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REMEDIATION SUMMARY & SITE CLOSURE REQUEST

SOUTHERN UNION GAS SERVICES
TRUNK "O" #3 (1RP-1509)
HISTORICAL RELEASE SITE
Lea County, New Mexico
Unit Letter "N" (SE/SW), Section 27, Township 22 South, Range 36 East
Latitude 32° 21.511' North, Longitude 103° 15.408' West
NMOCD Reference # 1RP-1509

Prepared For:

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

Prepared By:
Basin Environmental Service Technologies, LLC
3100 Plains Highway
Lovington, New Mexico 88260

November 2012

 Joel W. Lowry
Project Manager

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1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of Southern Union Gas Services (Southern Union), has prepared this *Remediation Summary & Site Closure Request* for the Trunk "O" #3 Historical Release Site (1RP-1509). The legal description of the release site is Unit Letter "N" (SE/SW), Section 27, Township 22 South, Range 36 East, in Lea County, New Mexico. The geographic coordinates of the release site are 32° 21.511' North latitude and 103° 15.408' West longitude. The property affected by the release is owned by Mr. Mathew Casey. Please reference Figure 1 for a "Site Location Map".

On July 21, 2007, Southern Union discovered a release had occurred on the Trunk "O" Pipeline. Failure of a section of thirty-inch (30") low-pressure pipeline resulted in the release of approximately fifty barrels (50 bbls) of fluid and three hundred sixty (360) mcf of natural gas. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office on July 21, 2007. The "Release and Corrective Action" (Form C-141) indicated the release affected approximately five thousand, one hundred square feet (5,100 ft²) of pasture land and three thousand, six hundred seventy-two square feet (3,672 ft²) of caliche lease road. General photographs of the release site are provided as Appendix A. The Form C-141 is provided as Appendix C.

Prior to June 2012, remediation activities were conducted on the Trunk "O" #3 Release Site by an environmental contractor that is no longer affiliated with the site. The nature and extent of the aforementioned activities remains unclear, as environmental reports and work records are not readily available.

During June 2012, Basin assumed remediation responsibilities at the Trunk "O" #3 Release Site.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 27, Township 22 South, Range 36 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately two hundred seventy-five feet (275') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

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

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

NMOCD guidelines indicate the Trunk "O" #3 Historical Release Site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene 10 mg/Kg (ppm)
- Benzene, toluene, ethylbenzene and xylene (BTEX) 50 mg/Kg (ppm)
- Total petroleum hydrocarbons (TPH) 5,000 mg/Kg (ppm)

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

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On August 10, 2012, Basin responded to the Trunk "O" #3 Historical Release Site. An initial investigation indicated previous remediation activities had been conducted at the release site. A series of test trenches were advanced in the disturbed areas exhibiting moderate staining in an effort to determine if impacted soil containing BTEX, TPH and chloride concentrations above NMOCD regulatory standards remained in-situ.

Test Trench #1 was advanced to approximately four feet (4') bgs near the center of the inferred pooling area of the release, within the visually impacted area. During the advancement of the test trench, select soil samples were field-screened using a photo-ionization detector (PID) and chloride field test kit. Two (2) soil samples (TT-1 @ Surface and TT-1 North End @ 3.5') were collected and submitted to TraceAnalysis Inc., of Midland, Texas, for determination of BTEX, TPH and chloride concentrations in accordance with EPA Methods SW 846-8021B, SW 846-8015M and SM 4500-Cl B, respectively. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory method detection limit (MDL) for each of the soil samples submitted. Analytical results indicated TPH concentrations ranged from less than the laboratory MDL for soil sample TT-1 @ Surface. Chloride concentrations ranged from less than the laboratory MDL for soil sample TT-1 @ Surface to 213 mg/Kg for soil sample TT-1 North End @ 3.5' Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". Laboratory analytical reports are provided as Appendix B.

Test Trench #2 was advanced approximately fifteen feet (15') southwest of the inferred primary pooling area, within the visually impacted area. Test Trench #2 was advanced to approximately four feet (4') bgs. During the advancement of the test trench, select soil samples were field-screened using a PID and chloride field test kit. Two (2) soil samples (TT-2 @ Surface and TT-2 @ 4') were collected and submitted to the laboratory for analysis. Laboratory analytical results indicated benzene, BTEX and TPH concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. Chloride concentrations ranged from less than the laboratory MDL for soil sample TT-2 @ Surface to 39.8 mg/Kg for soil sample TT-2 @ 4'.

On September 5, 2012, Basin began remediation activities at the Trunk "O" #3 Historical Release Site. To better facilitate remediation activities, the release site was divided into two areas. "Excavation A" was located on the east side of the lease road, and "Excavation B" was located on the west side of the lease road. Visually impacted material was excavated and stockpiled on-site, pending final disposition. The floor and sidewalls of each respective excavation were advanced until field tests suggested concentrations of benzene, BTEX, TPH and chloride were below NMOCD regulatory remediation action levels.

On September 14, 2012, five (5) soil samples (A North Wall, A East Wall, A South Wall, A West Wall and A Floor) were collected from the floor and sidewalls of "Excavation A" and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene concentrations were less than the laboratory MDL for each of the soil samples submitted. Analytical reports indicated BTEX concentrations ranged from less than the laboratory MDL for soil samples A East Wall, A South Wall, A West Wall and A Floor to 0.0297 mg/Kg for soil sample A North Wall. TPH concentrations ranged from less than the laboratory MDL for soil sample A East Wall to 1,329 mg/Kg for soil sample A South Wall. Chloride concentrations ranged from 63 mg/Kg for soil sample A South Wall to 1,800 mg/Kg for soil sample A Floor. Concentrations of benzene, BTEX, TPH and chloride were below NMOCD regulatory remediation action levels in each of the submitted soil samples, with the exception of soil sample A Floor. The excavation floor was advanced and additional one (1) foot in the area represented by soil sample A Floor. Soil sample locations are depicted in Figure 2a, "Site & Sample Location Map (Excavation A)".

One (1) five-point composite soil sample (A Stockpile) was collected from the stockpile material excavated from "Excavation A" and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated the benzene and BTEX concentrations were less than the appropriate laboratory MDL. Analytical results indicated the TPH concentration was 1,138.2 mg/Kg. The chloride concentration was 229 mg/Kg. Based on laboratory analytical results, the stockpiled material was deemed suitable for use as backfill material.

On September 14, 2012, ten (10) soil samples (B North Wall #1, B North Wall #2, B North Wall #3, B South Wall #1, B South Wall #2, B South Wall #3, B East Wall, B West Wall, B Floor #1 and B Floor #2) were collected from the floor and sidewalls of "Excavation B" and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL for each of the submitted soil samples. TPH concentrations were less than the laboratory MDL for each of the submitted soil samples, with the exception of soil sample B Floor #1, which had a concentration of 50.4 mg/Kg. Chloride concentrations ranged from less than the laboratory MDL for soil samples B North Wall #2 and B South Wall #3 to 142 mg/Kg for soil sample B Floor #2. Concentrations of benzene, BTEX, TPH and chloride were below NMOCD regulatory remediation action levels in each of the submitted soil samples. Soil sample locations are depicted in Figure 2b, "Site & Sample Location Map (Excavation B)".

One (1) five-point composite soil sample (B Stockpile) was collected from the stockpile material excavated from "Excavation B" and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated benzene and BTEX concentrations were less than the appropriate laboratory MDL. Analytical results indicated the TPH concentration was 292 mg/Kg. The chloride concentration was 80.3 mg/Kg. Based on these laboratory analytical reports, the stockpiled material was deemed suitable for use as backfill.

On October 1, 2012, the floor of "Excavation A" was advanced an additional foot. One (1) soil sample (A Floor @ 4') was collected from the floor of "Excavation A" and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration within the newly advanced floor was 477 mg/Kg. Based on laboratory analytical reports, it was determined that the floor of the excavation had been sufficiently advanced, but further delineation was necessary. Material generated from the advancement of the floor of "Excavation A" was blended with the existing stockpiled material. One five-point composite stockpile soil sample was collected and field screened for concentrations of chloride. The field test indicated the chloride concentration was less than 250 mg/Kg.

On October 3, 2012, the Southeast corner of "Excavation A" was advanced an additional foot. One soil sample (A Floor @ 5') was collected and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated the chloride concentration was 10.0 mg/Kg. Based on laboratory analytical reports, it was determined that vertical delineation had been achieved.

On November 1, 2012, upon receiving NMOCD approval, the excavations were backfilled with their respective blended stockpile material. Prior to backfilling, the final dimensions of "Excavation A" were forty-five feet (45') in length, twenty-seven feet (27') in width, and four feet (4') in depth. The final dimensions of "Excavation B" were one hundred feet (100') in length, fifteen feet (15') in width, and two feet (2') in depth. The site will be reseeded with a landowner-approved seed mixture at a time conducive to germination.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to TraceAnalysis, Inc., of Midland, Texas, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with modified EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method SM 4500-Cl B

4.2 Decontamination of Equipment

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

4.3 Laboratory Protocol

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

5.0 SITE CLOSURE REQUEST

The excavation floors and sidewalls at the Trunk "O" #3 Historical Release Site were advanced until laboratory analytical results from confirmation soil samples indicated benzene, BTEX, TPH and chloride concentrations were less than NMOCD regulatory remediation action levels established for the site. Impacted soil was excavated and blended on-site. Based on these laboratory analytical results, Basin recommends Southern Union provide the NMOCD Hobbs District Office a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the Trunk "O" #3 Historical Release Site.

6.0 LIMITATIONS

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

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

7.0 DISTRIBUTION

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Oil Conservation Division (District 1)

1625 French Drive Hobbs, NM 88240

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Southern Union Gas Services

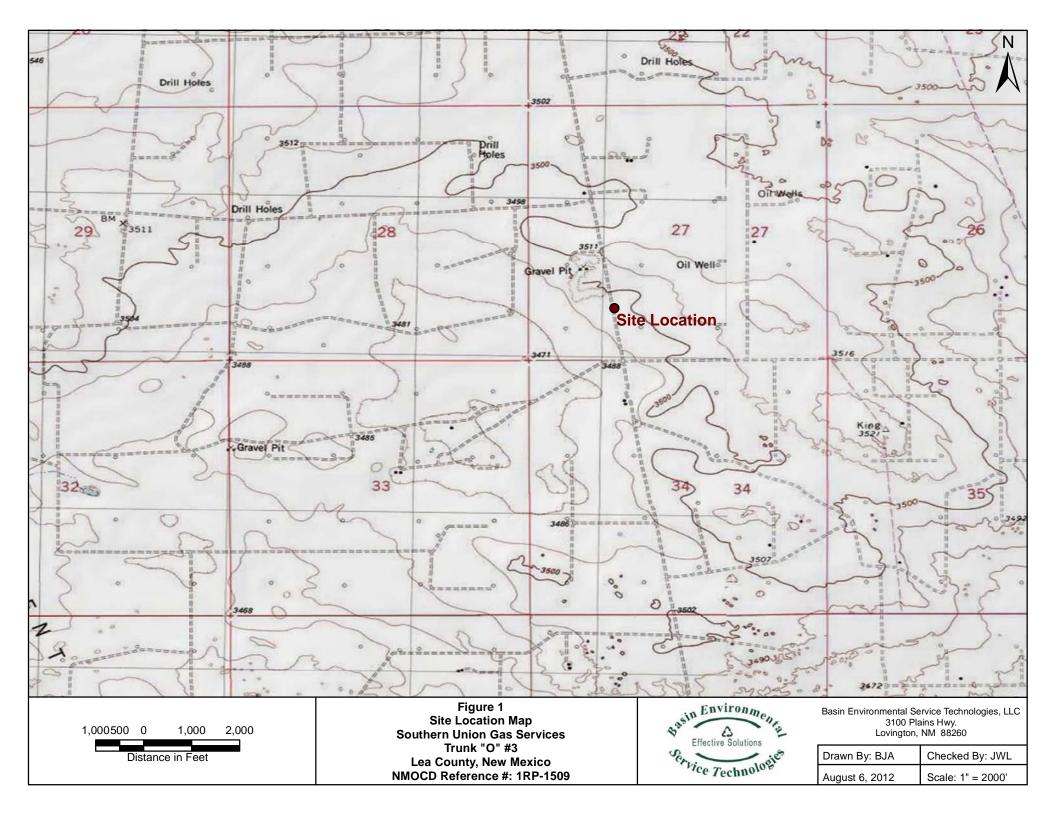
801 S. Loop 464

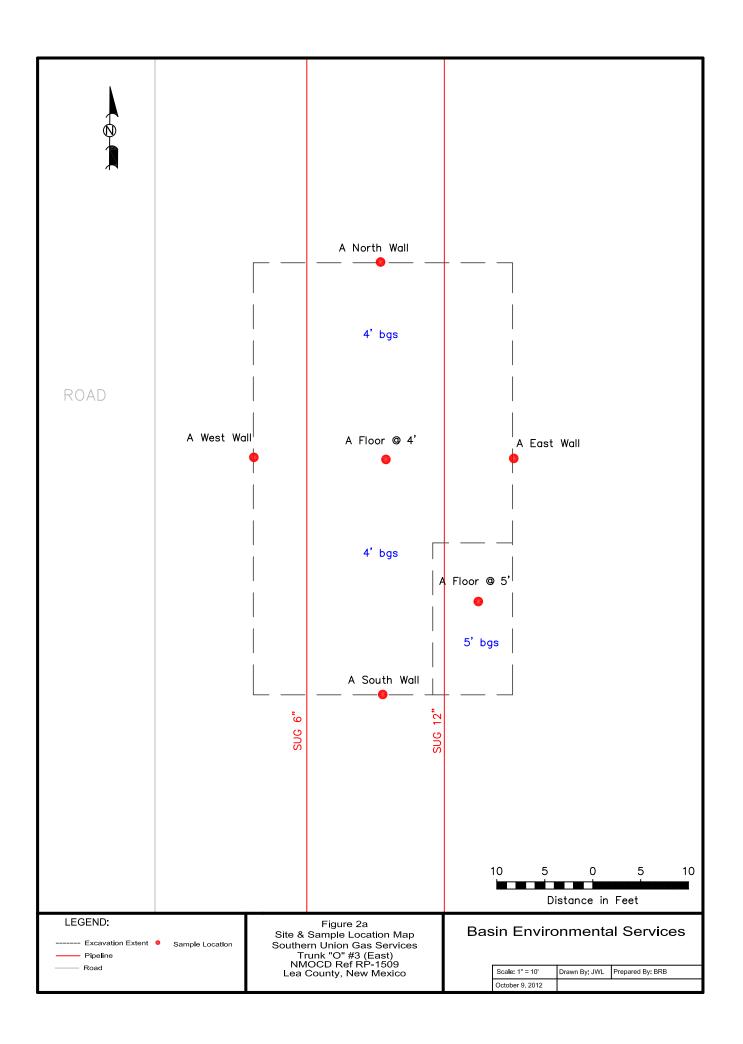
Monahans, Texas 79756 rose.slade@sug.com

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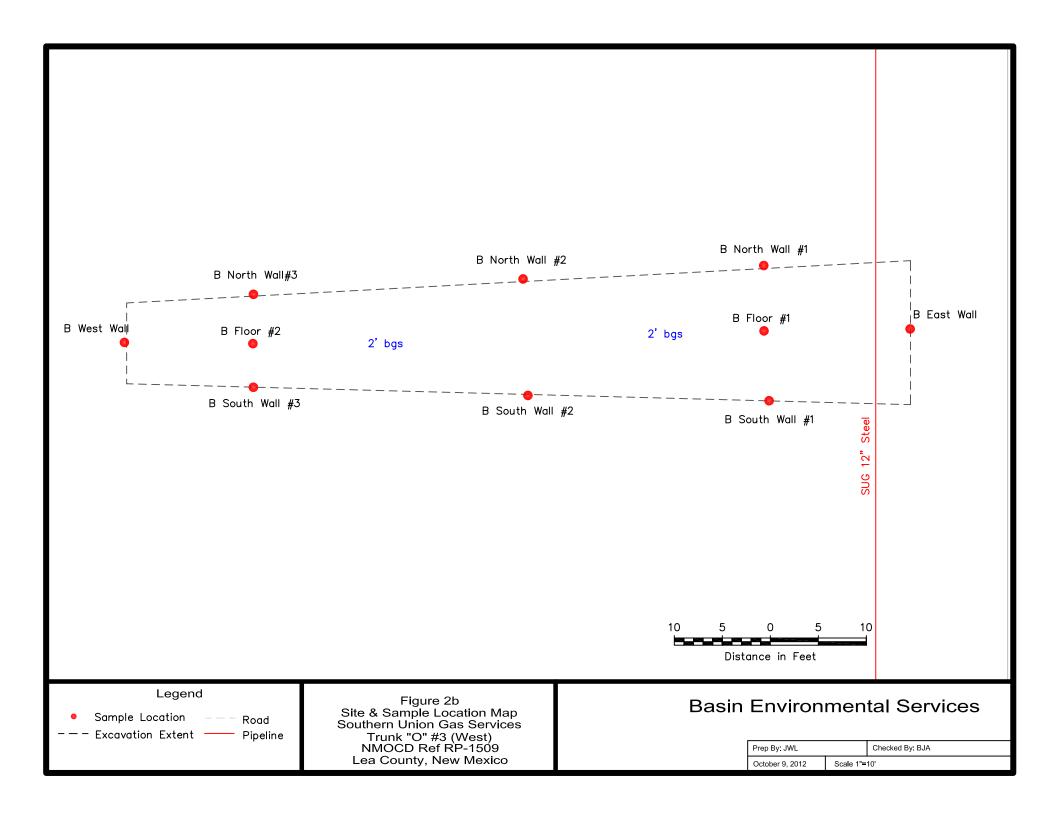


TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

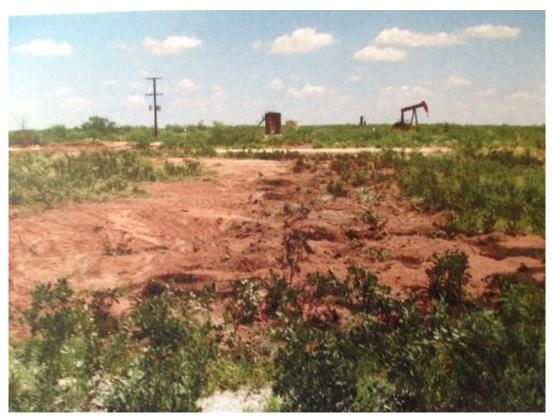
SOUTHERN UNION GAS SERVICES TRUNK "O" #3 HISTORICAL RELEASE SITE LEA COUNTY, NEW MEXICO NMOCD REF# 1RP-1509

					METHOD: EI	PA SW 846-80	21B, 5030		ME	THOD: 801	5M	TOTAL	SM 4500-CI B
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
TT-1 @ Surface	Surface	8/10/2012	In-Situ	<0.100	<0.100	<0.100	<0.100	<0.100	<20.0	600	<250	600	<5.00
TT-1 North End @ 3.5'	3.5'	8/10/2012	In-Situ	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<4.00	<50.0	<50.0	<50.0	213
TT-2 @ Surface	Surface	8/10/2012	In-Situ	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<4.00	<50.0	<50.0	<50.0	<5.00
TT-2 @ 4'	4'	8/10/2012	In-Situ	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	<4.00	<50.0	<50.0	<50.0	39.8
A Stockpile	N/A	9/14/2012	Stockpiled	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	18.2	1,120	<85.5	1,138	229
A North Wall	2'	9/14/2012	In-Situ	<0.0200	< 0.0200	<0.0200	0.0297	0.0297	<4.00	276	193	469	112
A East Wall	2'	9/14/2012	In-Situ	<0.0200	< 0.0200	<0.0200	< 0.0200	< 0.0200	<4.00	<50.0	<50.0	<50.0	156
A South Wall	2'	9/14/2012	In-Situ	<0.0200	< 0.0200	<0.0200	< 0.0200	< 0.0200	<4.00	738	591	1,329	63
A West Wall	2'	9/14/2012	In-Situ	<0.0200	< 0.0200	<0.0200	< 0.0200	<0.0200	<4.00	652	268	920	100
A Floor	3'	9/14/2012	Excavated	<0.0200	< 0.0200	<0.0200	< 0.0200	< 0.0200	<4.00	70.5	<50.0	70.5	1800
B North Wall #1	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	129
B North Wall #2	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	<20.0
B North Wall #3	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	28.7
B South Wall #1	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	< 0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	28.7
B South Wall #2	1'	9/14/2012	In-Situ	< 0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	57.4
B South Wall #3	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	<20.0
B East Wall	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	90.9
B West Wall	1'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	< 0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	76.6
B Floor #1	2'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	< 0.0200	<0.0200	<4.00	<50.0	50.4	50.4	56.7
B Floor #2	2'	9/14/2012	In-Situ	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	<50.0	<50.0	<50.0	142
B Stockpile	N/A	9/14/2012	Stockpiled	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<4.00	119	173	292	80.3
·													
A Floor @ 4'	4'	10/1/2012	In-Situ	<u> </u>	-	-	-	-	-	-	-		477
A Floor @ 5'	5'	10/3/2012	In-Situ	<u>-</u>	-	-	-	-	-	-	-	-	10.0
NMOCD Standard				10				50				5,000	1,000

^{- =} Not analyzed.



Photograph of initial release at the Trunk "O" #3 Historical Release Site.



Photograph of initial release at the Trunk "O" #3 Historical Release Site.



Photograph of initial release at the Trunk "O" #3 Historical Release Site.



Photograph of delineation activities at the Trunk "O" #3 Historical Release Site.



Photograph of excavation activities at the Trunk "O" #3 Historical Release Site.



Photograph of excavation activities and sample locations at the Trunk "O" #3 Historical Release Site.



Photograph of excavation activities and sample locations at the Trunk "O" #3 Historical Release Site.



Photograph of excavation activities and sample locations at the Trunk "O" #3 Historical Release Site.



Photograph of the Trunk "O" #3 Historical Release Site after backfilling.



Photograph of the Trunk "O" #3 Historical Release Site after backfilling.



Texas 79703

432 • 689 • 6301

Work Order:

FAX 432 • 689 • 6313

Report Date: August 23, 2012

12081632

(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242 •7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Midland.

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Rose Slade Southern Union Gas Services, Ltd.-Monahans 801 S. Loop 464 Monahans, TX, 79756

5002 Basin Street, Suite A1

Project Location: Lea Co., NM

Project Name: Trunk O #3 (1RP-1509) Project Number: SUG Historical Releases

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

mc.			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
306933	TT-1 @ Surface	soil	2012-08-10	10:00	2012-08-16
306934	TT-1 North End @ 3.5'	soil	2012-08-10	10:15	2012-08-16
306935	TT-2 @ Surface	soil	2012-08-10	11:00	2012-08-16
306936	TT-2 @ 4'	soil	2012-08-10	11:15	2012-08-16

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes

For inorganic analyses, the term MQL should actually read PQL.

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

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•	
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QC Batch 94156 - CCV (1)	
QC Batch 94162 - CCV (1)	
QC Batch 94162 - CCV (2)	
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Report Date: August 23, 2012 Work Order: 12081632 Page Number: 3 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Case Narrative

Samples for project Trunk O #3 (1RP-1509) were received by TraceAnalysis, Inc. on 2012-08-16 and assigned to work order 12081632. Samples for work order 12081632 were received intact at a temperature of 3.5 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	79813	2012-08-22 at 12:56	94162	2012-08-22 at 12:56
Chloride (Titration)	SM 4500 -Cl B	79810	2012-08-23 at $06:15$	94156	2012-08-23 at $08:06$
TPH DRO - NEW	S 8015 D	79748	2012-08-20 at $08:00$	94082	2012-08-21 at $08:20$
TPH GRO	S 8015 D	79813	2012-08-22 at 12:56	94163	2012-08-22 at $12:56$
TPH ORO	S 8015 D	79755	2012-08-20 at $08:00$	94086	2012-08-21 at $10:41$

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12081632 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 4 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Analytical Report

Sample: 306933 - TT-1 @ Surface

Laboratory: Lubbock

Analysis: **BTEX** Analytical Method: $\le 8021B$ Prep Method: S 5035 QC Batch: Date Analyzed: 2012-08-22 Analyzed By: 94162 MTPrep Batch: 79813 Sample Preparation: 2012-08-22 Prepared By:

				SDL	MQL	Method					
				Based	Based	Blank				MQL	MDL
Parameter		\mathbf{F}	\mathbf{C}	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Benzene	1	U	1	< 0.0182	< 0.100	< 0.0182	mg/Kg	5	0.0182	0.02	0.00365
Toluene		U	1	< 0.0408	< 0.100	< 0.0408	mg/Kg	5	0.0408	0.02	0.00816
Ethylbenzene		U	1	< 0.0280	< 0.100	< 0.0280	mg/Kg	5	0.0280	0.02	0.0056
Xylene		U	1	< 0.0230	< 0.100	< 0.0230	mg/Kg	5	0.0230	0.02	0.0046

						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	5	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	5	2.00	96	70 - 130

Sample: 306933 - TT-1 @ Surface

Laboratory: Lubbock

Analysis: Chloride (Titration) Analytical Method: Prep Method: N/A SM 4500-Cl B QC Batch: 94156 Date Analyzed: 2012 - 08 - 23Analyzed By: AH Prep Batch: 79810 Sample Preparation: 2012-08-23 Prepared By: AH

SDLMQLMethod Based Based Blank MQLMDLParameter F \mathbf{C} Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted)Chloride 3.84 < 5.00< 3.05mg/Kg 3.05 5 3.05 1

Sample: 306933 - TT-1 @ Surface

Laboratory: Midland

TPH DRO - NEW Analysis: Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94082Date Analyzed: Analyzed By: CW2012-08-21 Prep Batch: Prepared By: 79748 Sample Preparation: 2012 - 08 - 20CW

DRO	Qr	2	600	600	< 72.5	mg/Kg	5	72.5	50	14.5
Parameter	\mathbf{F}	$^{\rm C}$	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
			Based	Based	Blank				MQL	MDL
			SDL	MQL	Method					

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						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	J,Qsr		185	mg/Kg	5	100	185	70 - 130

Sample: 306933 - TT-1 @ Surface

Laboratory: Lubbock

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MTPrep Batch: 79813 Sample Preparation: 2012-08-22 Prepared By: MT

SDLMQLMethod Based Based Blank MQLMDL F \mathbf{C} Parameter Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) GRO 8.47 <20.0 < 1.80 mg/Kg 5 1.80 4 0.359

						$_{ m Spike}$	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	J		1.99	mg/Kg	5	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)	J		2.00	mg/Kg	5	2.00	100	70 - 130

Sample: 306933 - TT-1 @ Surface

Laboratory: Midland

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94086 Date Analyzed: 2012-08-21 Analyzed By: CWPrep Batch: 79755 Sample Preparation: 2012-08-20 Prepared By: CW

SDLMQLMethod Based Based Blank MQLMDL F \mathbf{C} Result SDLParameter Result Result Units Dilution (Unadjusted) (Unadjusted) ORO < 72.5<250 < 72.5mg/Kg 5 72.5 50 14.5 U

						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	$_{ m J,Qsr}$		236	mg/Kg	5	100	236	70 - 130
n-Triacontane	J		92.8	mg/Kg	5	100	93	70 - 130

Sample: 306934 - TT-1 North End @ 3.5'

Laboratory: Lubbock

Analysis: **BTEX** Analytical Method: S 8021BPrep Method: S 5035 QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MTPrep Batch: 79813 Sample Preparation: Prepared By: 2012-08-22 MT

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			SDL]	MQL	Method					
			Based		Based	Blank				MQL	MDL
Parameter	\mathbf{F}	\mathbf{C}	Result	R	esult	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Benzene	U	1	< 0.00365	< 0.	.0200	< 0.00365	mg/Kg	1	0.00365	0.02	0.00365
Toluene	U	1	< 0.00816	< 0.	.0200	< 0.00816	mg/Kg	1	0.00816	0.02	0.00816
Ethylbenzene	U	1	< 0.00560	< 0.	.0200	< 0.00560	mg/Kg	1	0.00560	0.02	0.0056
Xylene	U	1	< 0.00460	< 0.	.0200	< 0.00460	mg/Kg	1	0.00460	0.02	0.0046
									Spike	Percent	Recovery
Surrogate				\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)						1.79	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobe	(4-I	BFB)			1.83	mg/Kg	1	2.00	92	70 - 130	

Sample: 306934 - TT-1 North End @ 3.5'

Laboratory: Lubbock

Chloride (Titration) Analytical Method: Prep Method: Analysis: SM 4500-Cl B N/AQC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AH Prep Batch: 79810 Sample Preparation: 2012-08-23 Prepared By: AHSDLMQLMethod Based Based Blank MQLMDLF Parameter \mathbf{C} Result Result Result Units Dilution SDL (Unadjusted) (Unadjusted) Chloride 213 $\overline{213}$ < 6.10 mg/Kg 2 6.10 5 3.05

Sample: 306934 - TT-1 North End @ 3.5'

Qs

 $_{
m J,Qr}$

Laboratory: Midland

 $\overline{\mathrm{DRO}}$

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94082 Date Analyzed: Analyzed By: CW2012-08-21 Prep Batch: 79748 Sample Preparation: 2012-08-20 Prepared By: CWSDL MQL Method Based Blank Based MQLMDLF \mathbf{C} Result Result SDLParameter Result Units Dilution (Unadjusted) (Unadjusted)

						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			116	mg/Kg	1	100	116	70 - 130

mg/Kg

14.5

1

50

14.5

<14.5

Sample: 306934 - TT-1 North End @ 3.5'

17.6

< 50.0

Laboratory: Lubbock

S 8015 D Analysis: TPH GRO Analytical Method: Prep Method: S 5035 2012 - 08 - 22QC Batch: 94163 Date Analyzed: Analyzed By: MT Prep Batch: 79813 Sample Preparation: 2012-08-22 Prepared By: MT

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Parameter	F	С	SDL Based Result	MC Bas Resu	ed	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	$egin{aligned} ext{MDL} \ ext{(Unadjusted)} \end{aligned}$
GRO	J	1	1.33	<4.	00	< 0.359	${ m mg/Kg}$	1	0.359	4	0.359
Surrogate				F	$^{\mathrm{C}}$	Result	Units	Dilution	Spike Amou		Recovery Limits
Trifluorotoluene	e (TFT	Γ)		J		2.10	mg/Kg	1	2.00		70 - 130
4-Bromofluorob	enzene	e (4-B	BFB)	J		2.03	mg/Kg	1	2.00	102	70 - 130

Sample: 306934 - TT-1 North End @ 3.5'

Laboratory: Midland

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: CW94086 Date Analyzed: 2012-08-21 Analyzed By: Prep Batch: 79755 Sample Preparation: 2012-08-20 Prepared By: CW

SDLMQL Method Blank MQLMDLBased Based Parameter F Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) $\overline{\text{ORO}}$ <14.5 < 50.0 50 14.5 < 14.5mg/Kg 1 14.5

						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			128	mg/Kg	1	100	128	70 - 130
n-Triacontane			84.4	mg/Kg	1	100	84	70 - 130

Sample: 306935 - TT-2 @ Surface

Laboratory: Lubbock

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035 QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MTSample Preparation: Prep Batch: 79813 2012-08-22 Prepared By: MT

SDLMQL Method MQLBased Based Blank MDLParameter F \mathbf{C} Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) Benzene < 0.00365 < 0.0200 < 0.00365mg/Kg 0.003650.02 0.003651 Toluene mg/Kg0.02 0.00816< 0.00816< 0.0200< 0.008161 0.00816U Ethylbenzene mg/Kg< 0.00560< 0.0200< 0.00560 1 0.005600.020.0056U Xylene < 0.00460 < 0.0200 < 0.00460 mg/Kg1 0.004600.02 0.0046

						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	70 - 130

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Sample:	306935	- TT-2	@	Surface

Laboratory: Lubbock

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AHPrep Batch: 79810 Sample Preparation: 2012-08-23 Prepared By: AH

SDLMQL Method Based Based Blank MQL MDL F \mathbf{C} Parameter Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) Chloride < 3.05< 5.00 < 3.053.05 mg/Kg 5 3.05 Qs, U

Sample: 306935 - TT-2 @ Surface

Laboratory: Midland

TPH DRO - NEW Analysis: Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94082 Date Analyzed: 2012-08-21 Analyzed By: CWPrep Batch: 79748 Sample Preparation: 2012-08-20 Prepared By: CW

MQLSDLMethod Based Based Blank MQLMDL Parameter \mathbf{F} С Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) $\overline{\text{DRO}}$ < 50.0 14.5 < 14.5< 14.5mg/Kg 50 14.5 Qr,U1

						$_{ m Spike}$	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			113	mg/Kg	1	100	113	70 - 130

Sample: 306935 - TT-2 @ Surface

Laboratory: Lubbock

TPH GRO Analytical Method: S 8015 D Prep Method: Analysis: S 5035 QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MTPrep Batch: 79813 Sample Preparation: 2012-08-22 Prepared By: MT

SDL MQLMethod Based Blank MQLMDL Based Parameter \mathbf{C} Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) GRO 1.32< 4.00 < 0.359 mg/Kg 0.359 4 0.359 1

						$_{ m Spike}$	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	J		2.19	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)	J		2.13	mg/Kg	1	2.00	106	70 - 130

Sample: 306935 - TT-2 @ Surface

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 9 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM Midland Laboratory: TPH ORO Analysis: Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94086 Date Analyzed: 2012-08-21 Analyzed By: CWPrep Batch: 79755 Sample Preparation: 2012-08-20 Prepared By: CWSDLMQLMethod Based Based Blank MQLMDLF \mathbf{C} Result Result SDLParameter Result Units Dilution (Unadjusted) (Unadjusted) ORO <14.5 < 50.0 < 14.5mg/Kg 14.5 50 14.5 U

Surrogate	F	С	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
n-Tricosane			110	mg/Kg	1	100	110	70 - 130
n-Triacontane			83.3	mg/Kg	1	100	83	70 - 130

Sample: 306936 - TT-2 @ 4

Laboratory: Lubbock

BTEX Analysis: Analytical Method: S 8021B Prep Method: S 5035 QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MTPrep Batch: 79813 Sample Preparation: Prepared By: 2012-08-22 MT

			SDL	MQL	Method					
			Based	Based	Blank				MQL	MDL
Parameter	\mathbf{F}	\mathbf{C}	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Benzene	U	1	< 0.00365	< 0.0200	< 0.00365	mg/Kg	1	0.00365	0.02	0.00365
Toluene	U	1	< 0.00816	< 0.0200	< 0.00816	mg/Kg	1	0.00816	0.02	0.00816
Ethylbenzene	U	1	< 0.00560	< 0.0200	< 0.00560	mg/Kg	1	0.00560	0.02	0.0056
Xylene	U	1	< 0.00460	< 0.0200	< 0.00460	mg/Kg	1	0.00460	0.02	0.0046

						$_{\mathrm{Spike}}$	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.77	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Sample: 306936 - TT-2 @ 4'

Laboratory: Lubbock

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A QC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AHPrep Batch: 79810 Sample Preparation: 2012-08-23 Prepared By: AH

			SDL	MQL	Method					3.575.7
			Based	Based	Blank				MQL	MDL
Parameter	\mathbf{F}	\mathbf{C}	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Chloride	$_{ m Qs}$		39.8	39.8	< 6.10	mg/Kg	2	6.10	5	3.05

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Sample: 306936 - TT-2 @ 4'

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94082 Date Analyzed: 2012-08-21 Analyzed By: CWPrep Batch: 79748 Sample Preparation: 2012-08-20 Prepared By: CW

SDLMQLMethod Based Based Blank MQL MDL \mathbf{C} Parameter F Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) $\overline{\mathrm{DRO}}$ 39.8 < 50.0 <14.5 50 mg/Kg 14.5 14.5 Spike Percent Recovery

F \mathbf{C} Surrogate Result Units Dilution Amount Recovery Limits n-Tricosane 127 mg/Kg 100 127 70 - 130 1

Sample: 306936 - TT-2 @ 4'

Laboratory: Lubbock

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MT Prep Batch: 79813 Sample Preparation: 2012-08-22 Prepared By: MT

SDLMQLMethod Based Based Blank MQL MDL \mathbf{F} \mathbf{C} Units SDL Parameter Result Result Result Dilution (Unadjusted) (Unadjusted) GRO 1.37< 4.00 < 0.359mg/Kg 0.359 4 0.359

						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	J		2.10	mg/Kg	1	2.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)	J		1.99	mg/Kg	1	2.00	100	70 - 130

Sample: 306936 - TT-2 @ 4'

Laboratory: Midland

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/ACWQC Batch: 94086 Date Analyzed: 2012-08-21 Analyzed By: Prep Batch: 79755 Sample Preparation: 2012-08-20 Prepared By: CW

SDLMQL Method Blank MQLMDLBased Based Parameter F C Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) ORO <14.5 < 50.0 < 14.5mg/Kg 1 14.5 50 14.5

						Spike	Percent	Recovery
Surrogate	F	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr		139	mg/Kg	1	100	139	70 - 130

 $continued \dots$

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 $sample\ continued\ \dots$

1						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane			93.5	mg/Kg	1	100	94	70 - 130

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Method Blanks

Method Blank (1)

 QC Batch:
 94082
 Date Analyzed:
 2012-08-21

 Prep Batch:
 79748
 QC Preparation:
 2012-08-20

Analyzed By: CW Prepared By: CW

70 - 130

Parameter		F		С	Result		Units	$\begin{array}{c} {\rm Reporting} \\ {\rm Limits} \end{array}$
DRO				2	<14.5		mg/Kg	14.5
Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			105	mg/Kg	1	100	105	70 - 130

Method Blank (1)

QC Batch: 94086 Date Analyzed: 2012-08-21 Analyzed By: CW Prep Batch: 79755 QC Preparation: 2012-08-20 Prepared By: CW

Parameter		F	C	1	Result	U	Inits	Reporting Limits
ORO					<14.5	m	g/Kg	14.5
						Spike	Percent	Recovery
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

1

mg/Kg

74.9

100

75

Method Blank (1)

 $\operatorname{n-Triacontane}$

QC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AH Prep Batch: 79810 QC Preparation: 2012-08-23 Prepared By: AH

					Reporting
Parameter	\mathbf{F}	\mathbf{C}	Result	Units	Limits
Chloride			< 3.05	mg/Kg	3.05

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Method Blank (1)										
QC Batch: 94162		Date	Analyzed:	2012-08	3-22		Analyzed By: MT			
Prep Batch: 79813		QC 1	Preparation	: 2012-08	3-22	Prepared By: 1				
								Reporting		
Parameter	\mathbf{F}		\mathbf{C}		Result	Unit	S	Limits		
Benzene			1	<(0.00365	mg/V	Κg	0.00365		
Toluene			1	<(0.00816	mg/I	Κg	0.00816		
Ethylbenzene			1	<(0.00560	mg/I	Κg	0.0056		
Xylene			1	<0	0.00460	mg/I	Κg	0.0046		
						Spike	Percent	Recovery		
Surrogate	\mathbf{F}	\mathbf{C}	Result	Units	Dilution	Amount	Recovery	Limits		
Trifluorotoluene (TFT)			2.10	mg/Kg	1	2.00	105	70 - 130		
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	70 - 130		

Method Blank (1)

QC Batch: 94163 Prep Batch: 79813				e Analyzed Preparatio				d By: MT d By: MT	
									Reporting
Parameter	\mathbf{F}			C		Result	Unit	S	Limits
GRO				1		<0.359 mg/Kg			0.359
Surrogate		F	С	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)				2.38	mg/Kg	1	2.00	119	70 - 130
4-Bromofluorobenzene (4-BFB)				2.15	mg/Kg	1	2.00	108	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 94082 Date Analyzed: 2012-08-21 Analyzed By: CW Prep Batch: 79748 QC Preparation: 2012-08-20 Prepared By: CW

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		2	220	mg/Kg	1	250	<14.5	88	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	Qr	2	280	mg/Kg	1	250	<14.5	112	70 - 130	24	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{F}	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane			118	136	mg/Kg	1	100	118	136	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94086 Date Analyzed: 2012-08-21 Analyzed By: CW Prep Batch: 79755 QC Preparation: 2012-08-20 Prepared By: CW

			LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	F	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane			118	135	mg/Kg	1	100	118	135	70 - 130
n-Triacontane			86.3	90.6	mg/Kg	1	100	86	91	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AH Prep Batch: 79810 QC Preparation: 2012-08-23 Prepared By: AH

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			101	mg/Kg	1	100	< 3.05	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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			LCSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			101	mg/Kg	1	100	< 3.05	101	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MT Prep Batch: 79813 QC Preparation: 2012-08-22 Prepared By: MT

			LCS			$_{ m Spike}$	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	1.79	mg/Kg	1	2.00	< 0.00365	90	75.4 - 120
Toluene		1	1.74	mg/Kg	1	2.00	< 0.00816	87	74.9 - 120
Ethylbenzene		1	1.74	mg/Kg	1	2.00	< 0.00560	87	78.1 - 120
Xylene		1	5.19	mg/Kg	1	6.00	< 0.00460	86	77.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.72	mg/Kg	1	2.00	< 0.00365	86	75.4 - 120	4	20
Toluene		1	1.68	mg/Kg	1	2.00	< 0.00816	84	74.9 - 120	4	20
Ethylbenzene		1	1.69	mg/Kg	1	2.00	< 0.00560	84	78.1 - 120	3	20
Xylene		1	5.04	mg/Kg	1	6.00	< 0.00460	84	77.3 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{F}	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)			1.76	1.66	mg/Kg	1	2.00	88	83	70 - 130
4-Bromofluorobenzene (4-BFB)			1.73	1.67	mg/Kg	1	2.00	86	84	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MT Prep Batch: 79813 QC Preparation: 2012-08-22 Prepared By: MT

			LCS			$_{ m Spike}$	Matrix		$\mathrm{Rec}.$
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.9	mg/Kg	1	20.0	< 0.359	89	68.9 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	18.2	mg/Kg	1	20.0	< 0.359	91	68.9 - 120	2	20

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 16 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCS	LCSD			$_{ m Spike}$	LCS	LCSD	$\mathrm{Rec}.$
Surrogate	\mathbf{F}	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)			2.05	2.08	mg/Kg	1	2.00	102	104	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	1.99	mg/Kg	1	2.00	98	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306914

QC Batch: 94082 Date Analyzed: 2012-08-21 Analyzed By: CW Prep Batch: 79748 QC Preparation: 2012-08-20 Prepared By: CW

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		2	231	mg/Kg	1	250	<14.5	92	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		2	233	mg/Kg	1	250	<14.5	93	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MS	MSD			Spike	MS	MSD	Rec.
Surrogate	F	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane			112	113	mg/Kg	1	100	112	113	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306914

QC Batch: 94086 Date Analyzed: 2012-08-21 Analyzed By: CW Prep Batch: 79755 QC Preparation: 2012-08-20 Prepared By: CW

			MS	MSD			Spike	MS	MSD	Rec.
Surrogate	\mathbf{F}	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane			112	114	mg/Kg	1	100	112	114	70 - 130
n-Triacontane			80.2	81.3	mg/Kg	1	100	80	81	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306936

QC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AH Prep Batch: 79810 QC Preparation: 2012-08-23 Prepared By: AH

Report Date: August 23, 2012

SUG Historical Releases

Work Order: 12081632 Trunk O #3 (1RP-1509) Page Number: 17 of 23 Lea Co., NM

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride	Qs		101	mg/Kg	1	100	39.8	61	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	Qs		102	mg/Kg	1	100	39.8	62	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 306910

QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MT Prep Batch: 79813 QC Preparation: 2012-08-22 Prepared By: MT

			MS			Spike	Matrix		Rec.
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	1.76	mg/Kg	1	2.00	< 0.00365	88	37.6 - 142
Toluene		1	1.96	mg/Kg	1	2.00	< 0.00816	98	38.6 - 153
Ethylbenzene		1	2.02	mg/Kg	1	2.00	< 0.00560	101	36.7 - 172
Xylene		1	6.03	mg/Kg	1	6.00	< 0.00460	100	36.7 - 173

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.81	mg/Kg	1	2.00	< 0.00365	90	37.6 - 142	3	20
Toluene		1	2.03	mg/Kg	1	2.00	< 0.00816	102	38.6 - 153	4	20
Ethylbenzene		1	2.13	mg/Kg	1	2.00	< 0.00560	106	36.7 - 172	5	20
Xylene		1	6.36	mg/Kg	1	6.00	< 0.00460	106	36.7 - 173	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MS	MSD			$_{\mathrm{Spike}}$	MS	MSD	Rec.
Surrogate	\mathbf{F}	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)			1.84	1.94	mg/Kg	1	2	92	97	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	1.98	mg/Kg	1	2	96	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306910

QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MT Prep Batch: 79813 QC Preparation: 2012-08-22 Prepared By: MT

			MS			$_{ m Spike}$	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	19.9	mg/Kg	1	20.0	1.92	90	68.9 - 120

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 18 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			$_{\mathrm{Spike}}$	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	21.1	mg/Kg	1	20.0	1.92	96	68.9 - 120	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MS	MSD			$_{ m Spike}$	MS	MSD	Rec.
Surrogate	\mathbf{F}	\mathbf{C}	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)			1.88	1.82	mg/Kg	1	2	94	91	70 - 130
4-Bromofluorobenzene (4-BFB)			2.44	2.36	mg/Kg	1	2	122	118	70 - 130

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 19 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Calibration Standards

Standard (CCV-1)

QC Batch:	94082			Ι	Pate Analyzed:	2012-08-21		Analyzed By: CW			
					CCVs	CCVs	$_{ m CCVs}$	Percent	D. /		
					True	Found	Percent	Recovery	Date		
Param		F	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
DRO			2	mg/Kg	250	230	92	80 - 120	2012-08-21		

Standard (CCV-2)

QC Batch: 9	C Batch: 94082				2012-08-21		Analyzed By: CW			
				CCVs	CCVs	CCVs	Percent			
				True	Found	Percent	Recovery	Date		
Param	F	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
DRO		2	mg/Kg	250	224	90	80 - 120	2012-08-21		

Standard (CCV-3)

QC Batch:	94082			Da	te Analyzed:	2012-08-21		Analyz	Analyzed By: CW		
					$\stackrel{ ext{CCVs}}{=}$	CCVs	$_{ m CCVs}$	Percent	_		
					True	Found	Percent	Recovery	Date		
Param		F	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
DRO			2	mg/Kg	250	240	96	80 - 120	2012-08-21		

Standard (ICV-1)

OC Batch: 94156

				J				J
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	99.4	99	85 - 115	2012-08-23

Date Analyzed: 2012-08-23

Analyzed By: AH

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 20 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Standard (CCV-1)

QC Batch: 94156 Date Analyzed: 2012-08-23 Analyzed By: AH

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-08-23

Standard (CCV-1)

QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MT

				$\begin{array}{c} { m CCVs} \\ { m True} \end{array}$	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	CCVs Percent	Percent Recovery	Date
Param	F	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0865	86	80 - 120	2012-08-22
Toluene		1	mg/kg	0.100	0.0852	85	80 - 120	2012-08-22
Ethylbenzene		1	mg/kg	0.100	0.0860	86	80 - 120	2012-08-22
Xylene		1	mg/kg	0.300	0.256	85	80 - 120	2012-08-22

Standard (CCV-2)

QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MT

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0865	86	80 - 120	2012-08-22
Toluene		1	mg/kg	0.100	0.0840	84	80 - 120	2012-08-22
Ethylbenzene		1	mg/kg	0.100	0.0832	83	80 - 120	2012-08-22
Xylene		1	mg/kg	0.300	0.248	83	80 - 120	2012-08-22

Standard (CCV-3)

QC Batch: 94162 Date Analyzed: 2012-08-22 Analyzed By: MT

				CCVs	CCVs	CCVs	Percent	D /
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0874	87	80 - 120	2012-08-22
Toluene		1	mg/kg	0.100	0.0851	85	80 - 120	2012-08-22
Ethylbenzene		1	mg/kg	0.100	0.0846	85	80 - 120	2012-08-22
Xylene		1	mg/kg	0.300	0.251	84	80 - 120	2012-08-22

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 21 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Standard (CCV-1)

QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MT

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.851	85	80 - 120	2012-08-22

Standard (CCV-2)

QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MT

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.834	83	80 - 120	2012-08-22

Standard (CCV-3)

QC Batch: 94163 Date Analyzed: 2012-08-22 Analyzed By: MT

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	\mathbf{F}	\mathbf{C}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.867	87	80 - 120	2012-08-22

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 22 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Limits of Detection (LOD)

					$_{ m Spike}$	
Test	Method	Matrix	Instrument	Analyte	Amount	Pass
BTEX	S 8021B	soil	BTEX-2	Benzene	0.0108	Pass
BTEX	S 8021 B	soil	BTEX-2	Toluene	0.0108	Pass
BTEX	S 8021 B	soil	BTEX-2	Ethylbenzene	0.0108	Pass
BTEX	S 8021 B	soil	BTEX-2	Xylene	0.0108	Pass
Chloride (Titration)	SM 4500-Cl B	soil	N/A	Chloride	10.0	Pass
TPH DRO - NEW	S 8015 D	soil	TPH-2	DRO	36.7	Pass
TPH GRO	S 8015 D	soil	BTEX-2	GRO	1.00	Pass
TPH ORO	S 8015 D	soil	TPH-2	ORO	0.00	-

Report Date: August 23, 2012 Work Order: 12081632 Page Number: 23 of 23 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-12-8	Lubbock
2	NELAP	T104704392-12-4	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
 - U The analyte is not detected above the SDL

Result Comments

1 Sample dilution due to hydrocarbons.

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

LAB Order ID # 10(8/6254

PIOH Turn Around Time if different from standard ਰੱ Check if Special Reporting Limits Are Needed Na, Ca, Mg, K, TDS, EC BioAquatic Testing 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Mudland - FIEX NO₃-N, NO₂-N, PO₄-P, Alkalinity Circle or Specify Method No. Tel (972) 242-7750 Moisture Content Page Hq ,2ST ,doa **ANALYSIS REQUEST** Dry Weight Basis Required 8081A / 608 sebioitseq PCB's 8082 / 608 GC/MS Semi. Vol. 8270C/625 CC/WS API 8560B / 624 **BCI** REMARKS **TCLP Pesticides** TCLP Semi Volatiles 200 East Sunset Rd., Suite El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 ICLP Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg Headspace // Ny/NA Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7 LAB USE 79 Kobs 35° Cogin Review Carrier # 418.1 / TX1005 / DRO / TVHC HqT BTEX 8021B 602 / 8260B / 624 MTBE 8021B / 602 / 8260B / 624 SAMPLING Ś 7/01 511 5002 Basin Street, Suite A Midland,Texas 79703 Ĩ **JMIT** Tel (432) 689-6301 Fax (432) 689-6313 Ester L. Lankwood L ci pi Trunk "O" #3 (1RP-1509) S OBS S **3TA**0 //LSNI rose.slade@sug.com pm@basinenv.com INST 1. 1 2085 1. 1. 1 200K 575-396-2378 575-396-1429 **PRESERVATIVE JONE** jine: METHOD CE HOBN ⁵OS^zH 6701 Aberdeen Ave, Ste 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 HCF Southern Union Gas Services Project Name: Company: STADGE Signature: MATRIX Phone #: ЯΙΑ E-mail: Fax #: SOIF × × × **A**3TAW Basin Environmental Service Technologies Received by: **FraceAnalysis, Inc.** JnuomA\emulo\ Rose Slade (SUG) Joel Lowry (Basin) # CONTAINERS email: lab@traceanalysis.com SUG Historical Releases Lea County, New Mexico ubmittal of samples constitutes agreement to Terms and Conditions Lovington, NM, 88260 07.00 Time: Time: 8-16-12 FIELD CODE 7. Date: Date: TT-1 North End @ 3.5' 0 TT-2 @ Surface T-1 @ Surface Company *yo*mpany: h TT-2 @ 4' GO K S. SALVER 2 quished by: Relinquished by: elinguished by roject Location Company Name: Contact Person: heb (include state) LAB USE 93, LAB# ONLY nvoice to: roject #: Address:

ORIGINAL COPY



Midland,

Texas 79703 (BioAquatic) 2501 Mayes Rd., Suite 100 Carroliton, Texas 75006 972-242-7750 E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

432 • 689 • 6301

Work Order:

FAX 432 • 689 • 6313

Report Date: September 26, 2012

12091440

Certifications

NELAP DoD LELAP WBEHUBNCTRCA DBEKansas Oklahoma ISO 17025

Analytical and Quality Control Report

Rose Slade Southern Union Gas Services, Ltd.-Monahans 801 S. Loop 464 Monahans, TX, 79756

5002 Basin Street, Suite A1

Project Location: Lea Co., NM

Project Name: Trunk O #3 (1RP-1509) Project Number: SUG Historical Releases

 $Enclosed \ are \ the \ Analytical \ Report \ and \ Quality \ Control \ Report \ for \ the \ following \ sample(s) \ submitted \ to \ TraceAnalysis, \ Inc.$

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
309505	A Stockpile	soil	2012-09-14	09:00	2012-09-14
309506	A North Wall	soil	2012-09-14	09:10	2012-09-14
309507	A East Wall	soil	2012-09-14	09:20	2012-09-14
309508	A South Wall	soil	2012-09-14	09:30	2012-09-14
309509	A West Wall	soil	2012-09-14	09:40	2012-09-14
309510	A Floor	soil	2012-09-14	09:50	2012-09-14
309511	B North Wall #1	soil	2012-09-14	10:00	2012-09-14
309512	B North Wall $\#2$	soil	2012-09-14	10:10	2012-09-14
309513	B North Wall #3	soil	2012-09-14	10:20	2012-09-14
309514	B South Wall #1	soil	2012-09-14	10:30	2012-09-14
309515	B South Wall #2	soil	2012-09-14	10:40	2012-09-14
309516	B South Wall #3	soil	2012-09-14	10:50	2012-09-14
309517	B East Wall	soil	2012-09-14	11:00	2012-09-14
309518	B West Wall	soil	2012-09-14	11:10	2012-09-14
309519	B Floor #1	soil	2012-09-14	11:20	2012-09-14
309520	B Floor #2	soil	2012-09-14	11:30	2012-09-14
309521	B Stockpile	soil	2012-09-14	11:40	2012-09-14

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 60 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Trunk O #3 (1RP-1509) were received by TraceAnalysis, Inc. on 2012-09-14 and assigned to work order 12091440. Samples for work order 12091440 were received intact at a temperature of 3.1 C.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	80607	2012-09-22 at 09:28	95120	2012-09-22 at 09:28
BTEX	S 8021 B	80622	2012-09-23 at 10:58	95136	2012-09-23 at $10:58$
Chloride (Titration)	SM 4500-Cl B	80620	2012-09-25 at 10:49	95156	2012-09-25 at $15:15$
Chloride (Titration)	SM 4500-Cl B	80620	2012-09-25 at 10:49	95157	2012-09-25 at $15:16$
Chloride (Titration)	$\mathrm{SM}\ 4500\text{-}\mathrm{Cl}\ \mathrm{B}$	80620	2012-09-25 at 10:49	95158	2012-09-25 at $15:17$
TPH DRO - NEW	S 8015 D	80416	2012-09-17 at 09:00	94899	2012-09-18 at $08:38$
TPH GRO	S 8015 D	80613	2012-09-22 at 09:28	95131	2012-09-22 at 09:28
TPH GRO	S 8015 D	80622	2012-09-23 at 10:58	95142	2012-09-23 at $10:58$
TPH ORO	S 8015 D	80461	2012-09-18 at 13:00	94948	2012-09-19 at $09:57$
TPH ORO	S 8015 D	80494	2012-09-19 at $14:00$	94993	2012-09-20 at $09:15$

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12091440 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 6 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Analytical Report

Sample: 309505 - A Stockpile

Laboratory: Midland

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: 80622 Sample Preparation: 2012-09-23 Prepared By: YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	< 0.0200	m mg/Kg	1	0.0200
Toluene	U	1	< 0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	< 0.0200	mg/Kg	1	0.0200
Xylene	U	1	< 0.0200	mg/Kg	1	0.0200

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.34	mg/Kg	1	2.00	117	70 - 130

Sample: 309505 - A Stockpile

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A QC Batch: 95156 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			229	mg/Kg	5	4.00

Sample: 309505 - A Stockpile

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: Prep Method: S 8015 D N/AQC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO		1	1120	m mg/Kg	5	50.0

Report Date: September 26, 2012

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Work Order: 12091440Trunk O #3 (1RP-1509) Page Number: 7 of 60 Lea Co., NM

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		254	mg/Kg	5	100	254	70 - 130

Sample: 309505 - A Stockpile

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D QC Batch: 95142 Date Analyzed: 2012-09-23 Prep Batch: 80622 Sample Preparation: 2012-09-23

Prep Method: S 5035 Analyzed By: YG Prepared By: YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO		1	18.2	mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Sample: 309505 - A Stockpile

Laboratory: Lubbock

TPH ORO Analysis: Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Analyzed By: CMDate Analyzed: 2012-09-19 Prep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQL PQL RLParameter Flag Cert Result Result Result Result Units Dilution MDLMQLPQL RL $\overline{\mathrm{ORO}}$ 17.1 < 85.5 <250 <250 <250 50.0 mg/Kg 5 50.0 50.0Qs,U

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		166	mg/Kg	5	100	166	61.5 - 159
n-Triacontane				162	mg/Kg	5	100	162	70 - 166

Sample: 309506 - A North Wall

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: 80607 Sample Preparation: 2012-09-22 Prepared By: YG

Report Date: September 26, 2012

SUG Historical Releases Trunk O #3 (1RP-18

Work Order: 12091440 Page Number: 8 of 60 Trunk O #3 (1RP-1509) Lea Co., NM

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	$_{ m Qr,U}$	1	< 0.0200	$\mathrm{mg/Kg}$	1	0.0200
Toluene	$_{ m Qr,U}$	1	< 0.0200	mg/Kg	1	0.0200
Ethylbenzene	$_{ m Qr,U}$	1	< 0.0200	mg/Kg	1	0.0200
Xylene	$_{ m Qr}$	1	0.0297	mg/Kg	1	0.0200

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.22	mg/Kg	1	2.00	111	70 - 130

Sample: 309506 - A North Wall

Laboratory: Midland

Chloride (Titration) Analysis: Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95156 Date Analyzed: 2012-09-25 Analyzed By: ARPrep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Sample: 309506 - A North Wall

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CWPrep Batch: Sample Preparation: Prepared By: 80416 2012-09-17 CW

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			188	mg/Kg	1	100	188	70 - 130

Sample: 309506 - A North Wall

Laboratory: Midland

TPH GRO Analysis: Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012 - 09 - 22Analyzed By: YGPrep Batch: 80613 Sample Preparation: 2012-09-22 Prepared By: YG

Report Date: September 26, 2012

Work Order: 12091440 SUG Historical Releases Trunk O #3 (1RP-1509)

					RL				
Parameter	Flag		Cert		Result	Unit	ts	Dilution	RL
GRO	Qs		1		< 4.00	mg/K	g	1	4.00
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)				1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)				2.23	mg/Kg	1	2.00	112	70 - 130

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Sample: 309506 - A North Wall

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

ORO			193	193	193	193	mg/Kg	1	17.1	50.0	50.0	50.0
Parameter	Flag	Cert	Result	Result	Result	Result	Units	Dilution	MDL	MQL	PQL	RL
			MDL	MQL	PQL	RL						

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			146	mg/Kg	1	100	146	61.5 - 159
n-Triacontane			152	mg/Kg	1	100	152	70 - 166

Sample: 309507 - A East Wall

Laboratory: Midland

Analysis: BTEXAnalytical Method: Prep Method: S 5035 S 8021BQC Batch: 95120YGDate Analyzed: 2012 - 09 - 22Analyzed By: Prep Batch: 80607 Sample Preparation: 2012-09-22 Prepared By: YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	$_{\mathrm{Qr,U}}$	1	< 0.0200	m mg/Kg	1	0.0200
Toluene	$_{\mathrm{Qr,U}}$	1	< 0.0200	mg/Kg	1	0.0200
Ethylbenzene	$_{\mathrm{Qr,U}}$	1	< 0.0200	mg/Kg	1	0.0200
Xylene	$_{ m Qr,U}$	1	< 0.0200	mg/Kg	1	0.0200

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	1	2.00	108	70 - 130

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Sample: 309507 - A East Wall

Laboratory: Midland

Chloride (Titration) Analysis: Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95156 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Sample: 309507 - A East Wall

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/AQC Batch: CW94899 Date Analyzed: 2012-09-18 Analyzed By: Prep Batch: 80416 Sample Preparation: 2012 - 09 - 17Prepared By: CW

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			112	$\mathrm{mg/Kg}$	1	100	112	70 - 130

Sample: 309507 - A East Wall

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: Sample Preparation: Prepared By: YG80613 2012-09-22

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.12	mg/Kg	1	2.00	106	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 11 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309507 - A East Wall

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQLPQLRLParameter Cert Result Result Result Units Dilution MDL MQL PQL Flag Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg $_{\mathrm{Qs,U}}$

						$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			142	mg/Kg	1	100	142	61.5 - 159
n-Triacontane			143	mg/Kg	1	100	143	70 - 166

Sample: 309508 - A South Wall

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U Ethylbenzene < 0.0200 mg/Kg1 0.0200U < 0.0200 mg/Kg1 0.0200Xylene U

_						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70 - 130

Sample: 309508 - A South Wall

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95156 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

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 $sample\ 309508\ continued\ \dots$

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			DI			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			63.4	mg/Kg	5	4.00

Sample: 309508 - A South Wall

Laboratory: Midland

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO		1	738	m mg/Kg	1	50.0
•						-

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		290	${ m mg/Kg}$	1	100	290	70 - 130

Sample: 309508 - A South Wall

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: 80622 $Sample\ Preparation:\ \ 2012\text{-}09\text{-}23$ Prepared By: YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	U	1	< 4.00	mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	102	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 13 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309508 - A South Wall

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Result Units Dilution MDL MQL PQL RLORO 591 591 591 591 $\overline{\mathrm{mg/Kg}}$ 17.1 50.0 50.0 50.0 5 Qs

							$_{ m Spike}$	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		225	mg/Kg	5	100	225	61.5 - 159
n-Triacontane	Qsr	$_{ m Qsr}$		218	mg/Kg	5	100	218	70 - 166

Sample: 309509 - A West Wall

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U Ethylbenzene < 0.0200 mg/Kg1 0.0200U < 0.0200 mg/Kg1 0.0200Xylene U

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	1 145	CCIT	1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Sample: 309509 - A West Wall

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 14 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

sample 309509 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			100	mg/Kg	5	4.00

Sample: 309509 - A West Wall

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		279	$\mathrm{mg/Kg}$	1	100	279	70 - 130

Sample: 309509 - A West Wall

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: Prepared By: 80622 Sample Preparation: 2012-09-23 YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 15 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309509 - A West Wall

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDL MQLPQLRLParameter Flag Cert Result Result Result Result Units Dilution MDL MQL PQL RLORO **268 268 268 268** 17.1 50.0 50.0 50.0 mg/Kg 5

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		166	mg/Kg	5	100	166	61.5 - 159
n-Triacontane				152	mg/Kg	5	100	152	70 - 166

Sample: 309510 - A Floor

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG2012-09-22 YGPrep Batch: 80607 Sample Preparation: Prepared By:

RLFlag Parameter Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 Qr,U1 Toluene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ 0.0200Ethylbenzene < 0.0200 mg/Kg1 $_{\mathrm{Qr,U}}$ < 0.0200 mg/Kg1 0.0200Xylene Qr, U

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Sample: 309510 - A Floor

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 16 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

 $sample\ 309510\ continued\ \dots$

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			D.I.			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			1800	mg/Kg	10	4.00

Sample: 309510 - A Floor

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CW Prep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO		1	70.5	mg/Kg	1	50.0

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		131	${ m mg/Kg}$	1	100	131	70 - 130

Sample: 309510 - A Floor

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: 80613 $Sample\ Preparation:\ \ 2012\text{-}09\text{-}22$ Prepared By: YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	$_{\mathrm{Qs,U}}$	1	< 4.00	mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 17 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309510 - A Floor

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQLPQLRLParameter Cert Result Result Result Units Dilution MDL MQL PQL Flag Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg $_{\mathrm{Qs,U}}$

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			153	mg/Kg	1	100	153	61.5 - 159
n-Triacontane			156	mg/Kg	1	100	156	70 - 166

Sample: 309511 - B North Wall #1

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG2012-09-22 YGPrep Batch: 80607 Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 Qr,U1 Toluene < 0.0200 mg/Kg1 0.0200 $_{\mathrm{Qr,U}}$ Ethylbenzene < 0.0200 mg/Kg1 0.0200 $_{\mathrm{Qr,U}}$ < 0.0200 mg/Kg1 0.0200Xylene Qr, U

	T.I.	Q .	D 1	TT	Dil .	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Sample: 309511 - B North Wall #1

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

 $\overline{continued \dots}$

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 18 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

sample 309511 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			129	mg/Kg	5	4.00

Sample: 309511 - B North Wall #1

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899 Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			123	mg/Kg	1	100	123	70 - 130

Sample: 309511 - B North Wall #1

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: Prepared By: 80613 Sample Preparation: 2012 - 09 - 22YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

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Sample: 309511 - B North Wall #1

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQLPQLRLParameter Cert Result Result Result Units Dilution MDL MQL PQL Flag Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg $_{\mathrm{Qs,U}}$

						$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			120	mg/Kg	1	100	120	61.5 - 159
n-Triacontane			125	mg/Kg	1	100	125	70 - 166

Sample: 309512 - B North Wall #2

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG2012-09-22 YGPrep Batch: 80607 Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 Qr,U1 Toluene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ Ethylbenzene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ < 0.0200 mg/Kg1 0.0200Xylene Qr, U

		~			D.1.	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.18	mg/Kg	1	2.00	109	70 - 130

Sample: 309512 - B North Wall #2

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

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 $sample\ 309512\ continued\ \dots$

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			RL			
			\mathbf{n}			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride	U		< 20.0	mg/Kg	5	4.00

Sample: 309512 - B North Wall #2

Laboratory: Midland

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO	U	1	< 50.0	m mg/Kg	1	50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			125	mg/Kg	1	100	125	70 - 130

Sample: 309512 - B North Wall #2

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: 80613 Prepared By: Sample Preparation: 2012-09-22 YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	$_{\mathrm{Qs,U}}$	1	< 4.00	mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.09	mg/Kg	1	2.00	104	70 - 130

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Sample: 309512 - B North Wall #2

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQLPQLRLParameter Cert Result Result Result Units Dilution MDL MQL PQL Flag Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg $_{\mathrm{Qs,U}}$

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			112	mg/Kg	1	100	112	61.5 - 159
n-Triacontane			116	mg/Kg	1	100	116	70 - 166

Sample: 309513 - B North Wall #3

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG2012-09-22 YGPrep Batch: 80607 Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 Qr,U1 Toluene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ 0.0200Ethylbenzene < 0.0200 mg/Kg1 $_{
m Qr,U}$ < 0.0200 mg/Kg1 0.0200Xylene Qr, U

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Sample: 309513 - B North Wall #3

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

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sample 309513 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			DI			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			28.7	mg/Kg	5	4.00

Sample: 309513 - B North Wall #3

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899 Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			124	mg/Kg	1	100	124	70 - 130

Sample: 309513 - B North Wall #3

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: Prepared By: 80613 Sample Preparation: 2012 - 09 - 22YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 23 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309513 - B North Wall #3

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CMPrep Batch: 80461 Sample Preparation: 2012-09-18 Prepared By: CM

MDLMQLPQLRLParameter Cert Result Result Result Units Dilution MDL MQL PQL Flag Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg $_{\mathrm{Qs,U}}$

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			117	mg/Kg	1	100	117	61.5 - 159
n-Triacontane			118	mg/Kg	1	100	118	70 - 166

Sample: 309514 - B South Wall #1

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG2012-09-22 YGPrep Batch: 80607 Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 Qr,U1 Toluene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ Ethylbenzene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ < 0.0200 mg/Kg1 0.0200Xylene Qr, U

Cumomata	Elo m	Cont	Dogult	IIn:ta	Dilution	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.17	mg/Kg	1	2.00	108	70 - 130

Sample: 309514 - B South Wall #1

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 24 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

 $sample\ 309514\ continued\ \dots$

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			28.7	mg/Kg	5	4.00

Sample: 309514 - B South Wall #1

Laboratory: Midland

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO	U	1	< 50.0	m mg/Kg	1	50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			119	${ m mg/Kg}$	1	100	119	70 - 130

Sample: 309514 - B South Wall #1

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrepared By: Prep Batch: 80613 Sample Preparation: 2012-09-22 YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	$_{\mathrm{Qs,U}}$	1	< 4.00	mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 25 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309514 - B South Wall #1

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDL MQL PQL Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			121	mg/Kg	1	100	121	61.5 - 159
n-Triacontane			118	mg/Kg	1	100	118	70 - 166

Sample: 309515 - B South Wall #2

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG2012-09-22 YGPrep Batch: 80607 Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 Qr,U1 Toluene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ Ethylbenzene < 0.0200 mg/Kg1 0.0200 $_{
m Qr,U}$ < 0.0200 mg/Kg1 0.0200Xylene Qr, U

	T.I.	Q .	D 1	TT	Dil .	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			2.21	mg/Kg	1	2.00	110	70 - 130

Sample: 309515 - B South Wall #2

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 26 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

sample 309515 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			RL			
			$n_{\rm L}$			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			57.4	mg/Kg	5	4.00

Sample: 309515 - B South Wall #2

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94899 Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			119	${ m mg/Kg}$	1	100	119	70 - 130

Sample: 309515 - B South Wall #2

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YGPrep Batch: Prepared By: 80613 Sample Preparation: 2012 - 09 - 22YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 27 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309515 - B South Wall #2

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDL MQL PQL Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			108	mg/Kg	1	100	108	61.5 - 159
n-Triacontane			109	mg/Kg	1	100	109	70 - 166

Sample: 309516 - B South Wall #3

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U 0.0200Ethylbenzene < 0.0200 mg/Kg1 U < 0.0200 mg/Kg1 0.0200Xylene U

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.21	mg/Kg	1	2.00	110	70 - 130

Sample: 309516 - B South Wall #3

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 28 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

 $sample\ 309516\ continued\ \dots$

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			RL			
			\mathbf{n}			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride	U		< 20.0	mg/Kg	5	4.00

Sample: 309516 - B South Wall #3

Laboratory: Midland

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO	U	1	< 50.0	m mg/Kg	1	50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			124	mg/Kg	1	100	124	70 - 130

Sample: 309516 - B South Wall #3

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: 80622 Prepared By: Sample Preparation: 2012-09-23 YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	U	1	<4.00	m mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			2.12	mg/Kg	1	2.00	106	70 - 130

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 29 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Sample: 309516 - B South Wall #3

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDLMQL PQL Result RLORO <17.1 < 50.0 < 50.0 < 50.0 mg/Kg 17.1 50.0 50.0 50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			108	mg/Kg	1	100	108	61.5 - 159
n-Triacontane			108	mg/Kg	1	100	108	70 - 166

Sample: 309517 - B East Wall

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U Ethylbenzene < 0.0200 mg/Kg1 0.0200U < 0.0200 mg/Kg1 0.0200Xylene U

	T.I.	Q .	D 1	TT	Dil .	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			2.24	mg/Kg	1	2.00	112	70 - 130

Sample: 309517 - B East Wall

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

 $\overline{continued \dots}$

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 30 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

sample 309517 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			D.I.			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			90.9	mg/Kg	5	4.00

Sample: 309517 - B East Wall

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			110	${ m mg/Kg}$	1	100	110	70 - 130

Sample: 309517 - B East Wall

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: Prepared By: 80622 Sample Preparation: 2012-09-23 YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70 - 130

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Sample: 309517 - B East Wall

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDL MQL PQL Result RLORO <17.1 < 50.0 < 50.0 < 50.0 $\overline{\mathrm{mg/Kg}}$ 17.1 50.0 50.0 50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			113	mg/Kg	1	100	113	61.5 - 159
n-Triacontane			114	mg/Kg	1	100	114	70 - 166

Sample: 309518 - B West Wall

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U 0.0200Ethylbenzene < 0.0200 mg/Kg1 U < 0.0200 mg/Kg1 0.0200Xylene U

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.24	mg/Kg	1	2.00	112	70 - 130

Sample: 309518 - B West Wall

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 32 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

sample 309518 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			D.I.			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			76.6	mg/Kg	5	4.00

Sample: 309518 - B West Wall

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			122	${ m mg/Kg}$	1	100	122	70 - 130

Sample: 309518 - B West Wall

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: Sample Preparation: Prepared By: 80622 2012-09-23 YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70 - 130

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Sample: 309518 - B West Wall

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDL MQL PQL Result RLORO <17.1 < 50.0 < 50.0 < 50.0 $\overline{\mathrm{mg/Kg}}$ 17.1 50.0 50.0 50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			105	mg/Kg	1	100	105	61.5 - 159
n-Triacontane			106	mg/Kg	1	100	106	70 - 166

Sample: 309519 - B Floor #1

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U Ethylbenzene < 0.0200 mg/Kg1 0.0200U < 0.0200 mg/Kg1 0.0200Xylene U

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.24	mg/Kg	1	2.00	112	70 - 130

Sample: 309519 - B Floor #1

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95158 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

 $\overline{continued \dots}$

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sample 309519 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			DI			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			56.7	mg/Kg	5	4.00

Sample: 309519 - B Floor #1

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 94899Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			136	mg/Kg	1	100	136	70 - 130

Sample: 309519 - B Floor #1

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: Sample Preparation: Prepared By: 80622 2012-09-23 YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70 - 130

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Sample: 309519 - B Floor #1

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDL MQL PQL Result RLORO 50.4 50.450.4 50.4 $\overline{\mathrm{mg/Kg}}$ 17.1 50.0 50.0 50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			120	mg/Kg	1	100	120	61.5 - 159
n-Triacontane			142	mg/Kg	1	100	142	70 - 166

Sample: 309520 - B Floor #2

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U Ethylbenzene < 0.0200 mg/Kg1 0.0200U < 0.0200 mg/Kg1 0.0200Xylene U

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.27	mg/Kg	1	2.00	114	70 - 130

Sample: 309520 - B Floor #2

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95158 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

 $\overline{continued \dots}$

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sample 309520 continued ...

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			DI			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			142	mg/Kg	5	4.00

Sample: 309520 - B Floor #2

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94899 Date Analyzed: 2012 - 09 - 18Analyzed By: CWPrep Batch: 80416 Sample Preparation: 2012-09-17 Prepared By: CW

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			112	mg/Kg	1	100	112	70 - 130

Sample: 309520 - B Floor #2

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrepared By: Prep Batch: 80622 Sample Preparation: 2012-09-23 YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70 - 130

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Sample: 309520 - B Floor #2

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CMPrep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: CM

MDLMQLPQLRLParameter Flag Cert Result Result Result Units Dilution MDL MQL PQL Result RLORO <17.1 < 50.0 < 50.0 < 50.0 17.1 50.0 50.0 50.0 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			114	mg/Kg	1	100	114	61.5 - 159
n-Triacontane			117	mg/Kg	1	100	117	70 - 166

Sample: 309521 - B Stockpile

Laboratory: Midland

Analysis: **BTEX** Analytical Method: S_{8021B} Prep Method: S 5035 QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG80622 2012-09-23 YGPrep Batch: Sample Preparation: Prepared By:

RLParameter Flag Cert Result Units Dilution RL0.0200 Benzene < 0.0200 mg/Kg 1 U 1 Toluene < 0.0200 mg/Kg1 0.0200 U Ethylbenzene < 0.0200 mg/Kg1 0.0200U < 0.0200 mg/Kg1 0.0200Xylene U

	T21	Q .	D 1:	TT 1.	Dil	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.24	mg/Kg	1	2.00	112	70 - 130

Sample: 309521 - B Stockpile

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/AQC Batch: 95158 Date Analyzed: 2012-09-25 Analyzed By: AR Prep Batch: 80620 Sample Preparation: 2012-09-25 Prepared By: AR

 $\overline{continued}$. . .

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 $sample\ 309521\ continued\ \dots$

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
			D.I.			
			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			80.3	mg/Kg	5	4.00

Sample: 309521 - B Stockpile

Laboratory: Midland

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO		1	119	m mg/Kg	1	50.0
<u>- </u>						

						$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			158	${ m mg/Kg}$	1	100	158	70 - 130

Sample: 309521 - B Stockpile

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YGPrep Batch: 80622 $Sample\ Preparation:\ \ 2012\text{-}09\text{-}23$ Prepared By: YG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	U	1	< 4.00	mg/Kg	1	4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70 - 130

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Sample: 309521 - B Stockpile

Laboratory: Lubbock

Analysis: TPH ORO Analytical Method: S 8015 D Prep Method: N/AQC Batch: 94993 Analyzed By: CMDate Analyzed: 2012-09-20 Prep Batch: 80494 Sample Preparation: 2012-09-19 Prepared By: ${\rm CM}$

 MDL MQL PQL RLFlag Parameter Cert Result Result Result Result Units Dilution MDLMQL PQL RL \overline{ORO} 173 173 173 173 mg/Kg 17.1 50.0 50.0 50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			128	mg/Kg	1	100	128	61.5 - 159
n-Triacontane			134	mg/Kg	1	100	134	70 - 166

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Method Blanks

 $\overline{\text{DRO}}$

Method Blank (1) QC Batch: 94899

QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CW Prep Batch: 80416 QC Preparation: 2012-09-17 Prepared By: CW

< 9.09

mg/Kg

Spike Percent Recovery Units Limits Surrogate Flag Cert Result Dilution Amount Recovery 110 100 110 70 - 130 n-Tricosane mg/Kg

Method Blank (1) QC Batch: 94948

QC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CM Prep Batch: 80461 QC Preparation: 2012-09-18 Prepared By: CM

Spike Percent Recovery Surrogate Flag Cert Result Units Dilution Amount Recovery Limits 107 61.5 - 159 n-Tricosane mg/Kg 100 107 1 103 mg/Kg100 103 70 - 166n-Triacontane 1

Method Blank (1) QC Batch: 94993

QC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CM Prep Batch: 80494 QC Preparation: 2012-09-19 Prepared By: CM

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						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			102	mg/Kg	1	100	102	61.5 - 159
n-Triacontane			110	mg/Kg	1	100	110	70 - 166

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Method Blank (1) QC Batch: 95120

QC Batch: Date Analyzed: Analyzed By: YG 951202012 - 09 - 22Prep Batch: 80607 QC Preparation: Prepared By: 2012-09-22 YG

MDL Flag Parameter Cert Result Units RL0.02 Benzene 1 < 0.00470 mg/Kg Toluene < 0.00980 mg/Kg0.02 1 Ethylbenzene < 0.00500 mg/Kg0.02 1 mg/KgXylene < 0.0170 0.02

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			2.21	mg/Kg	1	2.00	110	70 - 130

Method Blank (1) QC Batch: 95131

QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YG Prep Batch: 80613 QC Preparation: 2012-09-22 Prepared By: YG

 MDL Parameter Flag Cert Result ${\rm Units}$ RL $\overline{\text{GRO}}$ < 1.22 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

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Method Blank (1) QC Batch: 95136

QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG

QC Preparation:

MDLUnits Parameter Flag Cert Result RLBenzene < 0.00470 mg/Kg 0.02 Toluene mg/Kg0.02 < 0.00980 Ethylbenzene mg/Kg0.02 1 < 0.00500 Xylene < 0.0170 mg/Kg0.02

2012-09-23

Prepared By:

YG

Spike Percent Recovery Units Surrogate Flag Cert Result Dilution Amount Recovery Limits Trifluorotoluene (TFT) 1.95 mg/Kg 2.00 70 - 130 1 98 2.23 70 - 130 4-Bromofluorobenzene (4-BFB) mg/Kg 1 2.00 112

Method Blank (1) QC Batch: 95142

Prep Batch:

80622

QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YG
Prep Batch: 80622 QC Preparation: 2012-09-23 Prepared By: YG

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			2.13	mg/Kg	1	2.00	106	70 - 130

Method Blank (1) QC Batch: 95156

QC Batch: 95156 Date Analyzed: 2012-09-25 Analyzed By: AR
Prep Batch: 80620 QC Preparation: 2012-09-25 Prepared By: AR

SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM Method Blank (1) QC Batch: 95157QC Batch: Date Analyzed: 2012-09-25 Analyzed By: AR 95157 Prep Batch: Prepared By: 80620 QC Preparation: 2012-09-25 ARMDLParameter Flag Cert ${\rm Units}$ RLResult Chloride < 3.85mg/Kg4 Method Blank (1) QC Batch: 95158QC Batch: 95158Date Analyzed: 2012 - 09 - 25Analyzed By: ARPrep Batch: 80620 QC Preparation: 2012 - 09 - 25Prepared By: AR MDLParameter Flag Cert Result Units RL

< 3.85

mg/Kg

4

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Chloride

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CW Prep Batch: 80416 QC Preparation: 2012-09-17 Prepared By: CW

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	252	mg/Kg	1	250	< 9.09	101	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	296	mg/Kg	1	250	< 9.09	118	70 - 130	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	118	119	mg/Kg	1	100	118	119	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CM Prep Batch: 80461 QC Preparation: 2012-09-18 Prepared By: CM

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	116	124	mg/Kg	1	100	116	124	61.5 - 159
n-Triacontane	118	125	mg/Kg	1	100	118	125	70 - 166

Laboratory Control Spike (LCS-1)

QC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CM Prep Batch: 80494 QC Preparation: 2012-09-19 Prepared By: CM

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	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	110	107	mg/Kg	1	100	110	107	61.5 - 159
n-Triacontane	109	108	mg/Kg	1	100	109	108	70 - 166

Laboratory Control Spike (LCS-1)

QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG Prep Batch: 80607 QC Preparation: 2012-09-22 Prepared By: YG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	1.65	mg/Kg	1	2.00	< 0.00470	82	70 - 130
Toluene		1	1.72	mg/Kg	1	2.00	< 0.00980	86	70 - 130
Ethylbenzene		1	1.76	mg/Kg	1	2.00	< 0.00500	88	70 - 130
Xylene		1	5.34	$\mathrm{mg/Kg}$	1	6.00	< 0.0170	89	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.70	mg/Kg	1	2.00	< 0.00470	85	70 - 130	3	20
Toluene		1	1.75	mg/Kg	1	2.00	< 0.00980	88	70 - 130	2	20
Ethylbenzene		1	1.79	mg/Kg	1	2.00	< 0.00500	90	70 - 130	2	20
Xylene		1	5.42	mg/Kg	1	6.00	< 0.0170	90	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.00	2.02	mg/Kg	1	2.00	100	101	70 - 130
4-Bromofluorobenzene (4-BFB)	2.30	2.30	mg/Kg	1	2.00	115	115	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YG Prep Batch: 80613 QC Preparation: 2012-09-22 Prepared By: YG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	22.1	mg/Kg	1	20.0	< 1.22	110	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Lea Co., NM

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	22.2	mg/Kg	1	20.0	< 1.22	111	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			$_{ m Spike}$	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.95	1.94	mg/Kg	1	2.00	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	2.19	2.20	mg/Kg	1	2.00	110	110	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95136Date Analyzed: 2012-09-23 Analyzed By: YG Prep Batch: 80622 Prepared By: YG QC Preparation: 2012-09-23

			LCS			$_{ m Spike}$	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	1.66	mg/Kg	1	2.00	< 0.00470	83	70 - 130
Toluene		1	1.79	mg/Kg	1	2.00	< 0.00980	90	70 - 130
Ethylbenzene		1	1.85	mg/Kg	1	2.00	< 0.00500	92	70 - 130
Xylene		1	5.62	$\mathrm{mg/Kg}$	1	6.00	< 0.0170	94	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.65	mg/Kg	1	2.00	< 0.00470	82	70 - 130	1	20
Toluene		1	1.80	mg/Kg	1	2.00	< 0.00980	90	70 - 130	1	20
Ethylbenzene		1	1.87	mg/Kg	1	2.00	< 0.00500	94	70 - 130	1	20
Xylene		1	5.69	mg/Kg	1	6.00	< 0.0170	95	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.99	1.98	mg/Kg	1	2.00	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	2.35	2.34	mg/Kg	1	2.00	118	117	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: Analyzed By: YG 95142Date Analyzed: 2012 - 09 - 23Prep Batch: 80622 QC Preparation: 2012-09-23 Prepared By: YG

SUG Historical Releases

GRO

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mg/Kg

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113

<1.22

20.0

Lea Co., NM

70 - 130

LCS Spike Matrix Rec.
Param F C Result Units Dil. Amount Result Rec. Limit

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

22.6

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	20.9	mg/Kg	1	20.0	<1.22	104	70 - 130	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.94	1.92	mg/Kg	1	2.00	97	96	70 - 130
4-Bromofluorobenzene (4-BFB)	2.26	2.24	mg/Kg	1	2.00	113	112	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95156 Date Analyzed: 2012-09-25 Analyzed By: AR
Prep Batch: 80620 QC Preparation: 2012-09-25 Prepared By: AR

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2640	mg/Kg	1	2500	< 3.85	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD	
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Chloride			2530	mg/Kg	1	2500	< 3.85	101	85 - 115	4	20	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR
Prep Batch: 80620 QC Preparation: 2012-09-25 Prepared By: AR

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2640	mg/Kg	1	2500	< 3.85	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2580	mg/Kg	1	2500	< 3.85	103	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 95158 Prep Batch: 80620 Date Analyzed: 2012-09-25 QC Preparation: 2012-09-25 Analyzed By: AR Prepared By: AR

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2500	mg/Kg	1	2500	< 3.85	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2580	mg/Kg	1	2500	< 3.85	103	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 309512

 QC Batch:
 94899
 Date Analyzed:
 2012-09-18

 Prep Batch:
 80416
 QC Preparation:
 2012-09-17

Analyzed By: CW Prepared By: CW

			MS			$_{ m Spike}$	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	279	mg/Kg	1	250	< 9.09	112	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	283	mg/Kg	1	250	< 9.09	113	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	124	119	mg/Kg	1	100	124	119	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 309505

QC Batch: 94948 Date Analyzed: 2012-09-19 Analyzed By: CM Prep Batch: 80461 QC Preparation: 2012-09-18 Prepared By: CM

MS Spike Matrix Rec. F \mathbf{C} Param Result Units Dil. Amount Result Rec. Limit ORO 58 - 129 < 17.1mg/Kg 250< 17.10 Qs Qs

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

RPD MSD Spike Matrix Rec. F Param \mathbf{C} Result Units Dil. Amount Result Rec. Limit RPD Limit ORO <17.1 250 <17.1 0 58 - 129 20 mg/Kg 1 0 Qs Qs

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	148	151	mg/Kg	5	100	148	151	61.5 - 159
n-Triacontane	152	148	mg/Kg	5	100	152	148	70 - 166

Matrix Spike (MS-1) Spiked Sample: 309506

QC Batch: 94993 Date Analyzed: 2012-09-20 Analyzed By: CM Prep Batch: 80494 QC Preparation: 2012-09-19 Prepared By: CM

MSMSD Spike MSMSD Rec. Surrogate Result Result Units Dil. Amount Rec. Rec. Limit 136 n-Tricosane 139 mg/Kg1 100 139 136 61.5 - 159 mg/Kg70 - 166 n-Triacontane 143 147 1 100 143 147

Matrix Spike (MS-1) Spiked Sample: 309227

QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG
Prep Batch: 80607 QC Preparation: 2012-09-22 Prepared By: YG

MS Spike Matrix Rec. Rec. Param \mathbf{C} Result Units Dil. Amount Result Limit Benzene 2.08 2.00 < 0.00470 104 70 - 130 mg/Kg 1 1 Toluene 2.16 mg/Kg 1 2.00 < 0.00980 108 70 - 1302.00 70 - 130 2.23 mg/Kg< 0.00500 Ethylbenzene 1 112

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Trunk O #3 (1RP-1509)

matrix	spikes	continued		

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Xylene		1	6.75	mg/Kg	1	6.00	< 0.0170	112	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

				MSD			Spike	Matrix		Rec.		RPD
Param		\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	Qr	Qr	1	1.60	mg/Kg	1	2.00	< 0.00470	80	70 - 130	26	20
Toluene	$_{ m Qr}$	$_{ m Qr}$	1	1.65	mg/Kg	1	2.00	< 0.00980	82	70 - 130	27	20
Ethylbenzene	$_{ m Qr}$	$_{ m Qr}$	1	1.68	mg/Kg	1	2.00	< 0.00500	84	70 - 130	28	20
Xylene	$_{ m Qr}$	$_{ m Qr}$	1	5.10	mg/Kg	1	6.00	< 0.0170	85	70 - 130	28	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.00	2.03	mg/Kg	1	2	100	102	70 - 130
4-Bromofluorobenzene (4-BFB)	2.30	2.32	mg/Kg	1	2	115	116	70 - 130

Matrix Spike (MS-1) Spiked Sample: 309227

QC Batch: Analyzed By: YG 95131 Date Analyzed: 2012-09-22 Prep Batch: 80613 QC Preparation: 2012-09-22 Prepared By: YG

				MS			Spike	Matrix		Rec.
Param		\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	Qs	Qs	1	28.0	mg/Kg	1	20.0	< 1.22	140	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	24.1	mg/Kg	1	20.0	< 1.22	120	70 - 130	15	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			$_{ m Spike}$	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.03	1.98	mg/Kg	1	2	102	99	70 - 130
4-Bromofluorobenzene (4-BFB)	2.34	2.32	mg/Kg	1	2	117	116	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 309516

QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG Prep Batch: 80622 QC Preparation: 2012-09-23Prepared By: YG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	1.75	mg/Kg	1	2.00	< 0.00470	88	70 - 130
Toluene		1	1.95	mg/Kg	1	2.00	< 0.00980	98	70 - 130
Ethylbenzene		1	2.02	mg/Kg	1	2.00	< 0.00500	101	70 - 130
Xylene		1	6.14	mg/Kg	1	6.00	< 0.0170	102	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.74	mg/Kg	1	2.00	< 0.00470	87	70 - 130	1	20
Toluene		1	1.91	mg/Kg	1	2.00	< 0.00980	96	70 - 130	2	20
Ethylbenzene		1	2.00	mg/Kg	1	2.00	< 0.00500	100	70 - 130	1	20
Xylene		1	6.08	mg/Kg	1	6.00	< 0.0170	101	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.97	1.94	mg/Kg	1	2	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	2.34	2.32	mg/Kg	1	2	117	116	70 - 130

Matrix Spike (MS-1) Spiked Sample:

QC Batch: Date Analyzed: Analyzed By: YG 95142 2012-09-23 Prep Batch: 80622 Prepared By: YG QC Preparation: 2012-09-23

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	16.8	mg/Kg	1	20.0	< 1.22	84	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	18.5	mg/Kg	1	20.0	< 1.22	92	70 - 130	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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matrix	spikes	continued		

Surrogate	$rac{MS}{Result}$	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.92	1.90	mg/Kg	1	2	96	95	70 - 130
4-Bromofluorobenzene (4-BFB)	2.23	2.26	mg/Kg	1	2	112	113	70 - 130

Matrix Spike (MS-1) Spiked Sample: 309508

QC Batch: 95156

Date Analyzed: 201

2012-09-25 Analyzed By: AR 2012-09-25 Prepared By: AR

Prep Batch: 80620

QC Preparation: 2012-09-25

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2500	mg/Kg	5	2500	63.4	97	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2620	mg/Kg	5	2500	63.4	102	78.9 - 121	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 309518

 QC Batch:
 95157
 Date Analyzed:
 2012-09-25

 Prep Batch:
 80620
 QC Preparation:
 2012-09-25

Date Analyzed: 2012-09-25 Analyzed By: AR QC Preparation: 2012-09-25 Prepared By: AR

			MS			Spike	Matrix		Rec.
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2470	mg/Kg	5	2500	76.6	96	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2560	mg/Kg	5	2500	76.6	99	78.9 - 121	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spike (MS-1) Spiked Sample: 309521

Chloride

QC Batch: 95158 Date Analyzed: 2012-09-25 Analyzed By: AR
Prep Batch: 80620 QC Preparation: 2012-09-25 Prepared By: AR

Param MS Spike Matrix Rec.

F C Result Units Dil. Amount Result Rec. Limit

mg/Kg

5

2500

80.3

91

78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

2350

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2470	mg/Kg	5	2500	80.3	96	78.9 - 121	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 54 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Calibration Standards

Standard (CCV-1)

QC Batch: 94899	Date Analyzed: 2012-09-18	Analyzed By: CW

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	270	108	80 - 120	2012-09-18

Standard (CCV-2)

QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CW

				$\begin{array}{c} { m CCVs} \\ { m True} \end{array}$	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	$\begin{array}{c} { m CCVs} \\ { m Percent} \end{array}$	Percent Recovery	Date
				Truc	1 oana	1 CICCIII	recevery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	281	112	80 - 120	2012-09-18

Standard (CCV-3)

QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CW

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	249	100	80 - 120	2012-09-18

Standard (CCV-4)

QC Batch: 94899 Date Analyzed: 2012-09-18 Analyzed By: CW

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	272	109	80 - 120	2012-09-18

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 55 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Standard (CCV-1)

QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0995	100	80 - 120	2012-09-22
Toluene		1	mg/kg	0.100	0.100	100	80 - 120	2012-09-22
Ethylbenzene		1	mg/kg	0.100	0.0955	96	80 - 120	2012-09-22
Xylene		1	mg/kg	0.300	0.291	97	80 - 120	2012-09-22

Standard (CCV-2)

QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0987	99	80 - 120	2012-09-22
Toluene		1	mg/kg	0.100	0.0986	99	80 - 120	2012-09-22
Ethylbenzene		1	mg/kg	0.100	0.0933	93	80 - 120	2012-09-22
Xylene		1	mg/kg	0.300	0.282	94	80 - 120	2012-09-22

Standard (CCV-3)

QC Batch: 95120 Date Analyzed: 2012-09-22 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0976	98	80 - 120	2012-09-22
Toluene		1	mg/kg	0.100	0.0975	98	80 - 120	2012-09-22
Ethylbenzene		1	mg/kg	0.100	0.0927	93	80 - 120	2012-09-22
Xylene		1	mg/kg	0.300	0.280	93	80 - 120	2012-09-22

Standard (CCV-1)

QC Batch: 95131 Date Analyzed: 2012-09-22 Analyzed By: YG

Report Date: September 26, 2012 SUG Historical Releases Work Order: 12091440Trunk O #3 (1RP-1509) Page Number: 56 of 60 Lea Co., NM

				CCVs	CCVs	CCVs	Percent	
								D /
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	m mg/Kg	1.00	0.984	98	80 - 120	2012-09-22

Standard (CCV-2)

QC Batch: 95131

Date Analyzed: 2012-09-22

Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.965	96	80 - 120	2012-09-22

Standard (CCV-3)

 $QC \ Batch: \ 95131$

Date Analyzed: 2012-09-22

Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.928	93	80 - 120	2012-09-22

Standard (CCV-1)

QC Batch: 95136

Date Analyzed: 2012-09-23

Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0940	94	80 - 120	2012-09-23
Toluene		1	mg/kg	0.100	0.0990	99	80 - 120	2012-09-23
Ethylbenzene		1	mg/kg	0.100	0.0955	96	80 - 120	2012-09-23
Xylene		1	mg/kg	0.300	0.290	97	80 - 120	2012-09-23

Standard (CCV-2)

QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 57 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0861	86	80 - 120	2012-09-23
Toluene		1	mg/kg	0.100	0.0958	96	80 - 120	2012-09-23
Ethylbenzene		1	mg/kg	0.100	0.0946	95	80 - 120	2012-09-23
Xylene		1	mg/kg	0.300	0.287	96	80 - 120	2012-09-23

Standard (CCV-3)

QC Batch: 95136 Date Analyzed: 2012-09-23 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/kg	0.100	0.0858	86	80 - 120	2012-09-23
Toluene		1	mg/kg	0.100	0.0957	96	80 - 120	2012-09-23
Ethylbenzene		1	mg/kg	0.100	0.0944	94	80 - 120	2012-09-23
Xylene		1	mg/kg	0.300	0.285	95	80 - 120	2012-09-23

Standard (CCV-1)

QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.966	97	80 - 120	2012-09-23

Standard (CCV-2)

QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.922	92	80 - 120	2012-09-23

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Standard (CCV-3)

QC Batch: 95142 Date Analyzed: 2012-09-23 Analyzed By: YG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.920	92	80 - 120	2012-09-23

Standard (CCV-1)

QC Batch: 95156Date Analyzed: 2012-09-25 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-09-25

Standard (CCV-2)

QC Batch: 95156Date Analyzed: 2012-09-25 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2012-09-25

Standard (CCV-1)

QC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			${ m mg/Kg}$	100	97.7	98	85 - 115	2012-09-25

Standard (CCV-2)

QC Batch: 95157 Date Analyzed: 2012-09-25 Analyzed By: AR Report Date: September 26, 2012 SUG Historical Releases Work Order: 12091440Trunk O #3 (1RP-1509) Page Number: 59 of 60 Lea Co., NM

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2012-09-25

Standard (CCV-1)

QC Batch: 95158 Date Analyzed: 2012-09-25 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	99.7	100	85 - 115	2012-09-25

Standard (CCV-2)

QC Batch: 95158 Date Analyzed: 2012-09-25 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2012-09-25

Report Date: September 26, 2012 Work Order: 12091440 Page Number: 60 of 60 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
 - U The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

14091440 LAB Order ID#

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рюн - TPH- 6/2. Michael-nitolen Turn Around Time if different from standard Check If Special Reporting Limits Are Needed As, Ca, Mg, K, TDS, EC NO₃-U, NO₂-U, PO₄-P, Alkalinity os" 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Circle or Specify Method No.) Tel (972) 242-7750 Content Moisture Page Hq ,22T BOD' Dry Weight Basis Required ANALYSIS REQUEST 803 \ A1808 **sebioitse9** TRKP Report Required PCB's 8082 / 608 2 / 129538 8270C/625 JoV GC/MS Semi. 8560B / 624 CC/WZ AOL BCI **TCLP Pesticides** TCLP Semi Volatiles El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 **ICLP Volatiles** ICLP Metals Ag As Ba Cd Cr Pb Se Hg eadspace Y / N/NA otal Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7 AB USE ONLY PAH 8270C / 625 -og-in Review 418.1 \ TX1005 \ DRO \ TVHC XaTa 8021B / 602 / 8260B / 624 ntact 80218 / 602 / 82608 / 624 **38TN** 514600:10 L#12 Or.73 4.14400:30 5.14R09:40 14 A 05 30 SAMPLING 00.04.(20.00 1 14 13 h 20 E.N 2/1/ 002 Basin Street, Suite & Midland, Texas 79703 4.14/2/16.10 **TIME** Tel (432) 689-6301 Fax (432) 689-6313 9 HIGH. OBS 3.9 INST TX Trunk "O" #3 (1RP-1509) SSOBS 3.1 **DATE** INST COR ose.slade@sug.com OBS_ COR_ INST pm@basinenv.com 575-396-2378 575-396-1429 NONE RESERVATIVE METHOD ICE Time: Time: Time: 21/41/ HOBN 12/2 ⁷OS⁷H ubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Date: ONH σ 9 HCF Southern Union Gas Services E BEER Project Name: 205 Company Company Company STUDGE Signature: MATRIX 4 Phone #: Sampler E-mail: AIR Fax #: TIOS **NATER** TraceAnalysis, Inc. Basin Environmental Service Technologies eceived by Received by: JnuomA\amulo\ Rose Slade (SUG) Joel Lowry (Basin) email: lab@traceanalysis.com # CONTAINERS SUG Historical Releases Lea County, New Mexico Lovington, NM, 88260 Submittal of samples constitutes agreement to Terms and Conditions 8.30 rime: īme: P.O. 301 9/11/10 FIELD CODE 3 North Wal Date: Date: Date: 3 Stock 2 Sout South Nest ナーのク Vert h 1987 Company AT. Project Location: ompany Name: Contact Person: S.C.S. S.C.S.S Relinguished by elinguished by 0 V 8 $\frac{8}{2}$ V include state) LAB USE z 5 LAB# CFSC. ONLY voice to: roject #: ddress: Relinguis

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LAB Order ID # 12C9/440

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Check If Special Reporting Limits Are Needed 49' C9' MQ, K, TDS, EC NO₃-N, NO₂-N, PO₄-P, Alkalinity os° 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Circle or Specify Method No. Tel (972) 242-7750 Moisture Content Hq ,22T BOD' Dry Weight Basis Required **ANALYSIS REQUEST** 803 \ A1808 Pesticides TRRP Report Required BCB.2 8082 \ 608 ZP 12 9538 Vol. GC/MS Semi. 8510C/625 3C/W2 AOI 8560B / 654 3Cl REMARKS TCLP Pesticides TCLP Semi Volatiles El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 CLP Metals Ag As Ba Cd Cr Pb Se Hg Headspace Y / N /NA 60108 / 200.7 Total Metals Ag As Ba Cd Cr Pb Se Hg 8 LAB USE Y/N ONLY 8270C / 625 Log-in Reviev 418.1 / TX1005 / DRO / TVHC Carrier# 80218 / 602 / 82608 / 624 **X**3T8 ntact 1 602 / 8260B / 624 80218 **38TM** OBS 3.4 °C 1/1/20 1.14/3/a/59 1.14.12.1500 02,118/1/ SAMPLING J#/311.10 COR ZZ 3 02 Basin Street, Suite / Wildland, Texas 79703 LIME Tel (432) 689-6301 Fax (432) 689-6313 4.44.4 Trunk "O" #3 (1RP-1509) 0BS 3. **3TA**d 9'15 COR_ SOR OBS INST ose.slade@sug.com INST pm@basinenv.com 575-396-2378 575-396-1429 PRESERVATIVE NONE Siso Time: Time: ICE METHOD 0/8/ NaOH [†]OS^ZH 14 Date: Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Date: Lubbock, Texas 79424 Date: [€]ONH HCF Southern Union Gas Services Company: 3 Project Name: Company STUDGE Company Sampler Signature: MATRIX Phone #: ЯΙΑ E-mail: Fax#: TIOS **MATER** Received by: Received by: Basin Environmental Service Technologies ved by: FraceAnalysis, Inc. JnuomA\əmulo\ Rose Slade (SUG) Joel Lowry (Basin) # CONTAINERS email: lab@traceanalysis.com **SUG Historical Releases** Lea County, New Mexico Lovington, NM, 88260 Submittal of samples constitutes agreement to Terms and Conditions Time: Time: P.O. 301 るれ アニ 歩く FIELD CODE Date: West INA cast Wall + Jool + Flant Stock Ole Company: Company N L S Relinquished by: ر ∞ Project Location: Company Name: Contact Person: Relinquished include state) LAB USE paysing LAB# ONLY nvoice to: roject #: Address:

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Turn Around Time if different from standard



(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242 •7750

E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Rose Slade Southern Union Gas Services, Ltd.-Monahans 801 S. Loop 464 Monahans, TX, 79756

Project Location: Lea Co., NM

Project Name: Trunk O #3 (1RP-1509) Project Number: SUG Historical Releases

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	rime	Date
Sample	Description	Matrix	Taken	Taken	Received
310612	A Floor @ 4'	soil	2012-10-01	10:00	2012-10-02

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

Report Date: October 2, 2012

12100211

Work Order:

Report Contents

Case Narrative	3
Analytical Report Sample 310612 (A Floor @4')	4
Method Blanks QC Batch 95393 - Method Blank (1)	5
Laboratory Control Spikes QC Batch 95393 - LCS (1)	6
Calibration Standards	7
QC Batch 95393 - CCV (1)	7
QC Batch 95393 - CCV (1)	7
Appendix	8
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Laboratory Certifications	8
Standard Flags	8
Attachments	

Case Narrative

Samples for project Trunk O #3 (1RP-1509) were received by TraceAnalysis, Inc. on 2012-10-02 and assigned to work order 12100211. Samples for work order 12100211 were received intact at a temperature of 6.4 C. Sample was received on ice.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	80831	2012-10-02 at 09:51	95393	2012-10-02 at 14:52

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12100211 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: October 2, 2012 Work Order: 12100211 Page Number: 4 of 8 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Analytical Report

Sample: 310612 - A Floor @ 4'

Laboratory: Midland

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A QC Batch: 95393 Date Analyzed: 2012-10-02 Analyzed By: AR Prep Batch: 80831 Sample Preparation: 2012-10-02 Prepared By: AR

 Report Date: October 2, 2012 Work Order: 12100211 Page Number: 5 of 8 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Method Blanks

Method Blank (1) QC Batch: 95393

QC Batch: 95393 Date Analyzed: 2012-10-02 Analyzed By: AR Prep Batch: 80831 QC Preparation: 2012-10-02 Prepared By: AR

Report Date: October 2, 2012 Work Order: 12100211 Page Number: 6 of 8 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 95393 Date Analyzed: 2012-10-02 Analyzed By: AR Prep Batch: 80831 QC Preparation: 2012-10-02 Prepared By: AR

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			2500	mg/Kg	1	2500	< 3.85	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			2560	mg/Kg	1	2500	< 3.85	102	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 310612

QC Batch: 95393 Date Analyzed: 2012-10-02 Analyzed By: AR
Prep Batch: 80831 QC Preparation: 2012-10-02 Prepared By: AR

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			3030	mg/Kg	5	2500	477	102	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			3130	mg/Kg	5	2500	477	106	78.9 - 121	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: October 2, 2012 Work Order: 12100211 Page Number: 7 of 8 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Calibration Standards

Standard (CCV-1)

QC Batch: 95393 Date Analyzed: 2012-10-02 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	99.3	99	85 - 115	2012-10-02

Standard (CCV-2)

QC Batch: 95393 Date Analyzed: 2012-10-02 Analyzed By: AR

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mø/Kø	100	101	101	85 - 115	2012-10-02

Report Date: October 2, 2012 Work Order: 12100211 Page Number: 8 of 8 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
 - U The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242 •7750

E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Rose Slade Southern Union Gas Services, Ltd.-Monahans 801 S. Loop 464 Monahans, TX, 79756

Project Location: Lea Co., NM

Project Name: Trunk O #3 (1RP-1509) Project Number: SUG Historical Releases

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	1 me	Date
Sample	Description	Matrix	Taken	Taken	Received
311176	A Floor @ 5'	soil	2012-10-03	13:00	2012-10-05

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director Dr. Michael Abel, Project Manager

Report Date: October 9, 2012

12100535

Work Order:

Report Contents

Case Narrative	:
Analytical Report Sample 311176 (A Floor @5')	4
Method Blanks	5
QC Batch 95557 - Method Blank (1)	
QC Batch 95557 - MS (1)	Ę
Calibration Standards	6
QC Batch 95557 - ICV (1)	(
QC Batch 95557 - CCV (1)	6
Appendix	7
Report Definitions	7
Laboratory Certifications	7
Report Definitions	7
Attachments	7

Case Narrative

Samples for project Trunk O #3 (1RP-1509) were received by TraceAnalysis, Inc. on 2012-10-05 and assigned to work order 12100535. Samples for work order 12100535 were received intact at a temperature of 7.9 C. Sample was received on ice.

Samples were analyzed for the following tests using their respective methods.

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
Chloride (Titration)	SM 4500-Cl B	80979	2012-10-09 at 12:00	95557	2012-10-09 at 12:17

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12100535 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: October 9, 2012 Work Order: 12100535 Page Number: 4 of 7 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Analytical Report

Sample: 311176 - A Floor @ 5'

Laboratory: Lubbock

Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A QC Batch: 95557 Date Analyzed: 2012-10-09 Analyzed By: LMPrep Batch: 80979 Sample Preparation: 2012-10-09 Prepared By: LM

 Report Date: October 9, 2012 Work Order: 12100535 Page Number: 5 of 7 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Method Blanks

Method Blank (1) QC Batch: 95557

QC Batch: 95557 Date Analyzed: 2012-10-09 Analyzed By: LM Prep Batch: 80979 QC Preparation: 2012-10-09 Prepared By: LM

Matrix Spike (MS-1) Spiked Sample: 311176

QC Batch: 95557 Date Analyzed: 2012-10-09 Analyzed By: LM Prep Batch: 80979 QC Preparation: 2012-10-09 Prepared By: LM

			MS			Spike	Matrix		Rec.
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride			500	mg/Kg	1	500	10	98	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride			505	mg/Kg	1	500	10	101	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: October 9, 2012 Work Order: 12100535 Page Number: 6 of 7 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Calibration Standards

Standard (ICV-1)

QC Batch: 95557 Date Analyzed: 2012-10-09 Analyzed By: LM

				ICVs	ICVs	ICVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2012-10-09

Standard (CCV-1)

QC Batch: 95557 Date Analyzed: 2012-10-09 Analyzed By: LM

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride			mg/Kg	100	98.0	98	85 - 115	2012-10-09

Report Date: October 9, 2012 Work Order: 12100535 Page Number: 7 of 7 SUG Historical Releases Trunk O #3 (1RP-1509) Lea Co., NM

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
_	WBE	237019	TraceAnalysis

Standard Flags

- F Description
- B Analyte detected in the corresponding method blank above the method detection limit
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Qsr Surrogate recovery outside of laboratory limits.
 - U The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

12/100535 LAB Order ID#

₽

Page

Na, Ca, Mg, K, TDS, EC 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Tel (972) 242-7750 NO₃-N, NO₂-N, PO₄-P, Alkalinity 'bos Circle or Specify Method No. Moisture Content BOD' 24 4 Av. T. P. Dry Weight Basis Required ANALYSIS REQUEST Pesticides 809 \ A t 808 Check If Special Repor TRRP Report/Require GC/MS Semi. Vol. 8270C/625 GC/MS AOI: 8260B / 624 **BCI** REMARKS TCLP Pesticides TCLP Semi Volatiles Carrier # (D) LAN LAN 200 East Sunset Rd., Suite El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 Headspace Y / N /((A) TCLP Metals Ag As Ba Cd Cr Pb Se Hg Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7 LAB USE N ONLY Log-in Review PH 418.1 / TX1005 / DRO / TVHC BTEX 8021B / 602 / 8260B / 624 ntact MTBE 8021B / 602 / 8260B / 624 ပ္ပပ 1300 SAMPLING 5002 Basin Street, Suite A Midland, Texas 79703 **TIME** Tel (432) 689-6301 Fax (432) 689-6313 Lolly A Lakewolf Trunk "O" #3 (1RP-1509) 10/3 **JTA**0 19/5/12 11:18 COR rose.slade@sug.com OBS pm@basinenv.com OBS COR COR INST INST INST 575-396-2378 575-396-1429 PRESERVATIVE NONE 0715 E e Time: E E METHOD ICE NaOH [⊅]OS^ZH 05/17 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Date 701 Aberdeen Ave, Ste HCF Southern Union Gas Services Project Name: Company: Company: Sampler Signature: STUDGE MATRIX Phone #: ЯІА Fax #: E-mail: POIL **MATER** Basin Environmental Service Technologies TraceAnalysis, Inc. Received by Received by **JnuomA\amuloV** Rose Slade (SUG) Joel Lowry (Basin) # CONTAINERS email: lab@traceanalysis.com **SUG Historical Releases** Lea County, New Mexico Lovington, NM, 88260 Time: 7:15 Time: ij H P.O. 301 2/15/11/2 FIELD CODE Date: Date: Date: 10/5 Company Company: Company Floor @ 5' SAN X Lackwood May Nah ⋖ Relinduished by: Q Relinquished by Relinquished by Project Location: Company Name: Contact Person: include state) LAB USE LAB# ONLY Invoice to: Project #: Address:

RUSH

Turn Around Time if different from standard

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

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 33 123456
Energy Minerals and Natural Resources
Oil Conservation Division

Oil Conservation Division AUG 2007

Form C-141 Revised October 10, 2003

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

Tronk o #3 Release Notification and Corrective Action											
						OPERA	TOR,	., 91/g	N Initia	al Report_	Final Report
Name of Co	mpany	South	ern Unio	n Gas Services,	Ltd.	Contact		معار			Tony Savoie
Address		P.C		26 Jal, N.M. 88		Telephone 1					505-395-2116
Facility Na	me		Lea	County Field I	Dept.	Facility Typ	<u>e</u>			Natu	ural Gas Gathering
Surface Ow	ner: Math	ew Casey		Mineral C)wner:	Fee			Lease N	lo.	
				LOCA	ATIO	N OF RE	LEASE				
Unit Letter N	Section 27	Township 22S	Range 36E	Feet from the	North	n/South Line	Feet from the	East/\	West Line	County	Lea
			-			1 Longitud COF REL	e W103 15.408 EASE	8			
Type of Rele	ase : Crude	Oil, Produced	l water, an	d Natural Gas		Volume of	Release: 50 Bbls			Recovered	0 Bbls crude Oil
- CP	1 20"	N. 1.0 D			_		60 MCF Nat. Gas			iced water	7/21/07
Source of Re	lease: 30	Natural Gas P	ipeiine			not known	lour of Occurrenc	e	Time: 7:0		scovery 7/21/07
Was Immedi	ate Notice (Yes [No Not R	equired	If YES, To	Whom? on call representat	ive			
By Whom? T	Tony Savoie					Date and F	Tour: 7/21/07 7:15	p.m.			
Was a Water		ched?	Yes ⊠] No		If YES, Volume Impacting the Watercourse.					
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.	k							
				Action Taken.*							
											up and leak fluid
and natural arrived on s		s began snut	ting the ii	ne in at 7:45 pn	1. All (of the fluid ic	st had soaked in	nto the	ground be	tore the va	cuum trucks
	itc.										
Describe Are	a Affected	and Cleanup A	Action Tak	en. Approximate	ly 5100	Square feet o	f pasture land and	approx	imately 36'	72 square fe	et of caliche lease
				tions were taken and the suidelines for the							
I hereby certi	fy that the i	nformation gi	ven above	is true and comp	lete to	the best of my	knowledge and u	nderstar	nd that purs	uant to NM	OCD rules and
							nd perform correc				
public health or the environment. The acceptance of a C-141 report by the N											
should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other											
federal, state, or local laws and/or regulations.											
OIL CONSERVATION DIVISION									<u>)N</u>		
Signature:	Tony Sa	voie					Frida	Enac	_		
Printed Name	gn		ව <i>ග</i>	John A. Savoie		Approved by District Supervisor:					
Title:	<u> </u>	· 	Remed	diation Supervisor	r	Approval Dat	e: B-2/D7	,]	Expiration	Date: 10	20.07
E-mail Addre	ess:		tony.savoi	e@sug.com		Conditions of	Approval:			Attached	A .

* Attach Additional Sheets If Necessary

Phone: 505-395-2116

Date: 7/31/07

SUBMIT FINAL C-14! W SUPPORTING DOCUMENTATION BY

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 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

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

Form C-141

Revised October 10, 2003

side of form

Release Notification and Corrective Action

	OPERATOR	Initial Report								
Name of Company Regency Field Services	Contact Crystal C									
Address 801 S. Loop 464, Monahans, TX, 79756	Telephone No. 817-302-9407									
Facility Name: Trunk "O" #3 (RP-1509) Lea County Field Dept.	Facility Type Natural Gas Gatherin									
Surface Owner Mathew Casey Mineral Owner:	Fee	Lease No.								
LOCATIO	N OF RELEASE									
		ast/West Line County								
N 27 22S 36E		Lea								
Latitude N32 21.511 Longitude W103 15.408										
NATURE OF RELEASE										
Type of Release Crude Oil, Produced water and Natural Gas	Volume of Release 50 Bbls Flu and 360 MCF Nat. Gas	id Volume Recovered 0 Bbls crude Oil and produced water								
Source of Release 30" Natural Gas Pipeline	Date and Hour of Occurrence	Date and Hour of Discovery 7/21/07								
Was Immediate Notice Given?	7/23/07 4:15 p.m. If YES, To Whom?	Time: 7:00 p.m.								
☐ Yes ☐ No ☐ Not Required		9								
By Whom? Tony Savoie	Date and Hour: 7/21/07 7:15 p.:									
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the V	Watercourse.								
If a Watercourse was Impacted, Describe Fully.*										
Describe Cause of Problem and Remedial Action Taken: A 30" Natural Gas gathering line developed a leak due to excess fluid delivered by a producer cause the line to pressure up and leak fluid and natural gas. Crews began shutting the line in at 7:45 pm. All of the fluid lost had soaked into the ground before the vacuum trucks arrived on site.										
Describe Area Affected and Cleanup Action Taken. Approximately 5,10 road was impacted by the release. No cleanup actions were taken at the t the remediation of leaks and spills.	00 square feet of pasture land and a ime of the release. The final remed	pproximately 3,672 square feet of caliche lease liation will follow the NMOCD Guidelines for								
On or around August 15, 2007, remediation activities were conducted longer affiliated with the site. On August 10, 2012, the site was revisi analytical results from confirmation soil samples indicated concentral remediation action levels.	ted; the excavation floor and side	ewalls were advanced until laboratory								
Please see the attached Basin Environmental Services Technologi activities and laboratory analytical results from confirmation soil san		ite Closure Request for details of remedial								
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: Until Callace	OIL CONSERVATION DIVISION									
Printed Name: Crystal Callaway	Approved by District Supervisor:									
	Approval Date:	Expiration Date:								
E-mail Address: Crystal.Callaway@Regencygas.com	Conditions of Approval:									
Date: 10/13/2014 Phone: 817-807-9407										