Jun-12-13 10:00 Jun-12-13 12:10 Jun-12-13 12:10 Matrix: mg/kg RL mg/kg RL Matrix: mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 MD 0.00104 ND 0.00103 ND 0.00104 ND 0.00103 ND 0.00104 ND 0.00103 ND 0.00104 ND 0.00103 Matrix: Mg/kg RL Mg/kg ND 0.00104 ND 0.00103 Extracted: Jun-15-13 04:24 Jun-15-13 05:08 Units/RL: mg/kg RL mg/kg Malyzed: Jun-11-13 13:00 Jun-11-13 13:00 Units/RL: % RL % Malyzed: <th>Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W Depth: </th> <th>Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W @ 11' Depth: .</th> <th>Lab Id: 464805-001 464805-002 464805-003 Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W @ 11' Matrix: SOIL SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 11:00 Jun-07-13 09:00 Extracted: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 10:00 Analyzed: Jun-12-13 11:53 Jun-12-13 12:10 Jun-12-13 12:26 Units/RL: mg/kg RL mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00208 ND 0.00207 ND 0.00205 ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00104 ND 0.00103 ND 0.00103 MD 0.00104 ND 0.00103 ND 0.00103 MD 0.00104 ND 0.00103 ND</th> <th>Lab Id: 464805-001 464805-002 4664805-003 Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W @ 11' Matrix: SOIL SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 11:00 Jun-07-13 09:00 Extracted: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 10:00 Analyzed: Jun-12-13 11:53 Jun-12-13 12:10 Jun-12-13 12:26 Units/RL: mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00208 ND 0.00205 ND 0.00104 ND 0.00103 ND Matrix/RL: graft mg/kg RL mg/kg</th> <th>Lab Id: 464805-001 464805-002 464805-003 Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South SW @ 11' Depth: SOIL SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 11:00 Jun-07-13 09:00 Extracted: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 12:10 Analyzed: Jun-12-13 11:53 Jun-12-13 12:10 Jun-12-13 12:26 Units/RL: mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 ND 0.00103 Extracted: Jun-14-13 10:00 Jun-14-13 10:00 Jun-14-13 10:00 Jun-14-13 10:00 Analyzed: Jun-11-13 13:00 Jun-11-13 13:00 Jun-11-13 13:00 Jun-11-13 13:00 Units/RL: mg/kg RL mg/kg</th> | Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W Depth: | Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W @ 11' Depth: . | Lab Id: 464805-001 464805-002 464805-003 Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W @ 11' Matrix: SOIL SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 11:00 Jun-07-13 09:00 Extracted: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 10:00 Analyzed: Jun-12-13 11:53 Jun-12-13 12:10 Jun-12-13 12:26 Units/RL: mg/kg RL mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00208 ND 0.00207 ND 0.00205 ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00104 ND 0.00103 ND 0.00103 MD 0.00104 ND 0.00103 ND 0.00103 MD 0.00104 ND 0.00103 ND | Lab Id: 464805-001 464805-002 4664805-003 Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South S/W @ 11' Matrix: SOIL SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 11:00 Jun-07-13 09:00 Extracted: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 10:00 Analyzed: Jun-12-13 11:53 Jun-12-13 12:10 Jun-12-13 12:26 Units/RL: mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 ND 0.00103 ND 0.00208 ND 0.00205 ND 0.00104 ND 0.00103 ND Matrix/RL: graft mg/kg RL mg/kg | Lab Id: 464805-001 464805-002 464805-003 Field Id: Trench 12 @ 2' Trench 13 @ 2' RP South SW @ 11' Depth: SOIL SOIL SOIL Sampled: Jun-06-13 10:00 Jun-06-13 11:00 Jun-07-13 09:00 Extracted: Jun-12-13 10:00 Jun-12-13 10:00 Jun-12-13 12:10 Analyzed: Jun-12-13 11:53 Jun-12-13 12:10 Jun-12-13 12:26 Units/RL: mg/kg RL mg/kg RL ND 0.00104 ND 0.00103 ND 0.00103 Extracted: Jun-14-13 10:00 Jun-14-13 10:00 Jun-14-13 10:00 Jun-14-13 10:00 Analyzed: Jun-11-13 13:00 Jun-11-13 13:00 Jun-11-13 13:00 Jun-11-13 13:00 Units/RL: mg/kg RL mg/kg |

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

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Huns Boah

Kelsey Brooks Project Manager

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Flagging Criteria



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

* Surrogate recovered outside laboratory control limit.

- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection Limit
 SDL Sample Detection Limit
 LOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464805 Lab Batch #: 916079 | ;, Sample: 464805-001 / SMP | Dete | Project I | | | |
|--|--------------------------------|--|-------------------------|-------------------------|-------------------------|-------|
| Units: mg/kg | Date Analyzed: 06/12/13 11:53 | P Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| BTEX by EPA 8021B | | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1,4-Difluorobenzene | | 0.0241 | 0.0300 | 80 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0315 | 0.0300 | 105 | 80-120 | |
| Lab Batch #: 916079 | Sample: 464805-002 / SMP | Bate | ch: ¹ Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/12/13 12:10 | SURROGATE RECOVERY STUDY | | | | |
| BTE | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags | |
| 1,4-Difluorobenzene | Analytes | 0.0281 | 0.0300 | 94 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0281 | 0.0300 | 81 | 80-120 | |
| Lab Datab # 016070 | Sample: 464805-003 / SMP | | | - | | |
| Lab Batch #: 916079 | Ť F | Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| Units: mg/kg | Date Analyzed: 06/12/13 12:26 | | 1 | | 1 | |
| BTEX by EPA 8021B Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1,4-Difluorobenzene | Anaryus | 0.0308 | 0.0300 | 103 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0308 | 0.0300 | 112 | 80-120 | |
| | S1 464905-001 / SMD | | | | 00 120 | |
| Lab Batch #: 916300 | Sample: 464805-001 / SMP | Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 21:43 | | 1 | | 1 | |
| TPH | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | | 86.1 | 100 | 86 | 70-135 | |
| o-Terphenyl | | 47.6 | 50.2 | 95 | 70-135 | |
| Lab Batch #: 916300 | Sample: 464805-002 / SMP | Bato | ch: 1 Matrix | :Soil | | |
| Units: mg/kg | Date Analyzed: 06/13/13 22:07 | SURROGATE RECOVERY STUDY | | | | |
| TPH By SW8015 Mod | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1.011 | Analytes | | | | | |
| 1-Chlorooctane | | 85.3 | 100 | 85 | 70-135 | |
| o-Terphenyl | | 46.8 | 50.1 | 93 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464805 Lab Batch #: 916300 | , Sample: 464805-003 / SMP | D - 4 - | Project I | | | |
|---|--|---|------------------------|-------------------------|-------------------------|-------|
| | | P Batch: 1 Matrix: Soil SURROGATE RECOVERY STUDY | | | | |
| Units: mg/kg | Date Analyzed: 06/13/13 22:32 By SW8015 Mod | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1-Chlorooctane | | 95.5 | 100 | 96 | 70-135 | |
| o-Terphenyl | | 52.2 | 50.2 | 104 | 70-135 | |
| Lab Batch #: 916079 | Sample: 639597-1-BLK / BI | .K Batc | h: ¹ Matrix | :Solid | | |
| Units: mg/kg | Date Analyzed: 06/12/13 11:37 | SU | RROGATE R | ECOVERY | STUDY | |
| BTE | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag | |
| 1,4-Difluorobenzene | Analytes | 0.0256 | 0.0300 | 85 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0290 | 0.0300 | 97 | 80-120 | |
| Lab Batch #: 916300 | Sample: 639745-1-BLK / BI | K Bota | h: 1 Matrix | · Solid | | |
| Units: mg/kg | Date Analyzed: 06/13/13 19:10 | Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY | | | | |
| TPH By SW8015 Mod | | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flag |
| | Analytes | [1] | [1] | [D] | | |
| 1-Chlorooctane | | 99.5 | 100 | 100 | 70-135 | |
| o-Terphenyl | | 54.8 | 50.2 | 109 | 70-135 | |
| Lab Batch #: 916079 | Sample: 639597-1-BKS / BK | BKS Batch: 1 Matrix: Solid | | | | |
| Units: mg/kg | Date Analyzed: 06/12/13 11:04 | SURROGATE RECOVERY STUDY | | | | |
| BTE | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag |
| 1,4-Difluorobenzene | | 0.0335 | 0.0300 | 112 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0321 | 0.0300 | 107 | 80-120 | |
| Lab Batch #: 916300 | Sample: 639745-1-BKS / BK | KS Bate | h: 1 Matrix | :Solid | | |
| Units: mg/kg | Date Analyzed: 06/13/13 18:17 | SURROGATE RECOVERY STUDY | | | | |
| TPH] | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flag |
| 1-Chlorooctane | | 99.1 | 99.9 | 99 | 70-135 | |
| | | | 1 | 1 | | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| ork Orders : 464805 Lab Batch #: 916079 | , Sample: 639597-1-BSD / B | SD Batal | Project I | | | |
|---|---------------------------------------|---|------------------------|-----------------------|-------------------------|-------|
| Units: mg/kg | Date Analyzed: 06/12/13 11:20 | BSD Batch: 1 Matrix: Solid SURROGATE RECOVERY STUDY | | | | |
| | X by EPA 8021B | Amount Found [A] | True Amount [B] | Recovery %R | Control Limits %R | Flags |
| | Analytes | | | [D] | | |
| 1,4-Difluorobenzene | | 0.0255 | 0.0300 | 85 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0343 | 0.0300 | 114 | 80-120 | |
| Lab Batch #: 916300 | Sample: 639745-1-BSD / B | SD Batel | n: 1 Matrix | x: Solid | | |
| Units: mg/kg | Date Analyzed: 06/13/13 18:44 | SU | RROGATE R | ECOVERY | STUDY | |
| TPH By SW8015 Mod Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | 1 mary cos | 98.8 | 99.5 | 99 | 70-135 | |
| o-Terphenyl | | 57.9 | 49.8 | 116 | 70-135 | |
| Lab Batch #: 916079 | Sample: 464773-002 S / M. | S Batcl | n: ¹ Matrix | s:Soil | 1 1 | |
| Units: mg/kg | Date Analyzed: 06/12/13 13:16 | | RROGATE R | | STUDY | |
| BTEX by EPA 8021B Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage |
| 1.4-Difluorobenzene | · · · · · · · · · · · · · · · · · · · | 0.0359 | 0.0300 | 120 | 80-120 | |
| 4-Bromofluorobenzene | | 0.0320 | 0.0300 | 107 | 80-120 | |
| Lab Batch #: 916300 | Sample: 464805-003 S / MS | S Batcl | n: 1 Matrix | r:Soil | | |
| Units: mg/kg | Date Analyzed: 06/13/13 22:58 | SURROGATE RECOVERY STUDY | | | | |
| | By SW8015 Mod Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage |
| 1-Chlorooctane | · · · · · · · · · · · · · · · · · · · | 94.9 | 99.9 | 95 | 70-135 | |
| o-Terphenyl | | 56.6 | 50.0 | 113 | 70-135 | |
| Lab Batch #: 916079 | Sample: 464773-002 SD / N | MSD Batcl | n: 1 Matrix | x: Soil | 1 1 | |
| Units: mg/kg | Date Analyzed: 06/12/13 13:32 | SURROGATE RECOVERY STUDY | | | | |
| BTEX | X by EPA 8021B Analytes | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flage |
| 1,4-Difluorobenzene | · · · · · · · · · · · · · · · · · · · | 0.0351 | 0.0300 | 117 | 80-120 | |
| -, - = =========== | | 0.0331 | 0.0500 | 11/ | 00 120 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Orders : 464805, Project ID: | | | | | | |
|-----------------------------------|---|--------------------------|-----------------------|-----------------------|-------------------------|-------|
| Lab Batch #: 916300 | h #: 916300 Sample: 464805-003 SD / MSD Batch: 1 Matrix: Soil | | | | | |
| Units: mg/kg | Date Analyzed: 06/14/13 07:50 | SURROGATE RECOVERY STUDY | | | | |
| TPH By SW8015 Mod Analytes | | Amount Found [A] | True Amount [B] | Recovery %R [D] | Control Limits %R | Flags |
| 1-Chlorooctane | | 91.6 | 100 | 92 | 70-135 | |
| o-Terphenyl | | 60.6 | 50.0 | 121 | 70-135 | |

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution


Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464805 | | | | | | | | ect ID: | | | |
|---|---|---|---------------------------------|-----------------------------|---------------------------|---|-------------------------------|------------|-------------------------|---------------------------|------|
| Analyst: DYV | D | - | ed: 06/12/201 | .3 | Date Analyzed: 06/12/2013 | | | | | | |
| Lab Batch ID: 916079 Sample: 639597-1-1 | 3KS | Batcl | h#: 1 | | Matrix: Solid | | | | | | |
| Units: mg/kg | | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | |
| BTEX by EPA 8021B | BlankSpikeBlankBlankSample ResultAddedSpikeSpike[A]Result%R | | | | Spike Added | Blank Spike Duplicate | Blk. Spk Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Analytes | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | |
| Benzene | <0.000994 | 0.0994 | 0.0869 | 87 | 0.0996 | 0.0828 | 83 | 5 | 70-130 | 35 | |
| Toluene | < 0.00199 | 0.0994 | 0.0942 | 95 | 0.0996 | 0.0891 | 89 | 6 | 70-130 | 35 | |
| Ethylbenzene | < 0.000994 | 0.0994 | 0.108 | 109 | 0.0996 | 0.103 | 103 | 5 | 71-129 | 35 | |
| m,p-Xylenes | <0.00199 | 0.199 | 0.198 | 99 | 0.199 | 0.190 | 95 | 4 | 70-135 | 35 | |
| o-Xylene | <0.000994 | 0.0994 | 0.0951 | 96 | 0.0996 | 0.0975 | 98 | 2 | 71-133 | 35 | |
| Analyst: AMB | Da | ate Prepar | ed: 06/14/201 | .3 | | | Date A | nalyzed: 0 | 6/14/2013 | | |
| Lab Batch ID: 916443 Sample: 639704-1-1 | 3KS | Batcl | h#: 1 | | | | | Matrix: S | olid | | |
| Units: mg/kg | | BLAN | K /BLANK S | SPIKE / E | BLANK S | PIKE DUPI | ICATE I | RECOVE | CRY STUD | Y | |
| Inorganic Anions by EPA 300/300.1 Analytes | Blank Sample Result [A] | Spike Added [B] | Blank Spike Result [C] | Blank Spike %R [D] | Spike Added [E] | Blank Spike Duplicate Result [F] | Blk. Spk Dup. %R [G] | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Chloride | <2.00 | 50.0 | 47.7 | 95 | 50.0 | 47.6 | 95 | 0 | 80-120 | 20 | |

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



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464805 | | | | | | | | Pro | ject ID: | | | |
|------------------------------------|--------------------|---|---|--------------------------|----------------------|----------------|-----------------------------|---------------------------|------------|-------------------------|---------------------------|------|
| Analyst: AMB | | Date Prepared: 06/14/2013 Date Analyzed: 06/14/2013 | | | | | | | | | | |
| Lab Batch ID: 916249 Sa | mple: 639704-1-BKS | S | Batch #: 1 Matrix: Solid | | | | | | | | | |
| Units: mg/kg | | | BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY | | | | | | | | | |
| Inorganic Anions by EI | PA 300 | Sample ResultAddedSpikeSpikeAddedSpikeDup.RPDLimits[A]Result%R%RDuplicate%R%R%R | | | | | | Control Limits %RPD | Flag | | | |
| Analytes | | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | |
| Chloride | | <2.00 | 50.0 | 47.8 | 96 | 50.0 | 47.6 | 95 | 0 | 80-120 | 20 | |
| Analyst: DYV | | Da | te Prepar | ed: 06/13/201 | 3 | | | Date A | nalyzed: (| 06/13/2013 | | |
| Lab Batch ID: 916300 Sa | mple: 639745-1-BKS | S | Batcl | h #: 1 | | | | | Matrix: S | Solid | | |
| Units: mg/kg | | | BLAN | K /BLANK S | SPIKE / F | BLANK S | SPIKE DUPI | LICATE | RECOVE | ERY STUD | Y | |
| TPH By SW8015 M | od Sa | Blank ample Result [A] | Spike Added | Blank Spike Result | Blank Spike %R | Spike Added | Blank Spike Duplicate | Blk. Spk Dup. %R | RPD % | Control Limits %R | Control Limits %RPD | Flag |
| Analytes | | | [B] | [C] | [D] | [E] | Result [F] | [G] | | | | |
| C6-C12 Gasoline Range Hydrocarbons | | <15.0 | 999 | 1020 | 102 | 995 | 1020 | 103 | 0 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | | <15.0 | 999 | 1060 | 106 | 995 | 1050 | 106 | 1 | 70-135 | 35 | |

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



Form 3 - MS Recoveries



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

| Work Order #: 464805 | | | | | | | |
|----------------------------------|-------------------------|----------------------------|----------------|--------------------------------|------------|-------------------------|------|
| Lab Batch #: 916443 | | | | Pr | oject ID: | | |
| Date Analyzed: 06/15/2013 | Date P | repared: 06/1 | 4/2013 | Α | analyst: A | MB | |
| QC- Sample ID: 464805-001 S | Batch #: 1 Matrix: Soil | | | | | | |
| Reporting Units: mg/kg | | MATH | RIX / MA | TRIX SPIKE | RECO | VERY STU | DY |
| Inorganic Anions by EPA 300 | | Parent Sample Result | Spike Added | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes | | [A] | [B] | [0] | [27] | ,,,,, | |
| Chloride | | 5.97 | 50.0 | 51.8 | 92 | 80-120 | |
| Lab Batch #: 916443 | | | | | | | |
| Date Analyzed: 06/15/2013 | Date P | repared: 06/1 | 4/2013 | A | analyst: A | MB | |
| QC- Sample ID: 464827-008 S | | Batch #: 1 | | I | Matrix: S | oil | |
| Reporting Units: mg/kg | | MATH | RIX / MA | TRIX SPIKE | RECO | VERY STU | DY |
| Inorganic Anions by EPA 300 | | Parent Sample Result | Spike Added | Spiked Sample Result [C] | %R [D] | Control Limits %R | Flag |
| Analytes | | [A] | [B] | | | | |
| Chloride | | 2750 | 1070 | 3920 | 109 | 80-120 | |

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

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116



| Work Order # : 464805 | | | | | | Project II |) : | | | | |
|------------------------------------|----------------------------|----------------|--------------------------------|------------------------|----------------|--|----------------------|----------|-------------------------|---------------------------|------|
| Lab Batch ID: 916079 | QC- Sample ID: | 464773- | -002 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/12/2013 | Date Prepared: | 06/12/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| BTEX by EPA 8021B | 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] | | [D] | [E] | | [G] | | | | |
| Benzene | <0.00113 | 0.113 | 0.0902 | 80 | 0.113 | 0.0926 | 82 | 3 | 70-130 | 35 | |
| Toluene | <0.00225 | 0.113 | 0.104 | 92 | 0.113 | 0.112 | 99 | 7 | 70-130 | 35 | |
| Ethylbenzene | <0.00113 | 0.113 | 0.114 | 101 | 0.113 | 0.127 | 112 | 11 | 71-129 | 35 | |
| m,p-Xylenes | <0.00225 | 0.225 | 0.210 | 93 | 0.226 | 0.217 | 96 | 3 | 70-135 | 35 | |
| o-Xylene | <0.00113 | 0.113 | 0.101 | 89 | 0.113 | 0.108 | 96 | 7 | 71-133 | 35 | |
| Lab Batch ID: 916300 | QC- Sample ID: | 464805 | -003 S | Ba | tch #: | 1 Matrix | x: Soil | | | | |
| Date Analyzed: 06/13/2013 | Date Prepared: | 06/13/2 | 013 | An | alyst: I | DYV | | | | | |
| Reporting Units: mg/kg | | Μ | ATRIX SPIK | E / MAT | RIX SPI | KE DUPLICA | TE REC | OVERY | STUDY | | |
| TPH By SW8015 Mod | 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] | | [G] | ,0 | | | |
| C6-C12 Gasoline Range Hydrocarbons | <15.5 | 1040 | 1050 | 101 | 1040 | 1010 | 97 | 4 | 70-135 | 35 | |
| C12-C28 Diesel Range Hydrocarbons | <15.5 | 1040 | 1120 | 108 | 1040 | 1130 | 109 | 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



Sample Duplicate Recovery



Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116

Work Order #: 464805

| Lab Batch #: 915976 | | | | Project I | D: | |
|---------------------------------|-------------|--------------------------------|-------------------------------|-----------|---------------------------|-------|
| Date Analyzed: 06/11/2013 13:00 | Date Prepar | ed: 06/11/2013 | Anal | lyst:WRU | | |
| QC- Sample ID: 464805-001 D | Batch | n#: 1 | Mat | rix: Soil | | |
| Reporting Units: % | | SAMPLE / | SAMPLE | DUPLIC | ATE REC | OVERY |
| Percent Moisture | | Parent Sample Result [A] | Sample Duplicate Result | RPD | Control Limits %RPD | Flag |
| Analyte | | | [B] | | | |
| Percent Moisture | | 3.39 | 3.34 | 1 | 20 | |

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

| Special Instruc | | | | | | | LAB # (lab use only) | ORDER #: | (lab use only) | | 2 | 0 | 0 | 0 | 4 | The Environmen |
|---|---|-----|-----|--------------------|----------------|----------------|---|------------------|----------------|--------------------|----------------|-------------------|--------------------------------|-------------------------------|---|---|
| Special Instructions: | | | | RP Sout | Trenc | Trenc | FIEL | 502 HOH # | | Sampler Signature: | Telephone No: | City/State/Zip: | Company Address: 2057 Commerce | Company Name | Project Manager: | The Environmental Lab of Texas |
| Cut (c[1]) bate bate Date | | | | RP South S/W @ 11' | Trench 13 @ 2' | Trench 12 @ 2' | FIELD CODE | S | \ | ande | A32620.7720 + | Midland, TX 79703 | 2057 Commerce | Nova Safety and Environmental | Car | tal Lab of Texas |
| (\) | - | | | | | - | Beginning Depth | | | C | h | | | nmenta | Camille Bryant | |
| Time Time Time | | | | | | | Ending Depth | | | 6 | Y | | | | ant | |
| Received by: Received by: Received by: | | | | 6/7/2013 | 6/6/2013 | 6/6/2013 | Date Sampled | | (| feet | | | | | | |
| ~ Repro | | | | 9:00 | 11:00 | 10:00 | Time Sampled | | | e-mail: | Fax No: | | | | | |
| 1 | _ | | | | | | Field Filtered | | | 1 | 4 | | | | | |
| | | | + | -1 × | 1 × | 1 × | Total #. of Containers | h | | | 432.520.7701 | | | | | 0 + |
| | | | | - | ŕ | ŕ | HNO ₃ | Pre | | cbr | 20.7 | | | | | 12600 West I-20 East Odessa, Texas 79765 |
| | | | | - | | 1 | HCI | Preservation & # | | cbryant@nov | 701 | | | | | sa, |
| | | | | | | | H ₂ SO ₄ | tion & | | (Qn | | | | | | est l- |
| | | | | | | | NaOH | | | | | | | | | 20 E |
| | | 1 | | | | | Na ₂ S ₂ O ₃ | of Containers | | atraining.cc | | | | | | 0 East 79765 |
| 6 | | + | | - | | | None | iners | | ling | | | | | | 5 |
| Date | - | | | - | - | | Other (Specify) DW=Drinking Water SL=Sludge | н | | 8 | 1 | 1 | 1 | I. | 1 | 0 |
| <i>e</i> | | | | Soil | Soil | Soil | GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other | Matrix | | | Report Format: | | T | | Pro | t I-20 East Phone: 432-563-1800 Fax: 432-563-1713 |
| Time Time Time | | | 2.1 | × | × | × | TPH: 418.1 8015M 80 | 015B | | | For | | roje | Pro | ject | |
| | _ | | | | | | TPH: TX 1005 TX 1006 | <u> </u> | | | nat: | PO #: | Project Loc: | Project #: | Project Name: SUGS Historical A-14 6 Inch Line 1RP-1116 | i |
| Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Labels on container(s) Custody seals on cooler(s) Custody seals on cooler(s) Sample Hand Delivered by Sampler/Client Rep. ? by Courier? UPS DH | - | | | | - | | Cations (Ca, Mg, Na, K) | _ | | | | # | ŝ | # | e: Iso | |
| oratory Comments: nple Containers Intact? Cs Free of Headspace? els on container(s) tody seals on cooler(s) tody seals on cooler(s) nple Hand Delivered by Sampler/Client Rep. ? by Courier? UPS | - | | | | - | | Anions (CI, SO4, Alkalinity) SAR / ESP / CEC | | TCLP: | | × s | | | | UGS | |
| conta eals and nple | - | | | - | - | | Metals: As Ag Ba Cd Cr Pb Hg | | | | Standard | | | | His | Ph |
| omn Hea taine on c Deli Clie | | | | | - | | Volatiles | | | nal | ard | | - | | torica | hone Fax: |
| nents: s Intac s Intac er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) er(s) vered vered vered | | | | | | | Semivolatiles | | | Analyze For | | | Lea C | | AIA- | 43 |
| Laboratory Comments: Sample Containers Intact? VOCs Free of Headspace? Labels on container(s) Custody seals on conter(s) Sample Hand Delivered by Sampler/Client Rep. ? by Courier? UPS | | | | × | × | × | BTEX 8021B/5030 BTEX 82 | 260 | | P | | | oun | | 14 6 | 2-56 |
| r(s) | | | | | | | RCI | | | | TRRP | | ty, N | | Inch | Phone: 432-563-1800 Fax: 432-563-1713 |
| | | 1.1 | | | | | N.O.R.M. | | - 1 | | RP | | lew | | Line | 800 |
| FedEx | | | | × | × | × | Chloride E 300.0 | | - | | | | County, New Mexico | | 1RP | |
| | | | | | | | | | | | | | 8 | | -111 | |
| 0 | | | | C | C | C | RUSH TAT (Pre-Schedule) 24 | _ | _ | - | NP | | | | 6 | |
| | _ | | | | | | | | | | | | | | | |

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Final 1.000



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: 06/11/2013 11:20:00 AM **Temperature Measuring device used :** Work Order #: 464805

| | Sample Receipt Checklist | | Comments |
|--|----------------------------|-----|----------|
| #1 *Temperature of cooler(s)? | | 6 | |
| #2 *Shipping container in good condition? | | Yes | |
| #3 *Samples received on ice? | | Yes | |
| #4 *Custody Seals intact on shipping conta | ainer/ cooler? | Yes | |
| #5 Custody Seals intact on sample bottles | ? | Yes | |
| #6 *Custody Seals Signed and dated? | | Yes | |
| <pre>#7 *Chain of Custody present?</pre> | | Yes | |
| #8 Sample instructions complete on Chain | of Custody? | Yes | |
| #9 Any missing/extra samples? | | No | |
| #10 Chain of Custody signed when relinqu | ished/ 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 0 | 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 (I | ess than 1/4 inch bubble)? | Yes | |
| #21 <2 for all samples preserved with HNC | 03,HCL, H2SO4? | Yes | |
| #22 >10 for all samples preserved with Na | AsO2+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: Mmg Moah Kelsey Brooks Checklist reviewed by: Mmg Moah Kelsey Brooks

Date: 06/11/2013

Date: 06/11/2013

Summary Report

Thomas Franklin APEX/Titan 2351 W. Northwest Hwy. Suite 3321 Dallas, Tx 75220

Report Date: March 24, 2015

Work Order: 15031904

| Project Location: | Lea Co, NM |
|-------------------|-----------------------|
| Project Name: | Regency -A-14 6" Line |
| Project Number: | 7250715006.001 |

| | | | Date | Time | Date |
|--------|------------------------------|--------|------------|-------|----------------|
| Sample | Description | Matrix | Taken | Taken | Received |
| 389081 | Stockpile-1@Trench-2 Topsoil | soil | 2015-03-18 | 14:40 | 2015-03-19 |
| 389082 | Stockpile-2@Trench-3 Topsoil | soil | 2015-03-18 | 14:46 | 2015 - 03 - 19 |

| | |] | BTEX | TPH DRO - NEW | TPH GRO | |
|---------------------------------------|----------|----------|--------------|---------------|---------|--------------------|
| | Benzene | Toluene | Ethylbenzene | Xylene | DRO | GRO |
| Sample - Field Code | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) |
| 389081 - Stockpile-1@Trench-2 Topsoil | < 0.0200 | < 0.0200 | < 0.0200 | < 0.0200 | <50.0 | $< 4.00 _{\rm Qs}$ |
| 389082 - Stockpile-2@Trench-3 Topsoil | < 0.0200 | < 0.0200 | < 0.0200 | < 0.0200 | <50.0 | $< 4.00 _{\rm Qs}$ |

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

| Param | Flag | Result | Units | RL |
|----------|------|-----------|---------|---------------------|
| Chloride | | $<\!20.0$ | m mg/Kg | 4 |

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

| Param | Flag | Result | Units | RL |
|----------|------|--------|---------|---------------------|
| Chloride | | <20.0 | m mg/Kg | 4 |



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 (BioAquatic) 2501 Mayes Rd., Suite 100

Lubbock, Texas 79424 Texas 79922 El Paso, Texas 79703 Midland. Carroliton. Texas 75006

915-585-3443 432-689-6301 972-242 -7750 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB **NCTRCA** DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Thomas Franklin APEX/Titan 2351 W. Northwest Hwy. Suite 3321 Dallas, Tx, 75220

Report Date: March 24, 2015

FAX 915 • 585 • 4944

FAX 432 • 689 • 6313

Work Order: 15031904

Project Location: Lea Co, NM **Project Name:** Regency -A-14 6" Line Project Number: 7250715006.001

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

| | | | Date | Time | Date |
|--------|------------------------------|--------|------------|-------|------------|
| Sample | Description | Matrix | Taken | Taken | Received |
| 389081 | Stockpile-1@Trench-2 Topsoil | soil | 2015-03-18 | 14:40 | 2015-03-19 |
| 389082 | Stockpile-2@Trench-3 Topsoil | soil | 2015-03-18 | 14:46 | 2015-03-19 |

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Slain forund

Dr. Blair Leftwich, Director James Taylor, Assistant Director Brian Pellam, Operations Manager

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Case Narrative

Samples for project Regency -A-14 6" Line were received by TraceAnalysis, Inc. on 2015-03-19 and assigned to work order 15031904. Samples for work order 15031904 were received intact at a temperature of 4.1 C.

Samples were analyzed for the following tests using their respective methods.

| | | Prep | Prep | \mathbf{QC} | Analysis |
|----------------------|-----------------|--------|-----------------------|---------------|-----------------------|
| Test | Method | Batch | Date | Batch | Date |
| BTEX | S 8021B | 101644 | 2015-03-20 at 07:53 | 120168 | 2015-03-23 at 07:26 |
| Chloride (Titration) | SM 4500-Cl B $$ | 101653 | 2015-03-20 at $11:50$ | 120142 | 2015-03-20 at $11:51$ |
| TPH DRO - NEW | S 8015 D | 101652 | 2015-03-19 at $17:00$ | 120148 | 2015-03-20 at $12:52$ |
| TPH GRO | S 8015 D | 101644 | 2015-03-20 at $07:53$ | 120169 | 2015-03-23 at 07:31 |

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15031904 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

| Laboratory: Midland | | | | | | | | |
|------------------------------|----------------------|-----------|-------------|-------------------------|------------------|----------|--------------|---------------------|
| Analysis: BTEX | | Analytica | l Method: | S 8021E | 3 | | Prep Method | : S 5035 |
| QC Batch: 120168 | | Date Ana | lyzed: | 2015-03 | -23 | | Analyzed By | : AK |
| Prep Batch: 101644 | | Sample P | reparation: | 2015-03 | -20 | | Prepared By: | AK |
| | | | | | | | | |
| | | | | RL | | | | |
| Parameter | Flag | Cert |] | Result | Units | 5 | Dilution | RL |
| Benzene | U | 1 | <(| 0.0200 | $\mathrm{mg/Kg}$ | 5 | 1 | 0.0200 |
| Toluene | U | 1 | <(| 0.0200 | $\mathrm{mg/Kg}$ | 5 | 1 | 0.0200 |
| Ethylbenzene | U | 1 | <(| 0.0200 | $\mathrm{mg/Kg}$ | 5 | 1 | 0.0200 |
| Xylene | U | 1 | <(| 0.0200 | mg/Kg | 5 | 1 | 0.0200 |
| | | | | | | <i>a</i> | | |
| | | | | | | Spike | Percent | Recovery |
| Surrogate | Fla | g Cert | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | | | 1.65 | mg/Kg | 1 | 2.00 | 82 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | | | 2.10 | mg/Kg | 1 | 2.00 | 105 | 70 - 130 |

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

| Laboratory: | Midland | | | | | |
|-------------|----------------------|--------|---------------------|-----------------|--------------|------------------------|
| Analysis: | Chloride (Titration) | An | alytical Method: | SM 4500-Cl B $$ | Prep Method: | N/A |
| QC Batch: | 120142 | Da | te Analyzed: | 2015-03-20 | Analyzed By: | EM |
| Prep Batch: | 101653 | Sar | nple Preparation: | 2015-03-20 | Prepared By: | $\mathbf{E}\mathbf{M}$ |
| | | | | | | |
| | | | RL | | | |
| Parameter | Fla | g Cert | Result | Units | Dilution | RL |
| Chloride | U | | <20.0 | mg/Kg | 5 | 4.00 |
| | | | | | | |

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

| Laboratory: Analysis: QC Batch: Prep Batch: | Midland TPH DRO - NEW 120148 101652 | 7 | Date A | tical Method: Analyzed: e Preparation: | S 8015 D 2015-03-20 2015-03-19 | Prep Method: Analyzed By: Prepared By: | \dot{SC} |
|--|--|------|--------|--|--------------------------------------|--|---------------------|
| | | | | RL | | | |
| Parameter | | Flag | Cert | Result | Units | Dilution | RL |
| DRO | | U | 1 | <50.0 | m mg/Kg | 1 | 50.0 |

| Report Date: Ma 7250715006.001 | arch 24, 2015 | | | Work Order: Regency -A- | | | Page Nu | mber: 5 of 18 Lea Co, NM |
|-----------------------------------|---------------|------|--------|----------------------------|----------|-----------------|---------------------|-----------------------------|
| Surrogate | Flag | Cert | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
| n-Tricosane | 0 | | 105 | mg/Kg | 1 | 100 | 105 | 70 - 130 |

Sample: 389081 - Stockpile-1@Trench-2 Topsoil

| Laboratory: Midla Analysis: TPH QC Batch: 12010 Prep Batch: 10164 | GRO 69 | D | ate An | al Method: alyzed: Preparation | 2015-0 | 3-23 | | Prep Metho Analyzed By Prepared By | y: AK |
|--|---------------|------|-----------------------|--------------------------------------|-------------------------|----------|-----------------|--|---------------------|
| | | | | | RL | | | | |
| Parameter | Flag | | Cert | F | Result | Unit | ts | Dilution | RL |
| GRO | $_{\rm Qs,U}$ | | 1 | • | <4.00 | mg/K | g | 1 | 4.00 |
| Surrogate | | Flag | Cert | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
| Trifluorotoluene (T | FT) | ~ | | 1.74 | mg/Kg | 1 | 2.00 | 87 | 70 - 130 |
| 4-Bromofluorobenze | ene(4-BFB) | | | 1.91 | mg/Kg | 1 | 2.00 | 96 | 70 - 130 |

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

| Laboratory: Midland Analysis: BTEX QC Batch: 120168 Prep Batch: 101644 | | Analytica Date Ana Sample P | | S 8021E 2015-03 : 2015-03 | -23 | | Prep Method Analyzed By Prepared By: | AK |
|---|------|-----------------------------------|--------|---------------------------------|------------------|-----------------|--|---------------------|
| | | | | RL | | | | |
| Parameter | Flag | Cert | | Result | Unit | S | Dilution | RL |
| Benzene | U | 1 | < | 0.0200 | mg/Kg | r S | 1 | 0.0200 |
| Toluene | U | 1 | < | 0.0200 | $\mathrm{mg/Kg}$ | S | 1 | 0.0200 |
| Ethylbenzene | U | 1 | < | 0.0200 | mg/Kg | r S | 1 | 0.0200 |
| Xylene | U | 1 | < | 0.0200 | mg/Kg | 5 | 1 | 0.0200 |
| Surrogate | Fla | g Cert | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
| Trifluorotoluene (TFT) | | | 1.72 | mg/Kg | 1 | 2.00 | 86 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | | | 2.04 | mg/Kg | 1 | 2.00 | 102 | 70 - 130 |

| Report Date: March 24, 2015 | Work Order: 15031904 | Page Number: 6 of 18 |
|-----------------------------|-----------------------|----------------------|
| 7250715006.001 | Regency -A-14 6" Line | Lea Co, NM |

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

| Analysis: QC Batch: | Midland Chloride (Titration) 120142 101653 | Date A | cical Method: Analyzed: e Preparation: RL | SM 4500-Cl B 2015-03-20 2015-03-20 | Prep Method: Analyzed By: Prepared By: | ÉM |
|------------------------|---|--------|--|--|--|---------------------|
| Parameter | Flag | Cert | Result | Units | Dilution | RL |
| Chloride | U | | <20.0 | m mg/Kg | 5 | 4.00 |

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

| Laboratory: Analysis: QC Batch: Prep Batch: | Midland TPH DRO - NE 120148 101652 | W | Date | lytical Metho e Analyzed: ple Preparat: | 2015-0 | 03-20 | Prep Me Analyzed Prepared | ł By: SC |
|--|---|------|--------|---|----------|-----------------|---------------------------------|---------------------|
| | | | |] | RL | | | |
| Parameter | | Flag | Cert | Res | ult | Units | Dilution | RL |
| DRO | | U | 1 | <50 | 0.0 | m mg/Kg | 1 | 50.0 |
| Surrogate | Flag | Cert | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
| n-Tricosane | - 0 | | 114 | mg/Kg | 1 | 100 | 114 | 70 - 130 |

Sample: 389082 - Stockpile-2@Trench-3 Topsoil

| Laboratory: Midland Analysis: TPH GRO QC Batch: 120169 Prep Batch: 101644 | | | Date An | al Methoo alyzed: Preparatio | 2015-0 | 3-23 | | Prep Metho Analyzed B Prepared B | y: AK |
|--|---------------|------|---------|------------------------------------|---------------------|----------|-----------------|--|---------------------|
| | | | | | RL | | | | |
| Parameter | Flag | | Cert | | Result | Uni | ts | Dilution | RL |
| GRO | $_{\rm Qs,U}$ | | 1 | | <4.00 | mg/K | g | 1 | 4.00 |
| Surrogate | | Flag | Cert | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
| Trifluorotoluene (TFT) | | | | 1.75 | mg/Kg | 1 | 2.00 | 88 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | | | | 1.88 | $\mathrm{mg/Kg}$ | 1 | 2.00 | 94 | 70 - 130 |

Method Blanks

| Method Blank (1) | QC Batch: 120142 | | | | | |
|--|------------------|-----------------------------------|---|---------------|------------------------------|---------------------|
| QC Batch: 120142 Prep Batch: 101653 | | Date Analyzed: QC Preparation: | | | Analyzed By: Prepared By: | |
| Parameter | Flag | Cert | | MDL Result | Units | RL |
| Chloride | | | < | < 3.85 | m mg/Kg | 4 |

| QC Batch: 120148 |
|--------------------|
| QC Batch: 120148 |

| QC Batch: Prep Batch: | $\frac{120148}{101652}$ | | | | nalyzed: eparation: | 2015-03-20 2015-03-19 | | Analyze Prepare | v |
|--------------------------|-------------------------|------------------------|------|---------------|------------------------|--------------------------|------------------------|----------------------------|--------------------------------|
| Parameter | | | Flag | | Cert | | MDL esult | Units | RL |
| DRO | | | Flag | | 1 | | 7.41 | mg/Kg | <u>50</u> |
| Surrogate n-Tricosane | Qsr | Flag _{Qsr} | Cert | Result 147 | Units mg/Kg | Dilution 5 1 | Spike Amount 100 | Percent Recovery 147 | Recovery Limits 70 - 130 |

Method Blank (1) QC Batch: 120168

| QC Batch: 120168 Prep Batch: 101644 | | | analyzed: eparation: | 2015-03- 2015-03- | - | | Analyzed By: A Prepared By: A | | | |
|--|------|------|-------------------------|----------------------|--------------|-----------------|----------------------------------|---------------------|--|--|
| | | | | | MDL | | | | | |
| Parameter | Flag | | Cert | | Result | | Units | RL | | |
| Benzene | | | 1 | | < 0.00533 |] | mg/Kg | 0.02 | | |
| Toluene | | | 1 | | $<\!0.00645$ | 1 | 0.02 | | | |
| Ethylbenzene | | | 1 | | < 0.0116 |] | mg/Kg | 0.02 | | |
| Xylene | | | 1 | | < 0.00874 |] | mg/Kg | 0.02 | | |
| Surrogate | Flag | Cert | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits | | |
| Trifluorotoluene (TFT) | | | 1.85 | mg/Kg | 1 | 2.00 | 92 | 70 - 130 | | |
| | | | | | conte | inued \dots | | | | |

| Report Date: March 24, 2015 7250715006.001 | 2015 Work Order: 15031904 Regency -A-14 6" Line | | | | | Page Number: 8 of 18 Lea Co, NM | | |
|---|--|------|-------------------------|------------------------|-----------|------------------------------------|----------------------|---------------------|
| method blank continued | | | | | | | | |
| ~ | | ~ | | | | Spike | Percent | Recovery |
| Surrogate | Flag | Cert | Result | Units | Dilution | Amount | Recovery | Limits |
| 4-Bromofluorobenzene (4-BFB) | | | 2.01 | $\mathrm{mg/Kg}$ | 1 | 2.00 | 100 | 70 - 130 |
| Method Blank (1) QC Batch QC Batch: 120169 Prep Batch: 101644 | : 120169 | | analyzed: eparation: | 2015-03-2 2015-03-2 | - | | Analyzed Prepared | v |
| | | | | | MDL | | | |
| Parameter | Flag | | Cert | | Result | | Units | RL |
| GRO | | | 1 | | $<\!2.32$ | | m mg/Kg | 4 |
| | | | | | | Spike | Percent | Recovery |
| Surrogate | Flag | Cert | Result | Units | Dilution | Amount | Recovery | Limits |
| Trifluorotoluene (TFT) | | | 1.84 | mg/Kg | 1 | 2.00 | 92 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | | | 1.87 | $\mathrm{mg/Kg}$ | 1 | 2.00 | 94 | 70 - 130 |

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

| QC Batch: 120142 Prep Batch: 101653 | | | | Analyzeo Preparatio | | .5-03-20 .5-03-20 | | | | lyzed By pared By | · |
|--|--------------|--------------|---------|------------------------|-----------|----------------------|-----------------|---------|------------------|----------------------|---------------|
| Param | | F | | LCS Result | Units | Dil. | Spike Amount | | atrix esult 1 | Rec. | Rec. Limit |
| Chloride | | | | 2540 | mg/Kg | 5 | 2500 | < | 19.2 | 101 | 85 - 115 |
| Percent recovery is based on the | spike | resu | lt. RPD | is based o | on the sp | pike and sp | ike duplic | ate res | ult. | | |
| | | | LCSD | | | Spike | Matrix | | Rec. | | RPD |
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Chloride | | | 2540 | mg/Kg | 5 | 2500 | $<\!19.2$ | 101 | 85 - 115 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

| QC Batch: 120148 Prep Batch: 101652 | | | | e Analyze Preparati | | .5-03-20 .5-03-19 | | | | lyzed B pared B | · |
|--|--------------|--------------|---------|-------------------------|-----------|----------------------|-------------|---------------------|----------|--------------------|------------------------|
| | | | | LCS | | | Spike | Ma | ıtrix | | Rec. |
| Param | | \mathbf{F} | C I | Result | Units | Dil. | Amount | Re | sult R | ec. | Limit |
| DRO | | | 1 | 259 | mg/Kg | 1 | 250 | <7 | 7.41 1 | 04 ′ | 70 - 130 |
| Percent recovery is based on the | spike | resu | lt. RPD | is based o | on the sp | oike and sp | ike duplica | ate resu | ılt. | | |
| | | | LCSD | | | Spike | Matrix | | Rec. | | RPD |
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| DRO | | 1 | 221 | mg/Kg | 1 | 250 | <7.41 | 88 | 70 - 130 | 16 | 20 |
| Percent recovery is based on the s | spike | resu | lt. RPD | is based o | on the sp | oike and sp | ike duplica | ate resu | ılt. | | |

| Cumerate | LCS Descult | LCSD Begult | II | D:1 | Spike | LCS Dec | LCSD | Rec. |
|-------------------------------|----------------|----------------|---------|------|--------|------------|------|----------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| n-Tricosane Q_{sr} Q_{sr} | 132 | 129 | m mg/Kg | 1 | 100 | 132 | 129 | 70 - 130 |

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| 7250715006.001 | Regency -A-14 6" Line | Lea Co, NM |

Laboratory Control Spike (LCS-1)

| QC Batch: Prep Batch: | Date Analyzed: QC Preparation: | | | Analyzed By: Prepared By: | | |
|--------------------------|-----------------------------------|-------|--------|------------------------------|------|--|
| | LCS | Spike | Matrix | | Rec. | |

| | | | 100 | | | Spine | 1010001111 | | 1000. |
|--------------|--------------|--------------|--------|---------|------|--------|--------------|------|----------|
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Benzene | | 1 | 2.02 | m mg/Kg | 1 | 2.00 | < 0.00533 | 101 | 70 - 130 |
| Toluene | | 1 | 1.96 | m mg/Kg | 1 | 2.00 | $<\!0.00645$ | 98 | 70 - 130 |
| Ethylbenzene | | 1 | 1.98 | m mg/Kg | 1 | 2.00 | < 0.0116 | 99 | 70 - 130 |
| Xylene | | 1 | 5.97 | m mg/Kg | 1 | 6.00 | < 0.00874 | 100 | 70 - 130 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | | | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------------|--------------|--------|------------------|------|--------|--------------|------|----------|-----|-------|
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Benzene | | 1 | 2.03 | mg/Kg | 1 | 2.00 | < 0.00533 | 102 | 70 - 130 | 0 | 20 |
| Toluene | | 1 | 1.94 | $\mathrm{mg/Kg}$ | 1 | 2.00 | $<\!0.00645$ | 97 | 70 - 130 | 1 | 20 |
| Ethylbenzene | | 1 | 1.94 | $\mathrm{mg/Kg}$ | 1 | 2.00 | < 0.0116 | 97 | 70 - 130 | 2 | 20 |
| Xylene | | 1 | 5.88 | mg/Kg | 1 | 6.00 | < 0.00874 | 98 | 70 - 130 | 2 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCS | LCSD | | | Spike | LCS | LCSD | Rec. |
|------------------------------|--------|--------|---------|------|--------|------|------|----------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Trifluorotoluene (TFT) | 1.69 | 1.62 | mg/Kg | 1 | 2.00 | 84 | 81 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | 2.00 | 1.92 | m mg/Kg | 1 | 2.00 | 100 | 96 | 70 - 130 |

Laboratory Control Spike (LCS-1)

| QC Batch: 120169 Prep Batch: 101644 | Date Analyzed:2015-03-23Analyzed By:AKQC Preparation:2015-03-20Prepared By:AK | | | | | | | | | | |
|--|---|--------------|------------|-----------|-------------|--------------|-----------|----------|------|----------|--|
| | | | LCS | | | Spike | Mat | rix | | Rec. | |
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Res | ult R | ec. | Limit | |
| GRO | | 1 | 21.9 | mg/Kg | 1 | 20.0 | <2. | .32 1 | 10 7 | 70 - 130 | |
| Percent recovery is based on the | spike re | sult. RPI |) is based | on the sp | pike and sp | oike duplica | ate resul | t. | | | |
| | | LCSI |) | | Spike | Matrix | | Rec. | | RPD | |
| Param | F (| C Resul | t Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit | |
| GRO | : | 23.0 | mg/Kg | g 1 | 20.0 | < 2.32 | 115 | 70 - 130 | 5 | 20 | |
| Percent recovery is based on the | spike re | sult. RPI |) is based | on the sp | oike and sp | ike duplica | ate resul | t. | | | |

continued ...

| Report Date: March 24, 2015 7250715006.001 | | | | | | | | |
|---|---------------|----------------|--------|------|-----------------|-------------|--------------|---------------|
| control spikes continued | LOC | LCCD | | | C :1 | T CC | LCCD | Dee |
| Surrogate | LCS Result | LCSD Result | Units | Dil. | Spike Amount | LCS Rec. | LCSD Rec. | Rec. Limit |
| Surlogate | nesuti | itcourt | 011105 | DII. | mount | nee. | nee. | |
| | LCS | LCSD | | | Spike | LCS | LCSD | Rec. |
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Trifluorotoluene (TFT) | 1.84 | 1.85 | mg/Kg | 1 | 2.00 | 92 | 92 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | 1.89 | 1.91 | mg/Kg | 1 | 2.00 | 94 | 96 | 70 - 130 |

Matrix Spikes

| Matrix Spike (MS-1) Spik | ed Samp | ole: 38900 |)3 | | | | | | | |
|--|----------|----------------------|-------------------------------|------------|-------------------------|---------------------------|---------------------------|-----------------------------|----------------------|--------------------|
| QC Batch: 120142 Prep Batch: 101653 | | | ate Analyz C Preparat | | 15-03-20 15-03-20 | | | | yzed By: ared By: | ${ m EM}$ |
| Param | F | С | MS Result | Units | Dil. | Spike Amount | Mat Res | ult Rec | . I | Rec. Jimit |
| Chloride | | | 2820 | mg/Kg | 5 | 2500 | <19 |).2 113 | 3 78. | 9 - 121 |
| Percent recovery is based on the | spike re | sult. RP | D is based | l on the s | pike and s | pike duplic | ate resu | ılt. | | |
| Param Chloride | F C | MSD Resul 3000 | t Units | | Spike Amount 2500 | Matrix Result <19.2 | $\frac{\text{Rec.}}{120}$ | Rec. Limit 78.9 - 121 | RPD 6 | RPD Limit 20 |
| Percent recovery is based on the | | | 0/ 3 | - | | | | | 0 | 20 |
| Matrix Spike (MS-1) Spik QC Batch: 120148 Prep Batch: 101652 | ed Samp | | 31 ate Analyz C Prepara | | 15-03-20 15-03-19 | | | | yzed By ared By | |
| | | | ${ m MS}$ | | | Spike | | atrix | | Rec. |
| Param | F | С | Result | Units | Dil. | Amount | | | | Limit |
| DRO | | 1 | 198 | mg/Kg | | 250 | | | 79 7 | 0 - 130 |
| Percent recovery is based on the | spike re | sult. RP | D is based | l on the s | pike and s | pike duplic | ate resu | ılt. | | |
| | | MSI |) | | Spike | Matrix | | Rec. | | |
| Param | F (| | | s Dil. | Amount | Result | Rec. | Limit | RPD | RPD |
| | | 100 | | | | | 77 | 70 - 130 | 3 | RPD Limit |
| DRO | 1 | ı 192 | mg/K | | 250 | <7.41 | ((| 10 - 150 | 3 | |
| DRO Percent recovery is based on the | | | 0/ | fg 1 | | | | | 9 | Limit |
| | spike re | sult. RP | D is based | fg 1 | | pike duplic | ate resu | ılt. | | Limit 20 |
| | | sult. RP | 0/ | fg 1 | | | | ılt. S MS | D | Limit |

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| 7250715006.001 | Regency -A-14 6" Line | Lea Co, NM |

Matrix Spike (MS-1) Spiked Sample: 389081

| QC Batch: | 120168 | Date Analyzed: | 2015-03-23 | Analyzed By: | AK |
|-------------|--------|-----------------|------------|--------------|----|
| Prep Batch: | 101644 | QC Preparation: | 2015-03-20 | Prepared By: | AK |

| | | | MS | | | Spike | Matrix | | Rec. |
|--------------|--------------|---|--------|---------|------|--------|--------------|------|----------|
| Param | \mathbf{F} | С | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Benzene | | 1 | 1.65 | mg/Kg | 1 | 2.00 | < 0.00533 | 82 | 70 - 130 |
| Toluene | | 1 | 1.67 | m mg/Kg | 1 | 2.00 | $<\!0.00645$ | 84 | 70 - 130 |
| Ethylbenzene | | 1 | 1.77 | m mg/Kg | 1 | 2.00 | < 0.0116 | 88 | 70 - 130 |
| Xylene | | 1 | 5.42 | mg/Kg | 1 | 6.00 | < 0.00874 | 90 | 70 - 130 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | | | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------------|--------------|--------|------------------|------|--------|-----------|------|----------|-----|-------|
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Benzene | | 1 | 1.68 | mg/Kg | 1 | 2.00 | < 0.00533 | 84 | 70 - 130 | 2 | 20 |
| Toluene | | 1 | 1.72 | $\mathrm{mg/Kg}$ | 1 | 2.00 | < 0.00645 | 86 | 70 - 130 | 3 | 20 |
| Ethylbenzene | | 1 | 1.83 | mg/Kg | 1 | 2.00 | < 0.0116 | 92 | 70 - 130 | 3 | 20 |
| Xylene | | 1 | 5.56 | mg/Kg | 1 | 6.00 | < 0.00874 | 93 | 70 - 130 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MS | MSD | | | Spike | MS | MSD | Rec. |
|------------------------------|--------|--------|---------|------|--------|------|------|----------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Trifluorotoluene (TFT) | 1.65 | 1.55 | mg/Kg | 1 | 2 | 82 | 78 | 70 - 130 |
| 4-Bromofluorobenzene (4-BFB) | 2.04 | 1.98 | m mg/Kg | 1 | 2 | 102 | 99 | 70 - 130 |

Matrix Spike (MS-1) Spiked Sample: 389081

| QC Batch: | 120169 | Date Analyzed: | 2015-03-23 | Analyzed By: | AK |
|-------------|--------|-----------------|------------|--------------|----|
| Prep Batch: | 101644 | QC Preparation: | 2015-03-20 | Prepared By: | AK |

| D | | Б | C | MS | TT •/ | 1.1 | Spike | | atrix | - | Rec. |
|--|--------------|--------------|--------|--------|-------|--------|--------|------|----------|------|----------|
| Param | | F | С | Result | Units | Dil. | Amoun | t R | esult | Rec. | Limit |
| GRO | $_{\rm Qs}$ | $_{\rm Qs}$ | 1 | 12.6 | mg/Kg | ; 1 | 20.0 | < | (2.32) | 63 | 70 - 130 |
| Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. MSD Spike Matrix Rec. RPD | | | | | | | | | | | |
| Param | \mathbf{F} | \mathbf{C} | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| GRO | | 1 | 14.8 | mg/Kg | 1 | 20.0 | <2.32 | 74 | 70 - 130 | 16 | 20 |
| | | | | | | | | | | | |

continued ...

| Report Date: March 24, 2015 7250715006.001 | Work Order: 15031904 Regency -A-14 6" Line | | | | | Page Number: 14 of 18 Lea Co, NM | | | |
|---|---|--------|-------|------|--------|-------------------------------------|------|------------------------|--|
| matrix spikes continued | | | | | | | | | |
| | MS | MSD | | | Spike | MS | MSD | Rec. | |
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit | |
| | ${ m MS}$ | MSD | | | Spike | MS | MSD | Rec. | |
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit | |
| Trifluorotoluene (TFT) | 1.75 | 1.77 | mg/Kg | 1 | 2 | 88 | 88 | 70 - 130 | |
| 4-Bromofluorobenzene (4-BFB) | 1.95 | 1.99 | mg/Kg | 1 | 2 | 98 | 100 | 70 - 130 | |

Calibration Standards

Standard (ICV-1)

| QC Batch: | 120142 | | Date Analyzed: | | | 2015-03-20 | | Analyz | Analyzed By: EM | |
|-----------|--------|------|----------------|-------|-------|------------|----------|----------|-----------------|--|
| | | | | | ICVs | ICVs | ICVs | Percent | | |
| | | | | | True | Found | Percent | Recovery | Date | |
| Param | | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed | |
| Chloride | | | | mg/Kg | 100 | 101 | 101 | 85 - 115 | 2015-03-20 | |

Standard (CCV-1)

| QC Batch: | 120142 | | Date Analyzed: | | | 2015-03-20 | | Analy | Analyzed By: EM | |
|-----------|--------|------|----------------|---------|-----------------|------------|----------|----------|-----------------|--|
| | | | | | CCVs | CCVs | CCVs | Percent | | |
| | | | | | True | Found | Percent | Recovery | Date | |
| Param | | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed | |
| Chloride | | | | m mg/Kg | 100 | 99.0 | 99 | 85 - 115 | 2015-03-20 | |

Standard (CCV-1)

| QC Batch: | 120148 | | Date Analyzed: | | | | Analy | Analyzed By: SC | |
|-----------|--------|------|----------------|------------|------------|-----------------|----------|-----------------|--|
| | | | | $\rm CCVs$ | $\rm CCVs$ | CCVs | Percent | | |
| | | | | True | Found | Percent | Recovery | Date | |
| Param | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed | |
| DRO | | 1 | m mg/Kg | 250 | 251 | 100 | 80 - 120 | 2015-03-20 | |

Standard (CCV-2)

| QC Batch: | 120148 | Date Analyzed: | | | 2015-03-20 | | Analy | Analyzed By: SC | |
|-----------|--------|----------------|---------|--------------|-----------------------------|-----------------|---------------------|-----------------|--|
| | | | | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date | |
| Param | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed | |
| DRO | | 1 | m mg/Kg | 250 | 299 | 120 | 80 - 120 | 2015-03-20 | |

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| 7250715006.001 | Regency -A-14 6" Line | Lea Co, NM |

Standard (CCV-1)

| QC Batch: 120168 | | | Date An | alyzed: 20 | Analyzed By: AK | | | |
|------------------|------|------|---------|-----------------|-----------------|----------|----------|----------------|
| | | | | CCVs | CCVs | CCVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Benzene | | 1 | mg/kg | 0.100 | 0.0967 | 97 | 80 - 120 | 2015-03-23 |
| Toluene | | 1 | m mg/kg | 0.100 | 0.0937 | 94 | 80 - 120 | 2015 - 03 - 23 |
| Ethylbenzene | | 1 | m mg/kg | 0.100 | 0.0933 | 93 | 80 - 120 | 2015 - 03 - 23 |
| Xylene | | 1 | mg/kg | 0.300 | 0.285 | 95 | 80 - 120 | 2015-03-23 |

Standard (CCV-2)

| QC Batch: 120168 | | | Date Analyzed: 2015-03-23 | | | Analyzed By: AK | | |
|------------------|------|------|---------------------------|-----------------|-----------------|-----------------|----------|----------------|
| | | | | CCVs | CCVs | CCVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Benzene | | 1 | mg/kg | 0.100 | 0.0985 | 98 | 80 - 120 | 2015-03-23 |
| Toluene | | 1 | m mg/kg | 0.100 | 0.0963 | 96 | 80 - 120 | 2015 - 03 - 23 |
| Ethylbenzene | | 1 | m mg/kg | 0.100 | 0.0957 | 96 | 80 - 120 | 2015-03-23 |
| Xylene | | 1 | mg/kg | 0.300 | 0.287 | 96 | 80 - 120 | 2015-03-23 |

Standard (CCV-1)

| QC Batch: | 120169 | | Date | Analyzed: | 2015-03-23 | | Analyzed By: AK | |
|-----------|--------|------|-------|-----------------|-----------------|----------|-----------------|------------|
| | | | | CCVs | CCVs | CCVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| GRO | | 1 | mg/Kg | 1.00 | 1.15 | 115 | 80 - 120 | 2015-03-23 |

Standard (CCV-2)

| QC Batch: | 120169 | | Date | Analyzed: | 2015-03-23 | | Analy | Analyzed By: AK | |
|-----------|--------|------|---------|-----------------|------------|----------|----------|-----------------|--|
| | | | | CCVs | CCVs | CCVs | Percent | | |
| | | | | True | Found | Percent | Recovery | Date | |
| Param | Flag | Cert | Units | Conc. | Conc. | Recovery | Limits | Analyzed | |
| GRO | | 1 | m mg/Kg | 1.00 | 1.07 | 107 | 80 - 120 | 2015-03-23 | |

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Appendix

Report Definitions

| Name | Definition |
|------|----------------------------|
| MDL | Method Detection Limit |
| MQL | Minimum Quantitation Limit |
| SDL | Sample Detection Limit |

Laboratory Certifications

| | Certifying | Certification | Laboratory |
|---|------------|---------------------|---------------|
| С | Authority | Number | Location |
| - | NCTRCA | WFWB384444Y0909 | TraceAnalysis |
| - | DBE | VN 20657 | TraceAnalysis |
| - | HUB | 1752439743100-86536 | TraceAnalysis |
| - | WBE | 237019 | TraceAnalysis |
| 1 | NELAP | T104704392-14-8 | Midland |

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- MI1 Split peak or shoulder peak
- MI2 Instrument software did not integrate
- MI3 Instrument software misidentified the peak
- MI4 Instrument software integrated improperly
- MI5 Baseline correction
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
- U The analyte is not detected above the SDL

Attachments

Work Order: 15031904 Regency -A-14 6" Line Page Number: 18 of 18 Lea Co, NM

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.



Apex TITAN, Inc. • 2351 W. Northwest Hwy., Suite 3321 • Dallas, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914



APPENDIX E

Form C-141

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

| | | OPERATOR | 🛛 Initial Report 🗌 Final Re | eport |
|-----------------|-----------------------------------|-----------------|-----------------------------|-------|
| Name of Company | Southern Union Gas Services, Ltd. | Contact | Tony Savo | oie |
| Address | P.O. Box 1226 Jal, N.M. 88252 | Telephone No. | 505-395-21 | 116 |
| Facility Name | Lea County Field Dept. | Facility Type | Natural Gas Gatheri | ing |
| | | | | |

Surface Owner: Rubert Madera Trust

Mineral Owner: Federal

Lease No.

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| A | 3 | 248 | 34E | | | | | Lea |
| | | | | | | | | |

Latitude N32 15.154 Longitude W103 27.139

NATURE OF RELEASE

| Type of Release : Crude oil and n | atural gas | 50 bbls oil | Volume Re | covered 0 bbls |
|--|---|---|-------------------------|----------------------------------|
| Source of Release | Pipeline | Date and Hour of Occurrence Unknown | Date and H Time unkn | our of Discovery 8/19/06 own. |
| Was Immediate Notice Given? | | If YES, To Whom? | | |
| | Yes No Not Required | | | |
| By Whom? Tony Savoie, Souther | n Union Gas Services | Date and Hour: Verbally reported to | | on @ 7:56 a.m. 8/22/06 |
| Was a Watercourse Reached? | 🗌 Yes 🛛 No | If YES, Volume Impacting the Wat | ercourse. | |
| If a Watercourse was Impacted, D | escribe Fully.* | | | |
| | | | | |
| | | | | |
| | | | | 3 |
| Describe Cause of Problem and R | | | ం సౌ ర | |
| | perating at 25 psi developed a leak, the l | | | |
| saturated area was blended on site H2S content of 4000 ppm. | to prevent exposure to livestock and wi | ildlife. Normal operating pressure on t | he line is 29 | psi to 30 psi, with a potential |
| H23 content of 4000 ppm. | | | [| |
| | | | > | |
| Describe Area Affected and Clear | hup Action Taken. The affected area is p | pasture. An area covering approximate | ly 15,670 sq. | ft. was affected by the release |
| | essment and sampling event was conduc | | | |
| | 8/21/06 regarding livestock exposure an l remediation activities will follow the N | | | |
| | on given above is true and complete to t | | | |
| | red to report and/or file certain release n | | | |
| | The acceptance of a C-141 report by th | | | |
| | d to adequately investigate and remediat NMOCD acceptance of a C-141 report d | | | |
| federal, state, or local laws and/or | | | | |
| | | OIL CONSERV | ATION I | DIVISION |
| | | | | |
| Signature: | Tony Savoie | ENVIRE ENG | 2 | |
| Printed Name: | John A. Savoie | Approved by District Supervisor. | $\epsilon \mid O$ | |
| Frinted Name: | | ······ | 200 | |
| Title: | EH&S Comp. Coord. | Approval Date: 1. 106 | Expiration D | ate: 12.1.06 |
| | | | • | |
| E-mail Address: | jasavoie@sidrichgas.com | Conditions of Approval: | | Attached |
| Date: 8/24/06 | Phone: 505-395-2116 | SUB MITTAL OF ALVAL | -4555 | |
| Attach Additional Sheets If New | cessary | $ \sigma > $ | | not ull |
| | $L = 0A(063)^{2}$ | 548631 | | RAF IIV |
| Inciden | | | | 1/ " |
| - Andres | F. PHCOCO | | | |
| comment | cessary E-n PAC06313 tion-pPAC06 | | | |



APPENDIX F

Well Records



New Mexico Office of the State Engineer Water Column/Average Depth to Water

| (A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) | (R=POD has been replaced O=orphaned, C=the file is closed) | (quai | | | | | IE 3=SW | , | 3 UTM in meters) | | (In feet | :) |
|---|--|-------|---|-------------|----|-------|---------|--------|------------------|----------|----------|-----------------|
| POD Number | POD Sub- Code basin C | ounty | | Q C 16 4 | - | : Tws | Rng | х | Y | - | - | Water Column |
| C 02373 | С | LE | | 41 | | 24S | - | 641979 | 3560916* 🌍 | 600 | | |
| <u>C 02386</u> | | LE | 4 | 12 | 04 | 24S | 34E | 643962 | 3569290* 🌍 | 575 | 475 | 100 |
| <u>C 02387</u> | | LE | | 1 | 11 | 24S | 34E | 646513 | 3567613* 🌍 | 62 | 40 | 22 |
| <u>C 02397</u> | | LE | 4 | 12 | 04 | 24S | 34E | 643962 | 3569290* 🌍 | 575 | 475 | 100 |
| | | | | | | | | | Average Depth to | o Water: | 330 f | eet |
| | | | | | | | | | Minimum | n Depth: | 40 f | eet |
| | | | | | | | | | Maximum | n Depth: | 475 f | eet |
| Record Count: 4 | | | | | | | | | | | | |

PLSS Search:

Township: 24S Range: 34E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



| | | | | ` | | NW 2=NE 3 nallest to la | , | NAD83 UTM in meters) | | | |
|----------------------|---------|-----------|---------------|------------------------|------------|----------------------------|------------|----------------------|-------------|----------------|--|
| | POE |) Numb | er | Q64 Q16 Q4 Sec Tws Rng | | | | | | | |
| | C | 02373 | | | 4 1 | 32 243 | S 34E | 641979 | 3560916* | | |
| Driller License | e: | | | | | | | | | | |
| Driller Name: | E | ENRON | OIL AND GAS | | | | | | | | |
| Drill Start Date | e: | | Drill | Finis | sh Date: | 12 | /31/1982 | e Plug | Date: | | |
| Log File Date: | : | | PCV | V Rcv | Date: | | | Sou | rce: | Shallow | |
| Pump Type: | | | Pipe | e Disc | harge S | Size: | | Esti | mated Yield | d: | |
| Casing Size: | 6 | 6.00 | Dep | th We | ell: | 60 | 0 feet | Dep | th Water: | | |
| Ме | eter l | Numbe | r: 5957 | | | Meter M | lake: | MA | STER MET | ER | |
| Ме | eter \$ | Serial N | lumber: 68667 | 73 | | Meter N | Iultiplier | : 100 | .0000 | | |
| Nu | mbe | er of Dia | als: 5 | | | Meter T | - | | ersion | | |
| Un | it of | Measu | re: Gallor | าร | | Return | Flow Pe | rcent: | | | |
| Us | age | Multipl | ier: | | | Readin | g Freque | ency: Qua | arterly | | |
| Meter Read | | | | | | | | | | | |
| Read Da | - | Year | Mtr Reading | Flag | a Rdr | Comme | ent | | Mtr | Amount | |
| 09/13/20 | | | 0 | A | RPT | | | | | 0 | |
| 12/31/20 | | 2002 | 16997 | А | RPT | | | | | 5.216 | |
| 03/31/20 | 03 | 2003 | 17909 | А | RPT | | | | | 0.280 | |
| 06/30/20 | 03 | 2003 | 42235 | А | RPT | | | | | 7.465 | |
| 09/30/20 | 03 | 2003 | 55200 | А | ab | | | | | 3.979 | |
| 12/31/20 | 03 | 2003 | 64421 | А | ab | | | | | 2.830 | |
| 04/05/20 | 04 | 2004 | 64421 | А | RPT | | | | | 0 | |
| 01/01/20 | 05 | 2004 | 64421 | А | RPT | | | | | 0 | |
| 04/01/20 | 05 | 2005 | 64421 | А | RPT | | | | | 0 | |
| 07/01/20 | 05 | 2005 | 64421 | А | RPT | | | | | 0 | |
| 10/10/20 | 05 | 2005 | 64421 | А | RPT | | | | | 0 | |
| 01/01/20 | 06 | 2005 | 64421 | А | RPT | | | | | 0 | |
| 03/31/20 | 06 | 2006 | 64601 | А | RPT | | | | | 0.055 | |
| 06/30/20 | 06 | 2006 | 64602 | А | tw | | | | | 0 | |
| 12/31/20 | 06 | 2006 | 0 | А | tw | | | | | 0 | |
| 04/03/20 | 07 | 2007 | 24 | А | tw | | | | | 0.007 | |
| | | 2007 | 41 | А | RPT | | | | | 0.005 | |
| 07/01/20 | 07 | 2007 | 41 | | | | | | | | |
| 07/01/20 10/01/20 | | 2007 | 116 | А | RPT | | | | | 0.023 | |
| | 07 | | | | RPT RPT | | | | | 0.023 0.005 | |

*UTM location was derived from PLSS - see Help

Meter Readings (in Acre-Feet)

| Read Date | Year | Mtr Reading | Fla | g Rdr Comment | Mtr Amount |
|-------------|---------|-------------|-----|---------------|------------|
| 06/30/2008 | 2008 | 197 | А | RPT | 0.012 |
| 09/30/2008 | 2008 | 238 | А | RPT | 0.013 |
| 12/30/2008 | 2008 | 283 | А | RPT | 0.014 |
| 03/31/2010 | 2010 | 24989 | А | RPT | 7.582 |
| 06/30/2010 | 2010 | 39689 | А | tw | 4.511 |
| 09/30/2010 | 2010 | 43062 | А | RPT | 1.035 |
| 10/01/2010 | 2010 | 0 | А | RPT | 0 |
| 12/31/2010 | 2010 | 1200 | А | RPT | 0.368 |
| 04/01/2011 | 2011 | 1356 | А | RPT | 0.048 |
| 04/02/2011 | 2011 | 0 | А | RPT | 0 |
| **YTD Meter | r Amoun | ts: Year | | Amount | |
| | | 2002 | | 5.216 | |
| | | 2003 | | 14.554 | |
| | | 2004 | | 0 | |
| | | 2005 | | 0 | |
| | | 2006 | | 0.055 | |
| | | 2007 | | 0.040 | |
| | | 2008 | | 0.047 | |
| | | 2010 | | 13.496 | |
| | | 2011 | | 0.048 | |

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| | | (quarters are 1=NW 2 (quarters are smalle | | E) (NAD83 UTM in meters) |
|------------------|------------|--|------------|-----------------------------|
| F | POD Number | Q64 Q16 Q4 Sec | : Tws Rng | X Y |
| (| C 02386 | 4 1 2 04 | 24S 34E | 643962 3569290* 🌍 |
| Driller License | : | | | |
| Driller Name: | SHELL OIL | | | |
| Drill Start Date | : | Drill Finish Date: | 01/31/1960 | Plug Date: |
| Log File Date: | | PCW Rcv Date: | | Source: |
| Pump Type: | | Pipe Discharge Size | : | Estimated Yield: 30 GPM |
| Casing Size: | 5.00 | Depth Well: | 575 feet | Depth Water: 475 feet |

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



| | | (quarters are 1=NW 2 (quarters are smalles | | E) (NAD83 UTM in meters) |
|-----------------|------------|---|------------|-----------------------------|
| | POD Number | Q64 Q16 Q4 Sec | Tws Rng | X Y |
| | C 02387 | 1 11 | 24S 34E | 646513 3567613* 😜 |
| Driller Licens | e: | | | |
| Driller Name: | UNKNOWN | | | |
| Drill Start Dat | te: | Drill Finish Date: | 12/31/1916 | Plug Date: |
| Log File Date | : | PCW Rcv Date: | | Source: |
| Pump Type: | | Pipe Discharge Size: | | Estimated Yield: 3 GPM |
| Casing Size: | 6.00 | Depth Well: | 62 feet | Depth Water: 40 feet |

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



| | | | | · · | ers are 1=N rters are sn | | | | , | TM in meters) | |
|-----------------|-------|----------|---------------|-------|-----------------------------|-------|-------|----------|---------|---------------|-----------|
| | PO | D Num | ber | | Q16 Q4 | | - | | ` х | | |
| | С | 02397 | | 4 | 1 2 | 04 | 24S | 34E | 643962 | 3569290* | 9 |
| Driller Licens | e: | | | | | | | | | | |
| Driller Name: | | SHELL | OIL | | | | | | | | |
| Drill Start Dat | te: | 01/01/1 | 960 Drill | Fini | sh Date: | | 01/3 | 1/1960 | Plug | g Date: | |
| _og File Date | : | | PCV | V Rcv | / Date: | | | | Sou | | Shallow |
| Pump Type: | | ELECT | R Pipe | Dise | charge S | Size: | | | Esti | mated Yiel | d: 30 GPM |
| Casing Size: | | 5.00 | - | th W | - | | 575 | feet | Dep | th Water: | 475 feet |
| M | eter | Numbe | er: 525 | | | Mete | er Ma | ke: | MA | STER | |
| | | | Number: 13485 | 213 | | Mete | er Mu | Itiplier | | 0000 | |
| | | er of Di | | | | Mete | | - | | ersion | |
| | | f Measu | | าร | | | - | low Per | | | |
| _ | | Multip | | - | | | | | ncy: Qu | arterlv | |
| | | | | | | | | | | | · — - |
| Meter Rea | ding | gs (in A | cre-Feet) | | | | | | | | |
| Read Da | ate | Year | Mtr Reading | Fla | g Rdr | Com | men | t | | Mtr | Amount |
| 02/15/19 | 999 | 1999 | 472959 | А | ms | | | | | | 0 |
| 12/07/19 | 999 | 1999 | 560576 | А | ms | | | | | | 2.689 |
| 01/06/20 | 000 | 1999 | 565151 | А | ms | | | | | | 0.140 |
| 05/05/20 | 000 | 2000 | 612343 | А | MB | | | | | | 1.448 |
| 04/14/20 | 004 | 2004 | 0 | А | RPT | | | | | | 0 |
| 11/11/20 | 004 | 2004 | 189248 | А | RPT | | | | | | 5.808 |
| 12/31/20 | 004 | 2004 | 220399 | А | RPT | | | | | | 0.956 |
| 04/06/20 | 005 | 2005 | 372336 | А | RPT | | | | | | 4.663 |
| 09/15/20 | 005 | 2005 | 495401 | А | RPT | | | | | | 3.777 |
| 09/16/20 | 005 | 2005 | 495401 | А | RPT | | | | | | 0 |
| 12/31/20 | 005 | 2005 | 625522 | А | RPT | | | | | | 3.993 |
| 09/01/20 |)12 | 2012 | 0 | А | RPT | | | | | | 0 |
| 09/30/20 |)12 | 2012 | 300206 | А | RPT | | | | | | 9.213 |
| 10/01/20 |)12 | 2012 | 0 | А | tw | | | | | | 0 |
| 10/31/20 |)12 | 2012 | 133860 | А | RPT | | | | | | 4.108 |
| 09/30/20 |)13 | 2013 | 300206 | Α | tw | | | | | | 5.105 |
| **YTD N | leter | Amou | nts: Year | | Amount | | | | | | |
| | | | 1999 | | 2.829 | | | | | | |
| | | | 2000 | | | | | | | | |

*UTM location was derived from PLSS - see Help
| **YTD Meter Amounts: | Year | Amount |
|----------------------|------|--------|
| | 2004 | 6.764 |
| | 2005 | 12.433 |
| | 2012 | 13.321 |
| | 2013 | 5.105 |

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expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.9/28/15 3:18 PMPage 2 of 2POD SUMMARY - C02397



APPENDIX E

Bill of Lading and Backfill Check Receipt Form

| NO. 1084 M | OCOTILL | O ENVIRONMEN | NTAL, LLC. | | |
|--|----------------------|---------------------------------------|---------------|----------|-------|
| HOURS WORKED_ | 10 | ā s | PER HOUR S | | |
| TRUCKER | TIPTON | YD. DUM | P TRUCK #1105 | DATE 2-/ | 11-08 |
| | | · · · · · · · · · · · · · · · · · · · | | | |
| OMPANY | 54.63 | <i>?</i> , | | | |
| | | | SRATE | TOTAL | |
| II OWNER PTCAFE | AK RANCH | TOTAL YD | | | |
| DDRESS | 7 8 9 10 11 12 13 14 | TOTAL YD! DATE PAID |) | _CK. NO | |
| II OWNER <u>PTC/F</u> | 7 8 9 10 11 12 13 14 | TOTAL YD! DATE PAID |) | _CK. NO | |
| OMPANY II OWNER <u>PTCAF</u> DDRESS XXXXXXX | 7 8 9 10 11 12 13 14 | TOTAL YD! DATE PAID |) | _CK. NO | TOTAL |

| HOURS WORI | KED | 10 | _ @ S | | PER HOUR S | 4 | |
|-------------|------------------------------------|---------|-------|-------------|------------|--------|--------|
| TRUCKER | 6. | Combs | | 12-YD. DUMP | RUCK #102 | DATE 2 | -11-05 |
| ADDRESS | | | | | TING | | 11 50 |
| COMPANY | | | | | | | |
| | NAME AND ADDRESS OF TAXABLE PARTY. | | 1 | TOTAL VDS | 8/4 DATE | τοτοι | |
| PIT OWNER / | ilchto | RK KANC | 1 | - IOIAL IDS | of RAIE | IOTAL | |
| | | | | | | | |
| 1 2 3 4 | | | | DATE PAID | | CK. NO | |

| | 7 | -Lone | | -12-02 M. P. Te | | k K Pi | 170 | Tops | oil) | |
|-----------------|----------------|------------|----------|--------------------|---------|----------|-------|--------|-------|-------|
| 1 | 0001 | TLLO E | NVIRO | NMENT | AL.L | LC. | | | | |
| HOURS WORKED | 10 | ä s | | | PER | HOUT | 2.5 | | | |
| TRUCKER | Combs | | 12 YD. | DUMP | TRUC | K 110 | 2 | _DAT | E 2- | 12-02 |
| DDRESS | | | | | | | | | | |
| OMPANY | 54.6. | 5. | | | | | | | | |
| IJ OWNER PITCHI | ERK RAN | ch | TOTA | L YDS | 84 | RATE | | _то | TAL | |
| DDRESS | | | DATE | PAID_ | | | | CK. NO | D | |
| | 8 9 10 11 12 1 | 3 14 15 16 | 17 18 19 | 20 21 22 2 | 3 24 25 | 26 27 28 | 29:30 | RATE | LOADS | TOTAL |
| XXXXXXX | | +++ | | | + | | | | 7 | 184 |
| | | | | | | | | | | |
| | +++++ | TTT | 1 1 1 1 | 1 1 1 | 1 3 | | | | | |

| 7-108 | 12 - 08 ds Frang LTChe O ENVIRONMENTAL | AK Pit | (topsoil) | |
|--|--|-----------|-----------------|-------|
| HOURS WORKED 10 | | | | |
| TRUCKER O- TIPTON | /2 YD. DUMP TH | RUCK TIOS | _DATE 2-/ | 2-08 |
| ADDRESS | | | | |
| | | | | |
| COMPANY 54.6.S. | | | | |
| PIJ OWNER P. T. FOAK RANCE | | | | |
| | TOTAL YDS8 | 84_RATE | TOTAL | |
| PIJ OWNER P, TELFORK RANCE | TOTAL YDS8 | ₿⊈_RATE | TOTAL CK. NO | |
| PIT OWNER <u>P, TCHFORK RANCH</u> ADDRESS | TOTAL YDS8 | ₿⊈_RATE | TOTAL CK. NO | |
| PIJ OWNER <u>P, TELFORK BANCH</u> ADDRESS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 | TOTAL YDS8 | ₿⊈_RATE | TOTAL CK. NO | TOTAL |

(*)

| - C | OCOTILLO | O ENVIRONMEN | FAL, LLC. | | |
|---|------------|--------------|----------------|---------------|---------|
| OURS WORKED | 10 0 | ž S | _ PER HOUR | 5 | |
| RUCKER | Tipton | 12 YD. DUM | TRUCK | DATI | 2-13-08 |
| DDRESS | | | | - | |
| | | | | | |
| UMPANY | .U.G.S. | | | | |
| | | TOTAL YDS | | тот | |
| IJ OWNER PITCHI | FORK RANCH | | <u>84</u> RATE | | TAL |
| OMPANY II OWNER <u>PITCH</u> DDRESS | FORK RANCH | DATE PAID | <u>84</u> RATE | TOT CK. NO | FAL |
| DOWNER <u>PITCHI</u> | FORK RANCH | | <u>84</u> RATE | TOT CK. NO | AL |
| DDRESS | FORK RANCH | DATE PAID | <u>84</u> RATE | TOT CK. NO | FAL |

| | • | Ξ. | 1 | OCO: | rill | O EN | VIRO | NME | NT. | u.1 | LC. | | | | |
|---------------|---------------------|------|------|---------|------|------|------|------|------|-----|-----|------|-------------------------|-------------|------|
| URS W | ORKED | | 10 | <u></u> | | i s | | | | PER | HO | UR S | | | |
| UCKER | · | . C | OMA | 15 | | 1 | ZYD | DUN | AP I | RUC | K | 100 | DA | TEO | 12 |
| DRESS | | | | | | | | | | | - | | 0A | 1L <u>~</u> | 13-0 |
| | | | | | - | | | | | | | | | | |
| MPANY | YS | P.U. | 6. | 5. | | | | | | | | | | | |
| | YS R <u>B'Te</u> | | | | ch | 1 | OTA | L YD | S | 72 | RA | TE_ | TC | TAL | |
| OWNE | R <u>Bite</u> | 6101 | 21 1 | RON. | | I | ATE | PAII |) | | | | CK. N | 0 | |
| OWNE DRESS | R <u>Bite</u> | 6101 | 21 1 | RON. | | I | ATE | PAII |) | | | | CK. N | 0 | |
| OWNE | R <u>Bite</u> | 6101 | 21 1 | RON. | | I | ATE | PAII |) | | | | TC CK. N 30 RATE | 0 | |
| OWNE DRESS | R <u>Bite</u> | 6101 | 21 1 | RON. | | I | ATE | PAII |) | | | | CK. N | 0 | |

| | 0COTILLO | ENVIRONMEN' | TAL, LLC | RM (| | | |
|-------------------|-----------------------|------------------------|--|----------|--------------|--------------|-------|
| HOURS WORKED | 10 0 | s | | | | | |
| TRUCKER <u> </u> | iona bs | /24D. DUMP | TRUCK | 102 | _DA | TE <u>/-</u> | 22-05 |
| OMPANYS | 2.1110 | | | | <u>a 199</u> | | |
| IJ OWNER Bitchfor | KLAND FARMA | TOTAL YDS | 84 RA | TE | | TAL_ | |
| | | DATE PAID | | | CK NO | D . | |
| DDRE35 | | | and the state of t | | | | |
| DDRE35 | 9 10 11 12 13 14 15 1 | 16 17 18 19 20 21 22 2 | 23 24 25 26 27 | 28 29 30 | RATE | LOADS | TOTAL |
| DDRESS | 9 10 11 12 13 14 15 | 16.17.18.19.20.21.22.2 | 23 24 25 26 27 | 28 29 30 | RATE | LOADS | TOTAL |
| DDRE35 | 9 10 11 12 13 14 15 | 16.17.18.19.20.21.22.2 | 23 24 25 26 27 | 28 29 30 | RATE | LOADS | TOTAL |

1.1

...

| HOURS WORKED | <u>10</u> a s | s | _ PER HOUR S | |
|---------------------------|---------------|------------------------|-----------------|-----------|
| TRUCKER | PTON | 12 YD. DUMP | TRUCK | DATE (22 |
| DDRESS | | | moen <u>moy</u> | DATE |
| OMPANY | 10 | | | |
| | | | | |
| | | | | |
| II OWNER PIELFOAR | KLAND FARM | TOTAL YDS | 84 RATE | TOTAL |
| II OWNER PIELFOAK | KLAND FARM | TOTAL YDS DATE PAID | 84 RATE | TOTAL |
| II OWNER <u>PIEH Fork</u> | KLAND FARM | _ DATE PAID _ | | CK. NO. |
| DDRESS | KLAND FARM | _ DATE PAID _ | | CK. NO. |
| ADDRESS 1 2 3 4 5 6 7 8 | KLAND FARM | _ DATE PAID _ | | CK. NO. |
| ADDRESS 1 2 3 4 5 6 7 8 | KLAND FARM | _ DATE PAID _ | | CK. NO. |

| IOURS | w | ORK | ED | | 10 | > | | LLC | s | | | | | PI | R | HOI | R | s | | | |
|--------|--------|-------------------|----|------|----|---------------|------------|---------|----|----|-----|-----|----|-----------|-----|-----|-----|---|---------------|-------|------|
| RUCK | ER | | 1 | . 0 | 02 | 16. | | | | 12 | YD | DU | MP | TRI | iCk | # | 10 | | DAT | - /. | 23-0 |
| DDRE | | | | | | | | | | | | ~ 0 | | | | | 10. | - | _DA1 | E | 23-0 |
| OMP. | | | | C | | - | <i>c</i> , | | - | | | | | | | | | | in the second | | |
| | | | | | | | | | | | | | - | | | | - | | | | |
| 11 0 4 | NEI | <i>₹ <u>K</u></i> | kh | Tart | 4 | ANd | FA | An | / | TC | TA | LYI | DS | 84 | 4 | RA | TE_ | | | TAL_ | |
| | SS | | | | | | _ | | | DA | TE | PAJ | D_ | | | _ | | | CK. NO | o | |
| DDRE | | - | | 7 8 | | | | | | | | | | | | | | | | LOADS | |
| 1 | 2 | 3 4 | | | | 11 | 1 | IT | 11 | T | | 1 | TT | 11 | | + | Ŧ | 1 | INTE | LUNDO | |
| 1 | 2 X | 3 4 X X | XX | X | | $\frac{1}{2}$ | 1- | ++ | ++ | - | 1-1 | | | | | + | | | | | 34 |
| | 2 X | 3 4 X X | XX | X | | ij | + | 11 | 11 | 1 | 11 | | 1 | \square | İ | + | 1 | | | | 450 |

.

| | OCOTU I | -8-Londston | #1 - SITE#1 | Contana. | MATEd |
|------------------------------|----------------------|-----------------------------|-------------|----------|-------|
| | | LITTIRONINE I | IAL. LLC. | | |
| UCKER | Tipton | ĝ \$ / 2 YD. DUMI | TRUCK | DATE 4- | |
| DDRESS | | | | DAIEZ_ | 25-03 |
| OMPANY | 5.4.6.5 | 3 | | | |
| | | | | | |
| I OWNER PITCH | FORK LAND FAI | 9/9 TOTAL YDS. | 96_RATE_ | TOTAL | |
| DDRESS | | DATE PAID | | CK. NO | |
| DDRESS | 7 8 9 10 11 12 13 14 | DATE PAID | | CK. NO | |
| DDRESS | 7 8 9 10 11 12 13 14 | | | CK. NO | |
| DDRESS $X \times X \times Y$ | 7 8 9 10 11 12 13 14 | DATE PAID | | CK. NO. | TOTAL |

.

Southern Union Gas Services

CHECK REQUEST FORM

| Payable to | Rubert & Loys Madera Trust B |
|-------------------------|------------------------------------|
| Address | 524 Antelope Jal, New Mexico 88252 |
| A/P Supplier No. | 52659 |
| Date Check REQUIRED | 4/15/2008 |
| Total Amount | \$7,128 |
| Additional Instructions | |
| Return Check to | |
| Special Handling | |
| Requested by | J.A. Sàvoie |
| Date Requested | 4/7/2008 |
| Approved By | |
| Additional Approval | |
| Additional Approval | |

Description 348 c.y @\$12 & 492 cy @ \$6 For Remediation Site 2006-038 "A" Sec.3, Twns 24S, 34E

| Amount | Company | FERC / Acct / Gen | Expenditure / E type/Sub | Home / Project Cost Center | Location |
|---------|---------|----------------------|-----------------------------|-------------------------------|------------|
| \$7,128 | 7100 | 2320261 | | SUG-0004 | Lea County |
| | | | | | |
| | | | | | × |
| | | | | | |
| | | | | | |

skw 12/6/2007