

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Southern Union Gas Services	Contact: Rose Slade
Address: P.O. Box 1226, Jal New Mexico 88252	Telephone No.: 817.302.9716 or 432.940.5147
Facility Name Lea County Field Department	Facility Type: Cal "B" Line

Surface Owner: State	Mineral Owner	API No. 30-025-28822
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LOCATION OF RELEASE

Unit Letter B	Section 12	Township 26S	Range 36E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32 03.896' Longitude 103 13.024'

NATURE OF RELEASE

Type of Release: Natural Gas, Oil, and Produced Water	Volume of Release: 651,000 mcf natural gas, 271 barrels produced water, 25 barrels condensate	Volume Recovered: 230 barrels produced water, 20 barrels condensate
Source of Release: Pipeline	Date and Hour of Occurrence: 3/23/2006 @ 18:15	Date and Hour of Discovery: 3/23/2006 @ 18:20
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Gary Wink	
By Whom?	Date and Hour 3/23/2006 @ 18:50	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. HOBBS OCD	

If a Watercourse was Impacted, Describe Fully.*

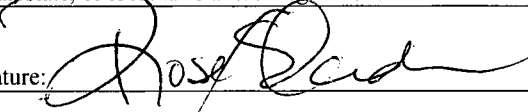

MAY 10 2013

RECEIVED

Describe Cause of Problem and Remedial Action Taken.* A hole developed in the 16 inch pipeline and released the fluids and gas. At the time of the release the pipeline was being pigged and an estimated 2,700 barrels of fluid was coming into the receiver at approximately 70 psi. Once the release was discovered a backhoe was dispatched to dam up and contain the fluid until the line could be blown down.

Describe Area Affected and Cleanup Action Taken.* The area was excavated, soil samples were collected from the excavated areas and submitted to the laboratory for benzene, BTEX, TPH and chloride analysis. Laboratory analytical results indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory guidelines. The excavated areas were backfilled and the site was restored to original conditions. Please reference NOVA Safety and Environmental Soil Investigation Summary and Site Closure Request dated May 2013, for further details.

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

Signature: 	OIL CONSERVATION DIVISION  Approved by Environmental Specialist Environmental Specialist	
Printed Name: Rose L. Slade	Approval Date: 5/13/13	Expiration Date: —
Title: Environmental Specialist	Conditions of Approval: —	Attached <input type="checkbox"/> IRP-804
E-mail Address: rose.slade@energytransfer.com		
Date: 5/13/2013	Phone: 432.940.5147	

* Attach Additional Sheets If Necessary

MAY 20 2013

**SOIL INVESTIGATION SUMMARY
AND SITE
CLOSURE REQUEST**

**Southern Union Gas Services
Cal "B" Line Historical Release Site
Lea County, New Mexico
UNIT LTR "B" (NW ¼ / NE ¼), Section 12, Township 26 South, Range 36 East
Latitude 32° 03.896' North, Longitude 103° 13.024' West
NMOCD Reference # 1RP-804**



Prepared For:

**Southern Union Gas Services
801 South Loop 464
Monahans, Texas 79756**

HOBBS OCD

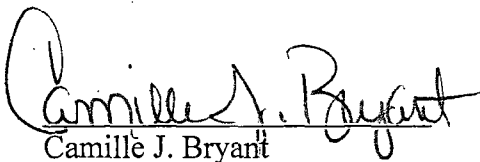
MAY 10 2013

RECEIVED

Prepared By:

**NOVA Safety & Environmental
2057 Commerce
Midland, Texas 79703**

May 2013


Camille J. Bryant
Project Manager

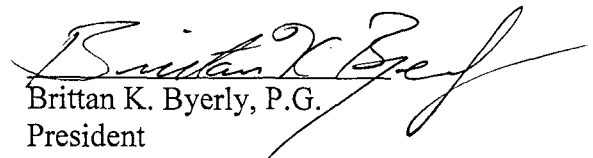

Brittan K. Byerly, P.G.
President

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	NMOCD SITE CLASSIFICATION.....	1
3.0	SUMMARY OF SOIL REMEDIATION ACTIVITIES	2
4.0	QA/QC PROCEDURES	5
4.1	Soil Sampling.....	5
4.2	Decontamination of Equipment	5
4.3	Laboratory Protocol	5
5.0	SITE CLOSURE REQUEST	5
6.0	LIMITATIONS.....	5
7.0	DISTRUBUTION	7

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Details and Confirmation Soil Sample Locations Map

TABLES

Table 1 – Concentrations of Benzene, BTEX, TPH and Chlorides in Soil

APPENDICES

Appendix A – Analytical Reports

Appendix B – Photographs

Appendix C – Release Notification and Corrective Action (Form-C-141)

1.0 INTRODUCTION

Nova Safety & Environmental (NOVA), on behalf of Southern Union Gas Services (SUGS), has prepared this Soil Investigation Summary and Site Closure Request for the Cal "B" Line Historical Release Site. The legal description of the release site is Unit Letter "B" (NW ¼ NE ¼), Section 12, Township 26 South, Range 36 East, in Lea County, New Mexico. The property affected by the release is owned by The State of New Mexico and is administered by the State Land Office (ROE-2241). The release site GPS coordinates are 32° 03.896' North and 103° 13.024' West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site Details and Confirmation Soil Sample Locations Map. The Release Notification and Corrective Action (Form C-141) is provided as Appendix C.

On March 23, 2006, SUGS discovered a release of condensate, produced water and natural gas had occurred from a sixteen (16) inch steel pipeline during pigging activities. The cause of the release was attributed to failure of a segment of the steel pipeline. SUGS submitted the Release Notification and Corrective Action (Form C-141) to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on March 27, 2006. The C-141 indicated approximately twenty-five (25) barrels of condensate, two hundred seventy-one (271) barrels of produced water and 651,000 mcf's of natural gas were released from the pipeline, with approximately two hundred thirty (230) barrels of produced water and twenty (20) barrels of condensate recovered. General photographs of the site are provided as Appendix B.

SUGS has researched and identified various historical release sites located in New Mexico. At the request of SUGS, NOVA has reviewed the historical data for these sites and conducted the necessary activities to ensure the sites meet the criteria for closure in accordance with NMOCD regulatory guidelines.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Office of the State Engineer (NMOSE) database did not identify the average depth to groundwater information for Section 12, Township 26 South, Range 36 East. A reference map utilized by the NMOCD indicated depth to groundwater at the release site should be encountered at approximately two hundred (200) feet below ground surface (bgs). The depth to groundwater at the Cal "B" Line Historical Release Site results in a score of zero (0) points being assigned to the site, based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

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

The NMOCD guidelines indicate the Cal "B" Line Historical Release Site has ranking score of zero (0). Based on this score, the soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/Kg (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

The NMOCD chloride cleanup level concentrations are site specific and will be determined by the NMOCD Hobbs District Office.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On February 18, 2013, NOVA commenced soil investigation activities at the Cal “B” Line Historical Release Site. Based on historical documentation and stressed vegetation, ten (10) trenches were excavated in the caliche road. The trenches were excavated to approximately two (2) feet bgs. Due to the trenches being located in a highly travelled road, soil samples were collected and the trenches were backfilled. In addition, four (4) trenches were excavated on the south and north sides of the caliche road and one (1) trench was installed at the release point. The trenches were completed to a total depth of approximately fourteen (14) feet bgs, with the exception of the release point trench and one trench located south of SUGS California “B” pipeline, which were completed to a total depth of approximately thirteen (13) feet bgs. The depth of the trenches was determined on review of historical data and by field observations conducted during excavation activities. The ten (10) trenches installed in the caliche road were installed from east to west approximately fifty (50) linear feet apart. Please reference Figure 2 for site details.

On February 18, 2013, ten (10) soil samples (Road 1 @ 2’, Road 2 @ 2’, Road 3 @ 2’, Road 4 @ 2’, Road 5 @ 2’, Road 6 @ 2’, Road 7 @ 2’, Road 8 @ 2’, Road 9 @ 2’, and Road 10 @ 2’) were collected from the floor of the trenches along the caliche road. On completion of soil sampling activities the trenches were backfilled. The soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethyl-benzene, and xylene (BTEX), total petroleum hydrocarbons (TPH), and chlorides using EPA SW-846 8012b, 8015M, and E 300, respectively. The analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory method detection limits (MDL) for all submitted soil samples. Chloride concentrations ranged from 12.9 mg/Kg for soil sample Road 1 @ 2’ to 132 mg/Kg for soil sample Road 3 @ 2’. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines. Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Laboratory analytical reports are provided as Appendix A

On February 19 and 20, 2013, four (4) trenches were excavated on the south side of the caliche road and the SUGS California “B” pipeline. The first trench was excavated in a north-south direction. Four (4) soil samples (South of Line NW @ 5’, South of Line NW @ 10’, South of Line NW @ 13’, and South of Road Floor @ 14’) were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples with the exception of soil sample South of Road Floor @ 14’, which exhibited a TPH concentration of 45.9 mg/Kg. Chloride concentrations ranged from 2.42 mg/Kg for soil sample South of Line NW @ 10’ to 176 mg/Kg for soil sample South of Road Floor @ 14’. A review of analytical results indicated

benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines. Please reference Figure 2 for soil sample locations.

The second trench was excavated south of the SUGS California "B" pipeline in an east-west direction. Four (4) soil samples (South of Line EW @ 5', South of Line EW @ 10', South of Line EW @ 13', and South of Road F3 @ 14') were collected from the trench and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 2.56 mg/Kg for soil sample South of Line EW @ 10' to 31.9 mg/Kg for soil sample South of Line EW @ 13'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines (Table 1).

The third trench was excavated on the south side of the SUGS California "B" pipeline in an east-west direction. Four (4) soil samples (South of Line WW @ 5', South of Line WW @ 10', South of Line WW @ 13' and South of Road F2 @ 14') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 9.89 mg/Kg for soil sample South of Road F2 @ 14' to 529 mg/Kg for soil sample South of Line WW @ 10'.

The final trench was excavated on the south side of the SUGS California "B" pipeline in a north-south direction. Three (3) soil samples (South of Road SW @ 5', South of Road SW @ 10', and South of Road SW @ 13') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 3.52 mg/Kg for soil sample South of Road SW @ 10' to 5.70 mg/Kg for soil sample South of Road SW @ 13'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples (Table 1).

On February 20 and 21, 2013, four (4) trenches were excavated on the north side of the caliche road. The first trench was excavated in a north-south direction. Four (4) soil samples (North of Road Floor @ 14', North of Road SW @ 5', North of Road SW @ 10', and North of Road SW @ 13') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples with the exception of soil sample North of Road SW @ 13', which exhibited a TPH concentration of 84.5 mg/Kg. Chloride concentrations ranged from 5.51 mg/Kg for soil sample North of Road SW @ 10' to 48.8 mg/Kg for soil sample North of Road SW @ 13'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples. Please reference Figure 2 for soil sample locations.

The second trench was excavated on the north side of the caliche road in a north-south direction. Four (4) soil samples (North of Road NW @ 5', North of Road NW @ 10', North of Road NW

@ 13' and North of Road F2 @ 14') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 6.49 mg/Kg for soil sample North of Road NW @ 13' to 17.3 mg/Kg for soil sample North of Road NW @ 10'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples.

The third trench on the north side of the road was excavated in an east-west direction. Four (4) soil samples (North of Road WW @ 5', North of Road WW @ 10', North of Road WW @ 13', and North of Road F3 @ 14') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chlorides concentrations ranged from 10.6 mg/Kg for soil sample North of Road F3 @ 14' to 33.0 mg/Kg for soil sample North of Road WW @ 5'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples (Table1).

The final trench on the north side of the road was excavated in an east-west direction. Four (4) soil samples (North of Road EW @ 5', North of Road EW @ 10', North of Road EW @ 13', and North of Road F4 @ 14') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 27.8 mg/Kg for soil sample North of Road EW @ 5' to 73.0 mg/Kg for soil sample North of Road EW @ 10'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples.

In addition, a trench was excavated on the south side of the SUGS California "B" pipeline at the inferred release point. The trench was excavated in a north-south direction. Three (3) soil samples (RP @ 5', RP @ 10', and RP @ 13') were collected from the trench and submitted to the laboratory for analysis. On completion of soil sampling activities the trench was backfilled. Laboratory analytical results indicated benzene, BTEX, and TPH concentrations were less than the appropriate laboratory MDL for all submitted soil samples. Chloride concentrations ranged from 6.43 mg/Kg for soil sample RP @ 5' to 28.0 mg/Kg for soil sample RP @ 10'. A review of analytical results indicated benzene, BTEX, TPH, and chloride concentrations were less than NMOCD regulatory guidelines for all submitted soil samples.

On March 27, 2013, SUGS and NOVA representatives met with a NMOCD Hobbs District Office representative to present the results of the soil investigation, and request closure approval for the site. The NMOCD Hobbs District Office representative granted verbal approval to close the site.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Permian Basin Environmental Lab, LP, of Midland, Texas for BTEX and/or TPH and/or chloride analyses using the methods described below. Soil samples were analyzed for BTEX and/or TPH and/or chloride concentrations within fourteen (14) days following the sampling event.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentration in accordance with Method E 300.

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 (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, NOVA recommends SUGS provide the NMOCD a copy of this Soil Investigation Summary and Site Closure Request and request the NMOCD grant final closure to the Cal "B" Line Historical Release Site.

6.0 LIMITATIONS

NOVA Safety and Environmental has prepared this Soil Investigation Summary and Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

NOVA Safety and Environmental has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. NOVA Safety and Environmental 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. NOVA Safety and Environmental has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA Safety and Environmental also notes that the facts and conditions referenced in this report may change over time and the

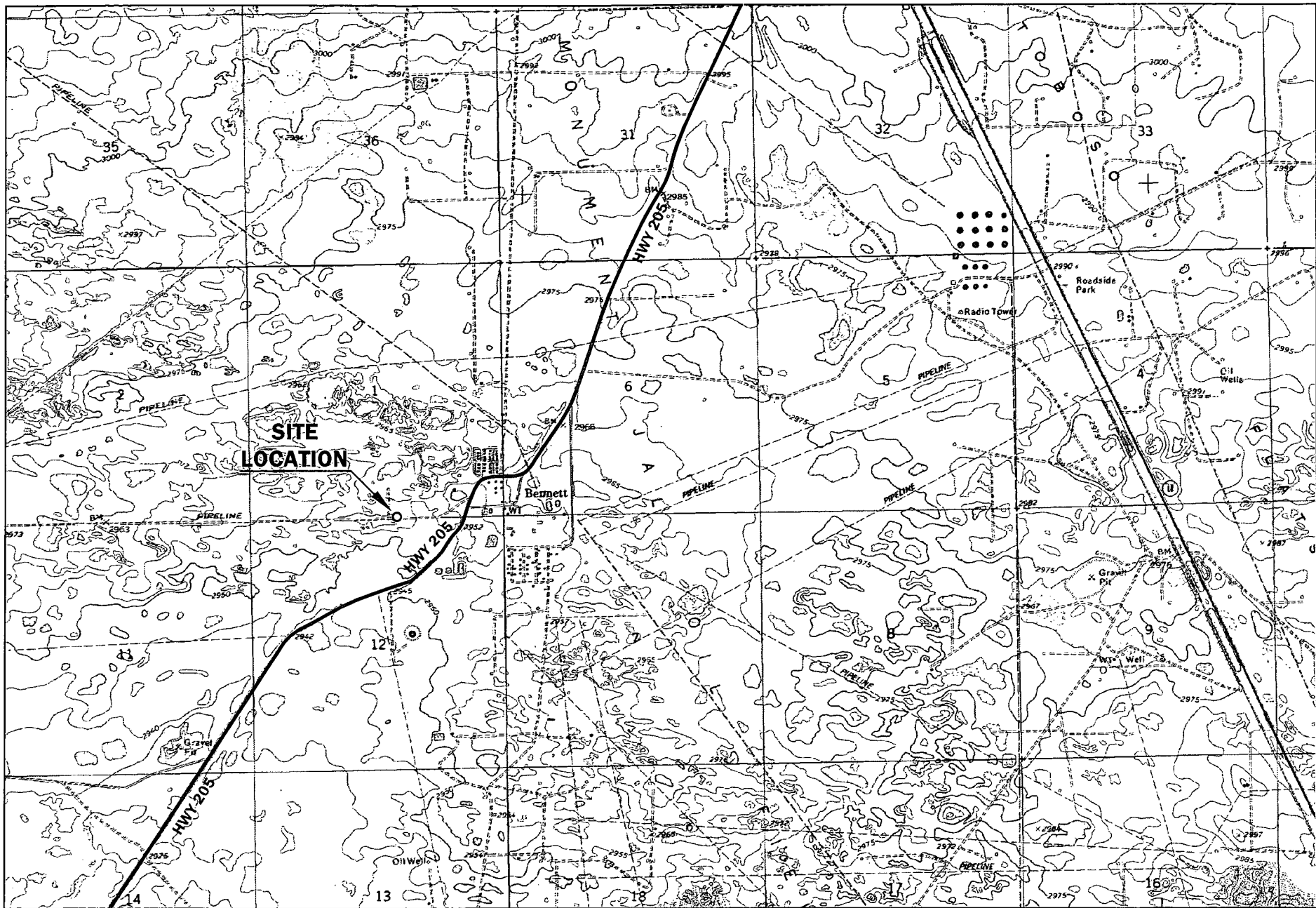
conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

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 NOVA Safety and Environmental and/or Southern Union Gas.

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
- Copy 2: New Mexico State Land Office
P.O. Box 1148
Santa Fe, New Mexico, 87504-1148
- Copy 3: Rose Slade
Southern Union Gas Services
801 South Loop 464
Monahans, Texas 79756
- Copy 4: Nova Safety & Environmental
2057 Commerce Street
Midland, Texas 79703

FIGURES



Legend:

Mapped edited and Published by the Geological Survey
Control by USGS & USC & GS
Map Re-edited by Nova Safety and Environmental for the
purpose of Site Location Maps.
Planimetry by Photogrammetric methods from aerial
Photographs taken 1958. Topography by Planetabe Surveys
1961
Fine red dashed lines indicate selected fence lines.
This map Complies with National Map Accuracy Standards

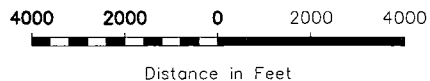


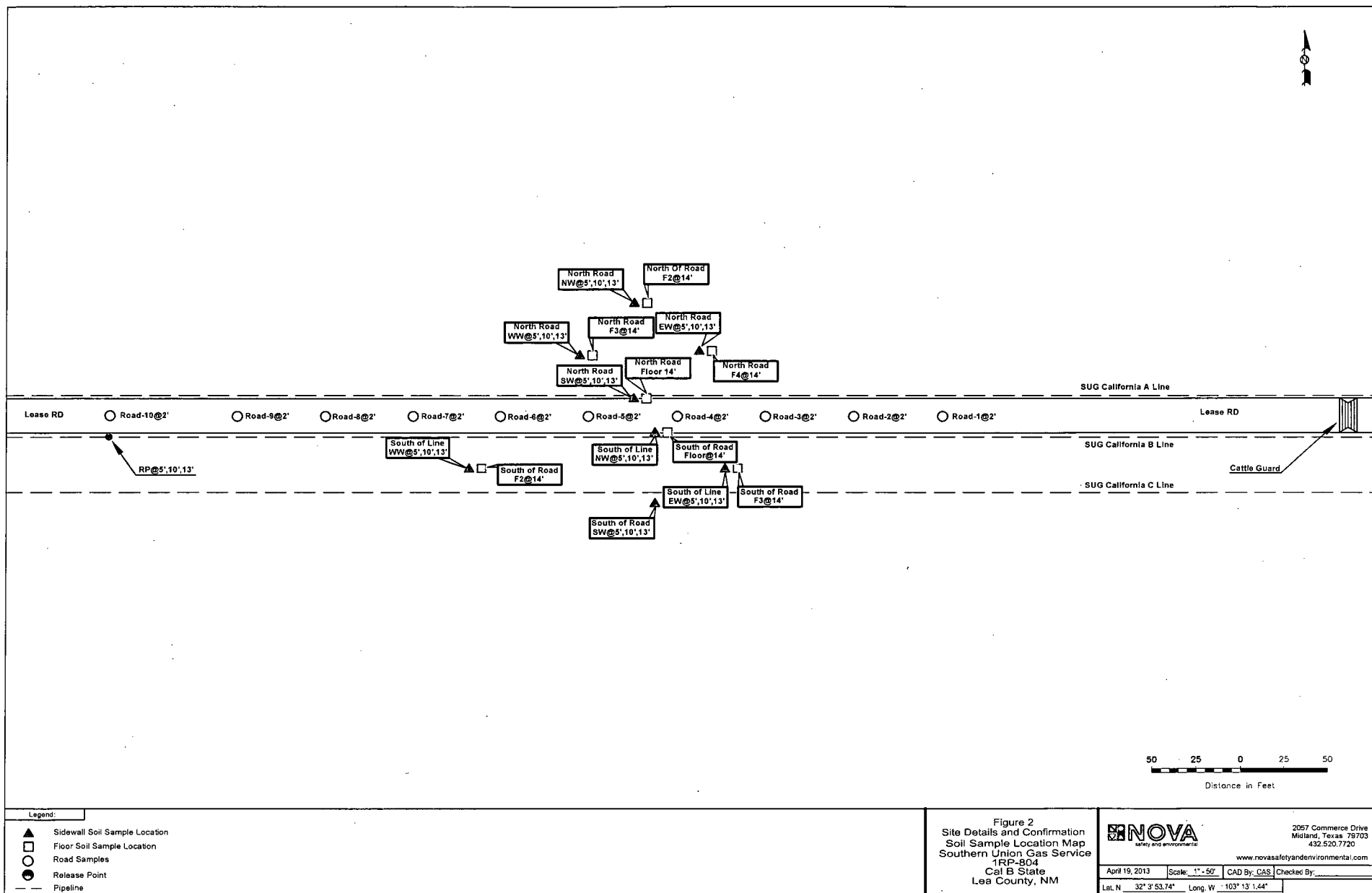
Figure 1
Site Location Map
Southern Union Gas Service
Cal B State
Lea County, NM



2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

February 28, 2013	Scale: 1" = 4000'	CAD By: CAS	Checked By:
Lat. N 32° 3' 53.74"	Long. W 103° 13' 1.44"		



TABLES

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
CAL"B" LINE HISTORICAL RELEASE SITE
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE # 1RP-804

All concentrations are reported in mg/Kg

SAMPLE LOCATION	SAMPLE DATE	METHODS: SW 846-8021b						METHOD: SW 8015M				E 300.1
		BENZENE	TOLUENE	ETHYL-BENZENE	m, p - XYLENES	o - XYLENE	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDE
Road 1 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	12.9
Road 2 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	104
Road 3 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	132
Road 4 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	24.2
Road 5 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	91.3
Road 6 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	22.0
Road 7 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	26.8
Road 8 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	95.1
Road 9 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	39.6
Road 10 @ 2'	02/18/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.3	<25.3	<25.3	<25.3	45.3
South of Road Floor @ 14'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.5	45.9	<27.5	45.9	176
South of Line NW @ 5'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<26.0	3.38
South of Line NW @ 10'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	2.42
South of Line NW @ 13'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.5	<27.5	<27.5	<27.5	106
South of Line EW @ 5'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	3.91
South of Line EW @ 10'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<26.6	2.56
South of Line EW @ 13'	02/19/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.3	<26.3	<26.3	<26.3	31.9
South of Road F3 @ 14'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	9.58
South of Line WW @ 5'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	134
South of Line WW @ 10'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.3	<26.3	<26.3	<26.3	529
South of Line WW @ 13'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.5	<27.5	<27.5	<27.5	14.8
South of Road F2 @ 14'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.8	<27.8	<27.8	<27.8	9.89
South of Road SW @ 5'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	4.12
South of Road SW @ 10'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	3.52
South of Road SW @ 13'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<26.6	5.70
North of Road Floor @ 14'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<26.0	46
North of Road SW @ 5'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.8	<25.8	<25.8	<25.8	6.77
North of Road SW @ 10'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	5.51
North of Road SW @ 13'	02/20/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	34.6	49.9	84.5	48.8
North of Road NW @ 5'	02/21/13	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<25.5	<25.5	<25.5	<25.5	14.9

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

All concentrations are reported in mg/Kg

APPENDICES

APPENDIX A:

Analytical Reports

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line 1RP-804

Project Number: 1RP-804

Location: Lea County New Mexico

Lab Order Number: 3B20002



NELAP/TCEQ # T104704156-12-1

Report Date: 02/22/13

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Road 1 @ 2'	3B20002-01	Soil	02/18/13 14:00	02-20-2013 08:10
Road 2 @ 2'	3B20002-02	Soil	02/18/13 14:10	02-20-2013 08:10
Road 3 @ 2'	3B20002-03	Soil	02/18/13 14:20	02-20-2013 08:10
Road 4 @ 2'	3B20002-04	Soil	02/18/13 14:30	02-20-2013 08:10
Road 5 @ 2'	3B20002-05	Soil	02/18/13 14:40	02-20-2013 08:10
Road 6 @ 2'	3B20002-06	Soil	02/18/13 14:50	02-20-2013 08:10
Road 7 @ 2'	3B20002-07	Soil	02/18/13 15:00	02-20-2013 08:10
Road 8 @ 2'	3B20002-08	Soil	02/18/13 15:10	02-20-2013 08:10
Road 9 @ 2'	3B20002-09	Soil	02/18/13 15:20	02-20-2013 08:10
Road 10 @ 2'	3B20002-10	Soil	02/18/13 15:30	02-20-2013 08:10

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 1 @ 2'
3B20002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		76.2 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	12.9	1.02	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
Surrogate: 1-Chlorooctane		76.0 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Surrogate: o-Terphenyl		89.5 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/20/13	02/20/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 2 @ 2'
3B20002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		53.2 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	104	1.02	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
Surrogate: 1-Chlorooctane		83.6 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Surrogate: o-Terphenyl		97.1 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/20/13	02/20/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 3 @ 2'
3B20002-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		75.3 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	132	1.01	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	1.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
Surrogate: 1-Chlorooctane		82.5 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Surrogate: o-Terphenyl		95.5 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	02/20/13	02/20/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 4 @ 2'
3B20002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		116 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		64.0 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	24.2	1.02	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
Surrogate: 1-Chlorooctane		80.3 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Surrogate: o-Terphenyl		95.0 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/20/13	02/20/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 5 @ 2'
3B20002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		116 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		50.8 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	91.3	1.01	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	1.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
Surrogate: 1-Chlorooctane		81.2 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Surrogate: o-Terphenyl		96.5 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	02/20/13	02/20/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 6 @ 2'
3B20002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		75.2 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	22.0	1.01	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	1.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/20/13	8015M	
Surrogate: 1-Chlorooctane		88.0 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Surrogate: o-Terphenyl		104 %	70-130		EB32102	02/20/13	02/20/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	02/20/13	02/20/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 7 @ 2'
3B20002-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		74.6 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	26.8	1.03	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
Surrogate: 1-Chlorooctane		90.0 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Surrogate: o-Terphenyl		105 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/20/13	02/21/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 8 @ 2'
3B20002-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		114 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		52.7 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	95.1	1.01	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	1.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
Surrogate: 1-Chlorooctane		80.4 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Surrogate: o-Terphenyl		95.7 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	02/20/13	02/21/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 9 @ 2'
3B20002-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		77.1 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	39.6	1.03	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
Surrogate: 1-Chlorooctane		82.7 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Surrogate: o-Terphenyl		100 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/20/13	02/21/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Road 10 @ 2'
3B20002-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		119 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		68.8 %	75-125		EB32203	02/21/13	02/21/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	45.3	1.01	mg/kg dry	1	EB32201	02/22/13	02/22/13	EPA 300.0	
% Moisture	1.0	0.1	%	1	EB32103	02/20/13	02/21/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C12-C28	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
>C28-C35	ND	25.3	mg/kg dry	1	EB32102	02/20/13	02/21/13	8015M	
Surrogate: 1-Chlorooctane		79.9 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Surrogate: o-Terphenyl		96.2 %	70-130		EB32102	02/20/13	02/21/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.3	mg/kg dry	1	[CALC]	02/20/13	02/21/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

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Project Number: IRP-804
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Organics by GC - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB32203 - General Preparation (GC)

Blank (EB32203-BLK1)

Prepared & Analyzed: 02/21/13

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	69.6		ug/kg	60.0		116	75-125			
Surrogate: 4-Bromofluorobenzene	44.2		"	60.0		73.7	75-125			S-GC

LCS (EB32203-BS1)

Prepared & Analyzed: 02/21/13

Benzene	0.0899	0.00100	mg/kg wet	0.100		89.9	80-120			
Toluene	0.119	0.00200	"	0.100		119	80-120			
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120			
Xylene (p/m)	0.231	0.00200	"	0.200		116	80-120			
Xylene (o)	0.111	0.00100	"	0.100		111	80-120			
Surrogate: 1,4-Difluorobenzene	68.2		ug/kg	60.0		114	75-125			
Surrogate: 4-Bromofluorobenzene	63.9		"	60.0		107	75-125			

LCS Dup (EB32203-BSD1)

Prepared & Analyzed: 02/21/13

Benzene	0.0856	0.00100	mg/kg wet	0.100		85.6	80-120	4.88	20	
Toluene	0.117	0.00200	"	0.100		117	80-120	1.95	20	
Ethylbenzene	0.108	0.00100	"	0.100		108	80-120	4.58	20	
Xylene (p/m)	0.220	0.00200	"	0.200		110	80-120	4.89	20	
Xylene (o)	0.107	0.00100	"	0.100		107	80-120	3.71	20	
Surrogate: 1,4-Difluorobenzene	68.1		ug/kg	60.0		114	75-125			
Surrogate: 4-Bromofluorobenzene	64.6		"	60.0		108	75-125			

Matrix Spike (EB32203-MS1)

Source: 3B20002-01

Prepared & Analyzed: 02/21/13

Benzene	0.0547	0.00100	mg/kg dry	0.102	ND	53.6	80-120			QM-05
Toluene	0.0722	0.00200	"	0.102	ND	70.8	80-120			QM-05
Ethylbenzene	0.0635	0.00100	"	0.102	ND	62.3	80-120			QM-05
Xylene (p/m)	0.127	0.00200	"	0.204	ND	62.1	80-120			QM-05
Xylene (o)	0.0629	0.00100	"	0.102	ND	61.6	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	68.6		ug/kg	60.0		114	75-125			
Surrogate: 4-Bromofluorobenzene	54.1		"	60.0		90.1	75-125			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB32103 - *** DEFAULT PREP ***										
Blank (EB32103-BLK1)				Prepared: 02/20/13 Analyzed: 02/21/13						
% Moisture	ND	0.1	%							
Duplicate (EB32103-DUP1)				Source: 3B20002-01		Prepared: 02/20/13 Analyzed: 02/21/13				
% Moisture	2.0	0.1	%		2.0			0.00	20	
Batch EB32201 - *** DEFAULT PREP ***										
Blank (EB32201-BLK1)				Prepared & Analyzed: 02/22/13						
Chloride	ND	1.00	mg/kg wet							
LCS (EB32201-BS1)				Prepared & Analyzed: 02/22/13						
Chloride	10.7		mg/kg Wet	10.0		107	80-120			
LCS Dup (EB32201-BSD1)				Prepared & Analyzed: 02/22/13						
Chloride	10.7		mg/kg Wet	10.0		107	80-120	0.541	20	
Duplicate (EB32201-DUP1)				Source: 3B20002-01		Prepared & Analyzed: 02/22/13				
Chloride	12.9	1.02	mg/kg dry		12.9			0.158	20	
Matrix Spike (EB32201-MS1)				Source: 3B20002-01		Prepared & Analyzed: 02/22/13				
Chloride	191	1.02	mg/kg dry	179	12.9	99.9	80-120			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB32102 - 8015M

Blank (EB32102-BLK1)

Prepared & Analyzed: 02/20/13

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	86.0		"	100		86.0	70-130			
Surrogate: o-Terphenyl	50.0		"	50.0		99.9	70-130			

LCS (EB32102-BS1)

Prepared & Analyzed: 02/20/13

C6-C12	980	25.0	mg/kg wet	1000		98.0	75-125			
>C12-C28	956	25.0	"	1000		95.6	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	48.4		"	50.0		96.9	70-130			

LCS Dup (EB32102-BSD1)

Prepared & Analyzed: 02/20/13

C6-C12	1060	25.0	mg/kg wet	1000		106	75-125	8.32	20	
>C12-C28	1050	25.0	"	1000		105	75-125	9.68	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	52.7		"	50.0		105	70-130			

Matrix Spike (EB32102-MS1)

Source: 3B20002-10

Prepared: 02/20/13 Analyzed: 02/21/13

C6-C12	917	25.3	mg/kg dry	1010	ND	90.8	75-125			
>C12-C28	898	25.3	"	1010	ND	88.9	75-125			
>C28-C35	ND	25.3	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	97.5		"	101		96.6	70-130			
Surrogate: o-Terphenyl	47.7		"	50.5		94.5	70-130			

Matrix Spike Dup (EB32102-MSD1)

Source: 3B20002-10

Prepared: 02/20/13 Analyzed: 02/21/13

C6-C12	986	25.3	mg/kg dry	1010	ND	97.6	75-125	7.27	20	
>C12-C28	960	25.3	"	1010	ND	95.0	75-125	6.62	20	
>C28-C35	ND	25.3	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	105		"	101		104	70-130			
Surrogate: o-Terphenyl	51.2		"	50.5		101	70-130			

Permian Basin Environmental Lab

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

10014 SCR 1213 Midland, TX 79706 432-686-7235

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

2/22/2013

Brent Barron, Laboratory Director/Technical Director

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

If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Camille BryantProject Name: SUG Historical Cal "B" Line 1RP-804Company Name: NOVA Safety and Environmental

Project #: _____

Company Address: 2057 CommerceProject Loc: Lea County New MexicoCity/State/Zip: Midland, Texas 79703

PO #: _____

Telephone No: 432.520.7720Fax No: 432.520.7701Report Format: ☒ Standard ☐ TRRP ☐ NPDESSampler Signature: Camille Bryante-mail: cbryant@novatraining.ccrose.slade@sug.com(lab use only)
ORDER #: 3B20002

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 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 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	02 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
-01	Road 1 @ 2'			2/18/2013	14:00	1	X									Soil	X							X							X
-02	Road 2 @ 2'			2/18/2013	14:10	1	X									Soil	X							X							X
-03	Road 3 @ 2'			2/18/2013	14:20	1	X									Soil	X							X							X
-04	Road 4 @ 2'			2/18/2013	14:30	1	X									Soil	X							X							X
-05	Road 5 @ 2'			2/18/2013	14:40	1	X									Soil	X							X							X
-06	Road 6 @ 2'			2/18/2013	14:50	1	X									Soil	X							X							X
-07	Road 7 @ 2'			2/18/2013	15:00	1	X									Soil	X							X							X
-08	Road 8 @ 2'			2/18/2013	15:10	1	X									Soil	X							X							X
-09	Road 9 @ 2'			2/18/2013	15:20	1	X									Soil	X							X							X
-10	Road 10 @ 2'			2/18/2013	15:30	1	X									Soil	X							X							X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time	Laboratory Comments: Sample Containers Intact? <u>N</u> VOCs Free of Headspace? <u>N</u> Labels on container(s) <u>N</u> Custody seals on container(s) <u>N</u> Custody seals on cooler(s) <u>N</u> Sample Hand Delivered <u>N</u> by Sampler/Client Rep. ? <u>N</u> by Courier? <u>N</u> UPS <u>N</u> DHL <u>N</u> FedEx <u>N</u> Lone Star <u>N</u> Temperature Upon Receipt: Received <u>41.5</u> °C Adjusted <u>41.5</u> °C Factor <u>NCE</u>
Relinquished by:	Date	Time	Received by:	Date	Time	
Relinquished by:	Date	Time	Received by: PREA	Date	Time	
Relinquished by:	Date	Time	Received by:	Date	Time	

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**



Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line IRP-804

Project Number: IRP-804

Location: Lea County

Lab Order Number: 3B21005



NELAP/TCEQ # T104704156-12-1

Report Date: 02/28/13

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
South of Road Floor @ 14'	3B21005-01	Soil	02/19/13 11:15	02-21-2013 15:03
South of Line NW @ 5'	3B21005-02	Soil	02/19/13 13:10	02-21-2013 15:03
South of Line NW @ 10'	3B21005-03	Soil	02/19/13 13:30	02-21-2013 15:03
South of Line NW @ 13'	3B21005-04	Soil	02/19/13 13:45	02-21-2013 15:03
South of Line EW @ 5'	3B21005-05	Soil	02/19/13 14:00	02-21-2013 15:03
South of Line EW @ 10'	3B21005-06	Soil	02/19/13 14:10	02-21-2013 15:03
South of Line EW @ 13'	3B21005-07	Soil	02/19/13 14:30	02-21-2013 15:03
South of Line WW @ 5'	3B21005-08	Soil	02/20/13 09:30	02-21-2013 15:03
South of Line WW @ 10'	3B21005-09	Soil	02/20/13 09:40	02-21-2013 15:03
South of Line WW @ 13'	3B21005-10	Soil	02/20/13 09:50	02-21-2013 15:03
South of Road F2 @ 14'	3B21005-11	Soil	02/20/13 10:00	02-21-2013 15:03
South of Road SW @ 5'	3B21005-12	Soil	02/20/13 10:10	02-21-2013 15:03
South of Road SW @ 10'	3B21005-13	Soil	02/20/13 10:25	02-21-2013 15:03
South of Road SW @ 13'	3B21005-14	Soil	02/20/13 10:35	02-21-2013 15:03
North of Road Floor @ 14'	3B21005-15	Soil	02/20/13 14:45	02-21-2013 15:03
North of Road SW @ 5'	3B21005-16	Soil	02/20/13 15:10	02-21-2013 15:03
North of Road SW @ 10'	3B21005-17	Soil	02/20/13 15:20	02-21-2013 15:03
North of Road SW @ 13'	3B21005-18	Soil	02/20/13 15:30	02-21-2013 15:03

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Road Floor @ 14'
3B21005-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		74.7 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	176	1.10	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	9.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	27.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	45.9	27.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		122 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Surrogate: o-Terphenyl		140 %	70-130		EB32502	02/24/13	02/25/13	8015M	S-GC
Total Hydrocarbon nC6-nC35	45.9	27.5	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line NW @ 5'

3B21005-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		61.4 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.38	1.04	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	4.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		122 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Surrogate: o-Terphenyl		138 %	70-130		EB32502	02/24/13	02/25/13	8015M	S-GC
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line NW @ 10'

3B21005-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		119 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		59.4 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	2.42	1.03	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		84.1 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Surrogate: o-Terphenyl		93.4 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line NW @ 13'
3B21005-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		109 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		34.9 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	106	1.10	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	9.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	27.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	ND	27.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		71.7 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Surrogate: o-Terphenyl		80.1 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Total Hydrocarbon nC6-nC35	ND	27.5	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line EW @ 5'

3B21005-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		67.6 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.91	1.02	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		62.1 %	70-130		EB32502	02/24/13	02/25/13	8015M	S-GC
Surrogate: o-Terphenyl		72.2 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line EW @ 10'

3B21005-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		72.2 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	2.56	1.06	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	6.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.6	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		114 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Surrogate: o-Terphenyl		132 %	70-130		EB32502	02/24/13	02/25/13	8015M	S-GC
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line EW @ 13'

3B21005-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		74.9 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	31.9	1.05	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	5.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.3	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EB32502	02/24/13	02/25/13	8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Surrogate: o-Terphenyl		111 %	70-130		EB32502	02/24/13	02/25/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.3	mg/kg dry	1	[CALC]	02/24/13	02/25/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line WW @ 5'
3B21005-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		72.1 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	134	1.03	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		59.9 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		71.3 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line WW @ 10'
3B21005-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		73.8 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	529	1.05	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.3	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		85.1 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Surrogate: o-Terphenyl		98.6 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.3	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Line WW @ 13'
3B21005-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		73.8 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	14.8	1.10	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	9.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	27.5	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	27.5	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		69.0 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		82.1 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	27.5	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Road F2 @ 14'
3B21005-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		98.7 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		27.6 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	9.89	1.11	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	10.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	27.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	27.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	27.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		74.6 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Surrogate: o-Terphenyl		89.7 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	27.8	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Road SW @ 5'
3B21005-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		76.0 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	

General Chemistry Parameters by EPA / Standard Methods

Chloride	4.12	1.03	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		60.7 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		71.7 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Road SW @ 10'
3B21005-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		71.3 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	3.52	1.03	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		81.9 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Surrogate: o-Terphenyl		96.7 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

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2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Road SW @ 13'
3B21005-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		119 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		60.6 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.70	1.06	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	6.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.6	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		62.1 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		74.2 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.6	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

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Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road Floor @ 14'
3B21005-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		73.8 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	46.0	1.04	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	4.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		59.6 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		71.8 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road SW @ 5'
3B21005-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		63.1 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.77	1.03	mg/kg dry	1	EB32503	02/25/13	02/25/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		61.0 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		73.8 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

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2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road SW @ 10'
3B21005-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		119 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		52.2 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	5.51	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/26/13	8015M	
Surrogate: 1-Chlorooctane		62.3 %	70-130		EB32706	02/26/13	02/26/13	8015M	S-GC
Surrogate: o-Terphenyl		74.6 %	70-130		EB32706	02/26/13	02/26/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/26/13	02/26/13	8015M	

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2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road SW @ 13'
3B21005-18 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		71.9 %	75-125		EB32708	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	48.8	1.04	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	4.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C12-C28	34.6	26.0	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C28-C35	49.9	26.0	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		70.3 %	70-130		EB32706	02/26/13	02/27/13	8015M	
Surrogate: o-Terphenyl		86.9 %	70-130		EB32706	02/26/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	84.6	26.0	mg/kg dry	1	[CALC]	02/26/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Organics by GC - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB32708 - General Preparation (GC)

Blank (EB32708-BLK1)

Prepared & Analyzed: 02/27/13

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.0719		"	0.0600		120	75-125			
Surrogate: 4-Bromofluorobenzene	0.0298		"	0.0600		49.6	75-125			S-GC

LCS (EB32708-BS1)

Prepared & Analyzed: 02/27/13

Benzene	0.0812	0.00100	mg/kg wet	0.100		81.2	80-120			
Toluene	0.105	0.00200	"	0.100		105	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.209	0.00200	"	0.200		104	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.0695		"	0.0600		116	75-125			
Surrogate: 4-Bromofluorobenzene	0.0679		"	0.0600		113	75-125			

Matrix Spike (EB32708-MS1)

Source: 3B21005-01

Prepared & Analyzed: 02/27/13

Benzene	0.0952	0.00100	mg/kg dry	0.110	ND	86.6	80-120			
Toluene	0.132	0.00200	"	0.110	ND	120	80-120			
Ethylbenzene	0.126	0.00100	"	0.110	ND	115	80-120			
Xylene (p/m)	0.254	0.00200	"	0.220	ND	116	80-120			
Xylene (o)	0.119	0.00100	"	0.110	ND	109	80-120			
Surrogate: 1,4-Difluorobenzene	0.0733		"	0.0659		111	75-125			
Surrogate: 4-Bromofluorobenzene	0.0645		"	0.0659		97.8	75-125			

Matrix Spike Dup (EB32708-MSD1)

Source: 3B21005-01

Prepared & Analyzed: 02/27/13

Benzene	0.119	0.00100	mg/kg dry	0.110	ND	109	80-120	22.6	20	QR-03
Toluene	0.131	0.00200	"	0.110	ND	120	80-120	0.684	20	
Ethylbenzene	0.0897	0.00100	"	0.110	ND	81.6	80-120	33.5	20	QR-03
Xylene (p/m)	0.180	0.00200	"	0.220	ND	81.9	80-120	34.1	20	QR-03
Xylene (o)	0.0969	0.00100	"	0.110	ND	88.2	80-120	20.7	20	QR-03
Surrogate: 1,4-Difluorobenzene	0.0628		"	0.0659		95.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.0223		"	0.0659		33.8	75-125			S-GC

Permian Basin Environmental Lab

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

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB32503 - *** DEFAULT PREP ***										
Blank (EB32503-BLK1)					Prepared & Analyzed: 02/25/13					
Chloride	ND	1.00	mg/kg wet							
LCS (EB32503-BS1)					Prepared & Analyzed: 02/25/13					
Chloride	113	1.00	mg/kg wet				80-120			
LCS Dup (EB32503-BSD1)					Prepared & Analyzed: 02/25/13					
Chloride	112	1.00	mg/kg wet				80-120	0.533	20	
Duplicate (EB32503-DUP1)					Source: 3B21003-01 Prepared & Analyzed: 02/25/13					
Chloride	7.82	1.06	mg/kg dry		8.10			3.48	20	
Matrix Spike (EB32503-MS1)					Source: 3B21003-01 Prepared & Analyzed: 02/25/13					
Chloride	121	1.06	mg/kg dry	106	8.10	106	80-120			
Matrix Spike (EB32503-MS2)					Source: 3B21005-05 Prepared & Analyzed: 02/25/13					
Chloride	196	1.02	mg/kg dry	179	3.91	108	80-120			
Batch EB32601 - *** DEFAULT PREP ***										
Blank (EB32601-BLK1)					Prepared: 02/25/13 Analyzed: 02/26/13					
% Moisture	ND	0.1	%							
Duplicate (EB32601-DUP1)					Source: 3B21001-01 Prepared: 02/25/13 Analyzed: 02/26/13					
% Moisture	49.0	0.1	%		52.0			5.94	20	
Duplicate (EB32601-DUP2)					Source: 3B21005-15 Prepared: 02/25/13 Analyzed: 02/26/13					
% Moisture	4.0	0.1	%		4.0			0.00	20	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch EB32602 - *** DEFAULT PREP ***									
Blank (EB32602-BLK1)					Prepared & Analyzed: 02/26/13				
Chloride	ND	1.00	mg/kg wet						
LCS (EB32602-BS1)					Prepared & Analyzed: 02/26/13				
Chloride	10.4		mg/kg Wet	10.0	104	80-120			
LCS Dup (EB32602-BSD1)					Prepared & Analyzed: 02/26/13				
Chloride	10.5		mg/kg Wet	10.0	105	80-120	1.26	20	
Duplicate (EB32602-DUP1)					Prepared & Analyzed: 02/26/13				
Chloride	5.48	1.02	mg/kg dry		5.51		0.557	20	
Matrix Spike (EB32602-MS1)					Prepared & Analyzed: 02/26/13				
Chloride	142	1.02	mg/kg dry	128	5.51	107	80-120		
Matrix Spike (EB32602-MS2)					Prepared & Analyzed: 02/26/13				
Chloride	132	1.08	mg/kg dry	94.1	19.6	120	80-120		

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB32502 - TX 1005

Blank (EB32502-BLK1)

Prepared & Analyzed: 02/24/13

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	73.6		"	100		73.6	70-130			
Surrogate: o-Terphenyl	40.6		"	50.0		81.1	70-130			

LCS (EB32502-BS1)

Prepared & Analyzed: 02/24/13

C6-C12	798	25.0	mg/kg wet	1000		79.8	75-125			
>C12-C28	751	25.0	"	1000		75.1	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	78.8		"	100		78.8	70-130			
Surrogate: o-Terphenyl	37.8		"	50.0		75.7	70-130			

LCS Dup (EB32502-BSD1)

Prepared & Analyzed: 02/24/13

C6-C12	901	25.0	mg/kg wet	1000		90.1	75-125	12.1	20	
>C12-C28	795	25.0	"	1000		79.5	75-125	5.76	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	44.7		"	50.0		89.4	70-130			

Matrix Spike (EB32502-MS1)

Source: 3B21005-07

Prepared: 02/24/13 Analyzed: 02/25/13

C6-C12	1030	26.3	mg/kg dry	1050	ND	97.8	75-125			
>C12-C28	800	26.3	"	1050	ND	76.0	75-125			
>C28-C35	ND	26.3	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	77.4		"	105		73.5	70-130			
Surrogate: o-Terphenyl	38.2		"	52.6		72.6	70-130			

Matrix Spike Dup (EB32502-MSD1)

Source: 3B21005-07

Prepared: 02/24/13 Analyzed: 02/25/13

C6-C12	950	26.3	mg/kg dry	1050	ND	90.2	75-125	8.05	20	
>C12-C28	813	26.3	"	1050	ND	77.3	75-125	1.64	20	
>C28-C35	ND	26.3	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	101		"	105		96.0	70-130			
Surrogate: o-Terphenyl	45.7		"	52.6		86.9	70-130			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB32706 - 8015M										
Blank (EB32706-BLK1)				Prepared & Analyzed: 02/26/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	63.0		"	100		63.0	70-130			S-GC
Surrogate: o-Terphenyl	37.8		"	50.0		75.6	70-130			
LCS (EB32706-BS1)				Prepared & Analyzed: 02/26/13						
C6-C12	770	25.0	mg/kg wet	1000		77.0	75-125			
>C12-C28	797	25.0	"	1000		79.7	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	65.4		"	50.0		131	70-130			S-GC
Surrogate: o-Terphenyl	32.2		"	25.0		129	70-130			
LCS Dup (EB32706-BSD1)				Prepared & Analyzed: 02/26/13						
C6-C12	808	25.0	mg/kg wet	1000		80.8	75-125	4.84	20	
>C12-C28	774	25.0	"	1000		77.4	75-125	2.96	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	65.4		"	50.0		131	70-130			S-GC
Surrogate: o-Terphenyl	31.8		"	25.0		127	70-130			
Matrix Spike (EB32706-MS1)		Source: 3B22002-04		Prepared: 02/26/13 Analyzed: 02/27/13						
C6-C12	927	25.5	mg/kg dry	1020	ND	90.9	75-125			
>C12-C28	839	25.5	"	1020	ND	82.2	75-125			
>C28-C35	ND	25.5	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	103		"	102		101	70-130			
Surrogate: o-Terphenyl	50.3		"	51.0		98.6	70-130			
Matrix Spike Dup (EB32706-MSD1)		Source: 3B22002-04		Prepared: 02/26/13 Analyzed: 02/27/13						
C6-C12	1120	25.5	mg/kg dry	1020	ND	109	75-125	18.5	20	
>C12-C28	948	25.5	"	1020	ND	92.9	75-125	12.2	20	
>C28-C35	ND	25.5	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	130		"	102		127	70-130			
Surrogate: o-Terphenyl	61.8		"	51.0		121	70-130			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line 1RP-804
Project Number: 1RP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

2/28/2013

Brent Barron, Laboratory Director/Technical Director

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

If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Camille BryantProject Name: SUG Historical Cal "B" 1RP-804Company Name: NOVA Safety and Environmental

Project #: _____

Company Address: 2057 CommerceProject Loc: Lea County, New MexicoCity/State/Zip: Midland, Texas 79703

PO #: _____

Telephone No: 432.520.7720Fax No: 432.520.7701Report Format: ☒ Standard ☐ TRRP ☐ NPDESSampler Signature: Camille Bryante-mail: cbryant@novatraining.ccrose.slade@sug.com(lab use only)
ORDER #: 3B21005

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	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 S	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	9030	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
1	South of Road Floor @ 14'			2/19/2013	11:15		1	X								Soil	X		X								X						X
2	South of Line NW @ 5'			2/19/2013	13:10		1	X								Soil	X		X								X						X
3	South of Line NW @ 10'			2/19/2013	13:30		1	X								Soil	X		X								X						X
4	South of Line NW @ 13'			2/19/2013	13:45		1	X								Soil	X		X								X						X
5	South of Line EW @ 5'			2/19/2013	14:00		1	X								Soil	X		X								X						X
6	South of Line EW @ 10'			2/19/2013	14:10		1	X								Soil	X		X								X						X
7	South of Line EW @ 13'			2/19/2013	14:30		1	X								Soil	X		X								X						X
8	South of Line WW @ 5'			2/20/2013	9:30		1	X								Soil	X		X								X						X
9	South of Line WW @ 10'			2/20/2013	9:40		1	X								Soil	X		X								X						X
10	South of Line WW @ 13'			2/20/2013	9:50		1	X								Soil	X		X								X						X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time	Laboratory Comments: Sample Containers intact? <input checked="" type="checkbox"/> N VOCs Free of Headspace? <input checked="" type="checkbox"/> N Labels on container(s) <input checked="" type="checkbox"/> N Custody seals on container(s) <input checked="" type="checkbox"/> N Custody seals on cooler(s) <input checked="" type="checkbox"/> N Sample Hand Delivered by Sampler/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: Received: <u>2.2</u> °C Adjusted: _____ °C Factor: _____
<u>Camille Bryant</u>	<u>2/21/13</u>	<u>14:20</u>	<u>Will Green</u>		<u>14:20</u>	
Relinquished by:	Date	Time	Received by:	Date	Time	
<u>Will Green</u>	<u>2/21/13</u>	<u>10:03</u>				
Relinquished by:	Date	Time	Received by: PBEL	Date	Time	
			<u>[Signature]</u>	<u>2/21/13</u>	<u>10:08</u>	



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Camille Bryant

Company Name: NOVA Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720

Fax No: 432.520.7701

Sampler Signature: Camille Bryant

e-mail: cbryant@novatraining.cc

Project Name: SUG Historical Cal "B" 1RP-804

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 3821005

rose.slade@sug.com

ORDER #: 3B2/008																	TOTAL:										RUSH TAT (Pre-Schedule) 24, 48, 72				
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	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 8015W 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/5030 24 BTEX 8260	RCI	N.O.R.M.	CL 300			
11	South of Road F2 @ 14'			2/20/2013	10:00		1	X								Soil	X								X			X			X
12	South of Road SW @ 5'			2/20/2013	10:10		1	X								Soil	X								X			X			X
13	South of Road SW @ 10'			2/20/2013	10:25		1	X								Soil	X								X			X			X
14	South of Road SW @ 13'			2/20/2013	10:35		1	X								Soil	X								X			X			X
15	North of Road Floor @ 14'			2/20/2013	14:45		1	X								Soil	X								X			X			X
16	North of Road SW @ 5'			2/20/2013	15:10		1	X								Soil	X								X			X			X
17	North of Road SW @ 10'			2/20/2013	15:20		1	X								Soil	X								X			X			X
18	North of Road SW @ 13'			2/20/2013	15:30		1	X								Soil	X								X			X			X

Special Instructions:

Laboratory Comments:

Relinquished by: Camille Bryant	Date: 2/21/13	Time: 1420	Received by: Mike Green	Date: 2/21/13	Time: 1420	Sample Containers Intact?	N
Relinquished by: Mike Green	Date: 2/21/13	Time: 1503	Received by:	Date:	Time:	VOCs Free of Headspace?	N
Relinquished by:	Date:	Time:	Received by: PBEL	Date: 2/21/13	Time: 1503	Label on container(s)	Y
						Custody seals on container(s)	Y
						Custody seals on cooler(s)	Y
						Sample Hand Delivered by Sampler/Client Rep.?	Y
						by Courier? UPS DHL FedEx Lone Star	N
						Temperature Upon Receipt: 2.0 °C	
						Adjusted: 2.0 °C Factor	

**PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706**

PBELLAB

Analytical Report

Prepared for:

Camille Bryant
Nova Safety & Environment
2057 Commerce
Midland, TX 79703

Project: SUG Historical Cal "B" Line 1RP-804

Project Number: 1RP-804

Location: Lea County, New Mexico

Lab Order Number: 3B22002



NELAP/TCEQ # T104704156-12-1

Report Date: 02/28/13

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
South of Road F3 @ 14'	3B22002-01	Soil	02/20/13 10:45	02-22-2013 13:45
North of Road NW @ 5'	3B22002-02	Soil	02/21/13 09:00	02-22-2013 13:45
North of Road NW @ 10'	3B22002-03	Soil	02/21/13 09:10	02-22-2013 13:45
North of Road NW @ 13'	3B22002-04	Soil	02/21/13 09:20	02-22-2013 13:45
North of Road F2 @ 14'	3B22002-05	Soil	02/21/13 09:30	02-22-2013 13:45
North of Road WW @ 5'	3B22002-06	Soil	02/21/13 10:00	02-22-2013 13:45
North of Road WW @ 10'	3B22002-07	Soil	02/21/13 10:10	02-22-2013 13:45
North of Road WW @ 13'	3B22002-08	Soil	02/21/13 10:20	02-22-2013 13:45
North of Road F3 @ 14'	3B22002-09	Soil	02/21/13 10:30	02-22-2013 13:45
North of Road EW @ 5'	3B22002-10	Soil	02/21/13 11:10	02-22-2013 13:45
North of Road EW @ 10'	3B22002-11	Soil	02/21/13 11:20	02-22-2013 13:45
North of Road EW @ 13'	3B22002-12	Soil	02/21/13 11:30	02-22-2013 13:45
North Road F4 @ 14'	3B22002-13	Soil	02/21/13 11:40	02-22-2013 13:45
RP @ 5'	3B22002-14	Soil	02/21/13 15:00	02-22-2013 13:45
RP @ 10'	3B22002-15	Soil	02/21/13 15:15	02-22-2013 13:45
RP @ 13'	3B22002-16	Soil	02/21/13 15:25	02-22-2013 13:45

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

South of Road F3 @ 14'
3B22002-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.0 %	75-125		EB32805	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		28.9 %	75-125		EB32805	02/27/13	02/27/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	9.58	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		118 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		123 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Permian Basin Environmental Lab

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

10014 SCR 1213 Midland, TX 79706 432-686-7235

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road NW @ 5'
3B22002-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab									
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/27/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		119 %	75-125		EB32805	02/27/13	02/27/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		52.9 %	75-125		EB32805	02/27/13	02/27/13	EPA 8021B	S-GC
General Chemistry Parameters by EPA / Standard Methods									
Chloride	14.9	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		69.6 %	70-130		EB32706	02/26/13	02/27/13	8015M	S-GC
Surrogate: o-Terphenyl		83.0 %	70-130		EB32706	02/26/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/26/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road NW @ 10'
3B22002-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		27.8 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	17.3	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		65.6 %	70-130		EB32802	02/27/13	02/27/13	8015M	S-GC
Surrogate: o-Terphenyl		79.2 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road NW @ 13'
3B22002-04 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		14.3 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.49	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32706	02/26/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		68.7 %	70-130		EB32706	02/26/13	02/27/13	8015M	S-GC
Surrogate: o-Terphenyl		80.8 %	70-130		EB32706	02/26/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/26/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road F2 @ 14'

3B22002-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		119 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		54.7 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.58	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		114 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		120 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road WW @ 5'
3B22002-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		65.8 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	33.0	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		115 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		120 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road WW @ 10'

3B22002-07 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		113 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		41.8 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	26.3	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		114 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		117 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Permian Basin Environmental Lab

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

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2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road WW @ 13'

3B22002-08 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %		75-125	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		72.7 %		75-125	EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	19.6	1.08	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	7.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.9	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	26.9	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		116 %		70-130	EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		122 %		70-130	EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
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Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road F3 @ 14'

3B22002-09 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		108 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		%	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	10.6	1.08	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	7.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.9	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	26.9	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		106 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		107 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.9	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

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Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road EW @ 5'
3B22002-10 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		118 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		37.7 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	27.8	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		119 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road EW @ 10'

3B22002-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		117 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		47.3 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	73.0	1.03	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		115 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North of Road EW @ 13'

3B22002-12 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		116 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		%	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	33.0	1.04	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	4.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	26.0	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		108 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		109 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	26.0	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

North Road F4 @ 14'

3B22002-13 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		107 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		31.7 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	38.8	1.03	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		119 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		122 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

RP @ 5'
3B22002-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		111 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		27.2 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	6.43	1.02	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	2.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.5	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		111 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.5	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

RP @ 10'
3B22002-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		116 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		66.0 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	28.0	1.03	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		114 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

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2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

RP @ 13'
3B22002-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab

Organics by GC

Benzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		110 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		32.7 %	75-125		EB32805	02/27/13	02/28/13	EPA 8021B	S-GC

General Chemistry Parameters by EPA / Standard Methods

Chloride	26.1	1.03	mg/kg dry	1	EB32602	02/26/13	02/26/13	EPA 300.0	
% Moisture	3.0	0.1	%	1	EB32601	02/25/13	02/26/13	% calculation	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C12-C28	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
>C28-C35	ND	25.8	mg/kg dry	1	EB32802	02/27/13	02/27/13	8015M	
Surrogate: 1-Chlorooctane		97.2 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Surrogate: o-Terphenyl		96.7 %	70-130		EB32802	02/27/13	02/27/13	8015M	
Total Hydrocarbon nC6-nC35	ND	25.8	mg/kg dry	1	[CALC]	02/27/13	02/27/13	8015M	

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2057 Commerce
Midland TX, 79703

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Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Organics by GC - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EB32805 - General Preparation (GC)

Blank (EB32805-BLK1)

Prepared & Analyzed: 02/27/13

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	68.8		ug/kg	60.0		115	75-125			
Surrogate: 4-Bromofluorobenzene	43.9		"	60.0		73.1	75-125			S-GC

LCS (EB32805-BS1)

Prepared & Analyzed: 02/27/13

Benzene	0.0813	0.00100	mg/kg wet	0.100		81.3	80-120			
Toluene	0.116	0.00200	"	0.100		116	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.238	0.00200	"	0.200		119	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	58.1		ug/kg	60.0		96.8	75-125			
Surrogate: 4-Bromofluorobenzene	57.8		"	60.0		96.3	75-125			

LCS Dup (EB32805-BSD1)

Prepared & Analyzed: 02/27/13

Benzene	0.0811	0.00100	mg/kg wet	0.100		81.1	80-120	0.259	20	
Toluene	0.116	0.00200	"	0.100		116	80-120	0.561	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120	2.28	20	
Xylene (p/m)	0.230	0.00200	"	0.200		115	80-120	3.52	20	
Xylene (o)	0.109	0.00100	"	0.100		109	80-120	3.04	20	
Surrogate: 1,4-Difluorobenzene	59.7		ug/kg	60.0		99.5	75-125			
Surrogate: 4-Bromofluorobenzene	58.5		"	60.0		97.5	75-125			

Matrix Spike (EB32805-MS1)

Source: 3B26003-04

Prepared: 02/27/13 Analyzed: 02/28/13

Benzene	0.0304	0.00100	mg/kg dry	0.109	0.00274	25.5	80-120			QM-05
Toluene	0.0715	0.00200	"	0.109	ND	65.7	80-120			QM-05
Ethylbenzene	0.0657	0.00100	"	0.109	0.0280	34.7	80-120			QM-05
Xylene (p/m)	0.431	0.00200	"	0.217	0.270	74.4	80-120			QM-05
Xylene (o)	0.216	0.00100	"	0.109	0.124	84.7	80-120			
Surrogate: 1,4-Difluorobenzene	67.5		ug/kg	60.0		113	75-125			
Surrogate: 4-Bromofluorobenzene	55.9		"	60.0		93.1	75-125			

Permian Basin Environmental Lab

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

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

Fax: (432) 520-7701

Organics by GC - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB32805 - General Preparation (GC)										
Matrix Spike Dup (EB32805-MSD1)		Source: 3B26003-04			Prepared: 02/27/13 Analyzed: 02/28/13					
Benzene	0.0387	0.00100	mg/kg dry	0.109	0.00274	33.1	80-120	25.9	20	QM-05
Toluene	0.0804	0.00200	"	0.109	ND	74.0	80-120	11.8	20	QM-05
Ethylbenzene	0.0720	0.00100	"	0.109	0.0280	40.4	80-120	15.2	20	QM-05
Xylene (p/m)	0.452	0.00200	"	0.217	0.270	83.9	80-120	12.1	20	
Xylene (o)	0.267	0.00100	"	0.109	0.124	132	80-120	43.4	20	QM-05
Surrogate: 1,4-Difluorobenzene	62.9		ug/kg	60.0		105	75-125			
Surrogate: 4-Bromofluorobenzene	44.9		"	60.0		74.9	75-125			S-GC

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
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General Chemistry Parameters by EPA / Standard Methods - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch EB32601 - *** DEFAULT PREP ***									
Blank (EB32601-BLK1)					Prepared: 02/25/13 Analyzed: 02/26/13				
% Moisture	ND	0.1	%						
Duplicate (EB32601-DUP1)					Source: 3B21001-01 Prepared: 02/25/13 Analyzed: 02/26/13				
% Moisture	49.0	0.1	%		52.0		5.94	20	
Duplicate (EB32601-DUP2)					Source: 3B21005-15 Prepared: 02/25/13 Analyzed: 02/26/13				
% Moisture	4.0	0.1	%		4.0		0.00	20	
Batch EB32602 - *** DEFAULT PREP ***									
Blank (EB32602-BLK1)					Prepared & Analyzed: 02/26/13				
Chloride	ND	1.00	mg/kg wet						
LCS (EB32602-BS1)					Prepared & Analyzed: 02/26/13				
Chloride	10.4		mg/kg Wet	10.0	104	80-120			
LCS Dup (EB32602-BSD1)					Prepared & Analyzed: 02/26/13				
Chloride	10.5		mg/kg Wet	10.0	105	80-120	1.26	20	
Duplicate (EB32602-DUP1)					Source: 3B21005-17 Prepared & Analyzed: 02/26/13				
Chloride	5.48	1.02	mg/kg dry		5.51		0.557	20	
Matrix Spike (EB32602-MS1)					Source: 3B21005-17 Prepared & Analyzed: 02/26/13				
Chloride	142	1.02	mg/kg dry	128	5.51	107	80-120		
Matrix Spike (EB32602-MS2)					Source: 3B22002-08 Prepared & Analyzed: 02/26/13				
Chloride	132	1.08	mg/kg dry	94.1	19.6	120	80-120		

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2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB32706 - 8015M										
Blank (EB32706-BLK1)										
Prepared & Analyzed: 02/26/13										
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	63.0		"	100		63.0	70-130			S-GC
Surrogate: o-Terphenyl	37.8		"	50.0		75.6	70-130			
LCS (EB32706-BS1)										
Prepared & Analyzed: 02/26/13										
C6-C12	770	25.0	mg/kg wet	1000		77.0	75-125			
>C12-C28	797	25.0	"	1000		79.7	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	65.4		"	50.0		131	70-130			S-GC
Surrogate: o-Terphenyl	32.2		"	25.0		129	70-130			
LCS Dup (EB32706-BSD1)										
Prepared & Analyzed: 02/26/13										
C6-C12	808	25.0	mg/kg wet	1000		80.8	75-125	4.84	20	
>C12-C28	774	25.0	"	1000		77.4	75-125	2.96	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	65.4		"	50.0		131	70-130			S-GC
Surrogate: o-Terphenyl	31.8		"	25.0		127	70-130			
Matrix Spike (EB32706-MS1)										
Source: 3B22002-04 Prepared: 02/26/13 Analyzed: 02/27/13										
C6-C12	927	25.5	mg/kg dry	1020	ND	90.9	75-125			
>C12-C28	839	25.5	"	1020	ND	82.2	75-125			
>C28-C35	ND	25.5	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	103		"	102		101	70-130			
Surrogate: o-Terphenyl	50.3		"	51.0		98.6	70-130			
Matrix Spike Dup (EB32706-MSD1)										
Source: 3B22002-04 Prepared: 02/26/13 Analyzed: 02/27/13										
C6-C12	1120	25.5	mg/kg dry	1020	ND	109	75-125	18.5	20	
>C12-C28	948	25.5	"	1020	ND	92.9	75-125	12.2	20	
>C28-C35	ND	25.5	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	130		"	102		127	70-130			
Surrogate: o-Terphenyl	61.8		"	51.0		121	70-130			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
Project Manager: Camille Bryant

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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control
Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB32802 - 8015M										
Blank (EB32802-BLK1)				Prepared & Analyzed: 02/27/13						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	61.7		"	50.0		123	70-130			
Surrogate: o-Terphenyl	31.0		"	25.0		124	70-130			
LCS (EB32802-BS1)				Prepared & Analyzed: 02/27/13						
C6-C12	784	25.0	mg/kg wet	1000		78.4	75-125			
>C12-C28	849	25.0	"	1000		84.9	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	66.3		"	50.0		133	70-130			S-GC
Surrogate: o-Terphenyl	27.4		"	25.0		110	70-130			
LCS Dup (EB32802-BSD1)				Prepared & Analyzed: 02/27/13						
C6-C12	818	25.0	mg/kg wet	1000		81.8	75-125	4.31	20	
>C12-C28	863	25.0	"	1000		86.3	75-125	1.70	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	67.8		"	50.0		136	70-130			S-GC
Surrogate: o-Terphenyl	27.4		"	25.0		110	70-130			
Matrix Spike (EB32802-MS1)		Source: 3B22003-07		Prepared & Analyzed: 02/27/13						
C6-C12	954	25.8	mg/kg dry	1030	63.7	86.4	75-125			
>C12-C28	896	25.8	"	1030	534	35.0	75-125			QM-05
>C28-C35	116	25.8	"	0.00	145		75-125			
Surrogate: 1-Chlorooctane	61.7		"	51.5		120	70-130			
Surrogate: o-Terphenyl	26.8		"	25.8		104	70-130			
Matrix Spike Dup (EB32802-MSD1)		Source: 3B22003-07		Prepared & Analyzed: 02/27/13						
C6-C12	897	25.8	mg/kg dry	1030	63.7	80.8	75-125	6.61	20	
>C12-C28	914	25.8	"	1030	534	36.8	75-125	4.91	20	QM-05
>C28-C35	124	25.8	"	0.00	145		75-125		20	
Surrogate: 1-Chlorooctane	63.3		"	51.5		123	70-130			
Surrogate: o-Terphenyl	27.2		"	25.8		105	70-130			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Cal "B" Line IRP-804
Project Number: IRP-804
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Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis.

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

2/28/2013

Brent Barron, Laboratory Director/Technical Director

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If you have received this material in error, please notify us immediately at 432-686-7235.



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706

Phone: 432-661-4184

Project Manager: Camille Bryant

Company Name: NOVA Safety and Environmental

Company Address: 2057 Commerce

City/State/Zip: Midland, Texas 79703

Telephone No: 432.520.7720

Fax No: 432.520.7701

Sampler Signature: Camille Bryant

e-mail: cbryant@novatraining.cc

Project Name: SUG Historical Cal "B" 1RP-804

Project #:

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)

ORDER #: 3822002

rose.slade@sug.com

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:										RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT									
LAB # (lab use only)	(lab use only)								Ice	HNO ₃	HCl	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: 418.1 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 Se	Volatiles	Semi-volatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.M.											
																															TCLP:		SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semi-volatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.M.
																															TOTAL:								

rose.slade@sug.com

3822002

01	South of Road F3 @ 14'			2/20/2013	10:45	1	X										Soil	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Special Instructions:

Relinquished by: Camille Bryant	Date: 2/20/13	Time: 13:45	Received by:	Date:	Time:	Laboratory Comments: Sample Containers Intact? <input checked="" type="checkbox"/> N VOCs Free of Headspace? <input checked="" type="checkbox"/> N Labels on container(s) <input checked="" type="checkbox"/> N Custody seals on container(s) <input checked="" type="checkbox"/> N Custody seals on cooler(s) <input checked="" type="checkbox"/> N Sample Hand Delivered by Sampler/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: Received: 04 °C Adjusted: 04 °C Factor
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	
Relinquished by:	Date:	Time:	Received by: PBEL:	Date:	Time:	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	

APPENDIX B:

Photographs

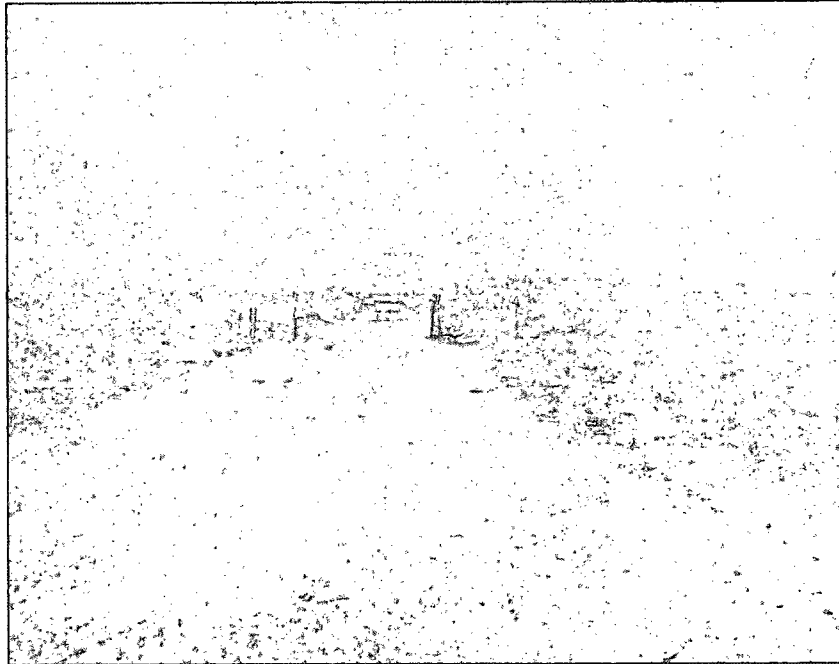
Client: Southern Union Gas Services
Project Name: Cal "B" Line

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 1

Direction:
Facing West

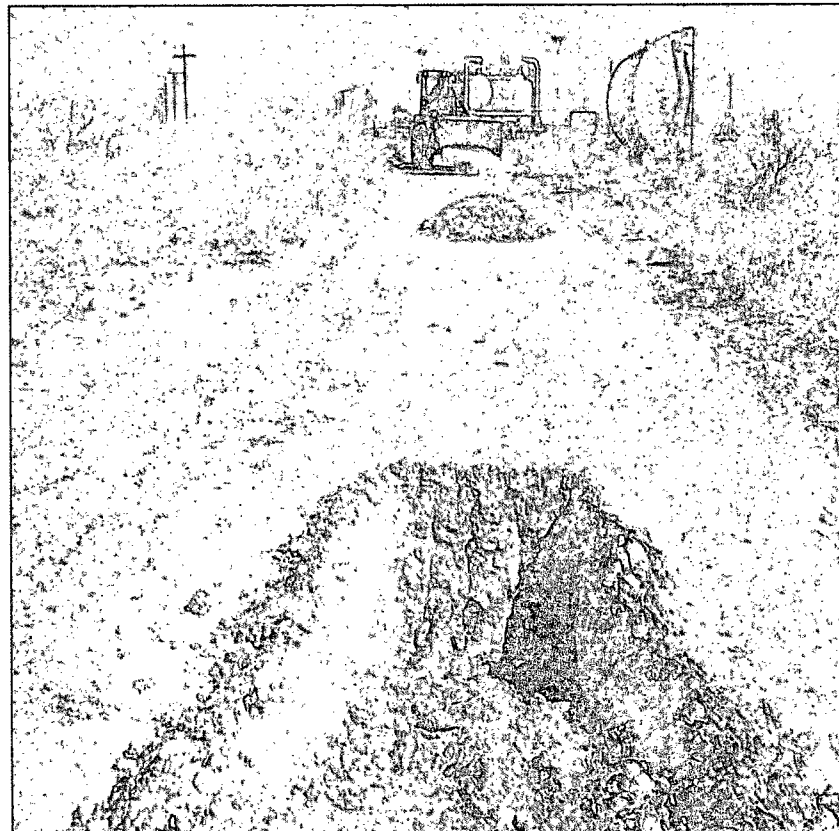
Description:
View of historical release
prior to excavation
activities.



Photograph No. 2

Direction:
Facing East

Description:
View of excavation of the
trenches in caliche road.



Client: Southern Union Gas Services
Project Name: Cal "B" Line

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 3

Direction:
Facing Southwest

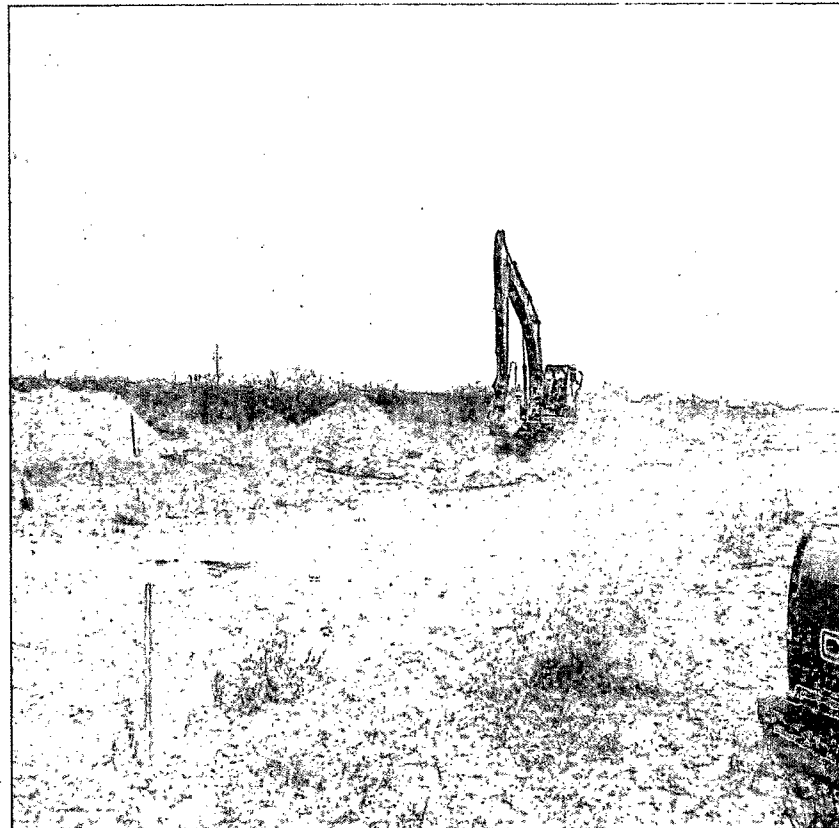
Description:
View of excavation of
trenches on the south
side of the caliche road.



Photograph No. 4

Direction:
Facing Northeast

Description:
View of excavation of
trenches on the north
side of the caliche road.



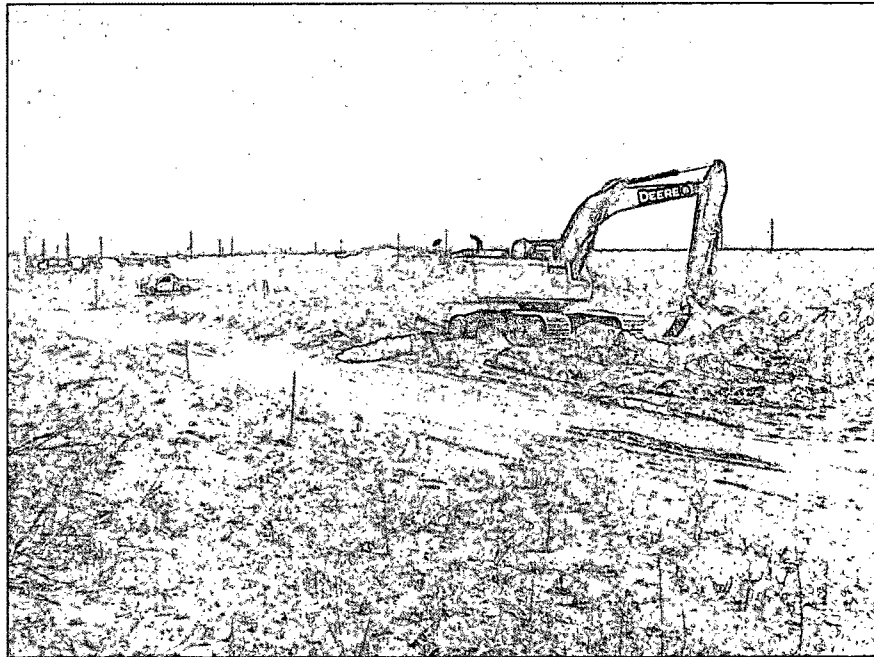
Client: Southern Union Gas Services
Project Name: Cal "B" Line

Prepared by: NOVA
Location: Lea County, New Mexico

Photograph No. 5

Direction:
Facing Southeast

Description:
View of excavation of
trench at the inferred
release point.



APPENDIX C:
Release Notification and
Corrective Action (Form-C-141)

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Southern Union Gas Serv. Ltd.	Contact	Tony Savoie
Address	P.O. Box 1226 Jal, N.M. 88252	Telephone No.	505-395-2116
Facility Name	Lea County Field Dept.	Facility Type	Natural Gas Gathering
Surface Owner	State	Mineral Owner	State
		Lease No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	12	26S	36E					Lea

Latitude N32-03.896 Longitude W103 13.024

NATURE OF RELEASE

Type of Release	Natural Gas, oil, and water	Volume of Release	651,000 MCF Nat. Gas, 271 bls Produced water, 25 bls condensate	Volume Recovered	230 bls Produced water, 20 bls condensate.
Source of Release	Pipeline	Date and Hour of Occurrence	18:15 3/23/06	Date and Hour of Discovery	3/23/06 @ 18:20
Was Immediate Notice Given?	X Yes No Not Required	If YES, To Whom? Gary Wink			
By Whom?	Date and Hour 3/23/06 at 18:50				
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 hole developed in the 16" pipeline and released the fluid and gas. Normal operating pressure is 25 P.S.I. Sweet gas. At the time of the release the pipeline was being pigged and an estimated 2700 bls of fluid was coming into the receiver at approximately 70 P.S.I. Once the release was discovered a backhoe was dispatched to dam up and contain the fluid until the line could be blown-down.

Describe Area Affected and Cleanup Action Taken. * Approximately 53,935 sq. ft. of caliche road and approximately 11,500 sq. ft. of pastureland was affected by the release. The heavily saturated soil was removed from the caliche road and pasture and transported to the company owned and operated land-farm.

The affected area will be remediated in accordance to the NMOCD recommended guidelines on leaks and spills.

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

OIL CONSERVATION DIVISION

Signature:	Tony Savoie	Approved by District Supervisor:	
Printed Name:	John A. Savoie		
Title:	EH&S Comp. Coord.	Approval Date:	Expiration Date:
E-mail Address:	jasavoie@sidrichgas.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3/27/06	Phone: 505-395-2116		

* Attach Additional Sheets If Necessary

OGRID - 21232

Facility - PAC0609331415
Incident - PAC0609331536
Contract - PAC0609331948