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REMEDIATION SUMMARY & SOIL CLOSURE REQUEST

Property:

REGENCY FIELD SERVICES LLC.
Carlson 4"
Historical Release Site
Lea County, New Mexico
Unit Letter "I", Section 26, Township 25 South, Range 37 East
Latitude 32.09855, Longitude -103.12644
1RP-1462

February 2015
Apex Project No. 7250715007

Prepared for:

Regency Field Services LLC
421 West 3rd Street, Suite 250
Fort Worth, TX 76102
Attn: **Ms. Crystal Callaway, BSN, RN, CHMM**

Prepared by:

Thomas Franklin
Project Manager

Liz Scaggs, P.G.
Senior Technical Review

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APPENDICES

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February 2015
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1.0 INTRODUCTION

1.1 Site Description & Background

Apex TITAN, Inc. (Apex) has prepared this Remediation Summary and Soil Closure Request for the Regency Field Services, LLC (Regency) Carlson 4" leak (referred to hereinafter as the "Site" or "subject Site"). Remedial actions were reportedly conducted in accordance with New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (NMOCD) rules (*NMAC 19.15.29 Release Notification*) and the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

The Carlson 4" leak is located south of NM128, 4 miles east of Jal, New Mexico (GPS 32.09855, -103.12644). According to documentation provided by Southern Union Gas Services, (SUG), the operator at the time, the Initial C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) in June of 2007. Regency Field Services, LLC. has subsequently acquired this site.

The previous remedial activities were reportedly conducted by Ocotillo Environmental, LLC. (Ocotillo) and NOVA Safety and Environmental (NOVA). This Closure Request is solely based upon the interpretation of the data provided by Ocotillo and NOVA.

1.2 Project Objective

The objective of the Remediation Summary and Soil Closure Request is to present documentation of the activities that were performed to date and to request closure of the site.

1.3 Standard of Care

Apex's services are performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, express or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in

the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services will be performed in accordance with the scope of work agreed with the client.

1.4 Reliance

This report has been prepared for the exclusive use of Regency, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Regency and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

2.0 SITE RANKING & PROPOSED REMEDIAL ACTION GOALS

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

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

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

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 10. This ranking is based on the following:

- The depth to the initial groundwater-bearing zone is less than 100 feet but greater than 50 feet at the Site.
- The impacted area is greater than 200 feet from a private domestic water source.

- Distance to the nearest surface water body is greater than 1,000 ft.

Based on a Total Ranking Score of 10, cleanup goals for soils remaining in place include: 10 milligrams per kilogram (mg/Kg) for benzene, 50 mg/Kg for total benzene, toluene, ethlybenzene and xylene (BTEX), 1,000 mg/Kg for total petroleum hydrocarbons (TPH) and 500 mg/Kg for chloride.

3.0 INITIAL RESPONSE, EXCAVATION & TRENCHING ACTIVITIES

3.1 Initial Response

In June of 2007, SUG conducted an initial investigation at the Site. A ranking analysis was completed which ranked the site as a ten (10) and stated that ground water was an average of seventy (70) feet deep. During the investigation, samples were collected from the surface and field screened for hydrocarbons.

3.2 Excavation Activities

Excavation remediation activities were conducted by Ocotillo and began in February of 2008. The excavation activities included removing impacted material from the release area, field screening for hydrocarbons and transporting material that exceeded regulatory levels offsite to an approved disposal facility. The final dimensions of the excavation were approximately two hundred twenty five (225) feet in length, five (5) feet to thirty five (35) feet in width and fourteen (14) feet in depth. Approximately five hundred twenty eight (528) cubic yards (yd^3) of impacted soil was transported to the Pitch Fork Land Farm for proper disposal, the Bill of Ladings are included in Appendix E.

3.3 Excavation Confirmation Soil Sampling Program

Composite soil samples were collected by SUG personnel and were analyzed for TPH. The results of the confirmation samples were compared to the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases* (Section VI A. Contaminated Soils). None of the composite samples exhibited concentration above the regulatory levels.

3.4 Trenching Activities

NOVA personnel supervised trenching activities in the area that was not vertically delineated for BTEX and chlorides. In October of 2012; NOVA personnel were present to observe on-Site activities and to collect soil samples. Thirteen (13) trenches were installed and sampled as shown in Figure 2, Appendix A.

3.5 Trenching Confirmation Soil Sampling Program

Soil samples were collected by NOVA personnel and analyzed for BTEX, TPH and chlorides as shown in Appendix B, Table 2. The analytical sample results were below the NMOCD regulatory levels for BTEX and TPH. Elevated chloride concentrations were found in WW-2 and WW-3. WW-2 showed elevated chloride concentrations of 726 mg/Kg at eight (8) feet declining to 335 mg/Kg at sixteen (16) feet bgs. WW-3 showed elevated chloride concentrations of 2,200 mg/Kg at eight (8) foot declining to 1,040 mg/Kg at sixteen

(16) feet bgs. The chloride concentrations in the trenches were not fully vertically delineated; however, the chlorides were declining with depth.

3.6 Drilling Activities

NOVA personnel supervised soil boring activities in the areas that were not vertically delineated. On February 20, 2014, one (1) soil boring (SB-1) as shown in Figure 3, was installed to a depth of thirty (30) feet bgs.

3.7 Drilling Confirmation Soil Sampling Program

Three (3) soil samples were collected from SB-1 by NOVA personnel and analyzed for BTEX, TPH and chlorides. All three (3) samples were below the regulatory levels, vertically delineating the constituents of concern.

4.0 LABORATORY ANALYTICAL METHODS

Soil samples collected were analyzed for TPH GRO/DRO utilizing EPA method SW-846 8015, BTEX using EPA method SW-846 8021B and chlorides utilizing EPA method SW-846 300.1. Copies of the laboratory analytical reports are provided in Appendix D.

Soil samples were collected and placed in laboratory prepared glassware, placed on ice in a cooler. The sample coolers and completed chain-of-custody forms were relinquished to an approved laboratory for normal turn-around time.

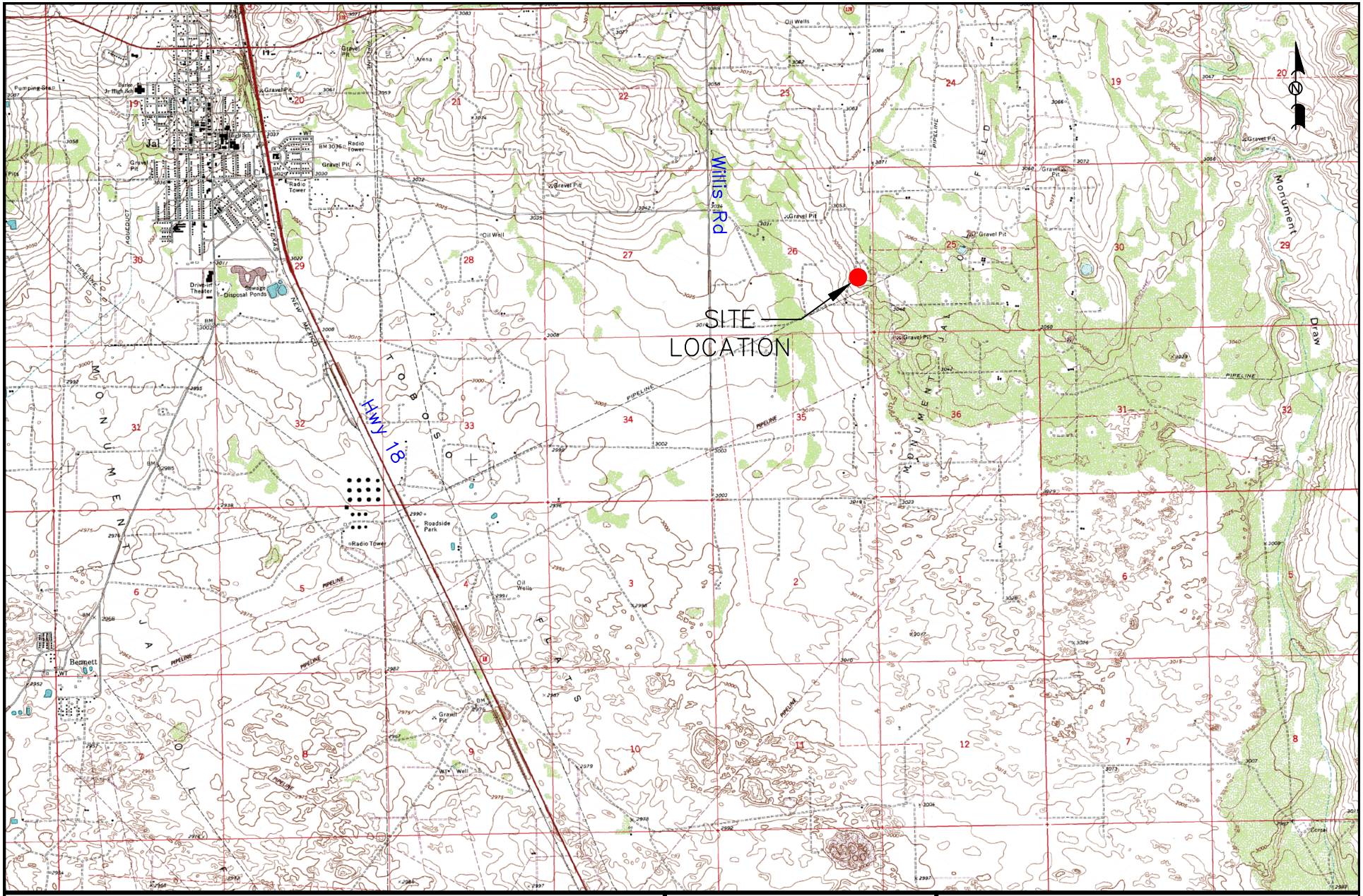
Figure 2 and Figure 3 are Site plans that indicate the approximate location of the confirmation soil samples, test trench locations and the soil boring in relation to pertinent land features and general Site boundaries.

5.0 CLOSURE

Based upon the data provided by Ocotillo and NOVA with the photos shown in Appendix C, the constituents of concern were horizontally and vertically delineated. The excavation was backfilled and brought to grade. Based upon the response actions and laboratory analytical results, no additional investigation and/or remediation appears warranted at this time. Regency respectfully requests closure of this Site. Copies of the Initial and Final C-141 are provided in Appendix F.

APPENDIX A

Figures



LEGEND:

2000 1000 0 1000 2000

Distance in Feet

Figure 1

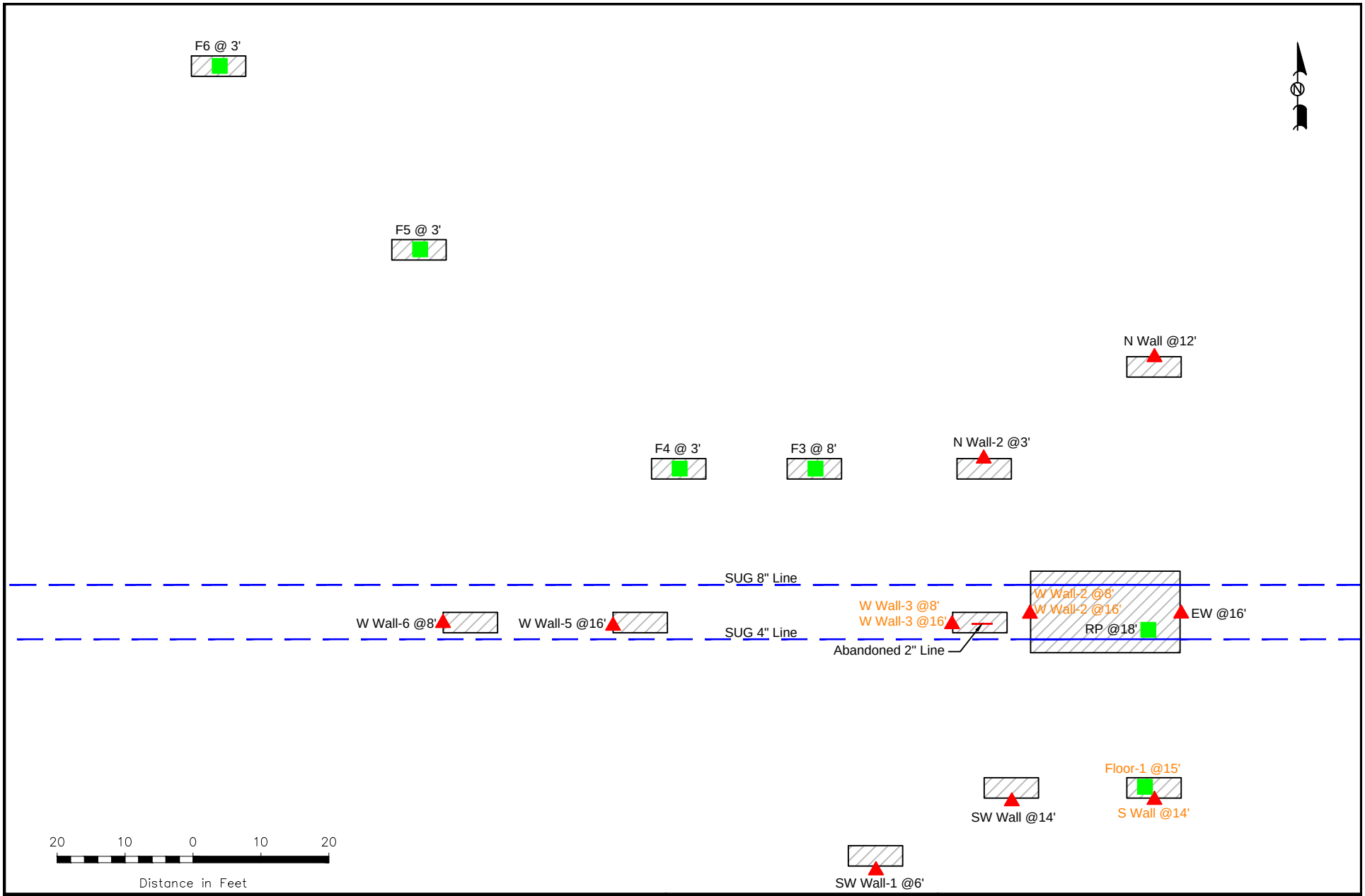
Site Location Map
Southern Union Gas Services
Carlson 4"
Lea County, NM

NOVA safety and environmental

2057 Commerce Drive
Midland, Texas 79703
432.520.7720

www.novasafetyandenvironmental.com

October 30, 2012	Scale: 1" = 2000'	CAD By: TA	Checked By: CJB
Lat. N 32° 5.915' Long. W 103° 7.593'			



LEGEND:

- Sidewall Soil Sample Location
- Pipeline
- Floor Soil Sample Location
- Excavated Area

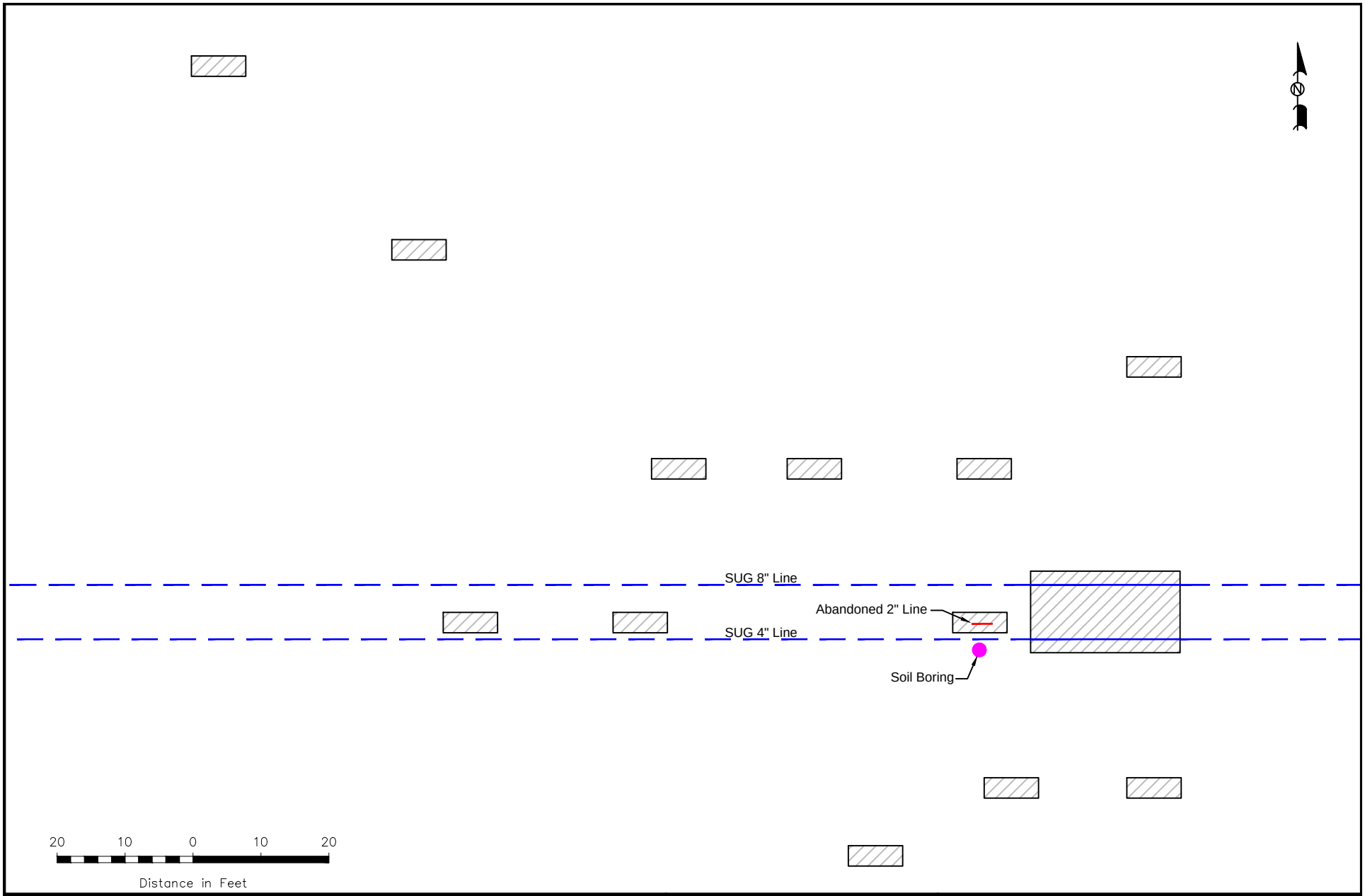
W Wall-3 @8' Indicates Not within NMOCD Guidelines

Figure 2

Site Map
Southern Union Gas Services
Carlson 4"
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

October 29, 2012	Scale: 1" = 20'	CAD By: TA	Checked By: CJB
Lat. N 32° 5.915'	Long. W 103° 7.593'		



LEGEND:

- Pipeline
- Excavated Area
- Soil Boring

Figure 3
Soil Boring Location
Southern Union Gas Services
Carlson 4"
Lea County, NM

NOVA safety and environmental
2057 Commerce Drive
Midland, Texas 79703
432.520.7720
www.novasafetyandenvironmental.com

March 7, 2013	Scale: 1" = 20'	CAD By: CAS	Checked By: CJB
Lat. N 32° 5.915'	Long. W 103° 7.593'		

APPENDIX B

Soil Analytical Results

TABLE 1 SUG - Carlson 4" SUG - ANALYTICAL RESULTS						
Sample ID	**Date**	**Sample Depth (feet)**	**TPH (GRO C6-C12) (mg/Kg)**	**TPH (DRO C12-C28) (mg/Kg)**	**TPH (DRO C28-C35) (mg/Kg)**	**Total TPH (mg/Kg)**
NMOCD - Recommended Remediation Action Levels			**NE**			***1,000***
CONFIRMATION SAMPLES						
PR @ 11'	2/29/2008	11'	<18.4	<18.4	<18.4	<18.4
B-Comp	2/29/2008	8'-14'	<17.1	149	28.5	177.5
EW-Comp	2/29/2008	0-14'	<17.3	45.3	<17.3	45.3
SW-Comp	2/29/2008	0-14'	<16.8	1250	296	**1546**
WW-Comp	2/29/2008	0-14'	<16.8	204	84.2	288.2
NW-Comp	2/29/2008	0-14'	<17.0	237	80.5	317.5
S-1-Comp	2/29/2008	4"-10"	<15.6	140	36	176
S-2-Comp	2/29/2008	6"-16"	<15.4	80.1	29.1	109.2
S-2-Comp	2/29/2008	6"-24"	17.9	566	132	715.9

mg/Kg- milligrams per Kilograms

NE - Not Established

Concentrations in Bold and Highlighted exceed the NMOCD Guidelines

This analytical data was collected by SUG personnel.

TABLE 2

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

SOUTHERN UNION GAS SERVICES
CARLSON 4-INCH HISTORICAL RELEASE
LEA COUNTY, NEW MEXICO
NMOCD # 1RP-1462

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
NMOCD Regulatory Limit		**10**	**-**	**-**	**-**	**-**	**50**	**-**	**-**	**-**	**1,000**	**500**
RP @ 18'	10/12/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.8	<27.8	<27.8	<27.8	33.0
EW @ 16'	10/12/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.1	<28.1	<28.1	<28.1	18.5
Floor 1 @ 15'	10/16/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.2	164	53.7	218	58.8
S Wall @ 14'	10/16/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.8	123	33.6	157	92.6
SW Wall @ 14'	10/16/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<29.4	<29.4	<29.4	<29.4	6.38
SW Wall 1 @ 6'	10/16/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<26.0	34.9
N Wall @ 12'	10/22/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.9	<26.9	<26.9	<25.0	51.5
N Wall 2 @ 3'	10/22/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<25.0	160
F4 @ 3'	10/22/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.0	<26.0	<26.0	<25.0	39.6
F3 @ 8'	10/22/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.3	<26.3	<26.3	<25.0	173
F5 @ 3'	10/22/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.3	<26.3	<26.3	<25.0	164
F6 @ 3'	10/22/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<25.0	8.11
WW-2 @ 8'	10/23/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.1	<28.1	<28.1	<28.1	**726**
WW-2 @ 16'	10/23/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.8	<27.8	<27.8	<25.0	335
WW-3 @ 8'	10/23/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.8	<27.8	<27.8	<25.0	**2,200**
WW-3 @ 16'	10/23/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<28.1	<28.1	<28.1	<25.0	**1,040**
WW-5 @ 16'	10/23/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<27.5	<27.5	<27.5	<25.0	175
WW-6 @ 8'	10/23/12	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<26.6	<26.6	<26.6	<25.0	94.5
SB-1 @ 15'	02/20/14	<0.00105	<0.00211	<0.00105	<0.00211	<0.00105	<0.00211	<26.3	36.9	<26.3	36.9	42.1
SB-1 @ 20'	02/20/14	<0.00105	<0.00211	<0.00105	<0.00211	<0.00105	<0.00211	<26.3	45.8	<26.3	45.8	26.1
SB-1 @ 30'	02/20/14	<0.00104	<0.00208	<0.00104	<0.00208	<0.00104	<0.00208	<26.0	<26.0	<26.0	<26.0	19.0

APPENDIX C

Photos

Photo 1

Photo 2

Southern Union Gas Services Site: Carlson 4"
Job #2007-024
Before Remediation 6/18/07

Photo 3

Photo 4

Southern Union Gas Services Site: Carlson 4"
Job #2007-024
Before Remediation 6/18/07

Photo 5

Photo 6

Southern Union Gas Services Site: Carlson 4"
Job #2007-024
Before Remediation 6/18/07

Photo 7

Photo 8

Southern Union Gas Services Site: Carlson 4"
Job #2007-024
Before Remediation 6/18/07

Photo 9

Photo 10

Southern Union Gas Services Site: Carlson 4"
Job #2007-024
Before Remediation 6/18/07

NOVA – Trenching Activities

NOVA – Trenching Activities

NOVA – Trenching Activities

NOVA – Trenching Activities

View West – Photo taken 01/21/2015

View North – Photo taken 01/21/2015

View South – Photo taken 01/21/2015

View North – Photo taken 01/21/2015

APPENDIX D

Laboratory Data Reports & Chain-of-Custody Documents

Analytical Report 298691

for

Southern Union Gas Services-Jal

Project Manager: Tony Savoie

Carlson 4"

2007-024

05-MAR-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

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

05-MAR-08

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

Reference: XENCO Report No: **298691**
Carlson 4"
Project Address: Willis Ranch

Tony Savoie:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 298691. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 298691 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 298691

Southern Union Gas Services-Jal, Jal, NM

Carlson 4"

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PR@ 11'	S	Feb-29-08 13:00	11 ft	298691-001
B-Comp.	S	Feb-29-08 13:00	8 - 14 ft	298691-002
EW-Comp.	S	Feb-29-08 13:00	0 - 14 ft	298691-003
SW-Comp.	S	Feb-29-08 13:00	0 - 14 ft	298691-004
WW-Comp.	S	Feb-29-08 13:00	0 - 14 ft	298691-005
NW-Comp.	S	Feb-29-08 13:00	0 - 14 ft	298691-006
S-1-Comp.	S	Feb-29-08 13:00	4 - 10 In	298691-007
S-2-Comp.	S	Feb-29-08 13:00	6 - 16 In	298691-008
S-2-Comp.	S	Feb-29-08 13:00	6 - 24 In	298691-009

Certificate of Analysis Summary 298691

Southern Union Gas Services-Jal, Jal, NM

Project Name: Carlson 4"

Project Id: 2007-024
Contact: Tony Savoie
Project Location: Willis Ranch

Date Received in Lab: Fri Feb-29-08 04:11 pm
Report Date: 05-MAR-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	298691-001		298691-002		298691-003		298691-004		298691-005		298691-006	
	Field Id:	PR@ 11'		B-Comp.		EW-Comp.		SW-Comp.		WW-Comp.		NW-Comp.	
	Depth:	11 ft		8-14 ft		0-14 ft		0-14 ft		0-14 ft		0-14 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Feb-29-08 13:00		Feb-29-08 13:00		Feb-29-08 13:00		Feb-29-08 13:00		Feb-29-08 13:00		Feb-29-08 13:00	
Percent Moisture	***Extracted:***												
	Analyzed:	Mar-04-08 08:06		Mar-04-08 08:07		Mar-04-08 08:08		Mar-04-08 08:09		Mar-04-08 08:10		Mar-04-08 08:11	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		18.3	1.00	12.5	1.00	13.3	1.00	10.5	1.00	10.6	1.00	11.7	1.00
TPH By SW8015 Mod	***Extracted:***	Mar-03-08 15:30		Mar-03-08 15:30		Mar-03-08 15:30		Mar-03-08 15:30		Mar-03-08 15:30		Mar-03-08 15:30	
	Analyzed:	Mar-03-08 18:50		Mar-03-08 19:16		Mar-03-08 19:42		Mar-03-08 20:07		Mar-03-08 20:33		Mar-03-08 20:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	18.4	ND	17.1	ND	17.3	ND	16.8	ND	16.8	ND	17.0
C12-C28 Diesel Range Hydrocarbons		ND	18.4	149	17.1	45.3	17.3	1250	16.8	204	16.8	237	17.0
C28-C35 Oil Range Hydrocarbons		ND	18.4	28.5	17.1	ND	17.3	296	16.8	84.2	16.8	80.5	17.0
Total TPH		ND		177.5		45.3		1546		288.2		317.5	

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 298691

Southern Union Gas Services-Jal, Jal, NM

Project Name: Carlson 4"

Project Id: 2007-024
Contact: Tony Savoie
Project Location: Willis Ranch

Date Received in Lab: Fri Feb-29-08 04:11 pm
Report Date: 05-MAR-08
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	298691-007		298691-008		298691-009					
	Field Id:	S-1-Comp.		S-2-Comp.		S-2-Comp.					
	Depth:	4-10 In		6-16 In		6-24 In					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	Feb-29-08 13:00		Feb-29-08 13:00		Feb-29-08 13:00					
Percent Moisture	*Extracted:*										
	Analyzed:	Mar-04-08 08:12		Mar-04-08 08:13		Mar-04-08 08:14					
	Units/RL:	%	RL	%	RL	%	RL				
Percent Moisture		3.63	1.00	2.58	1.00	3.53	1.00				
TPH By SW8015 Mod	*Extracted:*	Mar-03-08 15:30		Mar-03-08 15:30		Mar-03-08 15:30					
	Analyzed:	Mar-03-08 21:24		Mar-03-08 21:49		Mar-03-08 22:15					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	15.6	ND	15.4	17.9	15.5				
C12-C28 Diesel Range Hydrocarbons		140	15.6	80.1	15.4	566	15.5				
C28-C35 Oil Range Hydrocarbons		36.0	15.6	29.1	15.4	132	15.5				
Total TPH		176		109.2		715.9					

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Form 2 - Surrogate Recoveries

Project Name: Carlson 4"

Work Order #: 298691 **Project ID:** 2007-024

Lab Batch #: 716205 **Sample:** 298691-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.8	100	88	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

Lab Batch #: 716205 **Sample:** 298691-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	100	94	70-135	
o-Terphenyl	50.9	50.0	102	70-135	

Lab Batch #: 716205 **Sample:** 298691-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.1	100	99	70-135	
o-Terphenyl	53.0	50.0	106	70-135	

Lab Batch #: 716205 **Sample:** 298691-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.4	100	91	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 716205 **Sample:** 298691-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.2	100	92	70-135	
o-Terphenyl	50.3	50.0	101	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Carlson 4"

Work Order #: 298691 **Project ID:** 2007-024

Lab Batch #: 716205 **Sample:** 298691-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.1	100	92	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

Lab Batch #: 716205 **Sample:** 298691-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.7	100	88	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 716205 **Sample:** 298691-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.5	100	92	70-135	
o-Terphenyl	51.4	50.0	103	70-135	

Lab Batch #: 716205 **Sample:** 298691-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.5	100	94	70-135	
o-Terphenyl	50.9	50.0	102	70-135	

Lab Batch #: 716205 **Sample:** 298691-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.6	100	88	70-135	
o-Terphenyl	47.4	50.0	95	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

Form 2 - Surrogate Recoveries

Project Name: Carlson 4"

Work Order #: 298691 **Project ID:** 2007-024

Lab Batch #: 716205 **Sample:** 298691-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.3	100	91	70-135	
o-Terphenyl	52.3	50.0	105	70-135	

Lab Batch #: 716205 **Sample:** 505444-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.5	100	93	70-135	
o-Terphenyl	49.9	50.0	100	70-135	

Lab Batch #: 716205 **Sample:** 505444-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	100	86	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 716205 **Sample:** 505444-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.4	100	94	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

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

XENCO Laboratories

BS / BSD Recoveries

nelac

Project Name: Carlson 4"

Work Order #: 298691
Analyst: SHE
Lab Batch ID: 716205
Sample: 505444-1-BKS
Units: mg/kg

Date Prepared: 03/03/2008
Batch #: 1

Project ID: 2007-024
Date Analyzed: 03/03/2008
Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	841	84	1000	866	87	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	830	83	1000	859	86	3	70-135	35	

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

Form 3 - MS / MSD Recoveries

Project Name: Carlson 4"

Work Order # : 298691 **Project ID:** 2007-024

Lab Batch ID: 716205 **QC- Sample ID:** 298691-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/04/2008 **Date Prepared:** 03/03/2008 **Analyst:** SHE

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1220	1030	84	1220	1080	89	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1220	1010	83	1220	1070	88	6	70-135	35	

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

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

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

Sample Duplicate Recovery

Project Name: Carlson 4"

Work Order #: 298691

Lab Batch #: 716073 **Project ID:** 2007-024

Date Analyzed: 03/04/2008 **Date Prepared:** 03/04/2008 **Analyst:** IRO

QC- Sample ID: 298737-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.58	4.86	6	20	

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

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: TONY SAVOIE
Company Name: S.W.G.S.
Company Address: 610 COMMERCE PO Box 1226
City/State/Zip: JAL, N.M. 88252
Telephone No: 575-395-2116 Fax No:
Sampler Signature: Don Green e-mail:

Project Name: CARLSON 4"
Project #: 2007-024
Project Loc: WILLIS RANCH
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 298091

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: 8015B (8015M) TPH: 418.1	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.				RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	PBG 11'		11	2-29-08	1:00		1	✓								S	✓	✓														✓
02	B-Comp.	8'	14'	"	"		1		✓							S		✓															✓
03	EW-Comp.	0	14'	"	"		1		✓							S		✓															✓
04	SW-Comp.	0	14'	"	"		1		✓							S		✓															✓
05	WW-Comp.	0	14'	"	"		1		✓							S		✓															✓
06	NW-Comp.	0	14'	"	"		1		✓							S		✓															✓
07	S-1-Comp.	4"	10"	"	"		1		✓							S		✓															✓
08	S-2-Comp.	6"	16"	"	"		1		✓							S		✓															✓
09	S-2-Comp.	6"	24"	"	"		1		✓							S		✓															✓

Analyze For: TCLP: TOTAL:

Special Instructions:

Relinquished by	Date	Time	Received by:	Date	Time
Don Green	2-29-08	16:11			
Relinquished by	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				2/29/08	14:11

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Labels on container(s)? (Y) N
Custody seals on container(s) (Y) N
Custody seals on cooler(s) (Y) N
Sample Hand Delivered by Sampler/Client Rep. ? (Y) N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt: 4.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: S.W.G.S.

Date/ Time: 2.29.08 16:11

Lab ID # : 298691

Initials: GL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

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

PBELAB

Analytical Report

Prepared for:

Camille Bryant

Nova Safety & Environment

2057 Commerce

Midland, TX 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462

Project Number: 1RP-1462

Location: Lea County, New Mexico

Lab Order Number: 2J15001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 10/25/12

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RP @ 18'	2J15001-01	Soil	10/12/12 11:15	10-15-2012 13:15
EW @ 16'	2J15001-02	Soil	10/12/12 11:45	10-15-2012 13:15

Organics by GC

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RP @ 18' (2J15001-01) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EJ21701	10/16/12	10/16/12	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: 1,4-Difluorobenzene		*111 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		"	"	"	"	
C6-C12	**ND**	27.8	mg/kg dry	"	EJ21703	10/16/12	10/16/12	8015M	
>C12-C28	**ND**	27.8	"	"	"	"	"	"	
>C28-C35	**ND**	27.8	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*109 %*	*70-130*		"	"	"	"	
Surrogate: o-Terphenyl		*122 %*	*70-130*		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	25.0	"	"	[CALC]	"	"	"	
EW @ 16' (2J15001-02) Soil									
Benzene	ND	0.00100	mg/kg dry	1	EJ21701	10/16/12	10/16/12	EPA 8021B	
Toluene	ND	0.00200	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00200	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: 1,4-Difluorobenzene		*112 %*	*75-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		"	"	"	"	
C6-C12	**ND**	28.1	mg/kg dry	"	EJ21703	10/16/12	10/16/12	8015M	
>C12-C28	**ND**	28.1	"	"	"	"	"	"	
>C28-C35	**ND**	28.1	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*119 %*	*70-130*		"	"	"	"	
Surrogate: o-Terphenyl		*125 %*	*70-130*		"	"	"	"	
Total Hydrocarbon nC6-nC35	ND	25.0	"	"	[CALC]	"	"	"	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

General Chemistry Parameters by EPA / Standard Methods

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RP @ 18' (2J15001-01) Soil									
Chloride	**33.0**	1.11	mg/kg dry wt. dry	1	EJ21802	10/18/12	10/18/12	EPA 300.0	
% Moisture	**10.0**	0.1	%	"	EJ21702	10/17/12	10/17/12	% calculation	
EW @ 16' (2J15001-02) Soil									
Chloride	**18.5**	1.12	mg/kg dry wt. dry	1	EJ21802	10/18/12	10/18/12	EPA 300.0	
% Moisture	**11.0**	0.1	%	"	EJ21702	10/17/12	10/17/12	% calculation	

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 EJ21701 - General Preparation (GC)										
Blank (EJ21701-BLK1)				Prepared & Analyzed: 10/16/12						
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	*66.6*		*ug/kg*	*60.0*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.4*		*"*	*60.0*		*107*	*75-125*			
LCS (EJ21701-BS1)				Prepared & Analyzed: 10/16/12						
Benzene	0.0872	0.00100	mg/kg wet	0.100		87.2	80-120			
Toluene	0.116	0.00200	"	0.100		116	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.237	0.00200	"	0.200		118	80-120			
Xylene (o)	0.108	0.00100	"	0.100		108	80-120			
Surrogate: 1,4-Difluorobenzene	*61.1*		*ug/kg*	*60.0*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*61.5*		*"*	*60.0*		*102*	*75-125*			
LCS Dup (EJ21701-BSD1)				Prepared & Analyzed: 10/16/12						
Benzene	0.0877	0.00100	mg/kg wet	0.100		87.7	80-120	0.526	20	
Toluene	0.114	0.00200	"	0.100		114	80-120	1.41	20	
Ethylbenzene	0.113	0.00100	"	0.100		113	80-120	2.32	20	
Xylene (p/m)	0.235	0.00200	"	0.200		117	80-120	0.951	20	
Xylene (o)	0.107	0.00100	"	0.100		107	80-120	0.316	20	
Surrogate: 1,4-Difluorobenzene	*69.9*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*66.8*		*"*	*60.0*		*111*	*75-125*			
Matrix Spike (EJ21701-MS1)		**Source: 2J15001-02**		Prepared & Analyzed: 10/16/12						
Benzene	0.0452	0.00100	mg/kg dry	0.112	ND	40.2	80-120			QM-05
Toluene	0.0618	0.00200	"	0.112	ND	55.0	80-120			QM-05
Ethylbenzene	0.0689	0.00100	"	0.112	ND	61.3	80-120			QM-05
Xylene (p/m)	0.139	0.00200	"	0.225	ND	62.1	80-120			QM-05
Xylene (o)	0.0665	0.00100	"	0.112	ND	59.2	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*66.7*		*ug/kg*	*60.0*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.6*		*"*	*60.0*		*113*	*75-125*			

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 EJ21701 - General Preparation (GC)										
Matrix Spike Dup (EJ21701-MSD1)	**Source: 2J15001-02**			Prepared & Analyzed: 10/16/12						
Benzene	0.0471	0.00100	mg/kg dry	0.112	ND	41.9	80-120	4.19	20	QM-05
Toluene	0.0642	0.00200	"	0.112	ND	57.2	80-120	3.94	20	QM-05
Ethylbenzene	0.0717	0.00100	"	0.112	ND	63.8	80-120	3.98	20	QM-05
Xylene (p/m)	0.145	0.00200	"	0.225	ND	64.7	80-120	4.18	20	QM-05
Xylene (o)	0.0695	0.00100	"	0.112	ND	61.8	80-120	4.43	20	QM-05
Surrogate: 1,4-Difluorobenzene	*66.6*		*ug/kg*	*60.0*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.3*		*"*	*60.0*		*112*	*75-125*			
Batch EJ21703 - 8015M										
Blank (EJ21703-BLK1)				Prepared & Analyzed: 10/16/12						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*61.7*		*"*	*50.0*		*123*	*70-130*			
LCS (EJ21703-BS1)				Prepared & Analyzed: 10/16/12						
C6-C12	874	25.0	mg/kg wet	1000		87.4	75-125			
>C12-C28	795	25.0	"	1000		79.5	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*114*		*"*	*100*		*114*	*70-130*			
Surrogate: o-Terphenyl	*55.5*		*"*	*50.0*		*111*	*70-130*			
LCS Dup (EJ21703-BSD1)				Prepared & Analyzed: 10/16/12						
C6-C12	912	25.0	mg/kg wet	1000		91.2	75-125	4.21	20	
>C12-C28	806	25.0	"	1000		80.6	75-125	1.42	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*117*		*"*	*100*		*117*	*70-130*			
Surrogate: o-Terphenyl	*57.5*		*"*	*50.0*		*115*	*70-130*			

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 EJ21703 - 8015M										
Matrix Spike (EJ21703-MS1)	**Source: 2J15001-02**			Prepared & Analyzed: 10/16/12						
C6-C12	932	28.1	mg/kg dry	1120	ND	82.9	75-125			
>C12-C28	928	28.1	"	1120	ND	82.6	75-125			
>C28-C35	ND	28.1	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*120*		*"*	*112*		*107*	*70-130*			
Surrogate: o-Terphenyl	*56.3*		*"*	*56.2*		*100*	*70-130*			
Matrix Spike Dup (EJ21703-MSD1)	**Source: 2J15001-02**			Prepared & Analyzed: 10/16/12						
C6-C12	926	28.1	mg/kg dry	1120	ND	82.4	75-125	0.640	20	
>C12-C28	955	28.1	"	1120	ND	85.0	75-125	2.87	20	
>C28-C35	ND	28.1	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*119*		*"*	*112*		*106*	*70-130*			
Surrogate: o-Terphenyl	*54.4*		*"*	*56.2*		*96.8*	*70-130*			

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 EJ21702 - * DEFAULT PREP *** **										
Blank (EJ21702-BLK1)				Prepared & Analyzed: 10/17/12						
% Moisture	ND	0.1	%							
Duplicate (EJ21702-DUP1)		**Source: 2J15001-01**		Prepared & Analyzed: 10/17/12						
% Moisture	10.0	0.1	%		10.0			0.00	20	
Batch EJ21802 - * DEFAULT PREP *** **										
Blank (EJ21802-BLK1)				Prepared & Analyzed: 10/18/12						
Chloride	ND	1.00	mg/kg dry wt. wet							
LCS (EJ21802-BS1)				Prepared & Analyzed: 10/18/12						
Chloride	10.3		mg/kg Wet	10.0		103	80-120			
LCS Dup (EJ21802-BSD1)				Prepared & Analyzed: 10/18/12						
Chloride	10.6		mg/kg Wet	10.0		106	80-120	3.47	20	
Duplicate (EJ21802-DUP1)		**Source: 2J15001-01**		Prepared & Analyzed: 10/18/12						
Chloride	33.0	1.11	mg/kg dry wt. dry		33.0			0.168	20	
Matrix Spike (EJ21802-MS1)		**Source: 2J15001-01**		Prepared & Analyzed: 10/18/12						
Chloride	139	1.11	mg/kg dry wt. dry	97.2	33.0	109	80-120			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

Notes and Definitions

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: Brent Barron Date: 10/25/2012

Brent Barron, Laboratory Director/Technical Director

PBELAB

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

rose.slade@sug.com

Project Name: SUG Historical Carlson 4 Inch 1RP-1462

Project #:

Project Loc: Lea County New Mexico

PO #:

Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 231500l

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1	TOTAL: 8015B 8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Cl 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	RP @ 18'			10/12/2012	11:15		1	X								Soil	X									X			X				X
-02	EW @ 16'			10/12/2012	11:45		1	X								Soil	X									X			X				X

Special Instructions:

Laboratory Comments:

Sample Containers Intact?		N
VOCs Free of Headspace?		N
Labels on container(s)		N
Custody seals on container(s)		N
Custody seals on cooler(s)		N
Sample Hand Delivered		N
by Sampler/Client Rep. ?		N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: 3.5 °C
Adjusted: 3.5 °C Factor NCF

	Date	Time		Date	Time
Relinquished by: Camille Bryant	10/15/12	21:15	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received by PBEL:	10/15/12	1:15

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

PBELAB

Analytical Report

Prepared for:

Camille Bryant

Nova Safety & Environment

2057 Commerce

Midland, TX 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462

Project Number: 1RP-1462

Location: None Given

Lab Order Number: 2J17002

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 10/25/12

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Floor 1 @ 15'	2J17002-01	Soil	10/16/12 09:00	10-17-2012 11:54
S Wall @ 14'	2J17002-02	Soil	10/16/12 09:30	10-17-2012 11:54
SW Wall @ 14'	2J17002-03	Soil	10/16/12 10:45	10-17-2012 11:54
SW Wall 1 @ 6'	2J17002-04	Soil	10/16/12 11:20	10-17-2012 11:54

Floor 1 @ 15'

2J17002-01 (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	EJ21804	10/17/12	10/18/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*116 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*105 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
C6-C12	ND	27.2	mg/kg dry	1	EJ21901	10/17/12	10/17/12	8015M	
>C12-C28	**164**	27.2	mg/kg dry	1	EJ21901	10/17/12	10/17/12	8015M	
>C28-C35	**53.7**	27.2	mg/kg dry	1	EJ21901	10/17/12	10/17/12	8015M	
Surrogate: 1-Chlorooctane		*125 %*	*70-130*		*EJ21901*	*10/17/12*	*10/17/12*	*8015M*	
Surrogate: o-Terphenyl		*129 %*	*70-130*		*EJ21901*	*10/17/12*	*10/17/12*	*8015M*	
Total Hydrocarbon nC6-nC35	**218**	25.0	mg/kg dry	1	[CALC]	10/17/12	10/17/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**58.8**	1.09	mg/kg dry wt. dr	1	EJ21902	10/19/12	10/19/12	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	EJ21801	10/17/12	10/18/12	% calculation	

Nova Safety & Environment	Project: SUG Historical Carlson 4 Inch 1RP-1462	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-1462	
Midland TX, 79703	Project Manager: Camille Bryant	

S Wall @ 14'

2J17002-02 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*103 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
C6-C12	ND	27.8	mg/kg dry	1	EJ21901	10/17/12	10/17/12	8015M	
>C12-C28	**123**	27.8	mg/kg dry	1	EJ21901	10/17/12	10/17/12	8015M	
>C28-C35	**33.6**	27.8	mg/kg dry	1	EJ21901	10/17/12	10/17/12	8015M	
Surrogate: 1-Chlorooctane		*113 %*	*70-130*		*EJ21901*	*10/17/12*	*10/17/12*	*8015M*	
Surrogate: o-Terphenyl		*128 %*	*70-130*		*EJ21901*	*10/17/12*	*10/17/12*	*8015M*	
Total Hydrocarbon nC6-nC35	**157**	25.0	mg/kg dry	1	[CALC]	10/17/12	10/17/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**92.6**	1.11	mg/kg dry wt. dr	1	EJ21902	10/19/12	10/19/12	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EJ21801	10/17/12	10/18/12	% calculation	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

SW Wall @ 14'

2J17002-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*117 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
C6-C12	ND	29.4	mg/kg dry	1	EJ21901	10/17/12	10/18/12	8015M	
>C12-C28	ND	29.4	mg/kg dry	1	EJ21901	10/17/12	10/18/12	8015M	
>C28-C35	ND	29.4	mg/kg dry	1	EJ21901	10/17/12	10/18/12	8015M	
Surrogate: 1-Chlorooctane		*111 %*	*70-130*		*EJ21901*	*10/17/12*	*10/18/12*	*8015M*	
Surrogate: o-Terphenyl		*128 %*	*70-130*		*EJ21901*	*10/17/12*	*10/18/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/17/12	10/18/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**6.38**	1.18	mg/kg dry wt. dr	1	EJ21902	10/19/12	10/19/12	EPA 300.0	
% Moisture	**15.0**	0.1	%	1	EJ21801	10/17/12	10/18/12	% calculation	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

SW Wall 1 @ 6'

2J17002-04 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ21804	10/17/12	10/18/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*99.5 %*	*75-125*		*EJ21804*	*10/17/12*	*10/18/12*	*EPA 8021B*	
C6-C12	ND	26.0	mg/kg dry	1	EJ21901	10/17/12	10/18/12	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EJ21901	10/17/12	10/18/12	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EJ21901	10/17/12	10/18/12	8015M	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		*EJ21901*	*10/17/12*	*10/18/12*	*8015M*	
Surrogate: o-Terphenyl		*129 %*	*70-130*		*EJ21901*	*10/17/12*	*10/18/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/17/12	10/18/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**34.9**	1.04	mg/kg dry wt. dr	1	EJ21902	10/19/12	10/19/12	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EJ21801	10/17/12	10/18/12	% calculation	

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 EJ21804 - General Preparation (GC)										
Blank (EJ21804-BLK1)				Prepared: 10/17/12 Analyzed: 10/18/12						
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	*69.5*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*63.1*		*"*	*60.0*		*105*	*75-125*			
LCS (EJ21804-BS1)				Prepared: 10/17/12 Analyzed: 10/18/12						
Benzene	0.0807	0.00100	mg/kg wet	0.100		80.7	80-120			
Toluene	0.108	0.00200	"	0.100		108	80-120			
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120			
Xylene (p/m)	0.218	0.00200	"	0.200		109	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	*69.6*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.3*		*"*	*60.0*		*112*	*75-125*			
LCS Dup (EJ21804-BSD1)				Prepared: 10/17/12 Analyzed: 10/18/12						
Benzene	0.0805	0.00100	mg/kg wet	0.100		80.5	80-120	0.248	20	
Toluene	0.105	0.00200	"	0.100		105	80-120	2.16	20	
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120	1.76	20	
Xylene (p/m)	0.215	0.00200	"	0.200		108	80-120	1.55	20	
Xylene (o)	0.103	0.00100	"	0.100		103	80-120	1.23	20	
Surrogate: 1,4-Difluorobenzene	*66.9*		*ug/kg*	*60.0*		*111*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.4*		*"*	*60.0*		*112*	*75-125*			
Matrix Spike (EJ21804-MS1)		**Source: 2J17002-04**		Prepared: 10/17/12 Analyzed: 10/18/12						
Benzene	0.0236	0.00100	mg/kg dry	0.104	ND	22.6	80-120			QM-05
Toluene	0.0289	0.00200	"	0.104	ND	27.7	80-120			QM-05
Ethylbenzene	0.0324	0.00100	"	0.104	ND	31.1	80-120			QM-05
Xylene (p/m)	0.0674	0.00200	"	0.208	ND	32.4	80-120			QM-05
Xylene (o)	0.0347	0.00100	"	0.104	ND	33.3	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*69.2*		*ug/kg*	*60.0*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*63.2*		*"*	*60.0*		*105*	*75-125*			

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 EJ21804 - General Preparation (GC)										
Matrix Spike Dup (EJ21804-MSD1)	**Source: 2J17002-04**			Prepared: 10/17/12 Analyzed: 10/18/12						
Benzene	0.0215	0.00100	mg/kg dry	0.104	ND	20.7	80-120	9.09	20	QM-05
Toluene	0.0254	0.00200	"	0.104	ND	24.4	80-120	12.7	20	QM-05
Ethylbenzene	0.0296	0.00100	"	0.104	ND	28.4	80-120	9.21	20	QM-05
Xylene (p/m)	0.0611	0.00200	"	0.208	ND	29.3	80-120	9.87	20	QM-05
Xylene (o)	0.0323	0.00100	"	0.104	ND	31.0	80-120	7.21	20	QM-05
Surrogate: 1,4-Difluorobenzene	*68.9*		*ug/kg*	*60.0*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*62.9*		*"*	*60.0*		*105*	*75-125*			
Batch EJ21901 - TX 1005										
Blank (EJ21901-BLK1)				Prepared & Analyzed: 10/17/12						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*123*		*"*	*100*		*123*	*70-130*			
Surrogate: o-Terphenyl	*62.1*		*"*	*50.0*		*124*	*70-130*			
LCS (EJ21901-BS1)				Prepared & Analyzed: 10/17/12						
C6-C12	904	25.0	mg/kg wet	1000		90.4	75-125			
>C12-C28	843	25.0	"	1000		84.3	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*127*		*"*	*100*		*127*	*70-130*			
Surrogate: o-Terphenyl	*61.1*		*"*	*50.0*		*122*	*70-130*			
LCS Dup (EJ21901-BSD1)				Prepared & Analyzed: 10/17/12						
C6-C12	894	25.0	mg/kg wet	1000		89.4	75-125	1.07	20	
>C12-C28	801	25.0	"	1000		80.1	75-125	5.14	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*121*		*"*	*100*		*121*	*70-130*			
Surrogate: o-Terphenyl	*58.7*		*"*	*50.0*		*117*	*70-130*			

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 EJ21901 - TX 1005										
Matrix Spike (EJ21901-MS1)	**Source: 2J17002-01**			Prepared & Analyzed: 10/17/12						
C6-C12	970	27.2	mg/kg dry	1090	ND	89.2	75-125			
>C12-C28	995	27.2	"	1090	164	76.4	75-125			
>C28-C35	ND	27.2	"	0.00	53.7		75-125			
Surrogate: 1-Chlorooctane	*132*		*"*	*109*		*122*	*70-130*			
Surrogate: o-Terphenyl	*63.8*		*"*	*54.3*		*117*	*70-130*			
Matrix Spike Dup (EJ21901-MSD1)	**Source: 2J17002-01**			Prepared & Analyzed: 10/17/12						
C6-C12	1010	27.2	mg/kg dry	1090	ND	92.5	75-125	3.60	20	
>C12-C28	1020	27.2	"	1090	164	78.6	75-125	2.76	20	
>C28-C35	ND	27.2	"	0.00	53.7		75-125		20	
Surrogate: 1-Chlorooctane	*133*		*"*	*109*		*122*	*70-130*			
Surrogate: o-Terphenyl	*65.8*		*"*	*54.3*		*121*	*70-130*			

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 EJ21801 - * DEFAULT PREP *** **										
Blank (EJ21801-BLK1)				Prepared & Analyzed: 10/18/12						
% Moisture	ND	0.1	%							
Duplicate (EJ21801-DUP1)		**Source: 2J17001-01**		Prepared & Analyzed: 10/18/12						
% Moisture	9.0	0.1	%		9.0			0.00	20	
Duplicate (EJ21801-DUP2)		**Source: 2J17001-21**		Prepared & Analyzed: 10/18/12						
% Moisture	4.0	0.1	%		5.0			22.2	20	R3
Batch EJ21902 - * DEFAULT PREP *** **										
Blank (EJ21902-BLK1)				Prepared & Analyzed: 10/19/12						
Chloride	ND	1.00	mg/kg dry wt. wet							
LCS (EJ21902-BS1)				Prepared & Analyzed: 10/19/12						
Chloride	9.27		mg/kg Wet	10.0		92.7	80-120			
LCS Dup (EJ21902-BSD1)				Prepared & Analyzed: 10/19/12						
Chloride	9.48		mg/kg Wet	10.0		94.8	80-120	2.23	20	
Duplicate (EJ21902-DUP1)		**Source: 2J17002-01**		Prepared & Analyzed: 10/19/12						
Chloride	58.7	1.09	mg/kg dry wt. dry		58.8			0.111	20	
Matrix Spike (EJ21902-MS1)		**Source: 2J17002-01**		Prepared & Analyzed: 10/19/12						
Chloride	189	1.09	mg/kg dry wt. dry	122	58.8	107	80-120			

Notes and Definitions

R3	The RPD exceeded the acceptance limit due to sample matrix effects.
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: Brent Barron Date: 10/25/2012

Brent Barron, Laboratory Director/Technical Director

PBELAB

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
rose.slade@sug.com

Project Name: SUG Historical Carlson 4 Inch 1RP-1462
Project #:
Project Loc: Lea County New Mexico
PO #:
Report Format: [x] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 231002

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1	8015B 8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Cl 300	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	Floor 1 @ 15'			10/16/2012	9:00		1	X								Soil	X									X			X		X
-02	S Wall @ 14'			10/16/2012	9:30		1	X								Soil	X									X			X		X
-03	SW Wall @ 14'			10/16/2012	10:45		1	X								Soil	X									X			X		X
-04	SW Wall 1 @ 6'			10/16/2012	11:20		1	X								Soil	X									X			X		X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	10/17/12	11:00			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
				10/17/12	11:00

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 3.5 °C
Adjusted: 3.5 °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Camille Bryant

Nova Safety & Environment

2057 Commerce

Midland, TX 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462

Project Number: 1RP-1462

Location: Lea County, New Mexico

Lab Order Number: 2J23012

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 10/25/12

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N Wall @ 12'	2J23012-01	Soil	10/22/12 11:00	10-23-2012 08:29
N Wall 2 @ 3'	2J23012-02	Soil	10/22/12 11:45	10-23-2012 08:29
F4 @ 3'	2J23012-03	Soil	10/22/12 14:00	10-23-2012 08:29
F3 @ 8'	2J23012-04	Soil	10/22/12 15:00	10-23-2012 08:29
F5 @ 3'	2J23012-05	Soil	10/22/12 15:10	10-23-2012 08:29
F6 @ 3'	2J23012-06	Soil	10/22/12 15:25	10-23-2012 08:29

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

N Wall @ 12'

2J23012-01 (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	EJ22403	10/23/12	10/23/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
C6-C12	ND	26.9	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C12-C28	ND	26.9	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C28-C35	ND	26.9	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
Surrogate: 1-Chlorooctane		*121 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Surrogate: o-Terphenyl		*146 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/23/12	10/23/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**51.5**	1.08	mg/kg dry wt. dr	1	EJ22502	10/25/12	10/25/12	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	EJ22401	10/23/12	10/24/12	% calculation	

Nova Safety & Environment	Project: SUG Historical Carlson 4 Inch 1RP-1462	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-1462	
Midland TX, 79703	Project Manager: Camille Bryant	

N Wall 2 @ 3'

2J23012-02 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
C6-C12	ND	26.0	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
Surrogate: 1-Chlorooctane		*122 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Surrogate: o-Terphenyl		*146 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/23/12	10/23/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**160**	1.04	mg/kg dry wt. dr	1	EJ22502	10/25/12	10/25/12	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EJ22401	10/23/12	10/24/12	% calculation	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

F4 @ 3'

2J23012-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*107 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
C6-C12	ND	26.0	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C12-C28	ND	26.0	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C28-C35	ND	26.0	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
Surrogate: 1-Chlorooctane		*128 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Surrogate: o-Terphenyl		*154 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/23/12	10/23/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**39.6**	1.04	mg/kg dry wt. dr	1	EJ22502	10/25/12	10/25/12	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	EJ22401	10/23/12	10/24/12	% calculation	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

F3 @ 8'

2J23012-04 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*106 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
C6-C12	ND	26.3	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
Surrogate: 1-Chlorooctane		*117 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Surrogate: o-Terphenyl		*140 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/23/12	10/23/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**173**	1.05	mg/kg dry wt. dr	1	EJ22502	10/25/12	10/25/12	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	EJ22401	10/23/12	10/24/12	% calculation	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

F5 @ 3'

2J23012-05 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*108 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
C6-C12	ND	26.3	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C12-C28	ND	26.3	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C28-C35	ND	26.3	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
Surrogate: 1-Chlorooctane		*118 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Surrogate: o-Terphenyl		*142 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	*S-GC*
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/23/12	10/23/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**164**	1.05	mg/kg dry wt. dr	1	EJ22502	10/25/12	10/25/12	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	EJ22401	10/23/12	10/24/12	% calculation	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

F6 @ 3'

2J23012-06 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ22403	10/23/12	10/23/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*104 %*	*75-125*		*EJ22403*	*10/23/12*	*10/23/12*	*EPA 8021B*	
C6-C12	ND	26.6	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EJ22402	10/23/12	10/23/12	8015M	
Surrogate: 1-Chlorooctane		*106 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Surrogate: o-Terphenyl		*127 %*	*70-130*		*EJ22402*	*10/23/12*	*10/23/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/23/12	10/23/12	8015M	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**8.11**	1.06	mg/kg dry wt. dr	1	EJ22502	10/25/12	10/25/12	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EJ22401	10/23/12	10/24/12	% calculation	

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 EJ22402 - TX 1005										
Blank (EJ22402-BLK1)				Prepared & Analyzed: 10/23/12						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*129*		*"*	*100*		*129*	*70-130*			
Surrogate: o-Terphenyl	*82.3*		*"*	*50.0*		*165*	*70-130*			*S-GC*
LCS (EJ22402-BS1)				Prepared & Analyzed: 10/23/12						
C6-C12	984	25.0	mg/kg wet	1000		98.4	75-125			
>C12-C28	874	25.0	"	1000		87.4	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*125*		*"*	*100*		*125*	*70-130*			
Surrogate: o-Terphenyl	*64.3*		*"*	*50.0*		*129*	*70-130*			
LCS Dup (EJ22402-BSD1)				Prepared & Analyzed: 10/23/12						
C6-C12	988	25.0	mg/kg wet	1000		98.8	75-125	0.442	20	
>C12-C28	844	25.0	"	1000		84.4	75-125	3.53	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*116*		*"*	*100*		*116*	*70-130*			
Surrogate: o-Terphenyl	*64.5*		*"*	*50.0*		*129*	*70-130*			
Matrix Spike (EJ22402-MS1)	**Source: 2J23012-06**			Prepared & Analyzed: 10/23/12						
C6-C12	967	26.6	mg/kg dry	1060	ND	90.9	75-125			
>C12-C28	910	26.6	"	1060	ND	85.6	75-125			
>C28-C35	ND	26.6	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*124*		*"*	*106*		*116*	*70-130*			
Surrogate: o-Terphenyl	*67.9*		*"*	*53.2*		*128*	*70-130*			
Matrix Spike Dup (EJ22402-MSD1)	**Source: 2J23012-06**			Prepared & Analyzed: 10/23/12						
C6-C12	977	26.6	mg/kg dry	1060	ND	91.8	75-125	0.994	20	
>C12-C28	989	26.6	"	1060	ND	92.9	75-125	8.27	20	
>C28-C35	ND	26.6	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*132*		*"*	*106*		*124*	*70-130*			
Surrogate: o-Terphenyl	*69.5*		*"*	*53.2*		*131*	*70-130*			*S-GC*

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 EJ22403 - General Preparation (GC)										
Blank (EJ22403-BLK1)				Prepared & Analyzed: 10/23/12						
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	*67.4*		*ug/kg*	*60.0*		*112*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*63.2*		*"*	*60.0*		*105*	*75-125*			
LCS (EJ22403-BS1)				Prepared & Analyzed: 10/23/12						
Benzene	0.0853	0.00100	mg/kg wet	0.100		85.3	80-120			
Toluene	0.112	0.00200	"	0.100		112	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.233	0.00200	"	0.200		117	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 1,4-Difluorobenzene	*68.8*		*ug/kg*	*60.0*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.9*		*"*	*60.0*		*113*	*75-125*			
LCS Dup (EJ22403-BSD1)				Prepared & Analyzed: 10/23/12						
Benzene	0.0832	0.00100	mg/kg wet	0.100		83.2	80-120	2.41	20	
Toluene	0.109	0.00200	"	0.100		109	80-120	2.52	20	
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120	2.50	20	
Xylene (p/m)	0.227	0.00200	"	0.200		113	80-120	2.87	20	
Xylene (o)	0.105	0.00100	"	0.100		105	80-120	3.25	20	
Surrogate: 1,4-Difluorobenzene	*69.5*		*ug/kg*	*60.0*		*116*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*68.2*		*"*	*60.0*		*114*	*75-125*			
Matrix Spike (EJ22403-MS1)	**Source: 2J23012-06**			Prepared & Analyzed: 10/23/12						
Benzene	0.0645	0.00100	mg/kg dry	0.106	ND	60.6	80-120			QM-05
Toluene	0.0855	0.00200	"	0.106	ND	80.4	80-120			
Ethylbenzene	0.0852	0.00100	"	0.106	ND	80.0	80-120			
Xylene (p/m)	0.173	0.00200	"	0.213	ND	81.1	80-120			
Xylene (o)	0.0801	0.00100	"	0.106	ND	75.3	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*66.9*		*ug/kg*	*60.0*		*112*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*68.5*		*"*	*60.0*		*114*	*75-125*			

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 EJ22403 - General Preparation (GC)										
Matrix Spike Dup (EJ22403-MSD1)		**Source: 2J23012-06**		Prepared & Analyzed: 10/23/12						
Benzene	0.0647	0.00100	mg/kg dry	0.106	ND	60.8	80-120	0.395	20	QM-05
Toluene	0.0856	0.00200	"	0.106	ND	80.4	80-120	0.0249	20	
Ethylbenzene	0.0847	0.00100	"	0.106	ND	79.6	80-120	0.513	20	QM-05
Xylene (p/m)	0.172	0.00200	"	0.213	ND	81.0	80-120	0.130	20	
Xylene (o)	0.0794	0.00100	"	0.106	ND	74.7	80-120	0.880	20	QM-05
Surrogate: 1,4-Difluorobenzene	*68.8*		*ug/kg*	*60.0*		*115*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*70.0*		*"*	*60.0*		*117*	*75-125*			

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
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 EJ22401 - * DEFAULT PREP *** **										
Blank (EJ22401-BLK1)				Prepared: 10/23/12 Analyzed: 10/24/12						
% Moisture	ND	0.1	%							
Duplicate (EJ22401-DUP1)		**Source: 2J23001-01**		Prepared: 10/23/12 Analyzed: 10/24/12						
% Moisture	4.0	0.1	%		4.0			0.00	20	
Batch EJ22502 - * DEFAULT PREP *** **										
Blank (EJ22502-BLK1)				Prepared & Analyzed: 10/25/12						
Chloride	ND	1.00	mg/kg dry wt. wet							
LCS (EJ22502-BS1)				Prepared & Analyzed: 10/25/12						
Chloride	9.66		mg/kg Wet	10.0		96.6	80-120			
LCS Dup (EJ22502-BSD1)				Prepared & Analyzed: 10/25/12						
Chloride	10.3		mg/kg Wet	10.0		103	80-120	6.86	20	
Duplicate (EJ22502-DUP1)		**Source: 2J23003-01**		Prepared & Analyzed: 10/25/12						
Chloride	3420	5.00	mg/kg dry wt. dry		3420			0.178	20	
Matrix Spike (EJ22502-MS1)		**Source: 2J23003-01**		Prepared & Analyzed: 10/25/12						
Chloride	4640	5.00	mg/kg dry wt. dry	1120	3420	108	80-120			

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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: Brent Barron Date: 10/25/2012

Brent Barron, Laboratory Director/Technical Director

PBELAB

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

rose.slade@sug.com

Project Name: SUG Historical Carlson 4 Inch 1RP-1462

Project #:

Project Loc: Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 23012

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 / 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Cl 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	N Wall @ 12'			10/22/2012	11:00		1	X								Soil	X								X			X				X
-02	N Wall 2 @ 3'			10/22/2012	11:45		1	X								Soil	X								X			X				X
-03	F4 @ 3'			10/22/2012	14:00		1	X								Soil	X								X			X				X
-04	F3 @ 8'			10/22/2012	15:00		1	X								Soil	X								X			X				X
-05	F5 @ 3'			10/22/2012	15:10		1	X								Soil	X								X			X				X
-06	F6 @ 3'			10/22/2012	15:25		1	X								Soil	X								X			X				X

Special Instructions:

Relinquished by: Camille Bryant	Date 10/23/12	Time 9:12	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date 10/23/12	Time 9:12

Laboratory Comments:

Sample Containers Intact?		N
VOCs Free of Headspace?		N
Labels on container(s)		N
Custody seals on container(s)		N
Custody seals on cooler(s)		N
Sample Hand Delivered by Sampler/Client Rep. ?		N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt:
Received: 4.5 °C
Adjusted: °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Camille Bryant

Nova Safety & Environment

2057 Commerce

Midland, TX 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462

Project Number: 1RP-1462

Location: Lea County New Mexico

Lab Order Number: 2J29008

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-12-1

Report Date: 11/02/12

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WW-2 @ 8'	2J29008-01	Soil	10/23/12 11:30	10-29-2012 13:31
WW-2 @ 16'	2J29008-02	Soil	10/23/12 13:25	10-29-2012 13:31
WW-3 @ 8'	2J29008-03	Soil	10/23/12 14:30	10-29-2012 13:31
WW-3 @ 16'	2J29008-04	Soil	10/23/12 15:00	10-29-2012 13:31
WW-5 @ 16'	2J29008-05	Soil	10/24/12 14:20	10-29-2012 13:31
WW-6 @ 8'	2J29008-06	Soil	10/26/12 14:00	10-29-2012 13:31

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

WW-2 @ 8'

2J29008-01 (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	EJ23103	10/30/12	10/30/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*100 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**726**	5.62	mg/kg dry wt. dr	5	EK20101	11/01/12	11/01/12	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	EJ23004	10/29/12	10/30/12	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	EK20102	10/31/12	10/31/12	8015M	
>C12-C28	ND	28.1	mg/kg dry	1	EK20102	10/31/12	10/31/12	8015M	
>C28-C35	ND	28.1	mg/kg dry	1	EK20102	10/31/12	10/31/12	8015M	
Surrogate: 1-Chlorooctane		*91.1 %*	*70-130*		*EK20102*	*10/31/12*	*10/31/12*	*8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*EK20102*	*10/31/12*	*10/31/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/31/12	10/31/12	8015M	

Nova Safety & Environment	Project: SUG Historical Carlson 4 Inch 1RP-1462	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-1462	
Midland TX, 79703	Project Manager: Camille Bryant	

WW-2 @ 16'

2J29008-02 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*96.2 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**335**	2.78	mg/kg dry wt. dr	2.5	EK20101	11/01/12	11/01/12	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EJ23004	10/29/12	10/30/12	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C12-C28	ND	27.8	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C28-C35	ND	27.8	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
Surrogate: 1-Chlorooctane		*82.1 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Surrogate: o-Terphenyl		*90.8 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/30/12	10/31/12	8015M	

Nova Safety & Environment	Project: SUG Historical Carlson 4 Inch 1RP-1462	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-1462	
Midland TX, 79703	Project Manager: Camille Bryant	

WW-3 @ 8'

2J29008-03 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*105 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**2200**	5.56	mg/kg dry wt. dr	5	EK20101	11/01/12	11/01/12	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	EJ23004	10/29/12	10/30/12	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C12-C28	ND	27.8	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C28-C35	ND	27.8	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
Surrogate: 1-Chlorooctane		*85.7 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Surrogate: o-Terphenyl		*95.2 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/30/12	10/31/12	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

WW-3 @ 16'

2J29008-04 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*99.0 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1040**	2.81	mg/kg dry wt. dr	2.5	EK20101	11/01/12	11/01/12	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	EJ23004	10/29/12	10/30/12	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.1	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C12-C28	ND	28.1	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C28-C35	ND	28.1	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
Surrogate: 1-Chlorooctane		*87.6 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Surrogate: o-Terphenyl		*97.3 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/30/12	10/31/12	8015M	

Nova Safety & Environment	Project: SUG Historical Carlson 4 Inch 1RP-1462	Fax: (432) 520-7701
2057 Commerce	Project Number: 1RP-1462	
Midland TX, 79703	Project Manager: Camille Bryant	

WW-5 @ 16'

2J29008-05 (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	EJ23103	10/30/12	10/30/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*114 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*102 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**175**	1.10	mg/kg dry wt. dr	1	EK20101	11/01/12	11/01/12	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	EJ23004	10/29/12	10/30/12	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C12-C28	ND	27.5	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C28-C35	ND	27.5	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
Surrogate: 1-Chlorooctane		*86.0 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Surrogate: o-Terphenyl		*94.5 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/30/12	10/31/12	8015M	

Nova Safety & Environment
2057 Commerce
Midland TX, 79703

Project: SUG Historical Carlson 4 Inch 1RP-1462
Project Number: 1RP-1462
Project Manager: Camille Bryant

Fax: (432) 520-7701

WW-6 @ 8'

2J29008-06 (Soil)

Permian Basin Environmental Lab

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Toluene	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	EJ23103	10/30/12	10/30/12	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*113 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*EJ23103*	*10/30/12*	*10/30/12*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**94.5**	1.06	mg/kg dry wt. dr	1	EK20101	11/01/12	11/01/12	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	EJ23004	10/29/12	10/30/12	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.6	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C12-C28	ND	26.6	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
>C28-C35	ND	26.6	mg/kg dry	1	EJ23102	10/30/12	10/31/12	8015M	
Surrogate: 1-Chlorooctane		*84.0 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Surrogate: o-Terphenyl		*95.2 %*	*70-130*		*EJ23102*	*10/30/12*	*10/31/12*	*8015M*	
Total Hydrocarbon nC6-nC35	ND	25.0	mg/kg dry	1	[CALC]	10/30/12	10/31/12	8015M	

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 EJ23103 - General Preparation (GC)										
Blank (EJ23103-BLK1)				Prepared & Analyzed: 10/30/12						
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	*58.0*		*"*	*60.0*		*96.6*	*75-125*			
LCS (EJ23103-BS1)				Prepared & Analyzed: 10/30/12						
Benzene	0.0836	0.00100	mg/kg wet	0.100		83.6	80-120			
Toluene	0.112	0.00200	"	0.100		112	80-120			
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120			
Xylene (p/m)	0.234	0.00200	"	0.200		117	80-120			
Xylene (o)	0.111	0.00100	"	0.100		111	80-120			
Surrogate: 1,4-Difluorobenzene	*67.6*		*ug/kg*	*60.0*		*113*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*70.7*		*"*	*60.0*		*118*	*75-125*			
LCS Dup (EJ23103-BSD1)				Prepared & Analyzed: 10/30/12						
Benzene	0.0838	0.00100	mg/kg wet	0.100		83.8	80-120	0.251	20	
Toluene	0.112	0.00200	"	0.100		112	80-120	0.651	20	
Ethylbenzene	0.112	0.00100	"	0.100		112	80-120	0.366	20	
Xylene (p/m)	0.233	0.00200	"	0.200		116	80-120	0.514	20	
Xylene (o)	0.110	0.00100	"	0.100		110	80-120	1.34	20	
Surrogate: 1,4-Difluorobenzene	*67.9*		*ug/kg*	*60.0*		*113*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*70.0*		*"*	*60.0*		*117*	*75-125*			
Matrix Spike (EJ23103-MS1)		**Source: 2J29008-06**		Prepared & Analyzed: 10/30/12						
Benzene	0.0627	0.00100	mg/kg dry	0.106	ND	59.0	80-120			QM-05
Toluene	0.0840	0.00200	"	0.106	ND	78.9	80-120			QM-05
Ethylbenzene	0.0844	0.00100	"	0.106	ND	79.3	80-120			QM-05
Xylene (p/m)	0.175	0.00200	"	0.213	ND	82.2	80-120			
Xylene (o)	0.0823	0.00100	"	0.106	ND	77.4	80-120			QM-05
Surrogate: 1,4-Difluorobenzene	*68.1*		*ug/kg*	*60.0*		*114*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*68.0*		*"*	*60.0*		*113*	*75-125*			

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 EJ23103 - General Preparation (GC)										
Matrix Spike Dup (EJ23103-MSD1)		**Source: 2J29008-06**		Prepared & Analyzed: 10/30/12						
Benzene	0.0498	0.00100	mg/kg dry	0.106	ND	46.8	80-120	23.1	20	QM-05
Toluene	0.0640	0.00200	"	0.106	ND	60.2	80-120	27.0	20	QM-05
Ethylbenzene	0.0663	0.00100	"	0.106	ND	62.3	80-120	24.0	20	QM-05
Xylene (p/m)	0.137	0.00200	"	0.213	ND	64.4	80-120	24.3	20	QM-05
Xylene (o)	0.0669	0.00100	"	0.106	ND	62.9	80-120	20.7	20	QM-05
Surrogate: 1,4-Difluorobenzene	*70.4*		*ug/kg*	*60.0*		*117*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.2*		*"*	*60.0*		*112*	*75-125*			

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 EJ23004 - * DEFAULT PREP *** **										
Blank (EJ23004-BLK1)				Prepared: 10/29/12 Analyzed: 10/30/12						
% Moisture	ND	0.1	%							
Duplicate (EJ23004-DUP1)		**Source: 2J29002-01**		Prepared: 10/29/12 Analyzed: 10/30/12						
% Moisture	7.0	0.1	%		7.0			0.00	20	
Batch EK20101 - * DEFAULT PREP *** **										
Blank (EK20101-BLK1)				Prepared & Analyzed: 11/01/12						
Chloride	ND	1.00	mg/kg dry wt. wet							
LCS (EK20101-BS1)				Prepared & Analyzed: 11/01/12						
Chloride	11.1		mg/kg Wet	10.0		111	80-120			
LCS Dup (EK20101-BSD1)				Prepared & Analyzed: 11/01/12						
Chloride	11.2		mg/kg Wet	10.0		112	80-120	1.22	20	
Duplicate (EK20101-DUP1)		**Source: 2J29007-01**		Prepared & Analyzed: 11/01/12						
Chloride	209	1.05	mg/kg dry wt. dry		209			0.0805	20	
Matrix Spike (EK20101-MS1)		**Source: 2J29007-01**		Prepared & Analyzed: 11/01/12						
Chloride	323	1.05	mg/kg dry wt. dry	105	209	108	80-120			

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 EJ23102 - 8015M										
Blank (EJ23102-BLK1)				Prepared & Analyzed: 10/30/12						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*101*		*"*	*100*		*101*	*70-130*			
Surrogate: o-Terphenyl	*55.2*		*"*	*50.0*		*110*	*70-130*			
LCS (EJ23102-BS1)				Prepared & Analyzed: 10/30/12						
C6-C12	846	25.0	mg/kg wet	1000		84.6	75-125			
>C12-C28	821	25.0	"	1000		82.1	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*98.2*		*"*	*100*		*98.2*	*70-130*			
Surrogate: o-Terphenyl	*46.6*		*"*	*50.0*		*93.2*	*70-130*			
LCS Dup (EJ23102-BSD1)				Prepared & Analyzed: 10/30/12						
C6-C12	937	25.0	mg/kg wet	1000		93.7	75-125	10.1	20	
>C12-C28	835	25.0	"	1000		83.5	75-125	1.66	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*114*		*"*	*100*		*114*	*70-130*			
Surrogate: o-Terphenyl	*53.2*		*"*	*50.0*		*106*	*70-130*			
Matrix Spike (EJ23102-MS1)	**Source: 2J30010-01**			Prepared & Analyzed: 10/30/12						
C6-C12	938	25.3	mg/kg dry	1010	ND	92.9	75-125			
>C12-C28	1430	25.3	"	1010	1380	5.10	75-125			QM-05
>C28-C35	ND	25.3	"	0.00	290		75-125			
Surrogate: 1-Chlorooctane	*76.8*		*"*	*101*		*76.0*	*70-130*			
Surrogate: o-Terphenyl	*45.8*		*"*	*50.5*		*90.6*	*70-130*			
Matrix Spike Dup (EJ23102-MSD1)	**Source: 2J30010-01**			Prepared & Analyzed: 10/30/12						
C6-C12	961	25.3	mg/kg dry	1010	ND	95.1	75-125	2.38	20	
>C12-C28	1280	25.3	"	1010	1380	NR	75-125	NR	20	QM-05
>C28-C35	ND	25.3	"	0.00	290		75-125		20	
Surrogate: 1-Chlorooctane	*73.6*		*"*	*101*		*72.8*	*70-130*			
Surrogate: o-Terphenyl	*37.5*		*"*	*50.5*		*74.2*	*70-130*			

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 EK20102 - 8015M										
Blank (EK20102-BLK1)				Prepared & Analyzed: 10/31/12						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*88.6*		*"*	*100*		*88.6*	*70-130*			
Surrogate: o-Terphenyl	*48.6*		*"*	*50.0*		*97.2*	*70-130*			
LCS (EK20102-BS1)				Prepared & Analyzed: 10/31/12						
C6-C12	876	25.0	mg/kg wet	1000		87.6	75-125			
>C12-C28	830	25.0	"	1000		83.0	75-125			
>C28-C35	ND	25.0	"	0.00			75-125			
Surrogate: 1-Chlorooctane	*98.2*		*"*	*100*		*98.2*	*70-130*			
Surrogate: o-Terphenyl	*47.0*		*"*	*50.0*		*94.0*	*70-130*			
LCS Dup (EK20102-BSD1)				Prepared & Analyzed: 10/31/12						
C6-C12	815	25.0	mg/kg wet	1000		81.5	75-125	7.20	20	
>C12-C28	818	25.0	"	1000		81.8	75-125	1.42	20	
>C28-C35	ND	25.0	"	0.00			75-125		20	
Surrogate: 1-Chlorooctane	*98.5*		*"*	*100*		*98.5*	*70-130*			
Surrogate: o-Terphenyl	*45.5*		*"*	*50.0*		*91.1*	*70-130*			
Matrix Spike (EK20102-MS1)	**Source: 2J29007-01**			Prepared & Analyzed: 10/31/12						
C6-C12	996	26.3	mg/kg dry	1050	ND	94.7	75-125			
>C12-C28	887	26.3	"	1050	ND	84.2	75-125			
>C28-C35	ND	26.3	"	0.00	ND		75-125			
Surrogate: 1-Chlorooctane	*115*		*"*	*105*		*110*	*70-130*			
Surrogate: o-Terphenyl	*55.3*		*"*	*52.6*		*105*	*70-130*			
Matrix Spike Dup (EK20102-MSD1)	**Source: 2J29007-01**			Prepared & Analyzed: 10/31/12						
C6-C12	950	26.3	mg/kg dry	1050	ND	90.2	75-125	4.81	20	
>C12-C28	907	26.3	"	1050	ND	86.2	75-125	2.29	20	
>C28-C35	ND	26.3	"	0.00	ND		75-125		20	
Surrogate: 1-Chlorooctane	*107*		*"*	*105*		*102*	*70-130*			
Surrogate: o-Terphenyl	*50.4*		*"*	*52.6*		*95.7*	*70-130*			

Notes and Definitions

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: Brent Barron Date: 11/2/2012

Brent Barron, Laboratory Director/Technical Director

PBELAB

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
rose.slade@sug.com

Project Name: SUG Historical Carlson 4 Inch 1RP-1462

Project #:

Project Loc: Lea County New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 329008

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 8015M 8015B	TOTAL: TPH: 418.1	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Q 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	WW-2 @ 8'			10/23/2012	11:30		1	X								Soil	X									X			X				X
-02	WW-2 @ 16'			10/23/2012	13:25		1	X								Soil	X									X			X				X
-03	WW-3 @ 8'			10/23/2012	14:30		1	X								Soil	X									X			X				X
-04	WW-3 @ 16'			10/23/2012	15:00		1	X								Soil	X									X			X				X
-05	WW-5 @ 16'			10/24/2012	14:20		1	X								Soil	X									X			X				X
-06	WW-6 @ 8'			10/26/2012	14:00		1	X								Soil	X									X			X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Camille Bryant	10/29/12	13:30			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	10/29/12	13:38

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 3.8 °C
Adjusted: °C Factor NCF

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

PBELAB

Analytical Report

Prepared for:

Curt Stanley
Nova Safety & Environmental
2057 Commerce Street
Midland, TX 79703

Project: Regency
Project Number: 4 Inch Carlson
Location: Lea County, NM

Lab Order Number: 4B21003

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-13-3

Report Date: 02/26/14

Nova Safety & Environmental
2057 Commerce Street
Midland TX, 79703

Project: Regency
Project Number: 4 Inch Carlson
Project Manager: Curt Stanley

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 @ 15'	4B21003-01	Soil	02/20/14 10:20	02-21-2014 14:25
SB-1 @ 20'	4B21003-02	Soil	02/20/14 10:40	02-21-2014 14:25
SB-1 @ 30'	4B21003-03	Soil	02/20/14 11:10	02-21-2014 14:25

Nova Safety & Environmental
2057 Commerce Street
Midland TX, 79703

Project: Regency
Project Number: 4 Inch Carlson
Project Manager: Curt Stanley

Fax: (432) 520-7701

SB-1 @ 15'

4B21003-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Toluene	ND	0.00211	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*86.8 %*	*75-125*		*P4B2602*	*02/24/14*	*02/24/14*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*103 %*	*75-125*		*P4B2602*	*02/24/14*	*02/24/14*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**42.1**	1.05	mg/kg dry	1	P4B2607	02/25/14	02/26/14	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P4B2404	02/21/14	02/24/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
>C12-C28	**36.9**	26.3	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*78.5 %*	*70-130*		*P4B2403*	*02/21/14*	*02/22/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*81.4 %*	*70-130*		*P4B2403*	*02/21/14*	*02/22/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	78.9	mg/kg dry	1	[CALC]	02/21/14	02/22/14	calc	

Nova Safety & Environmental
2057 Commerce Street
Midland TX, 79703

Project: Regency
Project Number: 4 Inch Carlson
Project Manager: Curt Stanley

Fax: (432) 520-7701

SB-1 @ 20'

4B21003-02 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00105	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Toluene	ND	0.00211	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Ethylbenzene	ND	0.00105	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Xylene (p/m)	ND	0.00211	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Xylene (o)	ND	0.00105	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		*105 %*	*75-125*		*P4B2602*	*02/24/14*	*02/24/14*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*81.8 %*	*75-125*		*P4B2602*	*02/24/14*	*02/24/14*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**26.1**	1.05	mg/kg dry	1	P4B2607	02/25/14	02/26/14	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P4B2404	02/21/14	02/24/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
>C12-C28	**45.8**	26.3	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*83.3 %*	*70-130*		*P4B2403*	*02/21/14*	*02/22/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*84.1 %*	*70-130*		*P4B2403*	*02/21/14*	*02/22/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	78.9	mg/kg dry	1	[CALC]	02/21/14	02/22/14	calc	

Nova Safety & Environmental	Project: Regency	Fax: (432) 520-7701
2057 Commerce Street	Project Number: 4 Inch Carlson	
Midland TX, 79703	Project Manager: Curt Stanley	

SB-1 @ 30'

4B21003-03 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00104	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Toluene	ND	0.00208	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Ethylbenzene	ND	0.00104	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Xylene (p/m)	ND	0.00208	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Xylene (o)	ND	0.00104	mg/kg dry	1	P4B2602	02/24/14	02/24/14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*77.5 %*	*75-125*		*P4B2602*	*02/24/14*	*02/24/14*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*102 %*	*75-125*		*P4B2602*	*02/24/14*	*02/24/14*	*EPA 8021B*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**19.0**	1.04	mg/kg dry	1	P4B2607	02/25/14	02/26/14	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P4B2404	02/21/14	02/24/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P4B2403	02/21/14	02/22/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.0 %*	*70-130*		*P4B2403*	*02/21/14*	*02/22/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*98.6 %*	*70-130*		*P4B2403*	*02/21/14*	*02/22/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	78.1	mg/kg dry	1	[CALC]	02/21/14	02/22/14	calc	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B2602 - General Preparation (GC)										
Blank (P4B2602-BLK1)				Prepared & Analyzed: 02/24/14						
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: 4-Bromofluorobenzene	*45.0*		*ug/kg*	*60.0*		*74.9*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*59.8*		*"*	*60.0*		*99.6*	*75-125*			
LCS (P4B2602-BS1)				Prepared & Analyzed: 02/24/14						
Benzene	0.0948	0.00100	mg/kg wet	0.100		94.8	70-130			
Toluene	0.102	0.00200	"	0.100		102	70-130			
Ethylbenzene	0.111	0.00100	"	0.100		111	70-130			
Xylene (p/m)	0.220	0.00200	"	0.200		110	70-130			
Xylene (o)	0.104	0.00100	"	0.100		104	70-130			
Surrogate: 1,4-Difluorobenzene	*61.1*		*ug/kg*	*60.0*		*102*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*62.8*		*"*	*60.0*		*105*	*75-125*			
LCS Dup (P4B2602-BSD1)				Prepared & Analyzed: 02/24/14						
Benzene	0.0925	0.00100	mg/kg wet	0.100		92.5	70-130	2.44	20	
Toluene	0.103	0.00200	"	0.100		103	70-130	0.428	20	
Ethylbenzene	0.117	0.00100	"	0.100		117	70-130	5.10	20	
Xylene (p/m)	0.232	0.00200	"	0.200		116	70-130	5.12	20	
Xylene (o)	0.110	0.00100	"	0.100		110	70-130	6.28	20	
Surrogate: 1,4-Difluorobenzene	*58.8*		*ug/kg*	*60.0*		*98.1*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*67.5*		*"*	*60.0*		*113*	*75-125*			

Nova Safety & Environmental
2057 Commerce Street
Midland TX, 79703

Project: Regency
Project Number: 4 Inch Carlson
Project Manager: Curt Stanley

Fax: (432) 520-7701

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B2404 - * DEFAULT PREP *** **										
Blank (P4B2404-BLK1)				Prepared: 02/21/14 Analyzed: 02/24/14						
% Moisture	ND	0.1	%							
Duplicate (P4B2404-DUP1)	**Source: 4B21001-01**			Prepared: 02/21/14 Analyzed: 02/24/14						
% Moisture	22.0	0.1	%		13.0			51.4	20	R2
Batch P4B2607 - * DEFAULT PREP *** **										
Blank (P4B2607-BLK1)				Prepared: 02/25/14 Analyzed: 02/26/14						
Chloride	ND	1.00	mg/kg wet							
LCS (P4B2607-BS1)				Prepared: 02/25/14 Analyzed: 02/26/14						
Chloride	98.5	1.00	mg/kg wet	100		98.5	80-120			
LCS Dup (P4B2607-BSD1)				Prepared: 02/25/14 Analyzed: 02/26/14						
Chloride	107	1.00	mg/kg wet	100		107	80-120	8.20	20	
Duplicate (P4B2607-DUP1)	**Source: 4B21003-01**			Prepared: 02/25/14 Analyzed: 02/26/14						
Chloride	50.2	1.05	mg/kg dry		42.1			17.6	20	

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

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B2403 - TX 1005										
Blank (P4B2403-BLK1)				Prepared & Analyzed: 02/21/14						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*111*		*"*	*100*		*111*	*70-130*			
Surrogate: o-Terphenyl	*53.9*		*"*	*50.0*		*108*	*70-130*			
LCS (P4B2403-BS1)				Prepared & Analyzed: 02/21/14						
C6-C12	1070	25.0	mg/kg wet	1000		107	75-125			
>C12-C28	1210	25.0	"	1000		121	75-125			
Surrogate: 1-Chlorooctane	*107*		*"*	*100*		*107*	*70-130*			
Surrogate: o-Terphenyl	*47.3*		*"*	*50.0*		*94.5*	*70-130*			
LCS Dup (P4B2403-BSD1)				Prepared & Analyzed: 02/21/14						
C6-C12	1150	25.0	mg/kg wet	1000		115	75-125	6.75	20	
>C12-C28	1240	25.0	"	1000		124	75-125	3.06	20	
Surrogate: 1-Chlorooctane	*114*		*"*	*100*		*114*	*70-130*			
Surrogate: o-Terphenyl	*49.9*		*"*	*50.0*		*99.8*	*70-130*			
Matrix Spike (P4B2403-MS1)	**Source: 4B21001-01**			Prepared: 02/21/14 Analyzed: 02/22/14						
C6-C12	1160	28.7	mg/kg dry	1150	ND	101	75-125			
>C12-C28	1310	28.7	"	1150	ND	114	75-125			
Surrogate: 1-Chlorooctane	*114*		*"*	*115*		*99.2*	*70-130*			
Surrogate: o-Terphenyl	*55.2*		*"*	*57.5*		*96.1*	*70-130*			
Matrix Spike Dup (P4B2403-MSD1)	**Source: 4B21001-01**			Prepared: 02/21/14 Analyzed: 02/22/14						
C6-C12	1180	28.7	mg/kg dry	1150	ND	103	75-125	1.44	20	
>C12-C28	1390	28.7	"	1150	ND	121	75-125	5.95	20	
Surrogate: 1-Chlorooctane	*119*		*"*	*115*		*103*	*70-130*			
Surrogate: o-Terphenyl	*53.9*		*"*	*57.5*		*93.8*	*70-130*			

Nova Safety & Environmental
2057 Commerce Street
Midland TX, 79703

Project: Regency
Project Number: 4 Inch Carlson
Project Manager: Curt Stanley

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.
R2	The RPD exceeded the acceptance limit.
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: Brent Barron Date: 2/26/2014

Brent Barron, Laboratory Director/Technical Director

PBELAB

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: Curt Stanley
Company Name: Nova Safety and Environmental
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720 Fax No:
Sampler Signature:
e-mail: cstanley@novatraining.cc
rachel.johnson@regencygas.com

Project Name: Regency
Project #: 4" Carlson
Project Loc: Lea County, NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only) ORDER #: 4B21003

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 8015M 418.1	TPH: 8015B TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	pH	N.O.R.M.	Chloride 300			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	SB-1 @ 15'			2/20/2014	1020		1	x								Soil	X									X			X				
	SB-1 @ 20'			2/20/2014	1040		1	x								Soil	X									X			X				
	SB-1 @ 30'			2/20/2014	1110		1	x								Soil	X									X			X				

TOTAL: X

Special Instructions:
Bill to Regency

Relinquished by:	Date 2/21/14	Time 1115	Received by:	Date 2/21/14	Time 1115	
Relinquished by:	Date 2/21/14	Time 14:25	Received by:	Date	Time	
Relinquished by:	Date	Time	Received by PBEL:	Date 2/21/14	Time 14:25	

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star	Y	N

Temperature Upon Receipt:
Received: 5.0 °C
Adjusted: °C Factor NFC

APPENDIX E

Bill of Ladings

CARLSON 4"
2007-024
2-26-08

5-Loads To CELL #9

OCOTILLO ENVIRONMENTAL, I

528 C.Y. TO L.F. Cell #9
528 From Willis Pit to Site

HOURS WORKED 10 @ $ _____ PE

TRUCKER O-Tipton YD. DUMP TRU

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER To SUGS LAND FARM TOTAL YDS. 60

ADDRESS _____ DATE PAID _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X																											5	

CARLSON 4"
2007-024
2-26-08
5-LOADS TO CELL #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12 YD. DUMP TRUCK # 1102 DATE 2-26-08

ADDRESS _____

COMPANY S.J.G.S.

PIT OWNER To S.J.G.S. Land Farm TOTAL YDS 60 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

[redacted]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	[redacted]																										5	

CARLSON 4"
2007-024
2-27-08
6-LOADS TO CELL #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. Tipton 12 YD. DUMP TRUCK # 1109 DATE 2-27-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER To SUGS LAND FARM TOTAL YDS 72 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X																										6	

CARLSON 4"
2007-024
2-27-08
6-LOADS TO CELL #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12YD. DUMP TRUCK # 1102 DATE 2-27-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER To SUGS LAND FARM TOTAL YDS 72 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X																										6	

CARBON 4"
2007-024
2-28-08

7-Loads To CELL #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. Tipton 12YD. DUMP TRUCK # 1105 DATE 4-28-08

ADDRESS _____

COMPANY SUG. S

PIT OWNER To SUG S. Land FARM TOTAL YDS. 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	Y	X	X	Y	X	X																									7	

CARLSON 4"
2007-024
2-28-08
6-Loads To Cell #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12YD. DUMP TRUCK #1102 DATE 2-28-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER To S.U.G.S. LAND FARM TOTAL YDS. 72 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X																										6	

CARLSON 4"
2007-024
2-29-08

4-Loads To CELL #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. TipTon 12YD. DUMP TRUCK # 1105 DATE 2-29-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER S.U.G.S. LAND FARM TOTAL YDS. 48 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X																												4	

CARLSON 4"
2007-024
2-29-08

5-LOADS TO CELL #9

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12YD. DUMP TRUCK #1102 DATE 2-29-08

ADDRESS _____

COMPANY S.U.G.S

PIT OWNER TO SUGS. LAND FARM TOTAL YDS. 60 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X																											5	

CARLSON 4"
2007-024
3-6-08
7-LOADS CALICHE FROM WILLIS PIT

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 4 @ $ _____ PER HOUR $ _____

TRUCKER L-Combs 12YD. DUMP TRUCK #1102 DATE 3-6-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER G. WILLIS TOTAL YDS 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																									7	

CARLSON 4"
2007-024
3-6-08

7-Loads CALICHE FROM WILLIS PIT

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 4 @ $ _____ PER HOUR $ _____

TRUCKER O. Tipton 12 YD. DUMP TRUCK # 1105 DATE 3-6-08

ADDRESS _____

COMPANY SUGS.

PIT OWNER G. WILLIS TOTAL YDS 84 RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
	X	X	X	X	X	X	X																									7	

CARLSON 4"
2007-024
3-7-08
6-Loads Caliche } FROM WILLIS PIT
9-Loads Topsoil }

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER L. Combs 12 YD. DUMP TRUCK # 1102 DATE 3-7-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER G. Willis TOTAL YDS _____ RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
Caliche	X	X	X	X	X	X																										6	72 yds
Topsoil	X	X	X	X	X	X	X	X	X																							9	108 yds

CARLSON 4"
2007-024
3-7-08
6-Loads CALICHE } FROM WILLIS pit
9-Loads Topsoil }

OCOTILLO ENVIRONMENTAL, LLC.

HOURS WORKED 10 @ $ _____ PER HOUR $ _____

TRUCKER O. Tipton 12 YD. DUMP TRUCK # 1105 DATE 3-7-08

ADDRESS _____

COMPANY S.U.G.S.

PIT OWNER G. WILLIS TOTAL YDS. _____ RATE _____ TOTAL _____

ADDRESS _____ DATE PAID _____ CK. NO. _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	RATE	LOADS	TOTAL
																																	180

APPENDIX F

Initial and Final 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 Services, 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: Joyce Marie Willis	Mineral Owner: Federal	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	26	25S	37E					Lea

Latitude N32 5.915 Longitude W103 7.593

NATURE OF RELEASE

Type of Release : Crude Oil and Natural Gas	Volume of Release: 20 Bbls Crude Oil and 80MCF Nat. Gas	Volume Recovered 0 Bbls crude Oil
Source of Release : 4" Natural Gas Pipeline	Date and Hour of Occurrence unkown	Date and Hour of Discovery 6/15/07 Time: 8:18 a.m..
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Gary Wink	
By Whom? Tony Savoie	Date and Hour: 6/15/07 8:30 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A 4" Natural Gas Pipeline operating at approximately 30 p.s.i. developed a leak releasing approximately 20 bls of crude oil and approximately 80mcf natural gas. The damaged area of pipe was excavated and replaced with approximately 200 ft. of 4"poly-pipe.

Describe Area Affected and Cleanup Action Taken. The area affected by the release was pasture land, the area was approximately 3580 sq.ft. of oil soaked soil and replacement damage.
The final remediation will follow the NMOCD guidelines for the remediation of 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.

Received JUN 2007 Hobbs OCD

Signature: Tony Savoie

Printed Name: John A. Savoie

Title: Remediation Supervisor

E-mail Address: tony.savoie@sug.com

Date: 6/19/07 Phone: 505-395-2116

OIL CONSERVATION DIVISION

Approved by District Supervisor: ENVIRO ENGR

Approval Date: 6-29-07 Expiration Date: 9-10-07

Conditions of Approval:
SUBMIT FINAL C-141 W/ DOCUMENTATION BY

Attached ☐

RP# 1462

* Attach Additional Sheets If Necessary

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: Regency Field Services LLC.	Contact: Crystal Callaway
Address: 421 W. 3rd Street, Suite 250, Ft. Worth, TX 76102	Telephone No.: 817-302-9407
Facility Name: Carlson 4" (#1RP-1462)	Facility Type: Natural Gas Gathering

Surface Owner: Joyce Marie Willis	Mineral Owner:	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	26	25S	37E					Lea

Latitude 32.09855 **Longitude** -103.12644

NATURE OF RELEASE

Type of Release: Crude Oil and Natural Gas	Volume of Release: 80 mcf gas, 20 bbls oil	Volume Recovered: 0 bbls
Source of Release: 4" Natural Gas Pipeline	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: 06/15/2007 Time: 8:18 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Gary Wink	
By Whom? Tony Savoie, Southern Union Gas Services	Date and Hour: 06/15/2007 08:30 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A 4" Natural Gas Pipeline operating at approximately 30 p.s.i. developed a leak releasing approximately 20 bbls of crude oil and approximately 80 mcf of natural gas. The damaged area of pip was excavated and replaced with approximately 200 ft. of 4" poly-pipe. The area affected by the release was pasture land, the area was approximately 3,580 sq.ft. of oil soaked soil and replacement damage. The final remediation will follow the NMOCD guidelines for the remediation of leaks and spills.

Describe Area Affected and Cleanup Action Taken.*

The site was reportedly remediated by Ocotillo Environmental in 2008 and by NOVA Environmental in 2012, impacted material was excavated and transported to the Pitchfork Land farm for proper disposal. Based on the information provided by both Ocotillo and NOVA Environmental, the site has been determined to meet NMOCD regulatory standards.

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: Crystal Callaway	OIL CONSERVATION DIVISION	
Printed Name: Crystal Callaway	Approved by Environmental Specialist:	
Title: SR. Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address: Crystal.Callaway@RegencyGas.com	Conditions of Approval:	Attached ☐
Date: 7/12/15 Phone: 8173029514		

* Attach Additional Sheets If Necessary