

PLW 5103643884

2676

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

Form C-141

Revised October 10, 2003

JAN 03 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company	Southern Union Gas Services	Contact	Rose Slade
Address	P.O. Box 1226 Jul. New Mexico 88252	Telephone No.	432-940-5147
Facility Name	MB-4 9-10	Facility Type	Natural Gas Pipeline
Surface Owner	Johnny Owens Sr.	Lease No.	30-025-38822

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	15	25S	37E					Lea

Latitude 32 degrees 07.412' North Longitude 103 degrees 08.706 West

NATURE OF RELEASE

Type of Release	Natural Gas, Crude Oil and Produced Water	Volume of Release	6 BBLS	Volume Recovered	None
Source of Release	Natural Gas Pipeline	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	August 29, 2010, 1830 hrs
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			
If a Watercourse was Impacted, Describe Fully.*					

Describe Cause of Problem and Remedial Action Taken.*

A 16-inch low pressure natural gas pipeline developed a leak due to internal corrosion of the pipeline, resulting in a release of natural gas, crude oil and produced water. During initial response activities the pipeline was fitted with a temporary pipeline clamp to mitigate the release. Following initial response activities, the affected pipeline segment was replaced.

Describe Area Affected and Cleanup Action Taken.*

The affected area is approximately 500 square feet and is located in a low lying pasture. The release will be remediated according to NMOC regulatory guidelines.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOC marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOC acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION		
Printed Name: Rose L. Slade	Approved by District Supervisor		
Title: EHS Compliance Specialist	ENVIRONMENTAL ENGINEER		
E-mail Address: rose.slade@sug.com	Approval Date: 12-30-10	Expiration Date: —	
Date: 6/8/2010 Phone: 432-940-5147	Conditions of Approval:		Attached <input type="checkbox"/>
	—		IR# 12-10-2676

* Attach Additional Sheets If Necessary

PLW 5103643884
PLW 5103643884

Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260

bjarguijo@basinenv.com

Office: (575) 396-2378

Fax: (575) 396-1429



REMEDIATION SUMMARY

AND

SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES

Line MB-4 (2010-050)

Lea County, New Mexico

Unit Letter "P" (SESE), Section 15, Township 25 South, Range 37 East

Latitude 32° 07.412' North, Longitude 103° 08.706' West

Prepared For:

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

Prepared By:

Basin Environmental Service Technologies, LLC

March 2011



Ben J. Arguijo
Project Manager

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APPENDICES

Appendix A – Laboratory Analytical Reports

Appendix B – Photographs

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1.0 INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this "Remediation Summary and Site Closure Request" for the release site known as Line MB-4. The legal description of the release site is Unit Letter "P" (SESE), Section 15, Township 25 South, Range 37 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 07.412' North latitude and 103° 08.706' West longitude. The property affected by the release is owned by Mr. Johnny Owens, Sr. A "Site Location Map" is provided as Figure 1.

On August 29, 2010, Southern Union discovered a release from a sixteen (16)-inch, low pressure, steel natural gas pipeline. Approximately six (6) barrels of a mixture of natural gas, crude oil, and produced water was released from the pipeline, resulting in an affected area of approximately five hundred (500) square feet. The release was attributed to internal corrosion of the pipeline. During initial response activities, the pipeline was fitted with a temporary pipeline clamp to mitigate the release. Following initial response activities, the affected pipeline segment was replaced. General photographs of the site are provided as Appendix B. The "Release Notification and Corrective Action" (Form C-141) is provided as Appendix C.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated depth to groundwater information was unavailable for Section 15, Township 25 South, Range 37 East. A depth to groundwater reference map utilized by the New Mexico Oil Conservation Division (NMOCD) indicates groundwater should be encountered at approximately fifty (50) feet below ground surface (bgs). Based on the NMOCD ranking system, twenty (20) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the Line MB-4 release site has a ranking score of twenty (20). The soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

- Benzene – 10 mg/kg (ppm)
- BTEX – 50 mg/kg (ppm)
- TPH – 100 mg/kg (ppm)

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

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On December 9, 2010, following initial response activities, excavation of impacted soil began at the site. Hach Quantab Chloride Low Range (30-600 mg/Kg) Titrators were used to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The excavation was divided into two sections: the "South Ditch" and the "West Ditch". Approximately twenty-four (24) cubic yards (cy) of

heavily impacted soil was excavated and transported to Sundance Services, Inc. ("Sundance", NMOCD Permit # NM-01003), for disposal.

From December 10 through December 13, 2010, approximately one hundred and forty-four (144) cy of impacted soil was excavated and transported to Sundance for disposal.

On December 14, 2010, approximately thirty-three (33) cy of impacted soil was excavated and transported to Sundance for disposal. In addition, eleven (11) soil samples (S Ditch E Wall #1, S Ditch E Wall #2, S Ditch Floor #1, S Ditch Floor #2, S Ditch W Wall #1, S Ditch W Wall #2, S Pooling Area, W Ditch N Floor, W Ditch N Wall, W Ditch S Floor, and W Ditch S Wall) were collected from the floor and sidewalls of the excavation and submitted to Xenco Laboratories (Odessa, TX) for analysis of benzene, toluene, ethyl-benzene, and xylenes (BTEX), total petroleum hydrocarbon (TPH), and/or chloride concentrations using EPA Method SW-846 8021b, EPA Method SW-846 8015M, and EPA Method 300.1, respectively.

Laboratory analytical results indicated benzene concentrations were less than the laboratory method detection limit (MDL) for all soil samples submitted. BTEX concentrations ranged from less than the laboratory MDL for soil samples S Ditch Floor #1, S Ditch Floor #2, S Ditch W Wall #1, and W Ditch N Floor to 0.013 mg/Kg for soil sample W Ditch S Floor. TPH concentrations ranged from less than the laboratory MDL for soil samples S Ditch E Wall #1, S Ditch E Wall #2, S Ditch Floor #1, S Ditch Floor #2, S Ditch W Wall #1, S Ditch W Wall #2, S Pooling Area, W Ditch N Wall, W Ditch S Floor, and W Ditch S Wall to 31.9 mg/Kg for soil sample W Ditch N Floor. Chloride concentrations ranged from 4.84 mg/Kg for soil sample S Ditch E Wall #2 to 275 mg/Kg for soil sample W Ditch S Floor. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chlorides in Soil". A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix A.

On January 3, 2011, an NMOCD representative approved Southern Union's request to allow soil represented by soil sample "W Ditch S Floor" to remain in place.

Based on the laboratory analytical results, on January 5, 2011, the excavation was backfilled in eighteen (18)-inch lifts, compacted, and contoured to fit the surrounding topography. Prior to backfilling, final dimensions of the South Ditch were approximately seventy-two (72) feet in length, approximately twelve (12) feet in width, and approximately two (2) feet in depth. The West Ditch measured approximately twelve (12) feet in length, approximately forty-eight (48) feet in width, and ranging in depth from approximately three (3) feet to twelve (12) feet.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

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

The soil samples were analyzed as follows:

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

4.2 Decontamination of Equipment

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

4.3 Laboratory Protocol

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

5.0 SITE CLOSURE REQUEST

Soil samples collected from the floor and sidewalls of the Line MB-4 excavation were analyzed by an NMOCD approved laboratory, and concentrations of benzene, BTEX, TPH, and chloride were less than the remediation action levels established or approved for the site by the NMOCD. Based on these analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this "Remediation Summary and Site Closure Request" and request the NMOCD grant site closure to the Line MB-4 release site.

6.0 LIMITATIONS

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

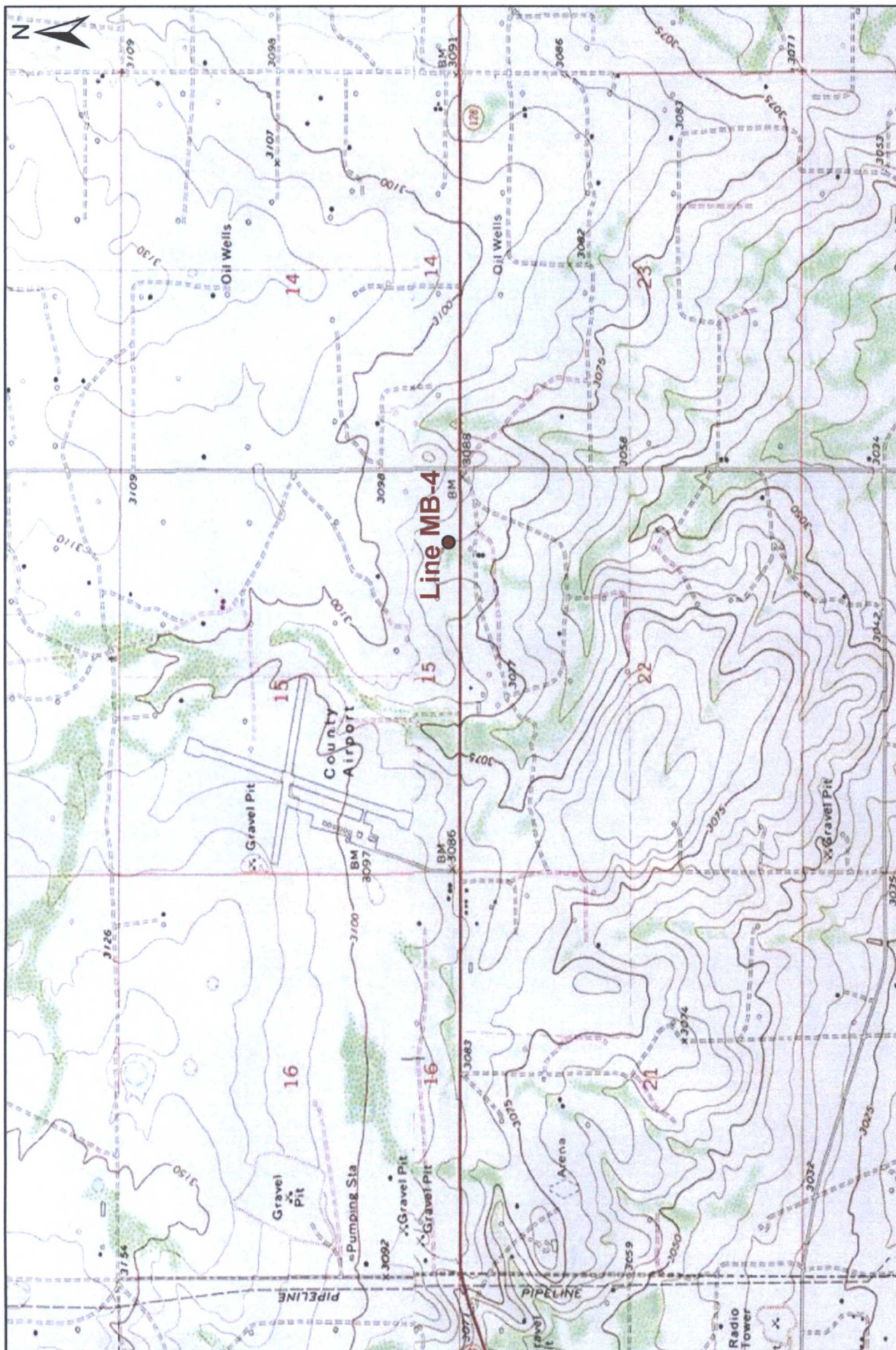
This report has been prepared for the benefit of Southern Union Gas Services. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Southern Union Gas Services.

7.0 DISTRIBUTION:

Copy 1: Geoffrey Leking
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 1)
1625 French Drive
Hobbs, New Mexico 88240
GeoffreyR.Leking@state.nm.us

Copy 2: Rose Slade
Southern Union Gas Services
801 S. Loop 464
Monahans, Texas 79756
rose.slade@sug.com

Copy 3: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, New Mexico 88260
bjarguijo@basinenv.com



Basin Environmental Service Technologies, LLC

Figure 1
Site Location Map
Southern Union Gas Services
Line MB-4
Lea County, New Mexico

1,000 500 0 1,000 2,000
Distance in Feet

Drawn By: BJA	Checked By: BRB
December 30, 2010	Scale: 1" = 2000'

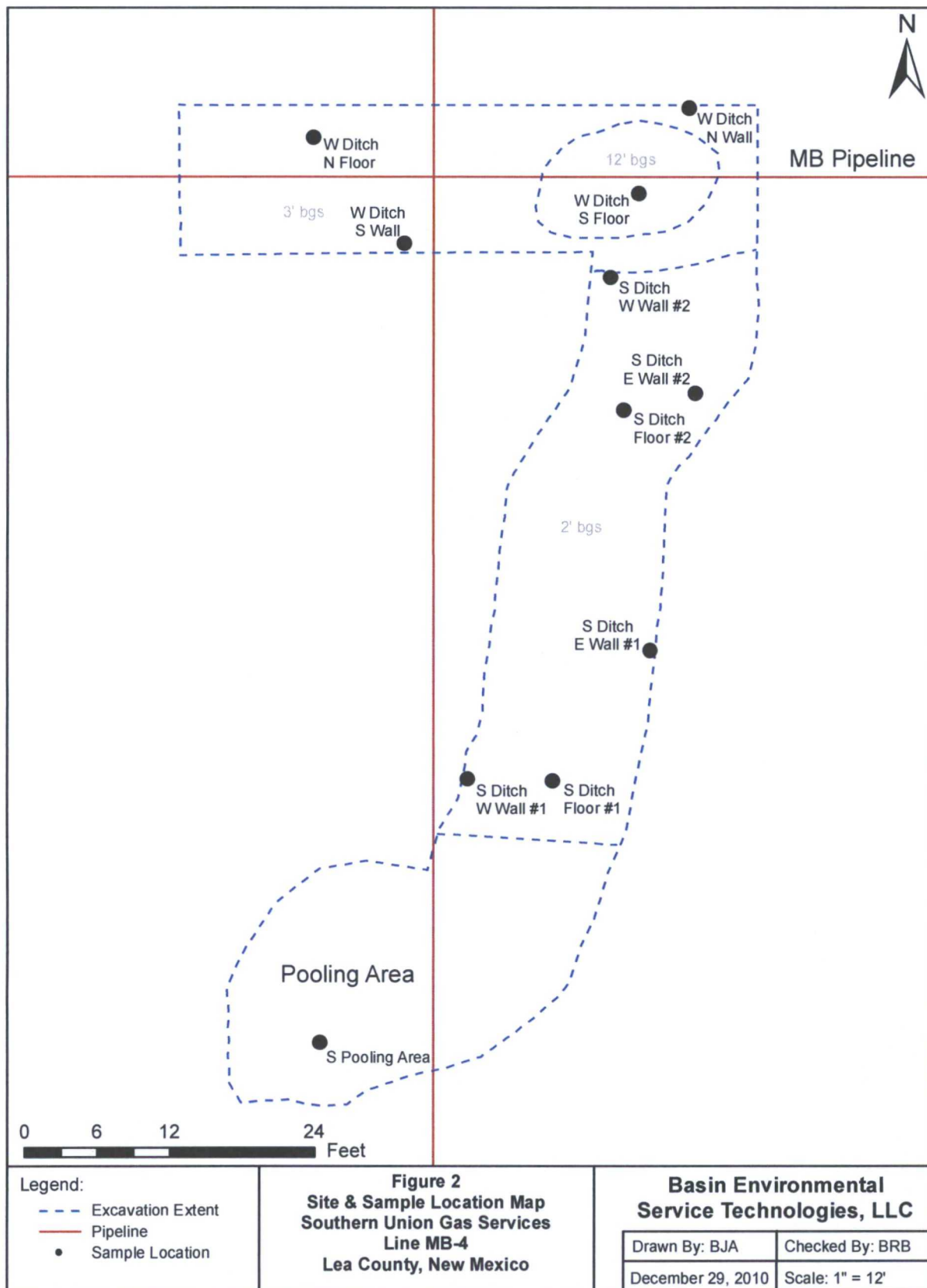


TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDES IN SOIL

SOUTHERN UNION GAS SERVICES

LINE MB-4

LEA COUNTY, NEW MEXICO

PROJECT #: 2010-050

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW-846 8021B						METHOD: EPA SW-846 8015M				TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	E 300.1 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P. - XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)			
S Ditch E Wall #1	2'	12/14/10	In-Situ	-	-	-	-	-	-	-	<16.0	<16.0	<16.0	<16.0	19.6
S Ditch E Wall #2	2'	12/14/10	In-Situ	-	-	-	-	-	-	-	<15.6	<15.6	<15.6	<15.6	4.84
S Ditch Floor #1	2'	12/14/10	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<15.8	<15.8	<15.8	<15.8	128
S Ditch Floor #2	2'	12/14/10	In-Situ	<0.0011	<0.0022	<0.0011	<0.0022	<0.0011	<0.0022	<0.0022	<16.2	<16.2	<16.2	<16.2	105
S Ditch W Wall #1	2'	12/14/10	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<15.5	<15.5	<15.5	<15.5	34.0
S Ditch W Wall #2	2'	12/14/10	In-Situ	-	-	-	-	-	-	-	<15.7	<15.7	<15.7	<15.7	7.72
S Pooling Area	2'	12/14/10	In-Situ	-	-	-	-	-	-	-	<15.3	<15.3	<15.3	<15.3	11.6
W Ditch N Floor	3'	12/14/10	In-Situ	<0.0010	<0.0021	<0.0010	<0.0021	<0.0010	<0.0021	<0.0021	<15.5	31.9	<15.5	31.9	35.7
W Ditch N Wall	3'	12/14/10	In-Situ	-	-	-	-	-	-	-	<15.6	<15.6	<15.6	<15.6	9.5
W Ditch S Floor	12'	12/14/10	In-Situ	<0.0011	<0.0022	0.0012	0.0079	0.0039	0.013	0.013	<16.1	<16.1	<16.1	<16.1	275
W Ditch S Wall	3'	12/14/10	In-Situ	-	-	-	-	-	-	-	<15.4	<15.4	<15.4	<15.4	69.8

Analytical Report 400675
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Line MB4

2010-050

06-JAN-11



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (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 (LAO00312), 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-TX)

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

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

Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



06-JAN-11

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

Reference: XENCO Report No: **400675**
Line MB4
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 400675. 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. 400675 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 400675



Southern Union Gas Services- Monahans, Monahans, TX

Line MB4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S Pooling Area	S	Dec-14-10 08:00		400675-001
S Ditch Floor #1	S	Dec-14-10 08:05		400675-002
S Ditch Floor #2	S	Dec-14-10 08:10		400675-003
S Ditch W Wall #1	S	Dec-14-10 08:15		400675-004
S Ditch W Wall #2	S	Dec-14-10 08:20		400675-005
S Ditch E Wall #1	S	Dec-14-10 08:25		400675-006
S Ditch E Wall #2	S	Dec-14-10 08:30		400675-007



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Line MB4



Project ID: 2010-050
Work Order Number: 400675

Report Date: 06-JAN-11
Date Received: 12/15/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-837331 BTEX by EPA 8021B
SW8021BM

Batch 837331, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 400675-002.

4-Bromofluorobenzene recovered above QC limits QC Data not confirmed by re-analysis.

Samples affected are: 592046-1-BKS.

SW8021BM

Batch 837331, Ethylbenzene, m_p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 400675-002, -003, -004.

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



Certificate of Analysis Summary 400675
Southern Union Gas Services- Monahans, Monahans, TX
Project Name: Line MB4

Project Id: 2010-050

Contact: Rose Slade

Project Location: Lea County, NM

Date Received in Lab: Wed Dec-15-10 11:05 am

Report Date: 06-JAN-11

Project Manager: Brent Barron, II



<i>Analysis Requested</i>		Lab Id:	400675-001	400675-002	400675-003	400675-004	400675-005	400675-006
		Field Id:	S Pooling Area	S Ditch Floor #1	S Ditch Floor #2	S Ditch W Wall #1	S Ditch W Wall #2	S Ditch E Wall #1
		Depth:						
		Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Sampled:	Dec-14-10 08:00	Dec-14-10 08:05	Dec-14-10 08:10	Dec-14-10 08:15	Dec-14-10 08:20	Dec-14-10 08:25
Anions by E300	Extracted:							
	Analyzed:							
	Units/RL:		11.6 4.20	128 4.20	105 4.20	34.0 4.20	7.72 4.20	19.6 4.20
BTEX by EPA 8021B	Extracted:							
	Analyzed:							
	Units/RL:							
Benzene								
Toluene								
Ethylbenzene								
m p-Xylenes								
o-Xylene								
Total Xylenes								
Total BTEX								
Percent Moisture	Extracted:							
	Analyzed:							
	Units/RL:							
TPH By SW8015 Mod	Extracted:							
	Analyzed:							
	Units/RL:							
C6-C12 Gasoline Range Hydrocarbons								
C12-C28 Diesel Range Hydrocarbons								
C28-C35 Oil Range Hydrocarbons								
Total TPH								

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

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

Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 400675
Southern Union Gas Services- Monahans, Monahans, TX



Project Id: 2010-050
Contact: Rose Slade
Project Location: Lea County, NM
Project Name: Line MB4
Date Received in Lab: Wed Dec-15-10 11:05 am
Report Date: 06-JAN-11
Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	400675-007			
	<i>Field Id:</i>	S Ditch E Wall #2			
	<i>Depth:</i>				
	<i>Matrix:</i>	SOIL			
Anions by E300	<i>Sampled:</i>	Dec-14-10 08:30			
	<i>Extracted:</i>				
	<i>Analyzed:</i>	Dec-15-10 14:05			
	<i>Units/RL:</i>	mg/kg RL			
Chloride		4.84 4.20			
Percent Moisture	<i>Extracted:</i>				
	<i>Analyzed:</i>	Dec-16-10 08:30			
	<i>Units/RL:</i>	% RL			
		4.28 1.00			
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-15-10 13:10			
	<i>Analyzed:</i>	Dec-15-10 17:38			
	<i>Units/RL:</i>	mg/kg RL			
		ND 15.6			
C6-C12 Gasoline Range Hydrocarbons		ND 15.6			
C12-C28 Diesel Range Hydrocarbons		ND 15.6			
C28-C35 Oil Range Hydrocarbons		ND 15.6			
Total TPH		ND 15.6			

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

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Brent Barron, II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to 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

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

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(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Line MB4

Work Orders : 400675,

Project ID: 2010-050

Lab Batch #: 837331

Sample: 592046-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/10 14:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0364	0.0300	121	80-120	*

Lab Batch #: 837331

Sample: 592046-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/10 14:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 837331

Sample: 592046-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/10 15:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 837331

Sample: 400675-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/10 16:44

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0233	0.0300	78	80-120	*
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 837331

Sample: 400675-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/10 17:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Line MB4

Work Orders : 400675,

Project ID: 2010-050

Lab Batch #: 837331

Sample: 400675-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/22/10 17:26

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0347	0.0300	116	80-120	

Lab Batch #: 837331

Sample: 400678-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/10 09:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 837331

Sample: 400678-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/10 10:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 836178

Sample: 591413-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/10 14:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	72.2	99.5	73	70-135	
o-Terphenyl	49.2	49.8	99	70-135	

Lab Batch #: 836178

Sample: 591413-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/10 15:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	76.6	100	77	70-135	
o-Terphenyl	38.9	50.2	77	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: Line MB4

Work Orders : 400675,

Project ID: 2010-050

Lab Batch #: 836178

Sample: 591413-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/10 15:25

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	100	75	70-135	
o-Terphenyl	38.9	50.0	78	70-135	

Lab Batch #: 836178

Sample: 400675-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 15:45

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.3	99.6	73	70-135	
o-Terphenyl	36.7	49.8	74	70-135	

Lab Batch #: 836178

Sample: 400675-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 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	75.2	100	75	70-135	
o-Terphenyl	38.2	50.2	76	70-135	

Lab Batch #: 836178

Sample: 400675-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 16:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.0	99.7	72	70-135	
o-Terphenyl	37.1	49.9	74	70-135	

Lab Batch #: 836178

Sample: 400675-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 16:42

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.6	100	75	70-135	
o-Terphenyl	38.5	50.2	77	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: Line MB4

Work Orders : 400675,

Project ID: 2010-050

Lab Batch #: 836178

Sample: 400675-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 17:00

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	100	75	70-135	
o-Terphenyl	37.8	50.1	75	70-135	

Lab Batch #: 836178

Sample: 400675-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 17:19

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	100	73	70-135	
o-Terphenyl	37.2	50.2	74	70-135	

Lab Batch #: 836178

Sample: 400675-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 17:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	99.5	71	70-135	
o-Terphenyl	36.1	49.8	72	70-135	

Lab Batch #: 836178

Sample: 400678-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 12:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.9	99.8	75	70-135	
o-Terphenyl	38.9	49.9	78	70-135	

Lab Batch #: 836178

Sample: 400678-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 12:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.2	99.5	73	70-135	
o-Terphenyl	39.2	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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

Project Name: Line MB4

Work Order #: 400675

Analyst: ASA

Lab Batch ID: 837331

Sample: 592046-1-BKS

Date Prepared: 12/22/2010

Batch #: 1

Project ID: 2010-050

Date Analyzed: 12/22/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Units: mg/kg													
Analytes	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
	Benzene		ND	0.1000	0.1024	102	0.1	0.0865	87	17	70-130	35	
	Toluene		ND	0.1000	0.1100	110	0.1	0.0936	94	16	70-130	35	
	Ethylbenzene		ND	0.1000	0.1123	112	0.1	0.0946	95	17	71-129	35	
	m_p-Xylenes		ND	0.2000	0.2258	113	0.2	0.1910	96	17	70-135	35	
	o-Xylene		ND	0.1000	0.1229	123	0.1	0.1024	102	18	71-133	35	

Analyst: LATCOR

Date Prepared: 12/15/2010

Date Analyzed: 12/15/2010

Lab Batch ID: 836094

Sample: 836094-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Units: mg/kg													
Analytes	Anions by E300		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride			ND	10.0	8.76	88	10	8.88	89	1	75-125	20	

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

Project Name: Line MB4

Work Order #: 400675

Analyst: BEV

Lab Batch ID: 836178

Sample: 591413-1-BKS

Units: mg/kg

Project ID: 2010-050

Date Analyzed: 12/15/2010

Matrix: Solid

Date Prepared: 12/15/2010

Batch #: 1

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
Analytes										Control Limits %RPD
C6-C12 Gasoline Range Hydrocarbons		<50.0	995	977	98	1000	1030	103	5	70-135
C12-C28 Diesel Range Hydrocarbons		<50.0	995	881	89	1000	1020	102	15	70-135
										35
										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: Line MB4

Work Order #: 400675

Lab Batch #: 836094

Date Analyzed: 12/15/2010

QC- Sample ID: 400673-002 S

Date Prepared: 12/15/2010

Batch #: 1

Project ID: 2010-050

Analyst: LATCOR

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	230	200	398	84	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

BRL - Below Reporting Limit

Project Name: Line MB4

Work Order #: 400675

Lab Batch ID: 837331

Date Analyzed: 12/23/2010

Reporting Units: mg/kg

Project ID: 2010-050

QC- Sample ID: 400678-002 S Batch #: 1 Matrix: Soil

Date Prepared: 12/22/2010 Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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	0.1032	0.0720	70	0.1036	0.0718	69	0	70-130	35	X
	Toluene	ND	0.1032	0.0734	71	0.1036	0.0719	69	2	70-130	35	X
	Ethylbenzene	ND	0.1032	0.0567	55	0.1036	0.0577	56	2	71-129	35	X
	m p-Xylenes	ND	0.2064	0.1418	69	0.2073	0.1431	69	1	70-135	35	X
				</								

Lab Batch ID: 836178

Date Analyzed: 12/16/2010

Reporting Units: mg/kg

QC- Sample ID: 400678-004 S Batch #: 1 Matrix: Soil

Date Prepared: 12/15/2010 Analyst: BEV

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Reporting Units: mg/kg											
	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	<16.1	1080	1100	102	1070	1070	100	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.1	1080	855	79	1070	819	77	4	70-135	35	

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

Project Name: Line MB4

Work Order #: 400675

Lab Batch #: 836094

Date Analyzed: 12/15/2010 14:05

Date Prepared: 12/15/2010

Project ID: 2010-050

Analyst: LATCOR

QC- Sample ID: 400673-002 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	230	224	3	20	

Lab Batch #: 836104

Date Analyzed: 12/16/2010 08:30

Date Prepared: 12/16/2010

Analyst: JLG

QC- Sample ID: 400673-001 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	2.97	3.25	9	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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Project Name: Line MB4

Project #: 2010-050

Project Loc: Lea County, NM

PO #: 91896

Fax No: (432)943-1101

com@basineny.com

TRRP

☐ NPDES

Sample signature:

Final 1.002



XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas Services
Date/Time: 12-15-10 11:05
Lab ID #: 400675
Initials: XM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
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		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 1.6 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis

Analytical Report 400678
for
Southern Union Gas Services- Monahans

Project Manager: Rose Slade

Line MB4

2010-050

23-DEC-10



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (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 (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

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

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

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Xenco-Boca Raton (EPA Lab Code: FL01273):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

Xenco Phoenix (EPA Lab Code: AZ00901):

Arizona(AZ0757), California(06244CA), Texas(104704435-10-2), Nevada(NAC-445A), DoD(65816)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)



23-DEC-10

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

Reference: XENCO Report No: **400678**
Line MB4
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 400678. 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. 400678 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 400678



Southern Union Gas Services- Monahans, Monahans, TX

Line MB4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
W Ditch N Wall	S	Dec-14-10 08:35		400678-001
W Ditch N Floor	S	Dec-14-10 08:40		400678-002
W Ditch S Wall	S	Dec-14-10 08:45		400678-003
W Ditch S Floor	S	Dec-14-10 08:50		400678-004



CASE NARRATIVE

Client Name: Southern Union Gas Services- Monahans

Project Name: Line MB4



Project ID: 2010-050

Work Order Number: 400678

Report Date: 23-DEC-10

Date Received: 12/15/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-837331 BTEX by EPA 8021B

SW8021BM

Batch 837331, 4-Bromofluorobenzene recovered above QC limits QC Data not confirmed by re-analysis. Samples affected are: 592046-1-BKS.

SW8021BM

Batch 837331, Ethylbenzene, m_p-Xylenes recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 400678-004, -002.

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

Certificate of Analysis Summary 400678

Southern Union Gas Services- Monahans, Monahans, TX



Project Id: 2010-050

Contact: Rose Slade

Project Location: Lea County, NM

Date Received in Lab: Wed Dec-15-10 11:05 am

Report Date: 23-DEC-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>		Lab Id:	400678-001	400678-002	400678-003	400678-004	
<i>Field Id:</i>		W Ditch N Wall	W Ditch N Floor	W Ditch S Wall	W Ditch S Floor		
<i>Depth:</i>							
<i>Matrix:</i>		SOIL	SOIL	SOIL	SOIL		
<i>Sampled:</i>		Dec-14-10 08:35	Dec-14-10 08:40	Dec-14-10 08:45	Dec-14-10 08:50		
<i>Extracted:</i>							
<i>Analyzed:</i>		Dec-15-10 14:05	Dec-15-10 14:05	Dec-15-10 14:05	Dec-15-10 14:05		
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		9.50	35.7	69.8	275	8.40	
BTEX by EPA 8021B							
<i>Extracted:</i>			Dec-22-10 13:49	Dec-22-10 13:49	Dec-22-10 13:49		
<i>Analyzed:</i>			Dec-23-10 08:25	Dec-23-10 08:46	Dec-23-10 08:46		
<i>Units/RL:</i>			mg/kg RL	mg/kg RL	mg/kg RL		
Benzene			ND 0.0010	ND 0.0011	ND 0.0011		
Toluene			ND 0.0021	ND 0.0022	ND 0.0022		
Ethylbenzene			ND 0.0010	0.0012	0.0011		
m_p-Xylenes			ND 0.0021	0.0079	0.0022		
o-Xylene			ND 0.0010	0.0039	0.0011		
Total Xylenes			ND 0.0010	0.0118	0.0011		
Total BTEX			ND 0.0010	0.0130	0.0011		
Percent Moisture							
<i>Extracted:</i>							
<i>Analyzed:</i>		Dec-16-10 08:30	Dec-16-10 08:30	Dec-16-10 08:30	Dec-16-10 08:30		
<i>Units/RL:</i>		% RL	% RL	% RL	% RL		
Percent Moisture		3.50	3.51	3.30	7.30	1.00	
TPH By SW8015 Mod							
<i>Extracted:</i>		Dec-15-10 13:10	Dec-15-10 13:10	Dec-15-10 13:10	Dec-15-10 13:10		
<i>Analyzed:</i>		Dec-15-10 17:57	Dec-16-10 08:10	Dec-16-10 08:29	Dec-16-10 09:07		
<i>Units/RL:</i>		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
C6-C12 Gasoline Range Hydrocarbons		ND 15.6	ND 15.5	ND 15.4	ND 16.1		
C12-C28 Diesel Range Hydrocarbons		ND 15.6	31.9	ND 15.4	ND 16.1		
C28-C35 Oil Range Hydrocarbons		ND 15.6	ND 15.5	ND 15.4	ND 16.1		
Total TPH		ND 15.6	31.9	ND 15.4	ND 16.1		

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

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Brent Barron, II
Odessa Laboratory Manager

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to 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

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

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(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Line MB4

Work Orders : 400678,

Project ID: 2010-050

Lab Batch #: 837331

Sample: 592046-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/10 14:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0364	0.0300	121	80-120	*

Lab Batch #: 837331

Sample: 592046-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/10 14:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0319	0.0300	106	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 837331

Sample: 592046-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/22/10 15:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 837331

Sample: 400678-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/10 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	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0357	0.0300	119	80-120	

Lab Batch #: 837331

Sample: 400678-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/10 08:46

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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



Form 2 - Surrogate Recoveries

Project Name: Line MB4

Work Orders : 400678,

Project ID: 2010-050

Lab Batch #: 837331

Sample: 400678-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/10 09:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	80-120	

Lab Batch #: 837331

Sample: 400678-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/23/10 10:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0335	0.0300	112	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 836178

Sample: 591413-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/10 14:48

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	72.2	99.5	73	70-135	
o-Terphenyl	49.2	49.8	99	70-135	

Lab Batch #: 836178

Sample: 591413-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/10 15:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	76.6	100	77	70-135	
o-Terphenyl	38.9	50.2	77	70-135	

Lab Batch #: 836178

Sample: 591413-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/15/10 15:25

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	74.8	100	75	70-135	
o-Terphenyl	38.9	50.0	78	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: Line MB4

Work Orders : 400678,

Project ID: 2010-050

Lab Batch #: 836178

Sample: 400678-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/15/10 17:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.1	101	72	70-135	
o-Terphenyl	37.0	50.3	74	70-135	

Lab Batch #: 836178

Sample: 400678-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 08:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.3	99.5	72	70-135	
o-Terphenyl	36.3	49.8	73	70-135	

Lab Batch #: 836178

Sample: 400678-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 08:29

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	99.5	73	70-135	
o-Terphenyl	35.5	49.8	71	70-135	

Lab Batch #: 836178

Sample: 400678-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 09:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.9	99.8	75	70-135	
o-Terphenyl	38.5	49.9	77	70-135	

Lab Batch #: 836178

Sample: 400678-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 12:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.9	99.8	75	70-135	
o-Terphenyl	38.9	49.9	78	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: Line MB4

Work Orders : 400678,

Project ID: 2010-050

Lab Batch #: 836178

Sample: 400678-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/16/10 12:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.2	99.5	73	70-135	
o-Terphenyl	39.2	49.8	79	70-135	

* Surrogate outside of Laboratory QC limits

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

*** Poor recoveries due to dilution

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

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

Project Name: Line MB4

Work Order #: 400678

Analyst: ASA

Lab Batch ID: 837331

Sample: 592046-1-BKS

Units: mg/kg

Project ID: 2010-050

Date Analyzed: 12/22/2010

Matrix: Solid

Date Prepared: 12/22/2010

Batch #: 1

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY											
Analytes	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
	Benzene	ND	0.1000	0.1024	102	0.1	0.0865	87	17	70-130	35
	Toluene	ND	0.1000	0.1100	110	0.1	0.0936	94	16	70-130	35
	Ethylbenzene	ND	0.1000	0.1123	112	0.1	0.0946	95	17	71-129	35
	m_p-Xylenes	ND	0.2000	0.2258	113	0.2	0.1910	96	17	70-135	35
o-Xylene	ND	0.1000	0.1229	123	0.1	0.1024	102	18	71-133	35	

Analyst: LATCOR

Lab Batch ID: 836094

Sample: 836094-1-BKS

Units: mg/kg

Date Prepared: 12/15/2010

Batch #: 1

Date Analyzed: 12/15/2010

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Units: mg/kg	Anions by E300	Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
		Chloride	ND	10.0	8.76	88	10	8.88	89	1	75-125	20	

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

Project Name: Line MB4

Work Order #: 400678

Analyst: BEV

Lab Batch ID: 836178

Sample: 591413-1-BKS

Project ID: 2010-050

Date Analyzed: 12/15/2010

Matrix: Solid

Date Prepared: 12/15/2010

Batch #: 1

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY												
Units: mg/kg												
Analytes	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	
C6-C12 Gasoline Range Hydrocarbons	<50.0	995	977	98	1000	1030	103	5	70-135	35		
C12-C28 Diesel Range Hydrocarbons	<50.0	995	881	89	1000	1020	102	15	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: Line MB4

Work Order #: 400678

Lab Batch #: 836094

Date Analyzed: 12/15/2010

QC- Sample ID: 400673-002 S

Reporting Units: mg/kg

Date Prepared: 12/15/2010

Batch #: 1

Project ID: 2010-050

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	230	200	398	84	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

BRL - Below Reporting Limit

Project Name: Line MB4

Work Order #: 400678

Lab Batch ID: 837331

Date Analyzed: 12/23/2010

Reporting Units: mg/kg

Project ID: 2010-050

QC- Sample ID: 400678-002 S

Date Prepared: 12/22/2010

Batch #: 1 Matrix: Soil

Analyst: ASA

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
Reporting Units: mg/kg	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
		ND	0.1032	0.0720	70	0.1036	0.0718	69	0	70-130	35	X
		ND	0.1032	0.0734	71	0.1036	0.0719	69	2	70-130	35	X
		ND	0.1032	0.0567	55	0.1036	0.0577	56	2	71-129	35	X
		ND	0.2064	0.1418	69	0.2073	0.1431	69	1	70-135	35	X
		ND	0.1032	0.0756	73	0.1036	0.0771	74	2	71-133	35	
Benzene												
Toluene												
Ethylbenzene												
m_p-Xylenes												
o-Xylene												

Lab Batch ID: 836178

Date Analyzed: 12/16/2010

Reporting Units: mg/kg

QC- Sample ID: 400678-004 S

Date Prepared: 12/15/2010

Batch #: 1 Matrix: Soil

Analyst: BEV

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY											
Reporting Units: mg/kg											
	TPH By SW8015 Mod										
	Analytes										
C6-C12 Gasoline Range Hydrocarbons	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
	<16.1	1080	1100	102	1070	1070	100	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<16.1	1080	855	79	1070	819	77	4	70-135	35	

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: Line MB4

Work Order #: 400678

Lab Batch #: 836094

Date Analyzed: 12/15/2010 14:05

Date Prepared: 12/15/2010

Project ID: 2010-050

Analyst: LATCOR

QC- Sample ID: 400673-002 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY

Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	230	224	3	20	

Lab Batch #: 836104

Date Analyzed: 12/16/2010 08:30

Date Prepared: 12/16/2010

Analyst: JLG

QC- Sample ID: 400673-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	2.97	3.25	9	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

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	Project Name: Line MB4
Company Name	Southern Union Gas Services	Project #: 2010-050
Company Address:	1507 W. 15th Street	Project Loc: Lea County, NM
City/State/Zip:	Monahans, TX 79756	PO #: 91896
Telephone No:	(432)943-1116	Report Format: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> TRRP <input type="checkbox"/> NPDES
Sampler Signature:	Troy Hahn	e-mail: pm@basinenv.com

[illegible]

Special Instructions:	Run TPH, hold for BTEX.
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Special Instructions:	Run TPH, hold for BTEX.	Laboratory Comments:			
Relinquished by: <i>Tracy Haber</i>	Date: 12/14/2010 Time: 1715	Received by: <i>[Signature]</i>	Date: 12/14/2010 Time: 1715	Sample Containers Intact? <input checked="" type="checkbox"/> Y	VOCs Free of Headspace? <input checked="" type="checkbox"/> Y
Relinquished by: <i>[Signature]</i>	Date: 12/15/2010 Time: 1005	Received by: <i>[Signature]</i>	Date: 12/15/2010 Time: 1005	Labels on container(s) <input checked="" type="checkbox"/> Y	Custody seals on container(s) <input checked="" type="checkbox"/> Y
Relinquished by: <i>[Signature]</i>	Date: 12/15/2010 Time: 1005	Received by: <i>[Signature]</i>	Date: 12/15/2010 Time: 1005	Custody seals on cooler(s) <input checked="" type="checkbox"/> Y	Sample Hand Delivered <input checked="" type="checkbox"/> Y
				by Sampler/Client Rep. ? <input checked="" type="checkbox"/> Y	by Courier? <input checked="" type="checkbox"/> Y
				UPS <input checked="" type="checkbox"/> Y	DHL <input checked="" type="checkbox"/> Y
				Temperature Upon Receipt: <i>40.2 CLASS</i>	Temperature Upon Receipt: <i>1.6 °C</i>



XENCO Laboratories
Atlanta, Boca Raton, Corpus Christi, Dallas
Houston, Miami, Odessa, Philadelphia
Phoenix, San Antonio, Tampa

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

Prelogin / Nonconformance Report - Sample Log-In

Client: Southern Union Gas Services
Date/Time: 12-15-10 11:05
Lab ID #: 400678
Initials: XM

Sample Receipt Checklist

1. Samples on ice?	Blue	<u>Water</u>	No	
2. Shipping container in good condition?	<u>Yes</u>	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	<u>Yes</u>	No	N/A	
4. Chain of Custody present?	<u>Yes</u>	No		
5. Sample instructions complete on chain of custody?	<u>Yes</u>	No		
6. Any missing / extra samples?	Yes	<u>No</u>		
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		
9. Container labels legible and intact?	<u>Yes</u>	No		
10. Sample matrix / properties agree with chain of custody?	<u>Yes</u>	No		
11. Samples in proper container / bottle?	<u>Yes</u>	No		
12. Samples properly preserved?	<u>Yes</u>	No	N/A	
13. Sample container intact?	<u>Yes</u>	No		
14. Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No		
15. All samples received within sufficient hold time?	<u>Yes</u>	No		
16. Subcontract of sample(s)?	Yes	<u>No</u>	N/A	
17. VOC sample have zero head space?	Yes	No	<u>N/A</u>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 1.6 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
 - ☐ Initial and Backup Temperature confirm out of temperature conditions
 - ☐ Client understands and would like to proceed with analysis



Line MB-4 Release Site



Line MB-4 Release Site - South Ditch
(looking North; sample locations flagged)



Line MB-4 Release Site - West Ditch
(looking East; sample locations flagged)



Line MB-4 Release Site (following backfilling)