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**MONITORING
REPORTS
YEAR(S):**

_____2009_____

Basin Environmental Consulting, LLC

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2800 Plains Highway
P. O. Box 381
Lovington, New Mexico 88260
cdstanley@basin-consulting.com
Office: (575) 396-2378 Fax: (575) 396-1429



March 2010

Mr. Brad Jones
New Mexico Energy, Minerals and Natural Resources Department
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Annual Report – 2009
Southern Union Gas Services
Southern Union Landfarm – Permit #NM-02-0019
SE ¼ of the NW ¼ of Section 36, Township 23 South, Range 36 East
Lea County, New Mexico

Dear Mr. Jones:

Basin Environmental Consulting, LLC (Basin), at the request of Southern Union Gas Services (Southern Union), assumed maintenance and reporting responsibilities of the Southern Union Landfarm in December 2009. Basin, on behalf of Southern Union, is submitting the *2009 Annual Report* for the Southern Union Landfarm. The Southern Union Landfarm is being operated and maintained in accordance with New Mexico Oil Conservation Division (NMOCD), Natural Resources and Wildlife, Oil and Gas Surface Waste Management Facilities (Title 19 Chapter 15 Part 36). The Landfarm is operated by Southern Union as a “centralized” facility for Southern Union use only. A site and sample location map of the Southern Union Landfarm is provided as Figure 1.

DISPOSAL VOLUME

Receipt of impacted soil began in January 2002. As of December 31, 2009, a total of approximately 64,981 cubic yards of impacted soil from within the Southern Union gas transportation system have been emplaced in Cell-1 through Cell-15. Approximately 6,106 cubic yards of impacted soil was transported to the Landfarm during the 2009 reporting period.

MAINTENANCE

Within 72-hours of being delivered to the landfarm, soil stockpiles were pushed down and contoured into a treatment lift. Mechanical disking of the soil contained in the treatment cells occurred every two weeks.

TREATMENT ZONE MONITORING

On April 20 and 21, 2009, Southern Union collected a composite soil sample (Cell #7 – Comp, Cell #11 – Comp, Cell #12 – Comp, Cell #13 – Comp, Cell #14 – Comp, and Cell #15 – Comp) from the treatment zone of Landfarm Cells 7, 11, 12, 13, 14 and 15. In addition, Southern Union collected north and south composite soil samples (Cell #2 North Comp and Cell #2 South Comp) from the treatment zone of Landfarm Cell #2. The soil samples were analyzed for concentrations of total petroleum hydrocarbons (TPH) using method SW8015M. The analytical results indicated TPH concentrations ranged from less than 10 mg/Kg for soil sample “Cell 12 – Comp” to 1,080 mg/Kg for soil sample “Cell #2 South Comp”. Please reference Table 1, 2009 Concentrations of Benzene, BTEX, TPH and Chloride in the Treatment Zone. Laboratory analytical reports are provided with this Annual Monitoring Report.

On December 15, 2009, Basin collected one (1) to five (5) four-point composite treatment zone soil samples from each of the treatment cells (Cells 1 through 15) being utilized. The soil samples were analyzed for concentrations of TPH and chloride. The analytical results indicated TPH concentrations ranged from 61.5 mg/Kg for soil sample TZ Cell 14 G1 to 4,398 mg/Kg for soil sample TZ Cell 3 G1. Chloride concentrations ranged from less than the laboratory MDL for soil samples TZ Cell 12 G1, TZ Cell 8 G2, TZ Cell 5 G1, TZ Cell 6 G1, TZ Cell 15 G1 and TZ Cell 14 G1 to 2,050 mg/Kg for soil sample TZ Cell 8 G1.

The locations of soil samples collected in treatment cells 1 through 15 during the December 2009 sampling events are depicted on Figures 2 through 16.

VADOSE ZONE MONITORING

A single soil sample (Landfarm Background) was collected on April 11, 2001, from the vadose zone in an undisturbed location within the Landfarm area to establish background concentrations of NMOCD constituents of concern (COCs) as listed below:

- Total petroleum hydrocarbons (TPH);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX);
- Anions and cations; and
- RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver).

Analytical results of the background sample indicated the TPH concentration was 134 mg/Kg. Anions, cations, and RCRA metals concentrations of background samples were typical of native undisturbed soil. Please reference Table 2, Historic Concentrations of Hydrocarbons, Chlorides, Sulfates and Alkalinity in the Vadose Zone and Table 3, Historic Concentrations of Metals in the Vadose Zone.

On April 20 and 21, 2009, Southern Union collected a grab soil sample (Cell #7 – Core @ 24”, Cell #11 – Core @ 24”, Cell #12 – Core @ 24”, Cell #13 – Core @ 24”, Cell #14 – Core @ 24”, Cell #2 Core @ 24”, Cell #15 Core @ 24”) at a depth of two (2) feet below ground surface (vadose zone) from treatment Cells 2, 7, 11, 12, 13, 14, and 15. The soil samples were collected and submitted to the laboratory to determine the extent (if any) of impact to the underlying soil at the landfarm. The grab soil samples were collected and analyzed for constituent concentrations of BTEX using method EPA 8021b, TPH using method SW8015M and chloride using EPA 300. Please reference Table 4, 2009 Concentrations of Benzene, BTEX, TPH and Chloride in the Vadose Zone.

The analytical results indicated benzene, BTEX, and TPH concentrations were below the laboratory MDL for all soil samples submitted. Chloride concentrations ranged from less than the laboratory MDL in soil samples Cell #7 – Core @ 24”, Cell #12 – Core @ 24”, Cell #14 – Core @ 24”, and Cell #2 Core @ 24” to 48 mg/Kg in soil sample Cell #11 – Core @ 24”.

On December 16, 2009, Basin collected one (1) to five (5) grab samples at a depth of three (3) to four (4) feet bgs (vadose zone) from treatment Cells (Cells 1 through 15) being utilized. The soil samples were analyzed for concentrations BTEX, TPH and chloride. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL in each collected soil sample. Chloride concentrations ranged from less than the laboratory MDL for soil samples VZ Cell 1 G1, VZ Cell 1 G2, VZ Cell 2 G2, VZ Cell 3 G2, VZ Cell 3 G5, VZ Cell 4 G1, VZ Cell 4 G4, VZ Cell 4 G5, VZ Cell 7 G1, VZ Cell 5 G1, VZ Cell 6 G1, VZ Cell 6 G2, VZ Cell 10 G4, and VZ Cell 11 G1 to 173 mg/Kg for soil sample VZ Cell 10 G3.

The locations of soil samples collected in the vadose zone from treatment cells 1 through 15 during the December 15, 2009 sampling event are depicted on Figure 1.

CONCLUSIONS

The laboratory analytical results of vadose zone soil sampling indicate soil beneath the Southern Union Landfarm has not been significantly affected above background levels established prior to the construction of the landfarm treatment cells. The laboratory analytical results indicate hydrocarbon impacted soil placed in the treatment cells is naturally attenuating within the lifts. The laboratory analytical results collected from the treatment cells on December 15, 2009, indicated soil samples TZ Cell 14 G1, TZ Cell 2 G1 through G5, TZ Cell 7 G1, TZ Cell 5 G1, TZ Cell 6 G1 and G2, TZ Cell 9 G1 through G5, TZ Cell 10 G1 through G4, TZ Cell 15 G1, TZ Cell 1 G5 and TZ Cell 12 G1 contained TPH concentrations less than the NMOCD remedial goals (500 mg/Kg TPH).

RECOMMENDATIONS

Based on analytical results of the soil samples collected from the treatment Cells #1, #14, #2, #7, #5, #6, #9, #10, #15 and #12, Southern Union requests NMOCD approval to transport the remediated soil from the respective landfarm cells to a soil staging area located within the landfarm facility. The remediated soil will be used as backfill material at Southern Union remediation sites in the future. Bi-monthly tilling of the treatment zones will continue during the 2010 reporting period. Soil samples of the vadose and treatment zones will be collected and submitted to the laboratory for determination of constituent concentrations on a bi-annual schedule. Vadose zone soil samples will be analyzed using method 8021b (BTEX), method 8015M (TPH) and method EPA 300 (chloride). Treatment zone soil samples will be analyzed using method 8015M (TPH) and method EPA 300 (chloride). An Annual Report will be submitted in 2011 documenting the results of the 2010 treatment cell and vadose zone sampling events.

LIMITATIONS

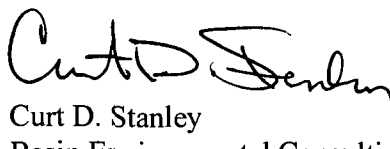
Basin Environmental Consulting, LLC has prepared this Southern Union Landfarm Annual Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

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

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

Should you have any questions or concerns, please contact Rose Slade at 432-940-5147 or me at (575) 441-2244.

Respectfully submitted,



Curt D. Stanley
Basin Environmental Consulting, LLC

Cc:

Ed Hansen, NMOCD-Santa Fe, New Mexico (edwardj.hansen@state.nm.us)

Rose Slade, Southern Union Gas Services, Monahans, Texas (rose.slade@sug.com)

Curt Stanley, Basin Environmental Consulting, Lovington, NM (cdstanley@basin-consulting.com)

Enclosures:

Figures

Figure 1: Site and Sample Location Map

Tables

Table 1: 2009 Concentrations of Benzene, BTEX, TPH and Chlorides in the Treatment Zone.

Table 2: Historic Concentrations of Hydrocarbons, Chlorides, Sulfates and Alkalinity in the Vadose Zone.

Table 3: Historic Concentrations of Metals in the Vadose Zone

Table 4: 2009 Concentrations of Benzene, BTEX, TPH and Chloride in the Vadose Zone

Laboratory Analytical Reports

Photographs

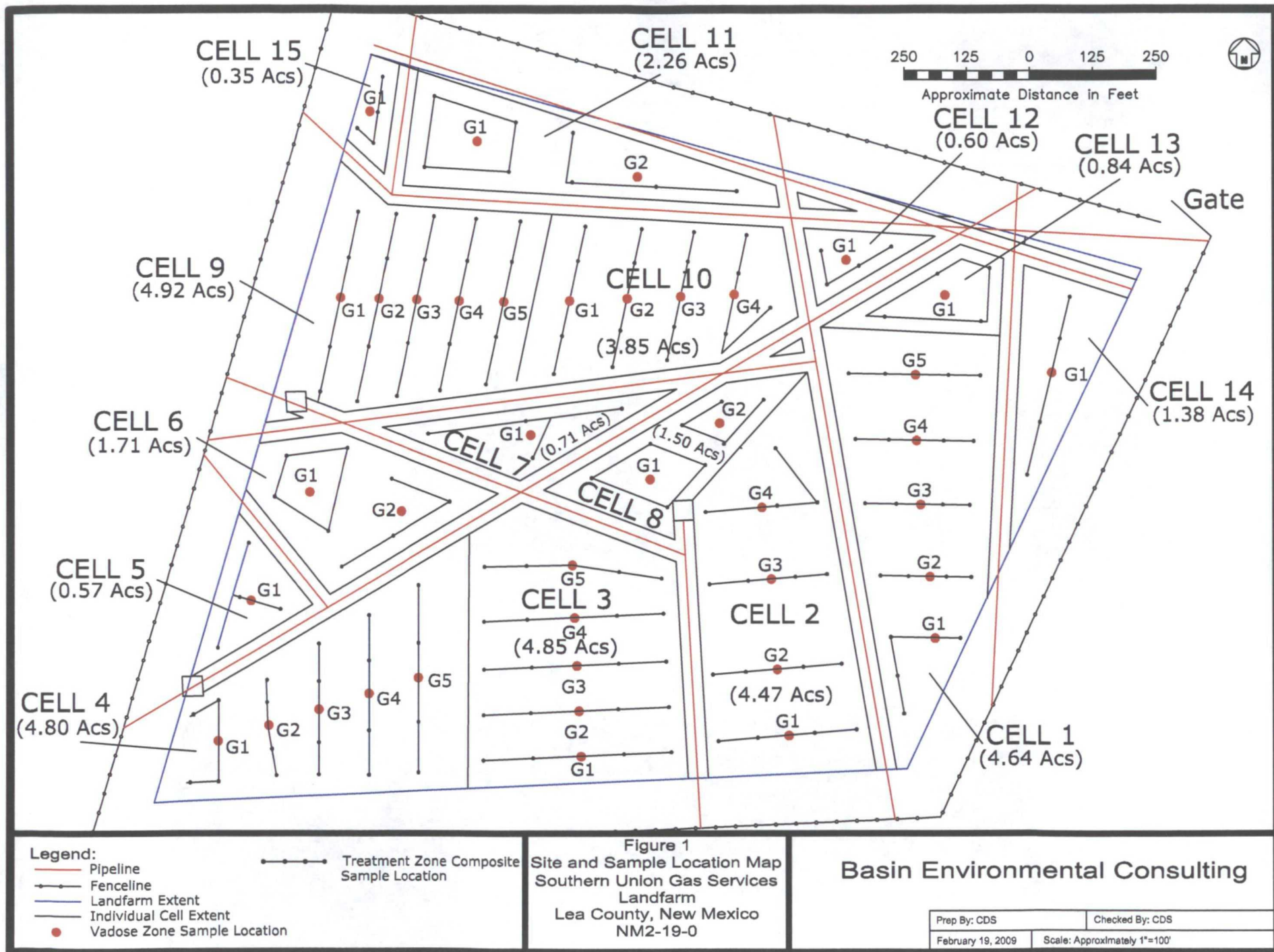


TABLE 1

2009 CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN THE TREATMENT ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOC Permit #NM-02-19

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M					TOTAL TPH C ₆ -C ₂₈ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	GRO C ₆ -C ₁₀ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	DRO C ₁₀ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
Cell #7 - Comp	-	4/20/2009	-	-	-	-	-	-	-	<10.0	-	55.1	-	55.1	-
Cell #11 - Comp	-	4/20/2009	-	-	-	-	-	-	-	<10.0	-	114	-	114	-
Cell #12 - Comp	-	4/20/2009	-	-	-	-	-	-	-	<10.0	-	<10.0	-	<10.0	-
Cell #13 - Comp	-	4/20/2009	-	-	-	-	-	-	-	<10.0	-	754	-	754	-
Cell #14 - Comp	-	4/20/2009	-	-	-	-	-	-	-	<10.0	-	161	-	161	-
Cell #2 North Comp	-	4/21/2009	-	-	-	-	-	-	-	<10.0	-	696	-	696	-
Cell #2 South Comp	-	4/21/2009	-	-	-	-	-	-	-	<10.0	-	1,080	-	1,080	-
Cell #15 Comp	-	4/21/2009	-	-	-	-	-	-	-	<10.0	-	179	-	179	-
TZ Cell 14 C1	-	12/15/2009	-	-	-	-	-	-	<17.6	-	61.5	-	<17.6	-	61.5
TZ Cell 1 G1	-	12/15/2009	-	-	-	-	-	-	<16.2	-	670	-	81	-	751
TZ Cell 1 G2	-	12/15/2009	-	-	-	-	-	-	<15.8	-	582	-	74	-	656
TZ Cell 1 G3	-	12/15/2009	-	-	-	-	-	-	<16.4	-	1,060	-	134	-	1,194
TZ Cell 1 G4	-	12/15/2009	-	-	-	-	-	-	53.7	-	1,230	-	113	-	1,396.7
TZ Cell 1 G5	-	12/15/2009	-	-	-	-	-	-	<18.3	-	189	-	21.5	-	210.5
TZ Cell 2 G1	-	12/15/2009	-	-	-	-	-	-	<18.8	-	65.2	-	<18.8	-	65.2
TZ Cell 2 G2	-	12/15/2009	-	-	-	-	-	-	<16.0	-	307	-	50.4	-	357.4
TZ Cell 2 G3	-	12/15/2009	-	-	-	-	-	-	<18.9	-	140	-	19.6	-	159.6
TZ Cell 2 G4	-	12/15/2009	-	-	-	-	-	-	<19.1	-	136	-	21.8	-	157.8
TZ Cell 3 G1	-	12/15/2009	-	-	-	-	-	-	<307	-	3,860	-	538	-	4,398
TZ Cell 3 G2	-	12/15/2009	-	-	-	-	-	-	<16.8	-	630	-	67.5	-	697.5
TZ Cell 3 G3	-	12/15/2009	-	-	-	-	-	-	<80.9	-	2,930	-	365	-	3,295
TZ Cell 3 G4	-	12/15/2009	-	-	-	-	-	-	<81.9	-	2,120	-	247	-	2,367
TZ Cell 3 G5	-	12/15/2009	-	-	-	-	-	-	<16.8	-	489	-	47.4	-	536.4
TZ Cell 4 G1	-	12/15/2009	-	-	-	-	-	-	<18.1	-	428	-	32.2	-	460.2
TZ Cell 4 G2	-	12/15/2009	-	-	-	-	-	-	<80.1	-	3,320	-	339	-	3,659
TZ Cell 4 G3	-	12/15/2009	-	-	-	-	-	-	<19.6	-	436	-	31.4	-	467.4
TZ Cell 4 G4	-	12/15/2009	-	-	-	-	-	-	<18.3	-	302	-	22.4	-	324.4
TZ Cell 4 G5	-	12/15/2009	-	-	-	-	-	-	<16.3	-	985	-	87.8	-	1,072.8
TZ Cell 8 G1	-	12/15/2009	-	-	-	-	-	-	<218	-	3,910	-	405	-	4,315

TABLE 1

2009 CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN THE TREATMENT ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOC Permit #NM-02-19

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M					TOTAL TPH C ₆ -C ₂₈ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	GRO C ₆ -C ₁₀ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	DRO C ₁₀ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)			
TZ Cell 8 G2	-	12/15/2009	-	-	-	-	-	-	<18.6	-	95	-	<18.6	-	95	<10.4
TZ Cell 7 G1	-	12/15/2009	-	-	-	-	-	-	<18.5	-	267	-	30.9	-	297.9	17.1
TZ Cell 5 G1	-	12/15/2009	-	-	-	-	-	-	<15.3	-	82.2	-	51.9	-	134.1	<4.28
TZ Cell 6 G1	-	12/15/2009	-	-	-	-	-	-	<18.4	-	98.7	-	18.7	-	117.4	<20.6
TZ Cell 6 G2	-	12/15/2009	-	-	-	-	-	-	<18.5	-	177	-	30	-	207	36.5
TZ Cell 9 G1	-	12/15/2009	-	-	-	-	-	-	<17.7	-	71.9	-	18	-	89.9	156
TZ Cell 9 G2	-	12/15/2009	-	-	-	-	-	-	<16.2	-	194	-	71.7	-	265.7	152
TZ Cell 9 G3	-	12/15/2009	-	-	-	-	-	-	<17.0	-	86.9	-	28.8	-	115.7	58.6
TZ Cell 9 G4	-	12/15/2009	-	-	-	-	-	-	<16.3	-	210	-	58.2	-	268.2	43.5
TZ Cell 9 G5	-	12/15/2009	-	-	-	-	-	-	<15.4	-	164	-	63.5	-	227.5	81.6
TZ Cell 10 G1	-	12/15/2009	-	-	-	-	-	-	<17.8	-	276	-	50.9	-	326.9	9.63
TZ Cell 10 G2	-	12/15/2009	-	-	-	-	-	-	<16.2	-	217	-	52.4	-	269.4	11.9
TZ Cell 10 G3	-	12/15/2009	-	-	-	-	-	-	<17.0	-	96.8	-	24.1	-	120.9	9.06
TZ Cell 10 G4	-	12/15/2009	-	-	-	-	-	-	<18.9	-	129	-	19.2	-	148.2	10
TZ Cell 15 G1	-	12/15/2009	-	-	-	-	-	-	<16.7	-	226	-	95	-	321	<46.9
TZ Cell 11 G1	-	12/15/2009	-	-	-	-	-	-	26.7	-	589	-	27.9	-	643.6	128
TZ Cell 11 G2	-	12/15/2009	-	-	-	-	-	-	27	-	488	-	49.7	-	564.7	161
TZ Cell 12 G1	-	12/15/2009	-	-	-	-	-	-	<16.2	-	302	-	38.1	-	340.1	<22.6
TZ Cell 13 G1	-	12/15/2009	-	-	-	-	-	-	20	-	597	-	64.6	-	681.6	291

TABLE 2

HISTORIC CONCENTRATIONS OF HYDROCARBONS, CHLORIDES, SULFATES AND ALKALINITY IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)
Landfarm Background	2' bgs	4/11/2001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	-	-	134.0

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	SODIUM (mg/kg)	CALCIUM (mg/Kg)	MAGNESIUM (mg/Kg)	POTASSIUM (mg/Kg)	CHLORIDE (mg/Kg)	SULFATE (mg/Kg)	CARBONATE (mg/Kg)	BICARBONATE (mg/Kg)
Landfarm Background	2' bgs	4/11/2001	14.4	73.54	8.54	11.24	<10	35.2	<1.0	140

TABLE 3

HISTORIC CONCENTRATIONS OF METALS IN THE VADOSE ZONE

**SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO**

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	SILVER (mg/Kg)	ARSENIC (mg/Kg)	BARIUM (mg/Kg)	CADMIUM (mg/Kg)	CHROMIUM (mg/Kg)	MERCURY (mg/Kg)	LEAD (mg/Kg)	SELENIUM (mg/Kg)
Landfarm Background	2' bgs	4/11/2001	ND	0.923	47.92	0.3605	4.21	ND	ND	1.959

TABLE 4

2009 CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOCD Permit #NM-02-19

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M					TOTAL TPH C ₆ -C ₂₈ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M.P. XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	GRO C ₆ -C ₁₀ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	DRO C ₁₀ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
Cell #7 - Core @ 24"	2' bgs	4/20/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	<16
Cell #11 - Core @ 24"	2' bgs	4/20/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	48
Cell #12 - Core @ 24"	2' bgs	4/20/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	<16
Cell #13 - Core @ 24"	2' bgs	4/20/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	32
Cell #14 - Core @ 24"	2' bgs	4/20/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	<16
Cell #2 Core @ 24"	2' bgs	4/21/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	<16
Cell #15 Core @ 24"	2' bgs	4/21/2009	<0.050	<0.050	<0.050	<0.0300	<0.050	<0.050	-	<10.0	-	<10.0	-	<10.0	16
VZ Cell 14 C1	3'-4' bgs	12/16/2009	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	-	<17.0	-	<17.0	<17.0	25.1
VZ Cell 1 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.0	-	<17.0	-	<17.0	<17.0	<4.79
VZ Cell 1 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	-	<16.2	-	<16.2	<16.2	<4.55
VZ Cell 1 G3	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	-	<16.6	-	<16.6	<16.6	46.9
VZ Cell 1 G4	3'-4' bgs	12/16/2009	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	-	<16.1	-	<16.1	<16.1	15.7
VZ Cell 1 G5	3'-4' bgs	12/16/2009	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.8	-	<15.8	-	<15.8	<15.8	4.57
VZ Cell 2 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	-	<16.2	-	<16.2	<16.2	14.4
VZ Cell 2 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	-	<16.1	-	<16.1	<16.1	<4.53
VZ Cell 2 G3	3'-4' bgs	12/16/2009	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	-	<17.1	-	<17.1	<17.1	31.2
VZ Cell 2 G4	3'-4' bgs	12/16/2009	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.1	-	<16.1	-	<16.1	<16.1	10.6
VZ Cell 3 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	-	<16.7	-	<16.7	<16.7	7.03
VZ Cell 3 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<16.9	-	<16.9	-	<16.9	<16.9	<16.9
VZ Cell 3 G3	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	-	<16.6	-	<16.6	<16.6	11.5
VZ Cell 3 G4	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	-	<16.6	-	<16.6	<16.6	5.35
VZ Cell 3 G5	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.9	-	<16.9	-	<16.9	<16.9	<4.73
VZ Cell 4 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.9	-	<16.9	-	<16.9	<16.9	<4.74
VZ Cell 4 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	-	<16.2	-	<16.2	<16.2	8.56
VZ Cell 4 G3	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	-	<16.4	-	<16.4	<16.4	12.9
VZ Cell 4 G4	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	-	<16.6	-	<16.6	<16.6	<4.64
VZ Cell 4 G5	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	-	<16.6	-	<16.6	<16.6	<4.64
VZ Cell 8 G1	3'-4' bgs	12/16/2009	<0.0012	<0.0024	<0.0012	<0.0024	<0.0012	<0.0024	<17.7	-	<17.7	-	<17.7	<17.7	63

TABLE 4

2009 CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN THE VADOSE ZONE

SOUTHERN UNION GAS SERVICES
SOUTHERN UNION LAND FARM
LEA COUNTY, NEW MEXICO
NMOCD Permit #NM-02-19

SAMPLE LOCATION	SAMPLE DEPTH (bgs)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M					TOTAL TPH C ₆ -C ₂₈ (mg/Kg)	TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	EPA 300 Chloride (mg/kg)
			BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENES (mg/Kg)	BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	GRO C ₆ -C ₁₀ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	DRO C ₁₀ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)			
VZ Cell 8 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.5	-	<16.5	-	<16.5	-	<16.5	33.4
VZ Cell 7 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.2	-	<16.2	-	<16.2	-	<16.2	<4.55
VZ Cell 5 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.6	-	<16.6	-	<16.6	-	<16.6	<4.65
VZ Cell 6 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	-	<16.7	-	<16.7	-	<16.7	<4.68
VZ Cell 6 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	-	<16.7	-	<16.7	-	<16.7	<4.68
VZ Cell 9 G1	3'-4' bgs	12/16/2009	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.8	-	<17.8	-	<17.8	-	<17.8	9.3
VZ Cell 9 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	-	<16.4	-	<16.4	-	<16.4	5.13
VZ Cell 9 G3	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	-	<16.1	-	<16.1	-	<16.1	10.7
VZ Cell 9 G4	3'-4' bgs	12/16/2009	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.4	-	<17.4	-	<17.4	-	<17.4	19.9
VZ Cell 9 G5	3'-4' bgs	12/16/2009	<0.0011	<0.0023	<0.0011	<0.0023	<0.0011	<0.0023	<17.1	-	<17.1	-	<17.1	-	<17.1	27.5
VZ Cell 10 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<16.0	-	<16.0	-	<16.0	-	<16.0	43.9
VZ Cell 10 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	-	<16.2	-	<16.2	-	<16.2	9.7
VZ Cell 10 G3	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.1	-	<16.1	-	<16.1	-	<16.1	173
VZ Cell 10 G4	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	-	<16.2	-	<16.2	-	<16.2	<4.55
VZ Cell 15 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.2	-	<16.2	-	<16.2	-	<16.2	17
VZ Cell 11 G1	3'-4' bgs	12/16/2009	<0.0012	<0.0023	<0.0012	<0.0023	<0.0012	<0.0023	<17.2	-	<17.2	-	<17.2	-	<17.2	<4.83
VZ Cell 11 G2	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.7	-	<16.7	-	<16.7	-	<16.7	9.78
VZ Cell 12 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<16.4	-	<16.4	-	<16.4	-	<16.4	14.8
VZ Cell 13 G1	3'-4' bgs	12/16/2009	<0.0011	<0.0021	<0.0011	<0.0021	<0.0011	<0.0021	<15.7	-	<15.7	-	<15.7	-	<15.7	81.4
Background	-	4/11/2001	<0.025	<0.025	<0.025	<0.04	<0.025	-	-	-	-	-	-	134	134	<10



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ANALYTICAL RESULTS FOR
SOUTHERN UNION GAS SERVICES
ATTN: TONY SAVOIE
P.O. BOX 1226
JAL, NM 88252

Receiving Date: 04/20/09
Reporting Date: 04/23/09
Project Number: NOT GIVEN
Project Name: CELLS 7, 11, 12, 13, & 14
Project Location: LAND FARM

Sampling Date: 04/20/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: CK

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)
		04/22/09	04/22/09
H17276-1	CELL # 7 - COMP.	<10.0	55.1
H17276-2	CELL # 7 - CORE @ 24"	<10.0	<10.0
H17276-3	CELL # 11 - COMP.	<10.0	114
H17276-4	CELL # 11 - CORE @ 24"	<10.0	<10.0
H17276-5	CELL # 12 - COMP.	<10.0	<10.0
H17276-6	CELL # 12 - CORE @ 24"	<10.0	<10.0
H17276-7	CELL # 13 - COMP.	<10.0	754
H17276-8	CELL # 13 - CORE @ 24"	<10.0	<10.0
H17276-9	CELL # 14 - COMP.	<10.0	161
H17276-10	CELL # 14 - CORE @ 24"	<10.0	<10.0
Quality Control		553	517
True Value QC		500	500
% Recovery		111	103
Relative Percent Difference		8.1	12.7

METHODS: TPH GRO & DRO: EPA SW-846 8015 M

Chemist

04/23/09
Date

H17276 T SUGS

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SOUTHERN UNION GAS SERVICES
ATTN: TONY SAVOIE
P.O. BOX 1226
JAL, NM 88252

Receiving Date: 04/20/09
Reporting Date: 04/21/09
Project Number: NOT GIVEN
Project Name: CELLS 7, 11, 12, 13, & 14
Project Location: LAND FARM

Analysis Date: 04/21/09
Sampling Date: 04/20/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: TR

LAB NO.	SAMPLE ID	Cl ⁻ (mg/kg)
H17276-2	CELL #7-CORE @ 24"	<16
H17276-4	CELL #11-CORE @ 24"	48
H17276-6	CELL #12-CORE @ 24"	<16
H17276-8	CELL #13-CORE @ 24"	32
H17276-10	CELL #14-CORE @ 24"	<16
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		<0.1

METHOD: Standard Methods	4500-CIB
--------------------------	----------

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chad Keene
Chemist

Date 04/21/09

H17276 SUGS

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ANALYTICAL RESULTS FOR
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ATTN: TONY SAVOIE
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JAL, NM 88252

Receiving Date: 04/20/09
Reporting Date: 04/24/09
Project Number: NOT GIVEN
Project Name: CELLS 7, 11, 12, 13, & 14
Project Location: LAND FARM

Sampling Date: 04/20/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: ZL

LAB NUMBI SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE	04/23/09	04/23/09	04/23/09	04/23/09
H17276-2 CELL # 7 - CORE @ 24"	<0.050	<0.050	<0.050	<0.300
H17276-4 CELL # 11 - CORE @ 24"	<0.050	<0.050	<0.050	<0.300
H17276-6 CELL # 12 - CORE @ 24"	<0.050	<0.050	<0.050	<0.300
H17276-8 CELL # 13 - CORE @ 24"	<0.050	<0.050	<0.050	<0.300
H17276-10 CELL # 14 - CORE @ 24"	<0.050	<0.050	<0.050	<0.300
Quality Control	0.053	0.051	0.055	0.171
True Value QC	0.050	0.050	0.050	0.150
% Recovery	106	102	110	114
Relative Percent Difference	3.6	4.0	2.6	4.3

METHOD: EPA SW-846 8021B

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,
AND TOTAL XYLENES.


Chemist


Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PAGE 1 OF 1

Company Name: SUGS				BILL TO				ANALYSIS REQUEST																								
Project Manager: Tony Savdie				P.O. #:																												
Address: 610 Commerce PO Box 1226				Company:																												
City: JAL State: NM Zip: 88252				Attn:																												
Phone #: 575-395-2116 Fax #:				Address:																												
Project #: Project Owner:				City:																												
Project Name: CELLS 7, 11, 12, 13, & 14				State: Zip:																												
Project Location: LAND FARM				Phone #:																												
Sampler Name: Don Green				Fax #:																												
FOR LAB USE ONLY				MATRIX						PRESERV.		SAMPLING																				
Lab I.D.	Sample I.D.	(G/RAB OR C) COMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE	ICE / COOL	OTHER :	DATE	TIME																		
H17276-																																
	1 CELL#7 - comp.	C1				✓				✓			4-28-09	8:30	✓																	
	2 CELL#7 - CORE@24"	G1				✓				✓			"	8:30	✓	✓	✓															
	3 CELL#11 - comp.	C1				✓				✓			"	8:45	✓																	
	4 CELL#11 - CORE@24"	G1				✓				✓			"	"	✓	✓	✓															
	5 CELL#12 - comp.	C1				✓				✓			"	9:00	✓																	
	6 CELL#12 - CORE@24"	G1				✓				✓			"	"	✓	✓	✓															
	7 CELL#13 - comp.	C1				✓				✓			"	9:15	✓																	
	8 CELL#13 - CORE@24"	G1				✓				✓			"	"	✓	✓	✓															
	9 CELL#14 - comp.	C1				✓				✓			"	9:45	✓																	
	10 CELL#14 - CORE@24"	G1				✓				✓			"	"	✓	✓	✓															
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Relinquished By:		Date:	Received By:		Phone Result:		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #:																							
<i>Don Green</i>		4-20-09			Fax Result:		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Fax #:																							
		Time:			REMARKS:																											
		12:10																														
Relinquished By:		Date:	Received By:																													
		Time:																														
Delivered By: (Circle One)		Sample Condition		CHECKED BY:																												
Sampler - UPS - Bus - Other:		Cool Intact		(Initials)																												
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<i>CGE</i>																												

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



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ANALYTICAL RESULTS FOR
SOUTHERN UNION GAS SERVICES
ATTN: TONY SAVOIE
P.O. BOX 1226
JAL, NM 88252

Receiving Date: 04/21/09
Reporting Date: 04/23/09
Project Number: NOT GIVEN
Project Name: LANDFARM-CELLS #2 & #15
Project Location: LANDFARM

Sampling Date: 04/21/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: CK

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)
		04/23/09	04/23/09
H17287-1	CELL #2 CORE @ 24"	<10.0	<10.0
H17287-2	CELL #2 NORTH-COMP.	<10.0	696
H17287-3	CELL #2 SOUTH-COMP.	<10.0	1,080
H17287-4	CELL #15, CORE @ 24"	<10.0	<10.0
H17287-5	CELL #15, -COMP.	<10.0	179
Quality Control		553	517
True Value QC		500	500
% Recovery		111	103
Relative Percent Difference		8.1	12.7

METHODS: TPH GRO & DRO: EPA SW-846 8015 M


Chemist


Date

H17287 T SUGS

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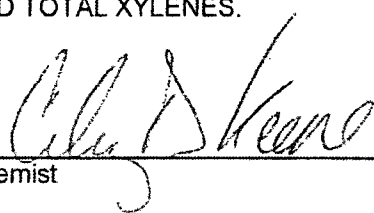
Receiving Date: 04/21/09
Reporting Date: 04/24/09
Project Number: NOT GIVEN
Project Name: LANDFARM-CELLS #2 & #15
Project Location: LAND FARM

Sampling Date: 04/21/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: ZL

LAB NUMBI SAMPLE ID	BENZENE		ETHYL	TOTAL
	(mg/kg)	TOLUENE (mg/kg)	BENZENE (mg/kg)	XYLENES (mg/kg)
ANALYSIS DATE	04/23/09	04/23/09	04/23/09	04/23/09
H17287-1 CELL # 2 CORE @ 24"	<0.050	<0.050	<0.050	<0.300
H17287-4 CELL # 15, CORE @ 24"	<0.050	<0.050	<0.050	<0.300
Quality Control	0.053	0.051	0.055	0.171
True Value QC	0.050	0.050	0.050	0.150
% Recovery	106	102	110	114
Relative Percent Difference	3.6	4.0	2.6	4.3

METHOD: EPA SW-846 8021B

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES.


Chemist


Date

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ANALYTICAL RESULTS FOR
SOUTHERN UNION GAS SERVICES
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JAL, NM 88252

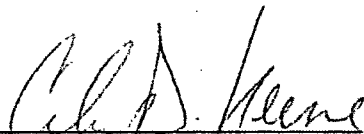
Receiving Date: 04/21/09
Reporting Date: 04/23/09
Project Number: NOT GIVEN
Project Name: LANDFARM-CELLS #2 & #15
Project Location: LANDFARM

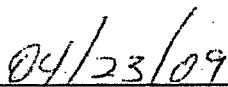
Sampling Date: 04/21/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: TR

LAB NUMBER	SAMPLE ID	Cl* (mg/kg)
ANALYSIS DATE		04/22/09
H17287-1	CELL #2 CORE @ 24"	<16
H17287-4	CELL #15, CORE @ 24"	16
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		<0.1

METHODS: Cl⁻; Std. Methods 4500-Cl⁻B

*Analyses performed on 1:4 w:v aqueous extracts.


Chemist


Date

H17287 CL SUGS

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PAGE 1 OF 1

Company Name: SUGS				BILL TO												ANALYSIS REQUEST													
Project Manager: TONY SAUOIE				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH 8015 M</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CL</div> </div>																					
Address: 610 COMMERCE P.O. Box 1226				Company:																									
City: JAL State: NM Zip: 88252				Attn:																									
Phone #: 575-395-2116 Fax #:				Address:																									
Project #:				Project Owner:																									
Project Name: LAND FARM - CELLS # 2 & 15				State: Zip:																									
Project Location: LAND FARM				Phone #:																									
Sampler Name: Don Green				Fax #:																									
FOR LAB USE ONLY																													
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.			SAMPLING																
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME															
H17287-1	CELL #2 CORE @ 24"	G	1			✓				✓			4-21-09	9:00	✓	✓	✓												
-2	CELL #2 NORTH - comp.	C	1			✓				✓			"	9:10	✓														
-3	CELL #2 SOUTH - comp.	C	1			✓				✓			"	9:10	✓														
-4	CELL #15 CORE @ 24"	G	1			✓				✓			"	9:45	✓	✓	✓												
-5	CELL #15 comp.	C	1			✓				✓			"	9:55	✓														

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Relinquished By:	Date: 4-21-09	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Don Green	Time: 14:18	CBJ	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool Intact	(Initials)		
	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes	CBJ		
	<input type="checkbox"/> No <input type="checkbox"/> No			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Analytical Report 356111

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Landfarm

Southern Union Gas

23-DEC-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), 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 (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida (E86240),

South Carolina (96031001), Louisiana (04154), Georgia (917)



23-DEC-09

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

Reference: XENCO Report No: **356111**
Southern Union Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 356111. 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. 356111 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 356111



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TZ Cell 14 G1	S	Dec-15-09 09:00		356111-001
TZ Cell 1 G1	S	Dec-15-09 09:10		356111-002
TZ Cell 1 G2	S	Dec-15-09 09:20		356111-003
TZ Cell 1 G3	S	Dec-15-09 09:30		356111-004
TZ Cell 1 G4	S	Dec-15-09 09:40		356111-005
TZ Cell 1 G5	S	Dec-15-09 09:50		356111-006
TZ Cell 2 G1	S	Dec-15-09 10:00		356111-007
TZ Cell 2 G2	S	Dec-15-09 10:10		356111-008
TZ Cell 2 G3	S	Dec-15-09 10:20		356111-009
TZ Cell 2 G4	S	Dec-15-09 10:30		356111-010
TZ Cell 3 G1	S	Dec-15-09 10:40		356111-011
TZ Cell 3 G2	S	Dec-15-09 10:50		356111-012
TZ Cell 3 G3	S	Dec-15-09 11:00		356111-013
TZ Cell 3 G4	S	Dec-15-09 11:10		356111-014
TZ Cell 3 G5	S	Dec-15-09 11:20		356111-015
TZ Cell 4 G1	S	Dec-15-09 11:30		356111-016
TZ Cell 4 G2	S	Dec-15-09 11:40		356111-017
TZ Cell 4 G3	S	Dec-15-09 11:50		356111-018
TZ Cell 4 G4	S	Dec-15-09 12:00		356111-019
TZ Cell 4 G5	S	Dec-15-09 12:10		356111-020
TZ Cell 8 G1	S	Dec-15-09 12:20		356111-021
TZ Cell 8 G2	S	Dec-15-09 12:30		356111-022
TZ Cell 7 G1	S	Dec-15-09 12:40		356111-023
TZ Cell 5 G1	S	Dec-15-09 12:50		356111-024
TZ Cell 6 G1	S	Dec-15-09 13:00		356111-025
TZ Cell 6 G2	S	Dec-15-09 13:10		356111-026
TZ Cell 9 G1	S	Dec-15-09 13:20		356111-027
TZ Cell 9 G2	S	Dec-15-09 13:30		356111-028
TZ Cell 9 G3	S	Dec-15-09 13:40		356111-029
TZ Cell 9 G4	S	Dec-15-09 13:50		356111-030
TZ Cell 9 G5	S	Dec-15-09 14:00		356111-031
TZ Cell 10 G1	S	Dec-15-09 14:10		356111-032
TZ Cell 10 G2	S	Dec-15-09 14:20		356111-033
TZ Cell 10 G3	S	Dec-15-09 14:30		356111-034
TZ Cell 10 G4	S	Dec-15-09 14:40		356111-035
TZ Cell 15 G1	S	Dec-15-09 14:50		356111-036
TZ Cell 11 G1	S	Dec-15-09 15:00		356111-037
TZ Cell 11 G2	S	Dec-15-09 15:10		356111-038
TZ Cell 12 G1	S	Dec-15-09 15:20		356111-039
TZ Cell 13 G1	S	Dec-15-09 15:30		356111-040



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Landfarm

Project ID: Southern Union Gas

Work Order Number: 356111

Report Date: 23-DEC-09

Date Received: 12/17/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-786471 Percent Moisture

None

Batch: LBA-786476 Percent Moisture

None

Batch: LBA-786509 Inorganic Anions by EPA 300

None

Batch: LBA-786511 Anions by E300

None

Batch: LBA-786560 Anions by E300

None

Batch: LBA-786685 TPH By SW8015 Mod

SW8015MOD_NM

Batch 786685, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 356111-009, -010, -016, -020, -002, -017, -019, -012, -015, -003, -006, -014, -001, -005, -008, -007, -011, -018, -004, -013.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Landfarm

Project ID: Southern Union Gas

Work Order Number: 356111

Report Date: 23-DEC-09

Date Received: 12/17/2009

*Batch: LBA-787011 TPH By SW8015 Mod
SW8015MOD_NM*

Batch 787011, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 356111-036, -040, -033, -021, -024, -030, -034, -023, -028, -032, -035, -038, -029, -037, -039, -022, -027, -031, -025, -026.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

SW8015MOD_NM

Batch 787011, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 356111-032, 356111-026.



Certificate of Analysis Summary 356111

Southern Union Gas Services- Monahans, Monahans, TX

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 23-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356111-001	356111-002	356111-003	356111-004	356111-005	356111-006
	<i>Field Id:</i>	TZ Cell 14 G1	TZ Cell 1 G1	TZ Cell 1 G2	TZ Cell 1 G3	TZ Cell 1 G4	TZ Cell 1 G5
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-15-09 09:00	Dec-15-09 09:10	Dec-15-09 09:20	Dec-15-09 09:30	Dec-15-09 09:40	Dec-15-09 09:50
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		ND 4.92	61.5 9.10	98.0 8.88	231 9.21	300 9.75	44.8 5.12
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		14.6 1.00	7.67 1.00	5.36 1.00	8.76 1.00	13.9 1.00	18.0 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45
	<i>Analyzed:</i>	Dec-21-09 12:54	Dec-21-09 13:21	Dec-21-09 13:48	Dec-21-09 14:15	Dec-21-09 14:41	Dec-21-09 15:08
	<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 17.6	ND 16.2	ND 15.8	ND 16.4	53.7 17.4	ND 18.3
C12-C28 Diesel Range Hydrocarbons		61.5 17.6	670 16.2	582 15.8	1060 16.4	1230 17.4	189 18.3
C28-C35 Oil Range Hydrocarbons		ND 17.6	81.0 16.2	74.0 15.8	134 16.4	113 17.4	21.5 18.3
Total TPH		61.5 17.6	751 16.2	656 15.8	1194 16.4	1397 17.4	211 18.3

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356111

Southern Union Gas Services- Monahans, Monahans, TX

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 23-DEC-09

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	356111-007	356111-008	356111-009	356111-010	356111-011	356111-012
	Field Id:	TZ Cell 2 G1	TZ Cell 2 G2	TZ Cell 2 G3	TZ Cell 2 G4	TZ Cell 3 G1	TZ Cell 3 G2
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Dec-15-09 10:00	Dec-15-09 10:10	Dec-15-09 10:20	Dec-15-09 10:30	Dec-15-09 10:40	Dec-15-09 10:50
Anions by E300	Extracted:						
	Analyzed:	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7.83 5.25	161 8.97	144 10.6	45.6 10.7	16.2 8.60	26.3 9.44
Percent Moisture	Extracted:						
	Analyzed:	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	Units/RL:	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		20.0 1.00	6.34 1.00	20.5 1.00	21.6 1.00	2.32 1.00	11.0 1.00
TPH By SW8015 Mod	Extracted:	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45
	Analyzed:	Dec-21-09 15:35	Dec-21-09 16:03	Dec-21-09 16:30	Dec-21-09 16:57	Dec-21-09 17:51	Dec-21-09 18:18
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 18.8	ND 16.0	ND 18.9	ND 19.1	ND 307	ND 16.8
C12-C28 Diesel Range Hydrocarbons		65.2 18.8	307 16.0	140 18.9	136 19.1	3860 307	630 16.8
C28-C35 Oil Range Hydrocarbons		ND 18.8	50.4 16.0	19.6 18.9	21.8 19.1	538 307	67.5 16.8
Total TPH		65.2 18.8	357 16.0	160 18.9	158 19.1	4398 307	698 16.8

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356111

Southern Union Gas Services- Monahans, Monahans, TX

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 23-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356111-013	356111-014	356111-015	356111-016	356111-017	356111-018
	<i>Field Id:</i>	TZ Cell 3 G3	TZ Cell 3 G4	TZ Cell 3 G5	TZ Cell 4 G1	TZ Cell 4 G2	TZ Cell 4 G3
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-15-09 11:00	Dec-15-09 11:10	Dec-15-09 11:20	Dec-15-09 11:30	Dec-15-09 11:40	Dec-15-09 11:50
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 23:44	Dec-18-09 23:44	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		26.6 4.54	15.8 4.58	17.8 4.73	18.0 5.08	39.7 4.49	9.49 5.48
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		7.39 1.00	8.39 1.00	11.3 1.00	17.3 1.00	6.39 1.00	23.3 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45	Dec-18-09 15:45
	<i>Analyzed:</i>	Dec-21-09 18:46	Dec-21-09 19:13	Dec-21-09 19:40	Dec-21-09 20:08	Dec-21-09 20:35	Dec-21-09 21:03
	<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 80.9	ND 81.9	ND 16.8	ND 18.1	ND 80.1	ND 19.6
C12-C28 Diesel Range Hydrocarbons		2930 80.9	2120 81.9	489 16.8	428 18.1	3320 80.1	436 19.6
C28-C35 Oil Range Hydrocarbons		365 80.9	247 81.9	47.4 16.8	32.2 18.1	339 80.1	31.4 19.6
Total TPH		3295 80.9	2367 81.9	536 16.8	460 18.1	3659 80.1	467 19.6

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356111

Southern Union Gas Services- Monahans, Monahans, TX

Project Name: Southern Union Landfarm

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 23-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356111-019	356111-020	356111-021	356111-022	356111-023	356111-024
	<i>Field Id:</i>	TZ Cell 4 G4	TZ Cell 4 G5	TZ Cell 8 G1	TZ Cell 8 G2	TZ Cell 7 G1	TZ Cell 5 G1
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-15-09 12:00	Dec-15-09 12:10	Dec-15-09 12:20	Dec-15-09 12:30	Dec-15-09 12:40	Dec-15-09 12:50
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		16.1 5.13	31.0 4.55	2050 122	ND 10.4	17.1 5.17	ND 4.28
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		18.1 1.00	7.70 1.00	15.7 1.00	19.3 1.00	18.8 1.00	1.82 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 15:45	Dec-18-09 15:45	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00
	<i>Analyzed:</i>	Dec-21-09 21:30	Dec-21-09 21:58	Dec-23-09 01:12	Dec-23-09 01:39	Dec-23-09 02:06	Dec-23-09 02:33
	<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 18.3	ND 16.3	ND 218	ND 18.6	ND 18.5	ND 15.3
C12-C28 Diesel Range Hydrocarbons		302 18.3	985 16.3	3910 218	95.0 18.6	267 18.5	82.2 15.3
C28-C35 Oil Range Hydrocarbons		22.4 18.3	87.8 16.3	405 218	ND 18.6	30.9 18.5	51.9 15.3
Total TPH		324 18.3	1073 16.3	4315 218	95.0 18.6	298 18.5	134.1 15.3

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356111
Southern Union Gas Services- Monahans, Monahans, TX

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm

Report Date: 23-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356111-025	356111-026	356111-027	356111-028	356111-029	356111-030
	<i>Field Id:</i>	TZ Cell 6 G1	TZ Cell 6 G2	TZ Cell 9 G1	TZ Cell 9 G2	TZ Cell 9 G3	TZ Cell 9 G4
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-15-09 13:00	Dec-15-09 13:10	Dec-15-09 13:20	Dec-15-09 13:30	Dec-15-09 13:40	Dec-15-09 13:50
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		ND 20.6	36.5 10.4	156 9.90	152 9.08	58.6 9.51	43.5 9.10
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		18.4 1.00	18.9 1.00	15.2 1.00	7.47 1.00	11.7 1.00	7.72 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00
	<i>Analyzed:</i>	Dec-23-09 03:00	Dec-23-09 03:27	Dec-23-09 03:54	Dec-23-09 04:21	Dec-23-09 04:48	Dec-23-09 05:15
	<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 18.4	ND 18.5	ND 17.7	ND 16.2	ND 17.0	ND 16.3
C12-C28 Diesel Range Hydrocarbons		98.7 18.4	177 18.5	71.9 17.7	194 16.2	86.9 17.0	210 16.3
C28-C35 Oil Range Hydrocarbons		18.7 18.4	30.0 18.5	18.0 17.7	71.7 16.2	28.8 17.0	58.2 16.3
Total TPH		117.4 18.4	207 18.5	89.9 17.7	266 16.2	115.7 17.0	268 16.3

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356111

Southern Union Gas Services- Monahans, Monahans, TX

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 23-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356111-031	356111-032	356111-033	356111-034	356111-035	356111-036
	<i>Field Id:</i>	TZ Cell 9 G5	TZ Cell 10 G1	TZ Cell 10 G2	TZ Cell 10 G3	TZ Cell 10 G4	TZ Cell 15 G1
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-15-09 14:00	Dec-15-09 14:10	Dec-15-09 14:20	Dec-15-09 14:30	Dec-15-09 14:40	Dec-15-09 14:50
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-19-09 05:01	Dec-21-09 10:06	Dec-21-09 10:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		81.6 8.63	9.63 4.97	11.9 4.53	9.06 4.77	10.0 5.29	ND 46.9
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		2.70 1.00	15.6 1.00	7.23 1.00	11.9 1.00	20.6 1.00	10.4 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00
	<i>Analyzed:</i>	Dec-23-09 06:09	Dec-23-09 06:36	Dec-23-09 07:03	Dec-23-09 07:30	Dec-23-09 07:57	Dec-23-09 08:24
	<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 15.4	ND 17.8	ND 16.2	ND 17.0	ND 18.9	ND 16.7
C12-C28 Diesel Range Hydrocarbons		164 15.4	276 17.8	217 16.2	96.8 17.0	129 18.9	226 16.7
C28-C35 Oil Range Hydrocarbons		63.5 15.4	50.9 17.8	52.4 16.2	24.1 17.0	19.2 18.9	95.0 16.7
Total TPH		228 15.4	327 17.8	269 16.2	120.9 17.0	148 18.9	321 16.7

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356111

Southern Union Gas Services- Monahans, Monahans, TX

Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 23-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356111-037	356111-038	356111-039	356111-040		
	<i>Field Id:</i>	TZ Cell 11 G1	TZ Cell 11 G2	TZ Cell 12 G1	TZ Cell 13 G1		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-15-09 15:00	Dec-15-09 15:10	Dec-15-09 15:20	Dec-15-09 15:30		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-21-09 10:06	Dec-21-09 10:06	Dec-21-09 10:06	Dec-21-09 10:06		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		128 10.4	161 18.2	ND 22.6	291 9.88		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		19.6 1.00	7.80 1.00	7.19 1.00	15.0 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00	Dec-21-09 13:00		
	<i>Analyzed:</i>	Dec-23-09 08:51	Dec-23-09 09:21	Dec-23-09 09:48	Dec-23-09 10:16		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		26.7 18.7	27.0 16.3	ND 16.2	20.0 17.6		
C12-C28 Diesel Range Hydrocarbons		589 18.7	488 16.3	302 16.2	597 17.6		
C28-C35 Oil Range Hydrocarbons		27.9 18.7	49.7 16.3	38.1 16.2	64.6 17.6		
Total TPH		644 18.7	565 16.3	340 16.2	682 17.6		

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Brent Barron, II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to 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 and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 786685

Sample: 546083-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/21/09 12:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.7	99.6	96	70-135	
o-Terphenyl	43.9	49.8	88	70-135	

Lab Batch #: 786685

Sample: 546083-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/21/09 12:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	796	997	80	70-135	
o-Terphenyl	466	499	93	70-135	

Lab Batch #: 786685

Sample: 356111-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 12:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	59.7	50.0	119	70-135	

Lab Batch #: 786685

Sample: 356111-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 13:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.8	100	81	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 786685

Sample: 356111-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 13:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.1	99.5	78	70-135	
o-Terphenyl	44.6	49.8	90	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 786685

Sample: 356111-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 14:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.0	100	76	70-135	
o-Terphenyl	43.5	50.0	87	70-135	

Lab Batch #: 786685

Sample: 356111-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 14:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	100	82	70-135	
o-Terphenyl	47.1	50.0	94	70-135	

Lab Batch #: 786685

Sample: 356111-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 15:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.8	100	77	70-135	
o-Terphenyl	45.0	50.0	90	70-135	

Lab Batch #: 786685

Sample: 356111-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 15:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.4	100	76	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

Lab Batch #: 786685

Sample: 356111-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 16:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.1	100	77	70-135	
o-Terphenyl	44.3	50.0	89	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 786685

Sample: 356111-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 16:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	100	82	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 786685

Sample: 356111-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 16:57

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	62.8	50.0	126	70-135	

Lab Batch #: 786685

Sample: 356111-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 17:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.0	100	82	70-135	
o-Terphenyl	49.0	50.0	98	70-135	

Lab Batch #: 786685

Sample: 356111-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 18:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.4	99.9	77	70-135	
o-Terphenyl	44.4	50.0	89	70-135	

Lab Batch #: 786685

Sample: 356111-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 18:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.3	99.9	92	70-135	
o-Terphenyl	56.4	50.0	113	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 786685

Sample: 356111-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 19:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.9	100	91	70-135	
o-Terphenyl	54.5	50.0	109	70-135	

Lab Batch #: 786685

Sample: 356111-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 19:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.3	99.5	79	70-135	
o-Terphenyl	44.6	49.8	90	70-135	

Lab Batch #: 786685

Sample: 356111-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 20:08

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.9	100	74	70-135	
o-Terphenyl	43.0	50.0	86	70-135	

Lab Batch #: 786685

Sample: 356111-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 20:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.0	100	92	70-135	
o-Terphenyl	60.9	50.0	122	70-135	

Lab Batch #: 786685

Sample: 356111-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 21:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.0	100	76	70-135	
o-Terphenyl	44.2	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 786685

Sample: 356111-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 21:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	100	79	70-135	
o-Terphenyl	45.4	50.0	91	70-135	

Lab Batch #: 786685

Sample: 356111-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 21:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.7	100	75	70-135	
o-Terphenyl	44.6	50.0	89	70-135	

Lab Batch #: 786685

Sample: 356111-007 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 22:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.5	99.5	91	70-135	
o-Terphenyl	41.8	49.8	84	70-135	

Lab Batch #: 786685

Sample: 356111-007 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 22:53

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	99.9	98	70-135	
o-Terphenyl	44.1	50.0	88	70-135	

Lab Batch #: 787011

Sample: 546262-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/09 23:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	47.8	49.9	96	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 787011

Sample: 546262-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/23/09 00:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	101	100	70-135	
o-Terphenyl	46.7	50.3	93	70-135	

Lab Batch #: 787011

Sample: 546262-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/23/09 00:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	99.5	87	70-135	
o-Terphenyl	49.3	49.8	99	70-135	

Lab Batch #: 787011

Sample: 356111-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 01:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.5	100	85	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

Lab Batch #: 787011

Sample: 356111-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 01:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.5	100	85	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 787011

Sample: 356111-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 02:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.0	100	80	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 787011

Sample: 356111-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 02:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	100	79	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

Lab Batch #: 787011

Sample: 356111-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 03:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.1	100	93	70-135	
o-Terphenyl	54.1	50.0	108	70-135	

Lab Batch #: 787011

Sample: 356111-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 03:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	74.3	50.0	149	70-135	*

Lab Batch #: 787011

Sample: 356111-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 03:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.3	100	84	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

Lab Batch #: 787011

Sample: 356111-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 04:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.6	100	85	70-135	
o-Terphenyl	48.0	50.0	96	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 787011

Sample: 356111-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 04:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.7	100	86	70-135	
o-Terphenyl	49.0	50.0	98	70-135	

Lab Batch #: 787011

Sample: 356111-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 05:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.0	100	85	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

Lab Batch #: 787011

Sample: 356111-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 06:09

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.1	100	83	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

Lab Batch #: 787011

Sample: 356111-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 06:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	100	124	70-135	
o-Terphenyl	71.8	50.0	144	70-135	*

Lab Batch #: 787011

Sample: 356111-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 07:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.0	100	96	70-135	
o-Terphenyl	54.7	50.0	109	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 787011

Sample: 356111-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 07:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	66.7	50.0	133	70-135	

Lab Batch #: 787011

Sample: 356111-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 07:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.1	100	91	70-135	
o-Terphenyl	51.5	50.0	103	70-135	

Lab Batch #: 787011

Sample: 356111-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 08:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.5	100	87	70-135	
o-Terphenyl	49.7	50.0	99	70-135	

Lab Batch #: 787011

Sample: 356111-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 08:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	58.3	50.0	117	70-135	

Lab Batch #: 787011

Sample: 356111-038 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 09:21

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.1	100	81	70-135	
o-Terphenyl	46.8	50.0	94	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356111,

Project ID: Southern Union Gas

Lab Batch #: 787011

Sample: 356111-039 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 09:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.8	100	84	70-135	
o-Terphenyl	48.4	50.0	97	70-135	

Lab Batch #: 787011

Sample: 356111-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 10:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.7	100	88	70-135	
o-Terphenyl	50.0	50.0	100	70-135	

Lab Batch #: 787011

Sample: 356111-022 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 10:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.5	107	70-135	
o-Terphenyl	49.3	49.8	99	70-135	

Lab Batch #: 787011

Sample: 356111-022 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/09 11:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.5	113	70-135	
o-Terphenyl	51.5	49.8	103	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Blank Spike Recovery



Project Name: Southern Union Landfarm

Work Order #: 356111

Project ID: Southern Union Gas

Lab Batch #: 786509

Sample: 786509-1-BKS

Matrix: Solid

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.32	93	75-125	

Lab Batch #: 786511

Sample: 786511-1-BKS

Matrix: Solid

Date Analyzed: 12/19/2009

Date Prepared: 12/19/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	9.00	8.47	94	75-125	

Lab Batch #: 786560

Sample: 786560-1-BKS

Matrix: Solid

Date Analyzed: 12/21/2009

Date Prepared: 12/21/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.0	100	75-125	

Blank Spike Recovery [D] = $100 \times [C]/[B]$

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

BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: Southern Union Landfarm

Work Order #: 356111

Analyst: BEV

Date Prepared: 12/21/2009

Project ID: Southern Union Gas

Date Analyzed: 12/22/2009

Lab Batch ID: 787011

Sample: 546262-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	998	947	95	1010	904	90	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	934	94	1010	750	74	22	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: Southern Union Landfarm



Work Order #: 356111

Lab Batch #: 786509

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Project ID: Southern Union Gas

Analyst: LATCOR

QC- Sample ID: 356110-035 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	ND	108	108	100	75-125	

Lab Batch #: 786511

Date Analyzed: 12/19/2009

Date Prepared: 12/19/2009

Analyst: LATCOR

QC- Sample ID: 356111-015 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	17.8	113	147	114	75-125	

Lab Batch #: 786560

Date Analyzed: 12/21/2009

Date Prepared: 12/21/2009

Analyst: LATCOR

QC- Sample ID: 356111-035 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	10.0	151	156	97	75-125	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

RL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Landfarm

Work Order #: 356111

Project ID: Southern Union Gas

Lab Batch ID: 786685

QC- Sample ID: 356111-007 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/21/2009

Date Prepared: 12/18/2009

Analyst: BEV

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	1240	1080	87	1250	1160	93	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	65.2	1240	933	70	1250	923	69	1	70-135	35	X

Lab Batch ID: 787011

QC- Sample ID: 356111-022 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/23/2009

Date Prepared: 12/21/2009

Analyst: BEV

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	1230	1170	95	1230	1250	102	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	95.0	1230	1110	83	1230	883	64	23	70-135	35	X

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

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

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: Southern Union Landfarm

Work Order #: 356111

Lab Batch #: 786509

Date Analyzed: 12/18/2009

QC- Sample ID: 356110-035 D

Reporting Units: mg/kg

Date Prepared: 12/18/2009

Batch #: 1

Project ID: Southern Union Gas

Analyst: LATCOR

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	ND	ND	NC	20	

Lab Batch #: 786511

Date Analyzed: 12/19/2009

QC- Sample ID: 356111-015 D

Reporting Units: mg/kg

Date Prepared: 12/19/2009

Batch #: 1

Analyst: LATCOR

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	17.8	19.3	8	20	

Lab Batch #: 786560

Date Analyzed: 12/21/2009

QC- Sample ID: 356111-035 D

Reporting Units: mg/kg

Date Prepared: 12/21/2009

Batch #: 1

Analyst: LATCOR

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	10.0	10.1	1	20	

Lab Batch #: 786471

Date Analyzed: 12/18/2009

QC- Sample ID: 356111-001 D

Reporting Units: %

Date Prepared: 12/18/2009

Batch #: 1

Analyst: WRU

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	14.6	13.6	7	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



Sample Duplicate Recovery

Project Name: Southern Union Landfarm

Work Order #: 356111

Lab Batch #: 786476

Project ID: Southern Union Gas

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: WRU

QC- Sample ID: 356111-021 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	15.6	16.3	4	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$

A]] Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

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: Rose Slade PAGE 01 OF 04
Company Name: Southern Union Gas Services
Company Address: 1507 W. 15th Street
City/State/Zip: Monahans, TX 79756
Telephone No: 432-943-1116
Sampler Signature: [Signature]
Fax No: 432-943-1101
e-mail: rose.slade@SUG.com

Project Name: Southern Union Landfarm
Project #: Southern Union Gas
Project Loc: Lea County, NM
PO #: _____
Report Format: ☒ Standard ☐ TRRP ☐ NPOES

(lab use only)
ORDER #: 356111

LAB # (lab use only)		FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers								Matrix		Analyze For:															Standard TAT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
									Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None (PAH)	Other (Specify)	DW - Drinking Water SL - Sludge	GW - Groundwater S - Soil/Sol	NP - Non-Potable Specify 0th	TPH: 418.1	TPH: 80150	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8280	RCI	N.O.R.M.	PAH		EPA Paint Filter Test	Chlorides (E 300)	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1		TZ Cell 14 G1			12/15/2009	0900		1	X							Soil	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by: <u>[Signature]</u>	Date: <u>12/17/09</u>	Time: <u>1704</u>	Received by:	Date:	Time:	Laboratory Comments:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	VOCs Free of Headspace? <u>8</u> N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Custody seals on container(s) <u>1/10/09</u> N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Sample Hand Delivered by Sampler/Client Rep.? <u>Y</u> N
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	by Courier? UPS DHL FedEx Lone Star
Relinquished by:	Date:	Time:	Received by: <u>Jeanne Fitch</u>	Date: <u>12-17-09</u>	Time: <u>1704</u>	Temperature Upon Receipt: <u>5.6</u> °C

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: Rose Slade PAGE 02 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #: _____

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: rose.slade@SUG.com

(lab use only)
ORDER #: 356111

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None (PAH)	Other (Specify)	DW - Drinking Water SL - Sludge	CW - Groundwater S - Soil/Sol	NP - Non-Potable Specify Oth	TPH: 418.1	8015M	8015M	TPH: TX 1005	TX 1006	Carbons (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/8030 or BTEX 8260	RCI	N.O.R.M.	PAH	EPA Paint Filter Test	Chlorides 300	RUSH TAT (Per Schedule) 24, 48, 72 hrs	Standard TAT
11	TZ Cell 3 G1			12/15/2009	1040		1	X								Soil	X																		X		X
12	TZ Cell 3 G2			12/15/2009	1050		1	X								Soil	X																		X		X
13	TZ Cell 3 G3			12/15/2009	1100		1	X								Soil	X																		X		X
14	TZ Cell 3 G4			12/15/2009	1110		1	X								Soil	X																		X		X
15	TZ Cell 3 G5			12/15/2009	1120		1	X								Soil	X																		X		X
16	TZ Cell 4 G1			12/15/2009	1130		1	X								Soil	X																		X		X
17	TZ Cell 4 G2			12/15/2009	1140		1	X								Soil	X																		X		X
18	TZ Cell 4 G3			12/15/2009	1150		1	X								Soil	X																		X		X
19	TZ Cell 4 G4			12/15/2009	1200		1	X								Soil	X																		X		X
20	TZ Cell 4 G5			12/15/2009	1210		1	X								Soil	X																		X		X

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by: <u>[Signature]</u>	Date: <u>12/17/09</u>	Time: <u>1704</u>	Received by:	Date:	Time:	Laboratory Comments: VOCs Free of Headspace? <input checked="" type="checkbox"/> N Custody seals on container(s) <input checked="" type="checkbox"/> N Sample Hand Delivered by Client Rep.? <input checked="" type="checkbox"/> N by Courier? <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> DHL <input checked="" type="checkbox"/> FedEx <input checked="" type="checkbox"/> Lone Star Temperature Upon Receipt: <u>5.6 °C</u>	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:		
Relinquished by:	Date:	Time:	Received by:	Date:	Time:		
Relinquished by:	Date:	Time:	Received by: <u>Jeanne Fitch</u>	Date: <u>12-17-09</u>	Time: <u>1704</u>		

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12800 West I-20 East
Odessa, Texas 79765

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

Project Manager: Rose Slade PAGE 03 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #:

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: rose.slade@SUG.com

(lab use only)

ORDER #: 356111

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Preservation & # of Containers										Matrix										Analyze For:										Standard TAT
							Total # of Containers	Ice	HNO ₃	HCl (VOA x 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₈	None (PAH)	Other (Specify)	DW - Drinking Water SL - Sludge	GW - Groundwater S - Soil/Sol	NP - Non-Potable Specify Other	TPH: 418.1	TPH: 8015M	TPH: TX 1005	TPH: TX 1008	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/8030 or BTEX 8280	RCI	N.O.R.M.	PAH	EPA Paint Filter Test	Chlorides E 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs		
21	TZ Cell 8 G1			12/15/2009	1220		1	X								Soil	X																	X	X		
22	TZ Cell 8 G2			12/15/2009	1230		1	X								Soil	X																	X	X		
23	TZ Cell 7 G1			12/15/2009	1240		1	X								Soil	X																	X	X		
24	TZ Cell 5 G1			12/15/2009	1250		1	X								Soil	X																	X	X		
25	TZ Cell 6 G1			12/15/2009	1300		1	X								Soil	X																	X	X		
26	TZ Cell 6 G2			12/15/2009	1310		1	X								Soil	X																	X	X		
27	TZ Cell 9 G1			12/15/2009	1320		1	X								Soil	X																	X	X		
28	TZ Cell 9 G2			12/15/2009	1330		1	X								Soil	X																	X	X		
29	TZ Cell 9 G3			12/15/2009	1340		1	X								Soil	X																	X	X		
30	TZ Cell 9 G4			12/15/2009	1350		1	X								Soil	X																	X	X		

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by: <u>[Signature]</u>	Date: <u>12/17/09</u>	Time: <u>1704</u>	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by: <u>Jeanne Fitch</u>	Date: <u>12-17-09</u>	Time: <u>1704</u>

Laboratory Comments:

VOCs Free of Headspace? Yes N
Custody seals on container(s) 1605 N
Sample Hand Delivered by Sampler/Client Rep.? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 5.6 °C

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: Rose Slade PAGE 04 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #:

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: rose.slade@SUG.com

(lab use only)

ORDER #: 356111

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers										Matrix										Analyze For:										Standard TAT
								Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None (PAH)	Other (Specify)	OW - Drinking Water SL - Sludge	OW - Groundwater S - Soil/Soil	NP - Non-Potable Specify Other	TPH: 418.1	TPH: TX 1005	TPH: TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8280	RCI	N.O.R.M.	PAH	EPA Partic Filter Test	Chlorides E 300	RUSH TAT (Per-Schedule) 24, 48, 72 hrs				
31	TZ Cell 9 G5			12/15/2009	1400		1	X								Soil	X																	X	X			
32	TZ Cell 10 G1			12/15/2009	1410		1	X								Soil	X																	X	X			
33	TZ Cell 10 G2			12/15/2009	1420		1	X								Soil	X																	X	X			
34	TZ Cell 10 G3			12/15/2009	1430		1	X								Soil	X																	X	X			
35	TZ Cell 10 G4			12/15/2009	1440		1	X								Soil	X																	X	X			
36	TZ Cell 15 G1			12/15/2009	1450		1	X								Soil	X																	X	X			
37	TZ Cell 11 G1			12/15/2009	1500		1	X								Soil	X																	X	X			
38	TZ Cell 11 G2			12/15/2009	1510		1	X								Soil	X																	X	X			
39	TZ Cell 12 G1			12/15/2009	1520		1	X								Soil	X																	X	X			
40	TZ Cell 13 G1			12/15/2009	1530		1	X								Soil	X																	X	X			

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by:	Date	Time	Received by:	Date	Time	Laboratory Comments: Sample Containers: <u>6</u> VOCs Free of Headspace? <u>Y</u> N Labels on Containers: <u>6</u> N Custody seals on container(s) <u>6</u> N Sample Hand Delivered by Sampler/Client Rep.? <u>Y</u> N by Courier? UPS DHL FedEx Lone Star Temperature Upon Receipt: <u>5.6 °C</u>
Relinquished by:	Date	Time	Received by:	Date	Time	
Relinquished by:	Date	Time	Received by:	Date	Time	
Relinquished by:	Date	Time	Received by:	Date	Time	

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: SUGS

Date/ Time: 12-17-09 @ 1704

Lab ID #: 356111

Initials: JMF

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	5.6 °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?/label	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

Analytical Report 356110

for

Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Southern Union Landfarm

Southern Union Gas

22-DEC-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), 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 (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

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

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)



22-DEC-09

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

Reference: XENCO Report No: **356110**
Southern Union Landfarm
Project Address: Lea County, NM

Rose Slade:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 356110. 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. 356110 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

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

Certified and approved by numerous States and Agencies.

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

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 356110



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

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
VZ Cell 14 G1	S	Dec-16-09 09:05		356110-001
VZ Cell 1 G1	S	Dec-16-09 09:15		356110-002
VZ Cell 1 G2	S	Dec-16-09 09:25		356110-003
VZ Cell 1 G3	S	Dec-16-09 09:35		356110-004
VZ Cell 1 G4	S	Dec-16-09 09:45		356110-005
VZ Cell 1 G5	S	Dec-16-09 09:55		356110-006
VZ Cell 2 G1	S	Dec-16-09 10:05		356110-007
VZ Cell 2 G2	S	Dec-16-09 10:15		356110-008
VZ Cell 2 G3	S	Dec-16-09 10:25		356110-009
VZ Cell 2 G4	S	Dec-16-09 10:35		356110-010
VZ Cell 3 G1	S	Dec-16-09 10:45		356110-011
VZ Cell 3 G2	S	Dec-16-09 10:55		356110-012
VZ Cell 3 G3	S	Dec-16-09 11:05		356110-013
VZ Cell 3 G4	S	Dec-16-09 11:15		356110-014
VZ Cell 3 G5	S	Dec-16-09 11:25		356110-015
VZ Cell 4 G1	S	Dec-16-09 11:35		356110-016
VZ Cell 4 G2	S	Dec-16-09 11:45		356110-017
VZ Cell 4 G3	S	Dec-16-09 11:55		356110-018
VZ Cell 4 G4	S	Dec-16-09 12:05		356110-019
VZ Cell 4 G5	S	Dec-16-09 12:15		356110-020
VZ Cell 8 G1	S	Dec-16-09 12:25		356110-021
VZ Cell 8 G2	S	Dec-16-09 12:35		356110-022
VZ Cell 7 G1	S	Dec-16-09 12:45		356110-023
VZ Cell 5 G1	S	Dec-16-09 12:55		356110-024
VZ Cell 6 G1	S	Dec-16-09 13:05		356110-025
VZ Cell 6 G2	S	Dec-16-09 13:15		356110-026
VZ Cell 9 G1	S	Dec-16-09 13:25		356110-027
VZ Cell 9 G2	S	Dec-16-09 13:35		356110-028
VZ Cell 9 G3	S	Dec-16-09 13:45		356110-029
VZ Cell 9 G4	S	Dec-16-09 13:55		356110-030
VZ Cell 9 G5	S	Dec-16-09 14:05		356110-031
VZ Cell 10 G1	S	Dec-16-09 14:15		356110-032
VZ Cell 10 G2	S	Dec-16-09 14:25		356110-033
VZ Cell 10 G3	S	Dec-16-09 14:35		356110-034
VZ Cell 10 G4	S	Dec-16-09 14:45		356110-035
VZ Cell 15 G1	S	Dec-16-09 14:55		356110-036
VZ Cell 11 G1	S	Dec-16-09 15:05		356110-037
VZ Cell 11 G2	S	Dec-16-09 15:15		356110-038
VZ Cell 12 G1	S	Dec-16-09 15:25		356110-039
VZ Cell 13 G1	S	Dec-16-09 15:35		356110-040



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Landfarm

Project ID: Southern Union Gas

Work Order Number: 356110

Report Date: 22-DEC-09

Date Received: 12/17/2009

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-786465 Percent Moisture

None

Batch: LBA-786468 Percent Moisture

None

Batch: LBA-786498 Inorganic Anions by EPA 300

None

Batch: LBA-786505 Anions by E300

E300MI

Batch 786505, Chloride RPD is outside the QC limit. This is most likely due to sample non-homogeneity.

Samples affected are: 356110-023, -027, -028, -020, -021, -029, -030, -018, -034, -019, -022, -026, -031, -032, -015, -017, -025, -016, -024, -033.

Batch: LBA-786507 TPH By SW8015 Mod

None

Batch: LBA-786509 Anions by E300

None

Batch: LBA-786512 TPH By SW8015 Mod

None



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Southern Union Landfarm

Project ID: Southern Union Gas

Work Order Number: 356110

Report Date: 22-DEC-09

Date Received: 12/17/2009

Batch: LBA-786542 BTEX by EPA 8021B

SW8021BM

Batch 786542, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Benzene, Ethylbenzene, Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 356110-006, -014, -007, -020, -001, -018, -002, -004, -009, -013, -005, -012, -019, -008, -010, -015, -017, -003, -011, -016.

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

Batch: LBA-786549 BTEX by EPA 8021B

None



Certificate of Analysis Summary 356110
Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-001	356110-002	356110-003	356110-004	356110-005	356110-006
	<i>Field Id:</i>	VZ Cell 14 G1	VZ Cell 1 G1	VZ Cell 1 G2	VZ Cell 1 G3	VZ Cell 1 G4	VZ Cell 1 G5
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-16-09 09:05	Dec-16-09 09:15	Dec-16-09 09:25	Dec-16-09 09:35	Dec-16-09 09:45	Dec-16-09 09:55
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		25.1 4.80	ND 4.79	ND 4.55	46.9 4.65	15.7 4.52	4.57 4.45
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13
	<i>Analyzed:</i>	Dec-20-09 13:32	Dec-20-09 13:56	Dec-20-09 14:20	Dec-20-09 14:43	Dec-20-09 15:07	Dec-20-09 15:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Toluene		ND 0.0023	ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0021	ND 0.0021
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
m,p-Xylenes		ND 0.0023	ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0021	ND 0.0021
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		12.4 1.00	12.4 1.00	7.72 1.00	9.71 1.00	7.11 1.00	5.64 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45
	<i>Analyzed:</i>	Dec-19-09 14:59	Dec-19-09 15:26	Dec-19-09 15:53	Dec-19-09 16:20	Dec-19-09 16:46	Dec-19-09 17:13
	<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 17.0	ND 17.0	ND 16.2	ND 16.6	ND 16.1	ND 15.8
C12-C28 Diesel Range Hydrocarbons		ND 17.0	ND 17.0	ND 16.2	ND 16.6	ND 16.1	ND 15.8
C28-C35 Oil Range Hydrocarbons		ND 17.0	ND 17.0	ND 16.2	ND 16.6	ND 16.1	ND 15.8
Total TPH		ND 17.0	ND 17.0	ND 16.2	ND 16.6	ND 16.1	ND 15.8

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356110

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-007	356110-008	356110-009	356110-010	356110-011	356110-012
	<i>Field Id:</i>	VZ Cell 2 G1	VZ Cell 2 G2	VZ Cell 2 G3	VZ Cell 2 G4	VZ Cell 3 G1	VZ Cell 3 G2
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-16-09 10:05	Dec-16-09 10:15	Dec-16-09 10:25	Dec-16-09 10:35	Dec-16-09 10:45	Dec-16-09 10:55
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 13:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		14.4 4.54	ND 4.53	31.2 9.55	10.6 4.50	7.03 4.68	10.6 4.73
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13
	<i>Analyzed:</i>	Dec-20-09 15:55	Dec-20-09 16:18	Dec-20-09 16:42	Dec-20-09 17:06	Dec-20-09 18:17	Dec-20-09 18:41
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Toluene		ND 0.0022	ND 0.0022	ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0023
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
m,p-Xylenes		ND 0.0022	ND 0.0022	ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0023
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		7.44 1.00	7.24 1.00	12.0 1.00	6.71 1.00	10.3 1.00	11.2 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45
	<i>Analyzed:</i>	Dec-19-09 17:39	Dec-19-09 18:06	Dec-19-09 18:33	Dec-19-09 19:00	Dec-19-09 19:54	Dec-19-09 20:20
	<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 16.2	ND 16.1	ND 17.1	ND 16.1	ND 16.7	ND 16.9
C12-C28 Diesel Range Hydrocarbons		ND 16.2	ND 16.1	ND 17.1	ND 16.1	ND 16.7	ND 16.9
C28-C35 Oil Range Hydrocarbons		ND 16.2	ND 16.1	ND 17.1	ND 16.1	ND 16.7	ND 16.9
Total TPH		ND 16.2	ND 16.1	ND 17.1	ND 16.1	ND 16.7	ND 16.9

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356110

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-013	356110-014	356110-015	356110-016	356110-017	356110-018
	<i>Field Id:</i>	VZ Cell 3 G3	VZ Cell 3 G4	VZ Cell 3 G5	VZ Cell 4 G1	VZ Cell 4 G2	VZ Cell 4 G3
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-16-09 11:05	Dec-16-09 11:15	Dec-16-09 11:25	Dec-16-09 11:35	Dec-16-09 11:45	Dec-16-09 11:55
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 13:07	Dec-18-09 13:07	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		11.5 4.68	5.35 4.68	ND 4.73	ND 4.74	8.56 4.54	12.9 4.62
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:13
	<i>Analyzed:</i>	Dec-20-09 19:04	Dec-20-09 19:28	Dec-20-09 19:51	Dec-20-09 20:15	Dec-20-09 20:38	Dec-20-09 21:02
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Toluene		ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
m,p-Xylenes		ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		10.2 1.00	10.3 1.00	11.3 1.00	11.3 1.00	7.47 1.00	9.02 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45
	<i>Analyzed:</i>	Dec-19-09 20:47	Dec-19-09 21:14	Dec-19-09 21:41	Dec-19-09 22:07	Dec-19-09 22:34	Dec-19-09 23:00
	<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 16.6	ND 16.6	ND 16.9	ND 16.9	ND 16.2	ND 16.4
C12-C28 Diesel Range Hydrocarbons		ND 16.6	ND 16.6	ND 16.9	ND 16.9	ND 16.2	ND 16.4
C28-C35 Oil Range Hydrocarbons		ND 16.6	ND 16.6	ND 16.9	ND 16.9	ND 16.2	ND 16.4
Total TPH		ND 16.6	ND 16.6	ND 16.9	ND 16.9	ND 16.2	ND 16.4

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356110

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm


Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-019	356110-020	356110-021	356110-022	356110-023	356110-024
	<i>Field Id:</i>	VZ Cell 4 G4	VZ Cell 4 G5	VZ Cell 8 G1	VZ Cell 8 G2	VZ Cell 7 G1	VZ Cell 5 G1
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-16-09 12:05	Dec-16-09 12:15	Dec-16-09 12:25	Dec-16-09 12:35	Dec-16-09 12:45	Dec-16-09 12:55
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		ND 4.64	ND 4.64	63.0 4.99	33.4 4.62	ND 4.55	ND 4.65
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:13	Dec-19-09 11:13	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20
	<i>Analyzed:</i>	Dec-20-09 21:26	Dec-20-09 21:49	Dec-21-09 01:22	Dec-21-09 01:46	Dec-21-09 02:09	Dec-21-09 02:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011
Toluene		ND 0.0022	ND 0.0022	ND 0.0024	ND 0.0022	ND 0.0021	ND 0.0022
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011
m,p-Xylenes		ND 0.0022	ND 0.0022	ND 0.0024	ND 0.0022	ND 0.0021	ND 0.0022
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0011
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		9.51 1.00	9.45 1.00	15.8 1.00	9.18 1.00	7.65 1.00	9.63 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45
	<i>Analyzed:</i>	Dec-19-09 23:27	Dec-19-09 23:54	Dec-20-09 04:45	Dec-20-09 05:11	Dec-20-09 05:38	Dec-20-09 06:04
	<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 16.6	ND 16.6	ND 17.7	ND 16.5	ND 16.2	ND 16.6
C12-C28 Diesel Range Hydrocarbons		ND 16.6	ND 16.6	ND 17.7	ND 16.5	ND 16.2	ND 16.6
C28-C35 Oil Range Hydrocarbons		ND 16.6	ND 16.6	ND 17.7	ND 16.5	ND 16.2	ND 16.6
Total TPH		ND 16.6	ND 16.6	ND 17.7	ND 16.5	ND 16.2	ND 16.6

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356110

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-025	356110-026	356110-027	356110-028	356110-029	356110-030
	<i>Field Id:</i>	VZ Cell 6 G1	VZ Cell 6 G2	VZ Cell 9 G1	VZ Cell 9 G2	VZ Cell 9 G3	VZ Cell 9 G4
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-16-09 13:05	Dec-16-09 13:15	Dec-16-09 13:25	Dec-16-09 13:35	Dec-16-09 13:45	Dec-16-09 13:55
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		ND 4.68	ND 4.68	9.30 4.98	5.13 4.61	10.7 4.53	19.9 4.90
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20
	<i>Analyzed:</i>	Dec-21-09 02:56	Dec-21-09 03:20	Dec-21-09 03:43	Dec-21-09 04:07	Dec-21-09 04:30	Dec-21-09 04:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0012
Toluene		ND 0.0022	ND 0.0022	ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0023
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0012
m,p-Xylenes		ND 0.0022	ND 0.0022	ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0023
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0012
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0012
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0012
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		10.2 1.00	10.3 1.00	15.7 1.00	8.94 1.00	7.22 1.00	14.3 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45
	<i>Analyzed:</i>	Dec-20-09 06:31	Dec-20-09 06:57	Dec-20-09 07:23	Dec-20-09 07:50	Dec-20-09 08:16	Dec-20-09 08:43
	<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 16.7	ND 16.7	ND 17.8	ND 16.4	ND 16.1	ND 17.4
C12-C28 Diesel Range Hydrocarbons		ND 16.7	ND 16.7	ND 17.8	ND 16.4	ND 16.1	ND 17.4
C28-C35 Oil Range Hydrocarbons		ND 16.7	ND 16.7	ND 17.8	ND 16.4	ND 16.1	ND 17.4
Total TPH		ND 16.7	ND 16.7	ND 17.8	ND 16.4	ND 16.1	ND 17.4

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356110

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-031	356110-032	356110-033	356110-034	356110-035	356110-036
	<i>Field Id:</i>	VZ Cell 9 G5	VZ Cell 10 G1	VZ Cell 10 G2	VZ Cell 10 G3	VZ Cell 10 G4	VZ Cell 15 G1
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-16-09 14:05	Dec-16-09 14:15	Dec-16-09 14:25	Dec-16-09 14:35	Dec-16-09 14:45	Dec-16-09 14:55
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 18:37	Dec-18-09 23:44	Dec-18-09 23:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		27.5 4.80	43.9 4.51	9.70 4.56	173 4.53	ND 4.55	17.0 4.54
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20
	<i>Analyzed:</i>	Dec-21-09 06:04	Dec-21-09 06:28	Dec-21-09 06:51	Dec-21-09 07:14	Dec-21-09 07:38	Dec-21-09 08:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Toluene		ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022
Ethylbenzene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
m,p-Xylenes		ND 0.0023	ND 0.0021	ND 0.0022	ND 0.0022	ND 0.0022	ND 0.0022
o-Xylene		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total Xylenes		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Total BTEX		ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011	ND 0.0011
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		12.5 1.00	6.84 1.00	7.81 1.00	7.34 1.00	7.74 1.00	7.59 1.00
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45
	<i>Analyzed:</i>	Dec-20-09 09:36	Dec-20-09 10:03	Dec-20-09 10:30	Dec-20-09 10:56	Dec-20-09 11:23	Dec-20-09 11:50
	<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 17.1	ND 16.0	ND 16.2	ND 16.1	ND 16.2	ND 16.2
C12-C28 Diesel Range Hydrocarbons		ND 17.1	ND 16.0	ND 16.2	ND 16.1	ND 16.2	ND 16.2
C28-C35 Oil Range Hydrocarbons		ND 17.1	ND 16.0	ND 16.2	ND 16.1	ND 16.2	ND 16.2
Total TPH		ND 17.1	ND 16.0	ND 16.2	ND 16.1	ND 16.2	ND 16.2

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 356110

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: Southern Union Gas

Contact: Rose Slade

Project Location: Lea County, NM

Project Name: Southern Union Landfarm

Date Received in Lab: Thu Dec-17-09 05:04 pm

Report Date: 22-DEC-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	356110-037	356110-038	356110-039	356110-040		
	<i>Field Id:</i>	VZ Cell 11 G1	VZ Cell 11 G2	VZ Cell 12 G1	VZ Cell 13 G1		
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Dec-16-09 15:05	Dec-16-09 15:15	Dec-16-09 15:25	Dec-16-09 15:35		
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44	Dec-18-09 23:44		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		ND 4.83	9.78 4.67	14.8 9.22	81.4 4.42		
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20	Dec-19-09 11:20		
	<i>Analyzed:</i>	Dec-21-09 08:25	Dec-21-09 09:28	Dec-21-09 09:52	Dec-21-09 10:15		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0010		
Toluene		ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0021		
Ethylbenzene		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0010		
m,p-Xylenes		ND 0.0023	ND 0.0022	ND 0.0022	ND 0.0021		
o-Xylene		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0010		
Total Xylenes		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0010		
Total BTEX		ND 0.0012	ND 0.0011	ND 0.0011	ND 0.0010		
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00	Dec-18-09 17:00		
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL		
Percent Moisture		13.0 1.00	10.1 1.00	8.89 1.00	4.88 1.00		
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45	Dec-18-09 13:45		
	<i>Analyzed:</i>	Dec-20-09 12:17	Dec-20-09 12:44	Dec-20-09 13:11	Dec-20-09 13:38		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline-Range Hydrocarbons		ND 17.2	ND 16.7	ND 16.4	ND 15.7		
C12-C28 Diesel Range Hydrocarbons		ND 17.2	ND 16.7	ND 16.4	ND 15.7		
C28-C35 Oil Range Hydrocarbons		ND 17.2	ND 16.7	ND 16.4	ND 15.7		
Total TPH		ND 17.2	ND 16.7	ND 16.4	ND 15.7		

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Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II
Odessa Laboratory Manager

- 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 and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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842 Cantwell Lane, Corpus Christi, TX 78408	(432) 563-1800	(432) 563-1713
	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786542

Sample: 545993-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 07:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 786542

Sample: 545993-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 07:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0294	0.0300	98	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 786542

Sample: 545993-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 13:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 786542

Sample: 356110-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 13:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0253	0.0300	84	80-120	

Lab Batch #: 786542

Sample: 356110-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 13:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786542

Sample: 356110-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 14:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 786542

Sample: 356110-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 14:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 786542

Sample: 356110-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 15:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 786542

Sample: 356110-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 15:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 786542

Sample: 356110-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 15:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786542

Sample: 356110-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 16:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 786542

Sample: 356110-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 16:42

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 786542

Sample: 356110-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 17:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0250	0.0300	83	80-120	

Lab Batch #: 786542

Sample: 356110-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 18:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0285	0.0300	95	80-120	

Lab Batch #: 786542

Sample: 356110-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 18:41

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786542

Sample: 356110-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 19:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 786542

Sample: 356110-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 19:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

Lab Batch #: 786542

Sample: 356110-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 19:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 786542

Sample: 356110-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 20:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 786542

Sample: 356110-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 20:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786542

Sample: 356110-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 21:02

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0259	0.0300	86	80-120	

Lab Batch #: 786542

Sample: 356110-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 21:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 786542

Sample: 356110-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 21:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0274	0.0300	91	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 786542

Sample: 356110-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 22:13

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	0.0292	0.0300	97	80-120	

Lab Batch #: 786542

Sample: 356110-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 22:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0310	0.0300	103	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786549

Sample: 545998-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 23:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 786549

Sample: 545998-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 23:48

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0262	0.0300	87	80-120	
4-Bromofluorobenzene	0.0243	0.0300	81	80-120	

Lab Batch #: 786549

Sample: 545998-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/21/09 00:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 786549

Sample: 356110-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 01:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0264	0.0300	88	80-120	

Lab Batch #: 786549

Sample: 356110-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 01:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786549

Sample: 356110-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 02:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 786549

Sample: 356110-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 02:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 786549

Sample: 356110-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 02:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

Lab Batch #: 786549

Sample: 356110-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 03:20

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 786549

Sample: 356110-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 03:43

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786549

Sample: 356110-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 04:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0272	0.0300	91	80-120	

Lab Batch #: 786549

Sample: 356110-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 04:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0262	0.0300	87	80-120	

Lab Batch #: 786549

Sample: 356110-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 04:54

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 786549

Sample: 356110-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 06:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0266	0.0300	89	80-120	

Lab Batch #: 786549

Sample: 356110-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 06:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786549

Sample: 356110-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 06:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0260	0.0300	87	80-120	

Lab Batch #: 786549

Sample: 356110-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 07:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0263	0.0300	88	80-120	

Lab Batch #: 786549

Sample: 356110-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 07:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0267	0.0300	89	80-120	

Lab Batch #: 786549

Sample: 356110-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 08:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

Lab Batch #: 786549

Sample: 356110-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 08:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786549

Sample: 356110-038 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 09:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	80-120	
4-Bromofluorobenzene	0.0276	0.0300	92	80-120	

Lab Batch #: 786549

Sample: 356110-039 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 09:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 786549

Sample: 356110-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 10:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0274	0.0300	91	80-120	

Lab Batch #: 786549

Sample: 356110-040 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 10:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

Lab Batch #: 786549

Sample: 356110-040 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/21/09 11:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0288	0.0300	96	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786507

Sample: 545957-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/19/09 13:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	99.5	97	70-135	
o-Terphenyl	44.2	49.8	89	70-135	

Lab Batch #: 786507

Sample: 545957-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/19/09 14:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.6	99.8	95	70-135	
o-Terphenyl	43.5	49.9	87	70-135	

Lab Batch #: 786507

Sample: 545957-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/19/09 14:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.7	99.6	78	70-135	
o-Terphenyl	45.9	49.8	92	70-135	

Lab Batch #: 786507

Sample: 356110-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 14:59

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.5	99.5	76	70-135	
o-Terphenyl	44.9	49.8	90	70-135	

Lab Batch #: 786507

Sample: 356110-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 15:26

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.0	99.5	76	70-135	
o-Terphenyl	44.9	49.8	90	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786507

Sample: 356110-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 15:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.7	99.7	75	70-135	
o-Terphenyl	44.1	49.9	88	70-135	

Lab Batch #: 786507

Sample: 356110-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 16:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.0	99.7	77	70-135	
o-Terphenyl	45.6	49.9	91	70-135	

Lab Batch #: 786507

Sample: 356110-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 16:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	99.7	87	70-135	
o-Terphenyl	50.0	49.9	100	70-135	

Lab Batch #: 786507

Sample: 356110-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 17:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.3	99.5	76	70-135	
o-Terphenyl	43.9	49.8	88	70-135	

Lab Batch #: 786507

Sample: 356110-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 17:39

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.8	99.9	75	70-135	
o-Terphenyl	44.0	50.0	88	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786507

Sample: 356110-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 18:06

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.7	99.7	73	70-135	
o-Terphenyl	43.2	49.9	87	70-135	

Lab Batch #: 786507

Sample: 356110-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 18:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.2	100	76	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

Lab Batch #: 786507

Sample: 356110-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 19:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.2	100	82	70-135	
o-Terphenyl	48.0	50.0	96	70-135	

Lab Batch #: 786507

Sample: 356110-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 19:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.5	100	76	70-135	
o-Terphenyl	44.5	50.0	89	70-135	

Lab Batch #: 786507

Sample: 356110-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 20:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	100	78	70-135	
o-Terphenyl	45.5	50.0	91	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786507

Sample: 356110-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 20:47

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.3	99.5	76	70-135	
o-Terphenyl	44.2	49.8	89	70-135	

Lab Batch #: 786507

Sample: 356110-014 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 21:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.4	99.5	77	70-135	
o-Terphenyl	44.8	49.8	90	70-135	

Lab Batch #: 786507

Sample: 356110-015 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 21:41

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.7	100	79	70-135	
o-Terphenyl	46.2	50.0	92	70-135	

Lab Batch #: 786507

Sample: 356110-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 22:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.4	99.8	79	70-135	
o-Terphenyl	46.0	49.9	92	70-135	

Lab Batch #: 786507

Sample: 356110-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 22:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.1	99.8	78	70-135	
o-Terphenyl	45.4	49.9	91	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786507

Sample: 356110-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 23:00

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.0	99.6	78	70-135	
o-Terphenyl	45.6	49.8	92	70-135	

Lab Batch #: 786507

Sample: 356110-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 23:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.4	100	78	70-135	
o-Terphenyl	45.6	50.0	91	70-135	

Lab Batch #: 786507

Sample: 356110-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/19/09 23:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.8	100	82	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

Lab Batch #: 786507

Sample: 356110-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 00:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.0	99.9	93	70-135	
o-Terphenyl	42.8	50.0	86	70-135	

Lab Batch #: 786507

Sample: 356110-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 00:47

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	99.5	98	70-135	
o-Terphenyl	44.9	49.8	90	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786512

Sample: 545961-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 03:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.3	99.7	90	70-135	
o-Terphenyl	40.4	49.9	81	70-135	

Lab Batch #: 786512

Sample: 545961-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 03:52

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.0	99.7	92	70-135	
o-Terphenyl	42.0	49.9	84	70-135	

Lab Batch #: 786512

Sample: 545961-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/20/09 04:18

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.0	100	79	70-135	
o-Terphenyl	45.7	50.0	91	70-135	

Lab Batch #: 786512

Sample: 356110-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 04:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.1	99.5	72	70-135	
o-Terphenyl	42.7	49.8	86	70-135	

Lab Batch #: 786512

Sample: 356110-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 05:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.4	100	85	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786512

Sample: 356110-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 05:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.9	99.9	77	70-135	
o-Terphenyl	45.1	50.0	90	70-135	

Lab Batch #: 786512

Sample: 356110-024 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 06:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.7	100	77	70-135	
o-Terphenyl	45.0	50.0	90	70-135	

Lab Batch #: 786512

Sample: 356110-025 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 06:31

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	78.1	100	78	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 786512

Sample: 356110-026 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 06:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

Lab Batch #: 786512

Sample: 356110-027 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 07:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.9	100	81	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786512

Sample: 356110-028 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 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	75.0	99.8	75	70-135	
o-Terphenyl	44.2	49.9	89	70-135	

Lab Batch #: 786512

Sample: 356110-029 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 08:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.8	99.5	77	70-135	
o-Terphenyl	44.9	49.8	90	70-135	

Lab Batch #: 786512

Sample: 356110-030 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 08:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.0	99.5	73	70-135	
o-Terphenyl	43.2	49.8	87	70-135	

Lab Batch #: 786512

Sample: 356110-031 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 09:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.8	99.9	74	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 786512

Sample: 356110-032 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 10:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.2	99.5	71	70-135	
o-Terphenyl	40.9	49.8	82	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786512

Sample: 356110-033 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 10:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.1	99.5	75	70-135	
o-Terphenyl	43.9	49.8	88	70-135	

Lab Batch #: 786512

Sample: 356110-034 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 10:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.5	99.5	80	70-135	
o-Terphenyl	46.4	49.8	93	70-135	

Lab Batch #: 786512

Sample: 356110-035 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 11:23

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.6	99.5	76	70-135	
o-Terphenyl	44.5	49.8	89	70-135	

Lab Batch #: 786512

Sample: 356110-036 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 11:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.7	100	81	70-135	
o-Terphenyl	46.3	50.0	93	70-135	

Lab Batch #: 786512

Sample: 356110-037 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 12:17

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	76.2	100	76	70-135	
o-Terphenyl	44.8	50.0	90	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Southern Union Landfarm

Work Orders : 356110,

Project ID: Southern Union Gas

Lab Batch #: 786512

Sample: 356110-038 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 12:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.3	99.9	79	70-135	
o-Terphenyl	46.2	50.0	92	70-135	

Lab Batch #: 786512

Sample: 356110-039 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 13:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.1	99.9	77	70-135	
o-Terphenyl	44.9	50.0	90	70-135	

Lab Batch #: 786512

Sample: 356110-040 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 13:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.8	99.5	75	70-135	
o-Terphenyl	43.2	49.8	87	70-135	

Lab Batch #: 786512

Sample: 356110-030 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 14:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	100	91	70-135	
o-Terphenyl	41.7	50.0	83	70-135	

Lab Batch #: 786512

Sample: 356110-030 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/20/09 14:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	99.7	96	70-135	
o-Terphenyl	43.8	49.9	88	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Blank Spike Recovery



Project Name: Southern Union Landfarm

Work Order #: 356110

Project ID: Southern Union Gas

Lab Batch #: 786498

Sample: 786498-1-BKS

Matrix: Solid

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	11.0	11.1	101	75-125	

Lab Batch #: 786505

Sample: 786505-1-BKS

Matrix: Solid

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.1	101	75-125	

Lab Batch #: 786509

Sample: 786509-1-BKS

Matrix: Solid

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by E300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.32	93	75-125	

Blank Spike Recovery [D] = $100 \times [C] / [B]$

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

BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: Southern Union Landfarm

Work Order #: 356110

Analyst: ASA

Date Prepared: 12/19/2009

Project ID: Southern Union Gas

Date Analyzed: 12/20/2009

Lab Batch ID: 786542

Sample: 545993-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	ND	0.1000	0.1111	111	0.1	0.1059	106	5	70-130	35	
Toluene	ND	0.1000	0.1140	114	0.1	0.1098	110	4	70-130	35	
Ethylbenzene	ND	0.1000	0.1128	113	0.1	0.1081	108	4	71-129	35	
m,p-Xylenes	ND	0.2000	0.2502	125	0.2	0.2399	120	4	70-135	35	
o-Xylene	ND	0.1000	0.1209	121	0.1	0.1165	117	4	71-133	35	

Analyst: ASA

Date Prepared: 12/19/2009

Date Analyzed: 12/20/2009

Lab Batch ID: 786549

Sample: 545998-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	ND	0.1000	0.1045	105	0.1	0.1019	102	3	70-130	35	
Toluene	ND	0.1000	0.1068	107	0.1	0.1059	106	1	70-130	35	
Ethylbenzene	ND	0.1000	0.1044	104	0.1	0.1042	104	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.2268	113	0.2	0.2221	111	2	70-135	35	
o-Xylene	ND	0.1000	0.1122	112	0.1	0.1110	111	1	71-133	35	

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

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

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

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southern Union Landfarm

Work Order #: 356110

Analyst: BEV

Date Prepared: 12/18/2009

Project ID: Southern Union Gas

Date Analyzed: 12/19/2009

Lab Batch ID: 786507

Sample: 545957-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	995	940	94	998	931	93	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	995	766	77	998	753	75	2	70-135	35	

Analyst: BEV

Date Prepared: 12/18/2009

Date Analyzed: 12/20/2009

Lab Batch ID: 786512

Sample: 545961-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	997	910	91	997	929	93	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	997	869	87	997	757	76	14	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: Southern Union Landfarm



Work Order #: 356110

Lab Batch #: 786498

Date Analyzed: 12/18/2009

QC- Sample ID: 356011-002 S

Reporting Units: mg/kg

Project ID: Southern Union Gas

Analyst: LATCOR

Date Prepared: 12/18/2009

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	656	228	844	82	75-125	

Lab Batch #: 786505

Date Analyzed: 12/18/2009

QC- Sample ID: 356110-018 S

Reporting Units: mg/kg

Date Prepared: 12/18/2009

Analyst: LATCOR

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	12.9	113	118	93	75-125	

Lab Batch #: 786509

Date Analyzed: 12/18/2009

QC- Sample ID: 356110-035 S

Reporting Units: mg/kg

Date Prepared: 12/18/2009

Analyst: LATCOR

Batch #: 1

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	ND	108	108	100	75-125	

Matrix Spike Percent Recovery [D] = $100 \times (C-A)/B$

Relative Percent Difference [E] = $200 \times (C-A)/(C+B)$

All Results are based on MDL and Validated for QC Purposes

BL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Landfarm

Work Order #: 356110

Project ID: Southern Union Gas

Lab Batch ID: 786542

QC- Sample ID: 356110-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/20/2009

Date Prepared: 12/19/2009

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1140	0.0665	58	0.1142	0.0763	67	14	70-130	35	X
Toluene	ND	0.1140	0.0679	60	0.1142	0.0783	69	14	70-130	35	X
Ethylbenzene	ND	0.1140	0.0659	58	0.1142	0.0759	66	14	71-129	35	X
m,p-Xylenes	ND	0.2280	0.1510	66	0.2284	0.1729	76	14	70-135	35	X
o-Xylene	ND	0.1140	0.0748	66	0.1142	0.0857	75	14	71-133	35	X

Lab Batch ID: 786549

QC- Sample ID: 356110-040 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/21/2009

Date Prepared: 12/19/2009

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1045	0.0795	76	0.1043	0.0807	77	1	70-130	35	
Toluene	ND	0.1045	0.0792	76	0.1043	0.0806	77	2	70-130	35	
Ethylbenzene	ND	0.1045	0.0781	75	0.1043	0.0795	76	2	71-129	35	
m,p-Xylenes	ND	0.2090	0.1740	83	0.2086	0.1777	85	2	70-135	35	
o-Xylene	ND	0.1045	0.0852	82	0.1043	0.0868	83	2	71-133	35	

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

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

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



Form 3 - MS / MSD Recoveries



Project Name: Southern Union Landfarm

Work Order #: 356110

Project ID: Southern Union Gas

Lab Batch ID: 786507

QC- Sample ID: 356110-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/20/2009

Date Prepared: 12/18/2009

Analyst: BEV

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	1140	1050	92	1140	1060	93	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1140	862	76	1140	885	78	3	70-135	35	

Lab Batch ID: 786512

QC- Sample ID: 356110-030 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/20/2009

Date Prepared: 12/18/2009

Analyst: BEV

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	1170	1030	88	1160	1070	92	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1170	977	84	1160	876	76	11	70-135	35	

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

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

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

Project Name: Southern Union Landfarm

Work Order #: 356110

Lab Batch #: 786498

Project ID: Southern Union Gas

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

QC- Sample ID: 356011-002 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	656	652	1	20	

Lab Batch #: 786505

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

QC- Sample ID: 356110-018 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	12.9	6.04	72	20	F

Lab Batch #: 786509

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: LATCOR

QC- Sample ID: 356110-035 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	ND	ND	NC	20	

Lab Batch #: 786465

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: WRU

QC- Sample ID: 356110-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	12.4	12.5	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



Sample Duplicate Recovery



Project Name: Southern Union Landfarm

Work Order #: 356110

Lab Batch #: 786468

Project ID: Southern Union Gas

Date Analyzed: 12/18/2009

Date Prepared: 12/18/2009

Analyst: WRU

QC- Sample ID: 356110-021 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	15.8	16.7	6	20	

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

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: Rose Slade PAGE 01 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #:

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: rose.slade@SUG.com

(lab use only)

ORDER #: 356110

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None (PAH)	Other (Specify)	DW - Drinking Water SL - Sludge	GW - Groundwater S - Soil/Sed	NP - Non-Portable Specify Other	TPH: 418.1	TPH: 8015M	TPH: TX 1005	TPH: TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg S	Volatiles	Semi-volatiles	BTEX 402 B15030 or BTEX 82826	RCI	N.O.R.M.	PAH	EPA Paint Filter Test	Chlorides E 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	VZ Cell 14 G1			12/16/2009	0905		1	X								Soil	X												X					X	X	
2	VZ Cell 1 G1			12/16/2009	0915		1	X								Soil	X												X					X	X	
3	VZ Cell 1 G2			12/16/2009	0925		1	X								Soil	X												X					X	X	
4	VZ Cell 1 G3			12/16/2009	0935		1	X								Soil	X												X					X	X	
5	VZ Cell 1 G4			12/16/2009	0945		1	X								Soil	X												X					X	X	
6	VZ Cell 1 G5			12/16/2009	0955		1	X								Soil	X												X					X	X	
7	VZ Cell 2 G1			12/16/2009	1005		1	X								Soil	X												X					X	X	
8	VZ Cell 2 G2			12/16/2009	1015		1	X								Soil	X												X					X	X	
9	VZ Cell 2 G3			12/16/2009	1025		1	X								Soil	X												X					X	X	
10	VZ Cell 2 G4			12/16/2009	1035		1	X								Soil	X												X					X	X	

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Laboratory Comments:

VOCs Free of Headspace? ☒ N
Custody seals on container(s) / labels ☒ N
Sample Hand-Delivered ☒ N
by Sampler/Client Rep. ? ☒ Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 5.6 °C

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	12/17/09	1704			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			<u>Jeanne Fitch</u>	12-17-09	1704

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: Rose Slade PAGE 02 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #: _____

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: rose.slade@SUG.com

(lab use only)

ORDER #: 356110

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None (PAH)	Other (Specify)	DW - Drinking Water SL - Sludge	GW - Groundwater S - Soil/Sed	NP - Non-Potable Specify other	TPH: 418.1	TPH: 8015M	TPH: TX 1005	TPH: TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg S	Volatiles	Semivolatiles	BTEX 8021B 8030 or BTEX 8280	RCI	N.O.R.M.	PAH	EPA Part Filter-Test	Chlorides E 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
11	VZ Cell 3 G1			12/16/2009	1045		1	X								Soil	X		X										X				X			
12	VZ Cell 3 G2			12/16/2009	1055		1	X								Soil	X		X										X				X			
13	VZ Cell 3 G3			12/16/2009	1105		1	X								Soil	X		X										X				X			
14	VZ Cell 3 G4			12/16/2009	1115		1	X								Soil	X		X										X				X			
15	VZ Cell 3 G5			12/16/2009	1125		1	X								Soil	X		X										X				X			
16	VZ Cell 4 G1			12/16/2009	1135		1	X								Soil	X		X										X				X			
17	VZ Cell 4 G2			12/16/2009	1145		1	X								Soil	X		X										X				X			
18	VZ Cell 4 G3			12/16/2009	1155		1	X								Soil	X		X										X				X			
19	VZ Cell 4 G4			12/16/2009	1205		1	X								Soil	X		X										X				X			
20	VZ Cell 4 G5			12/16/2009	1215		1	X								Soil	X		X										X				X			

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by: <u>[Signature]</u>	Date: <u>12/17/09</u>	Time: <u>1704</u>	Received by: _____	Date: _____	Time: _____	Laboratory Comments: VOCs Free of Headspace? <u>Y</u> N Custody seals on container(s)/labels? <u>Y</u> N Sample Hand-Delivered by Sample Client Rep.? <u>Y</u> N by Courier? UPS DHL FedEx Lone Star Temperature Upon Receipt: <u>5.6</u> °C
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____	
Relinquished by: _____	Date: _____	Time: _____	Received by: <u>Jeanne Fitch</u>	Date: <u>12-17-09</u>	Time: <u>1704</u>	

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: Rose Slade PAGE 03 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #:

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: C. Stanley

e-mail: rose.slade@SUG.com

(lab use only)

ORDER #: 356110

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers										Matrix										Analyze For:										Standard TAT
										Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₈	None (PAH)	Other (Specify)	DW - Drinking Water SL - Sludge	CW - Groundwater S - Soil/Sediment	NP - Non-Potable Specify On	TPH: 418.1	8015M	8015B	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B 8030 or BTEX 8260	RCI	N.O.R.M.	PAH	EPA Paint Filter Test	Chlorides (E 300)	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs		
21		VZ Cell 8 G1				12/16/2009	1225		1	X								Soil	X																					
22		VZ Cell 8 G2				12/16/2009	1235		1	X								Soil	X																					
23		VZ Cell 7 G1				12/16/2009	1245		1	X								Soil	X																					
24		VZ Cell 5 G1				12/16/2009	1255		1	X								Soil	X																					
25		VZ Cell 6 G1				12/16/2009	1305		1	X								Soil	X																					
26		VZ Cell 6 G2				12/16/2009	1315		1	X								Soil	X																					
27		VZ Cell 9 G1				12/16/2009	1325		1	X								Soil	X																					
28		VZ Cell 9 G2				12/16/2009	1335		1	X								Soil	X																					
29		VZ Cell 9 G3				12/16/2009	1345		1	X								Soil	X																					
30		VZ Cell 9 G4				12/16/2009	1355		1	X								Soil	X																					

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by ELOT:

Date

Time

Laboratory Comments:

VOCs Free of Headspace? ☒ N
Custody seals on container(s) ☒ N
Sample Hand Delivered ☒ N
by Sample Client Rep. ? ☒ N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 5.6 °C

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: Rose Slade PAGE 04 OF 04

Project Name: Southern Union Landfarm

Company Name: Southern Union Gas Services

Project #: Southern Union Gas

Company Address: 1507 W. 15th Street

Project Loc: Lea County, NM

City/State/Zip: Monahans, TX 79756

PO #:

Telephone No: 432-943-1116

Fax No: 432-943-1101

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: [Signature]

e-mail: rose.slade@SUG.com

(lab use only)

ORDER #: 356110

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers										Matrix										Analyze For:										Standard TAT
								Ice	HNO ₃	HCl (VOA X 2)	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₈	None (PAH)	Other (Specify)	DW = Drinking Water SL = Sludge	GW = Groundwater S = Soil/Solid	NP = Non-Potable Specify Other	TPH: 418.1	TPH: 8015M	TPH: 8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg S	Volatiles	Semivolatiles	BTEX: 80218330 or BTEX 8280	RCI	N.O.R.M.	PAH	EPA Paint Filter Test	Chlorides E 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs		
31	VZ Cell 9 G5			12/16/2009	1405		1	X								Soil	X																				X	X
32	VZ Cell 10 G1			12/16/2009	1415		1	X								Soil	X																				X	X
33	VZ Cell 10 G2			12/16/2009	1425		1	X								Soil	X																				X	X
34	VZ Cell 10 G3			12/16/2009	1435		1	X								Soil	X																				X	X
35	VZ Cell 10 G4			12/16/2009	1445		1	X								Soil	X																				X	X
36	VZ Cell 15 G1			12/16/2009	1455		1	X								Soil	X																				X	X
37	VZ Cell 11 G1			12/16/2009	1505		1	X								Soil	X																				X	X
38	VZ Cell 11 G2			12/16/2009	1515		1	X								Soil	X																				X	X
39	VZ Cell 12 G1			12/16/2009	1525		1	X								Soil	X																				X	X
40	VZ Cell 13 G1			12/16/2009	1535		1	X								Soil	X																				X	X

Special Instructions:

Please copy to cdstanley@basin-consulting.com

Relinquished by: <u>[Signature]</u>	Date: <u>12/17/09</u>	Time: <u>1704</u>	Received by:	Date:	Time:	Laboratory Comments: VOCs Free of Headspace? <u>N</u> Custody seals on container(s) <u>1 each</u> <u>N</u> Sample Hand Delivered by Sample/Client Rep.? <u>Y</u> <u>N</u> by Courier? <u>UPS</u> <u>DHL</u> <u>FedEx</u> <u>Lone Star</u> Temperature Upon Receipt: <u>5.6°C</u>
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	
Relinquished by:	Date:	Time:	Received by: ELOT:	Date:	Time:	

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: SUGS

Date/ Time: 12-17-09 @ 1704

Lab ID #: 356110

Initials: JMF

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	5.6 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container?/label	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	<u>No</u>	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	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



Southern Union Landfarm – Cell #1



Southern Union Landfarm – Cell #2



Southern Union Landfarm – Cell #3



Southern Union Landfarm – Cell #4



Southern Union Landfarm – Cell #5



Southern Union Landfarm – Cell #6



Southern Union Landfarm – Cell #7



Southern Union Landfarm – Cell #8



Southern Union Landfarm – Cell #9



Southern Union Landfarm – Cell #11



Southern Union Landfarm – Cell #13



Southern Union Landfarm – Cell #14