

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

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

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes  No   
Type of action: Registration of a pit or below-grade tank  Closure of a pit or below-grade tank

Operator: Southern Union Gas Services Telephone: 575-395-2116 e-mail address: tony.savoi@ sug.com  
Address: P.O. Box 1226 Jal. New Mexico 88252  
Facility or well name: Drip Tank #55 API #: \_\_\_\_\_ U/L or Qtr/Qtr M Sec 21 T 21 S R 36E  
County: Lea Latitude 32 deg. 27.637N Longitude 103 deg. 16.563W NAD: 1927  1983   
Surface Owner: Federal  State  Private  Indian

Pit	Below-grade tank	
Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness _____ mil Clay <input type="checkbox"/> Pit Volume _____ bbl	Volume: <u>100</u> bbl Type of fluid: <u>Produced water and crude oil</u> Construction material: <u>Steel</u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. <u>Tank was installed by EPNG before the BGT regulations were written</u>	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) Average 206 ft.	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more <u>WTR &gt; 205</u>	(20 points) (10 points) ( 0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.) No, 4746 Horiz. Ft. to a private water well	Yes No	(20 points) ( 0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.) 2.18 Horizontal miles to an intermittent water course.	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) ( 0 points)
	<b>Ranking Score (Total Points)</b>	0 Points

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite  offsite  If offsite, name of facility \_\_\_\_\_ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No  Yes  If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: The Below Grade Tank will be removed in accordance with the NMOCD proposed Pit and Below Grade Tank Rules.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit , or an (attached) alternative OCD-approved plan .

Date: 2/23/08  
Printed Name/ Tony Savoie  
Title Waste Management and Remediation Specialist Signature Tony Savoie  
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or

Approval: Chris Williams Signature Chris Williams Date: 03/03/2008  
Printed Name/Title \_\_\_\_\_ Signature \_\_\_\_\_ RP # 1802

FCOAO 806 354083

REMOVED 6/10/13  
APPROD BUT NEED  
C-144 CLOS RPT C-144

1802

# **Analytical Report 298902**

**for**

## **Southern Union Gas Services-Jal**

**Project Manager: Tony Savoie**

**Drip Tank 55**

**BGT 016**

**11-MAR-08**



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

Texas certification numbers:

Houston, TX T104704215

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

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Midland - Corpus Christi - Atlanta



11-MAR-08

Project Manager: **Tony Savoie**  
**Southern Union Gas Services-Jal**  
610 Commerce  
Jal, NM 88252

Reference: XENCO Report No: **298902**  
**Drip Tank 55**  
Project Address: Lea County, NM

**Tony Savoie:**

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 298902. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 298902 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,

**Brent Barron, II**

Odessa Laboratory Manager

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**Sample Cross Reference 298902**



**Southern Union Gas Services-Jal, Jal, NM**

**Drip Tank 55**

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
Sample 3 Floor	S	Mar-04-08 15:30		298902-001
Floor Composite	S	Mar-04-08 15:35		298902-002
North Wall Composite	S	Mar-04-08 15:40		298902-003
South Wall Composite	S	Mar-04-08 15:45		298902-004
West Wall Composite	S	Mar-04-08 15:50		298902-005
East Wall Composite	S	Mar-04-08 15:55		298902-006



# Certificate of Analysis Summary 298902

Southern Union Gas Services-Jal, Jal, NM

Project Name: Drip Tank 55

Project Id: BGT 016

Contact: Tony Savoie

Project Location: Lea County, NM

Date Received in Lab: Wed Mar-05-08 12:20 pm

Report Date: 11-MAR-08

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	298902-001	298902-002	298902-003	298902-004	298902-005	298902-006
	<i>Field Id:</i>	Sample 3 Floor	Floor Composite	North Wall Composite	South Wall Composite	West Wall Composite	East Wall Composite
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Mar-04-08 15:30	Mar-04-08 15:35	Mar-04-08 15:40	Mar-04-08 15:45	Mar-04-08 15:50	Mar-04-08 15:55
<b>Anions by EPA 300/300.1</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Mar-05-08 16:17					
	<i>Units/RL:</i>	mg/kg    RL					
Chloride		7.92    5.00					
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Mar-10-08 11:16					
	<i>Analyzed:</i>	Mar-10-08 14:59					
	<i>Units/RL:</i>	mg/kg    RL					
Benzene		ND    0.0010					
Toluene		ND    0.0020					
Ethylbenzene		ND    0.0010					
m,p-Xylenes		ND    0.0020					
o-Xylene		ND    0.0010					
Xylenes, Total		ND					
Total BTEX		ND					
<b>Percent Moisture</b>	<i>Extracted:</i>						
	<i>Analyzed:</i>	Mar-05-08 16:00	Mar-05-08 16:00	Mar-05-08 16:00	Mar-05-08 16:00	Mar-05-08 16:00	Mar-05-08 16:00
	<i>Units/RL:</i>	%    RL	%    RL	%    RL	%    RL	%    RL	%    RL
Percent Moisture		2.15    1.00	3.39    1.00	6.43    1.00	8.05    1.00	5.63    1.00	7.32    1.00
<b>TPH By SW8015 Mod</b>	<i>Extracted:</i>	Mar-05-08 14:48	Mar-05-08 14:48	Mar-05-08 14:48	Mar-05-08 14:48	Mar-05-08 14:48	Mar-05-08 14:48
	<i>Analyzed:</i>	Mar-07-08 17:27	Mar-07-08 17:55	Mar-07-08 18:23	Mar-07-08 18:50	Mar-07-08 19:18	Mar-07-08 19:46
	<i>Units/RL:</i>	mg/kg    RL	mg/kg    RL	mg/kg    RL	mg/kg    RL	mg/kg    RL	mg/kg    RL
C6-C12 Gasoline Range Hydrocarbons		ND    15.3	ND    15.5	ND    16.0	ND    16.3	ND    15.9	ND    16.2
C12-C28 Diesel Range Hydrocarbons		16.8    15.3	ND    15.5	ND    16.0	ND    16.3	ND    15.9	ND    16.2
C28-C35 Oil Range Hydrocarbons		ND    15.3	ND    15.5	ND    16.0	ND    16.3	ND    15.9	ND    16.2
Total TPH		16.8	ND	ND	ND	ND	ND

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

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 Brent Barron  
 Odessa Laboratory Director



## 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL(PQL) and above the SQL(MDL).
  - 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.
- \* Outside XENCO'S scope of NELAC Accreditation

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(770) 449-8800	(770) 449-5477



# Form 2 - Surrogate Recoveries



Project Name: Drip Tank 55

Work Order #: 298902

Project ID: BGT 016

Lab Batch #: 716752

Sample: 298902-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

Lab Batch #: 716752

Sample: 505700-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 716752

Sample: 505700-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0330	0.0300	110	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 716752

Sample: 505700-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 716637

Sample: 298902-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	100	98	70-135	
o-Terphenyl	51.6	50.0	103	70-135	

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries



Project Name: Drip Tank 55

Work Order #: 298902

Project ID: BGT 016

Lab Batch #: 716637

Sample: 298902-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	55.9	50.0	112	70-135	

Lab Batch #: 716637

Sample: 298902-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	52.4	50.0	105	70-135	

Lab Batch #: 716637

Sample: 298902-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.9	100	96	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 716637

Sample: 298902-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	100	98	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 716637

Sample: 298902-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.6	100	96	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries



Project Name: Drip Tank 55

Work Order #: 298902

Project ID: BGT 016

Lab Batch #: 716637

Sample: 298902-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.2	100	97	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 716637

Sample: 298902-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

Lab Batch #: 716637

Sample: 505640-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	57.0	50.0	114	70-135	

Lab Batch #: 716637

Sample: 505640-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	54.5	50.0	109	70-135	

Lab Batch #: 716637

Sample: 505640-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	57.7	50.0	115	70-135	

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Blank Spike Recovery



Project Name: Drip Tank 55

Work Order #: 298902

Project ID:

BGT 016

Lab Batch #: 716323

Sample: 716323-1-BKS

Matrix: Solid

Date Analyzed: 03/05/2008

Date Prepared: 03/05/2008

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

## BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300/300.1  Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	100	98.6	99	75-125	

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



# BS / BSD Recoveries



**Project Name: Drip Tank 55**

**Work Order #: 298902**

**Analyst: SHE**

**Lab Batch ID: 716752**

**Units: mg/kg**

**Date Prepared: 03/10/2008**

**Sample: 505700-1-BKS**

**Batch #: 1**

**Project ID: BGT 016**

**Date Analyzed: 03/10/2008**

**Matrix: Solid**

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>BTEX by EPA 8021B</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	ND	0.1000	0.0887	89	0.1	0.0901	90	2	70-130	35	
Toluene	ND	0.1000	0.0884	88	0.1	0.0902	90	2	70-130	35	
Ethylbenzene	ND	0.1000	0.0897	90	0.1	0.0921	92	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.1805	90	0.2	0.1841	92	2	70-135	35	
o-Xylene	ND	0.1000	0.0956	96	0.1	0.0973	97	2	71-133	35	

**Analyst: BRB**

**Date Prepared: 03/05/2008**

**Date Analyzed: 03/07/2008**

**Lab Batch ID: 716637**

**Sample: 505640-1-BKS**

**Batch #: 1**

**Matrix: Solid**

**Units: mg/kg**

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

<b>TPH By SW8015 Mod</b>	<b>Blank Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Blank Spike Result [C]</b>	<b>Blank Spike %R [D]</b>	<b>Spike Added [E]</b>	<b>Blank Spike Duplicate Result [F]</b>	<b>Blk. Spk Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	907	91	1000	874	87	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	913	91	1000	871	87	5	70-135	35	

Relative Percent Difference RPD = 200\*(D-F)/(D+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: Drip Tank 55

Work Order #: 298902

Lab Batch #: 716323

Date Analyzed: 03/05/2008

Date Prepared: 03/05/2008

Project ID: BGT 016

Analyst: LATCOR

QC- Sample ID: 298877-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

## MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
	Chloride	903	200	1160	129	75-125

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



# Form 3 - MS / MSD Recoveries



Project Name: Drip Tank 55

Work Order #: 298902

Project ID: BGT 016

Lab Batch ID: 716637

QC- Sample ID: 298902-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/07/2008

Date Prepared: 03/05/2008

Analyst: BRB

Reporting Units: mg/kg

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1020	932	91	1020	890	87	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	16.8	1020	965	93	1020	926	89	4	70-135	35	

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

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

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



# Sample Duplicate Recovery



Project Name: Drip Tank 55

Work Order #: 298902

Lab Batch #: 716323

Date Analyzed: 03/05/2008

QC- Sample ID: 298877-001 D

Reporting Units: mg/kg

Date Prepared: 03/05/2008

Batch #: 1

Project ID: BGT 016

Analyst: LATCOR

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300/300.1	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	903	890	1	20	

Lab Batch #: 716512

Date Analyzed: 03/05/2008

QC- Sample ID: 298858-001 D

Reporting Units: %

Date Prepared: 03/05/2008

Batch #: 1

Analyst: RBA

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	3.50	3.29	6	20	

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

# Environmental Lab of Texas

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East  
Odessa, Texas 79765

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

Project Manager: Tony Savoie PAGE 01 OF 01

Project Name: DRIP TANK 55

Company Name: Southern Union Gas

Project #: BGT 016

Company Address: SUGS, Jal

Project Loc: Lea County, NM

City/State/Zip: Jal, New Mexico 88252

PO #:

Telephone No: (575) 631-9376 Fax No:

Report Format:  Standard  TRRP  NPDES

Sampler Signature: Troy Hahn e-mail: tony.savoie@sug.com

LAB # (lab use only)		Analyze For:																															
ORDER #: <u>298902</u>		<table border="1"> <tr> <td>TCLP</td> <td></td> </tr> <tr> <td>TOTAL</td> <td></td> </tr> </table>										TCLP											TOTAL										
TCLP																																	
TOTAL																																	
LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Use	Preservation & # of Containers	Matrix	TPH: 418.1	TPH: 8015M	TPH: 8015S	TPH: TX 1005	TPH: TX 1006	Callone (Ca, Mg, Na, K)	Anions (Cl, SDA, Alkalinity)	SHR / ESP / DEC	Metals: As, Ag, Ba, Cd, Cr, Pb, Hg, Se	Volatiles	Semivolatiles	BTEX: 8021B/9030 or BTEX: 8290	RCl	NOR M	CHLORIDES	RUSH TAT (Pre-schedule) 24, 48, 72 hrs	Standard TAT (3 DAY)						
<u>01</u>	<u>SAMPLE 3 FLOOR</u>			<u>04 Mar 08</u>	<u>1530</u>		<u>1</u>	<u>X</u>		<u>SOIL</u>	<u>X</u>											<u>X</u>				<u>X</u>							
<u>02</u>	<u>FLOOR COMPOSITE</u>			<u>04 Mar 08</u>	<u>1535</u>		<u>1</u>	<u>X</u>		<u>SOIL</u>	<u>X</u>											<u>X</u>				<u>X</u>							
<u>03</u>	<u>NORTH WALL COMPOSITE</u>			<u>04 Mar 08</u>	<u>1540</u>		<u>1</u>	<u>X</u>		<u>SOIL</u>	<u>X</u>											<u>X</u>				<u>X</u>							
<u>04</u>	<u>SOUTH WALL COMPOSITE</u>			<u>04 Mar 08</u>	<u>1545</u>		<u>1</u>	<u>X</u>		<u>SOIL</u>	<u>X</u>											<u>X</u>				<u>X</u>							
<u>05</u>	<u>WEST WALL COMPOSITE</u>			<u>04 Mar 08</u>	<u>1550</u>		<u>1</u>	<u>X</u>		<u>SOIL</u>	<u>X</u>											<u>X</u>				<u>X</u>							
<u>06</u>	<u>EAST WALL COMPOSITE</u>			<u>04 Mar 08</u>	<u>1555</u>		<u>1</u>	<u>X</u>		<u>SOIL</u>	<u>X</u>											<u>X</u>				<u>X</u>							

**Special Instructions:**

Relinquished by: <u>Troy Hahn</u>	Date: <u>05/08</u>	Time: <u>0830</u>	Received by: <u>Colly Blackwell</u>	Date: <u>3-5-08</u>	Time: <u>8:30</u>
Relinquished by: <u>Colly Blackwell</u>	Date: <u>3-5-08</u>	Time: <u>12:20</u>	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by: <u>Jeanne Fitch</u>	Date: <u>03/05/08</u>	Time: <u>1220</u>

**Laboratory Comments:**

Sample Containers Intact?  N

VOCs Free of Headspace?  N

Labels on container(s)  N

Custody seals on container(s)  N

Custody seals on cooler(s)  N

Sample Hand Delivered by Sampler/Client Rep.?  Y

by Courier?  UPS  DHL  FedEx  Lone Star

Temperature Upon Receipt: 2.0 °C

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

Client: SUGS  
 Date/ Time: 3-5-08 12:20  
 Lab ID #: 278702  
 Initials: CL

**Sample Receipt Checklist**

				Client Initials	
#1	Temperature of container/ cooler?	Yes	No	20	°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?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	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?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#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)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	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

April 30, 2013

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: DRIP TANK BATTERY #55

Enclosed are the results of analyses for samples received by the laboratory on 04/26/13 12:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	04/30/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT - 1 @ SURFACE (H300991-01)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2013	ND	2.18	109	2.00	0.709		
Toluene*	<0.050	0.050	04/29/2013	ND	1.96	98.2	2.00	0.399		
Ethylbenzene*	<0.050	0.050	04/29/2013	ND	2.14	107	2.00	0.0330		
Total Xylenes*	<0.150	0.150	04/29/2013	ND	6.18	103	6.00	1.28		
Total BTEX	<0.300	0.300	04/29/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	04/29/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/29/2013	ND	190	95.1	200	1.11		
DRO >C10-C28	35.8	10.0	04/29/2013	ND	192	95.9	200	0.524		
EXT DRO >C28-C35	45.5	10.0	04/29/2013	ND						

Surrogate: 1-Chlorooctane 82.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.0 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	04/30/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT - 1 @ 4' (H300991-02)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2013	ND	2.18	109	2.00	0.709		
Toluene*	<0.050	0.050	04/29/2013	ND	1.96	98.2	2.00	0.399		
Ethylbenzene*	<0.050	0.050	04/29/2013	ND	2.14	107	2.00	0.0330		
Total Xylenes*	<0.150	0.150	04/29/2013	ND	6.18	103	6.00	1.28		
Total BTEX	<0.300	0.300	04/29/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	04/29/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/29/2013	ND	190	95.1	200	1.11		
DRO >C10-C28	<10.0	10.0	04/29/2013	ND	192	95.9	200	0.524		
EXT DRO >C28-C35	<10.0	10.0	04/29/2013	ND						

Surrogate: 1-Chlorooctane 92.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 JOEL LOWRY  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/26/2013	Sampling Date:	04/25/2013
Reported:	04/30/2013	Sampling Type:	Soil
Project Name:	DRIP TANK BATTERY #55	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: TT - 1 @ 8' (H300991-03)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2013	ND	2.18	109	2.00	0.709		
Toluene*	<0.050	0.050	04/29/2013	ND	1.96	98.2	2.00	0.399		
Ethylbenzene*	<0.050	0.050	04/29/2013	ND	2.14	107	2.00	0.0330		
Total Xylenes*	<0.150	0.150	04/29/2013	ND	6.18	103	6.00	1.28		
Total BTEX	<0.300	0.300	04/29/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>208</b>	16.0	04/29/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/29/2013	ND	190	95.1	200	1.11		
<b>DRO &gt;C10-C28</b>	<b>71.7</b>	10.0	04/29/2013	ND	192	95.9	200	0.524		
<b>EXT DRO &gt;C28-C35</b>	<b>21.9</b>	10.0	04/29/2013	ND						

Surrogate: 1-Chlorooctane 89.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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Celestine D. Keene, Lab Director/Quality Manager

