

SITE CLOSURE REPORT

SUNOCO DENTON/LOVINGTON STATION

UNIT B, SECTION 9, TOWNSHIP 16 SOUTH, RANGE 37 EAST EAST OF LOVINGTON LEA COUNTY, NEW MEXICO

RECEIVED

Prepared for:

OCT 2 2 2010 HOBBSOCD

Sunoco, Inc. 401 Cypress, Ste 610 Abilene, Texas 79601



Prepared by:

NOVA Safety and Environmental 2057 Commerce Drive Midland, Texas 79703

October 2010

Ronald K. Rounsaville Senior Project Manager Brittan K. Byerly, P.G. President

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1.0 INTRODUCTION

NOVA Safety and Environmental (NOVA), is pleased to submit to Sunoco, Inc (Sunoco) this Site Closure Report (SCR) for the former tank battery site known as Sunoco Denton/Lovington Station. The Sunoco Denton/Lovington Station site is a former tank battery location and was decommissioned in 2006 with the removal of the tanks and all ancillary equipment. The former tank battery site is located in Unit B, Section 9, Township 16 South, Range 37 East, Lea County, New Mexico. A Site Location Map is provided as Figure 1.

2.0 NMOCD SITE CLASSIFICATION

Groundwater in the vicinity of this site occurs at approximately fifty (50) feet bgs. This depth to groundwater results in a score of 20 being assigned to this site based on the NMOCD ranking criteria. The distance to the nearest water source exceeds 1,000 feet, resulting in no points being assigned to the site on this ranking criterion. There is no surface water body located with 1,000 feet of the site, resulting in no points being assigned on this ranking criterion.

The NMOCD's Guidelines for Remediation of Leaks, Spills and Releases (NMOCD, 1993), indicates the Sunoco Denton/Lovington Station site has a ranking score of 20 points. The soil cleanup levels for a site with a ranking score greater than 19 require benzene concentrations below 10 parts per million (ppm), total BTEX concentrations below 50 ppm and TPH-GRO/DRO concentrations below 100 ppm.

3.0 SUMMARY OF FIELD ACTIVITIES

3.1 Impacted Soil Removal

In 2006, the Denton/Lovington Tank Battery was dismantled and all tanks and ancillary equipment were removed from the site. Following the removal of the battery equipment, the soils underlying the tanks, firewall berms and sidewalls were excavated to a depth of approximately two feet below ground surface (bgs). Impacted soils excavated from within the former battery were transported to the J&L Landfarm facility in Eunice, New Mexico for disposal. Clean, non-impacted material from a nearby source was used to backfill the excavation area.

On August 16, 2010, NOVA Safety and Environmental (NOVA) mobilized equipment to the site to over-excavate the former tank battery area and collect confirmation soil samples from the battery floor and side walls to determine that soil concentrations underneath the former battery were below NMOCD regulatory standards.

Based on visual and olfactory observations, excavation activities were suspended pending the analytical results of confirmation soil samples collected at locations within the excavation area. The final excavation measured approximately 50 feet in length by 27 feet in width and averaged approximately 2-½ feet in depth. Figure 2 is a Site Details and Confirmation Soil Sample Locations Map displaying the tank battery, excavation areas and other site details.

3.2 Excavated Soil Remediation

Impacted soil from the 2006 excavation activity was transported to the J&L Landfarm facility in Eunice, New Mexico for disposal. Clean, non-impacted material from a nearby source was used to backfill the excavation area.

3.3 Confirmation Soil Sampling and Analytical Results

On August 16, 2010, following excavation activities, six confirmation soil samples were collected from the excavation sidewalls and floor area beneath each former tank. All samples were collected utilizing standard soil sampling protocol as stated in NMOCD guidelines. Laboratory submitted samples were placed in sterile glass containers, equipped with a Teflon-lined lid furnished by the laboratory. The samples were labeled, placed on ice, chilled to a temperature of approximately 4°C and transported to Trace Analysis, Inc in Midland, Texas for analysis of Benzene, Toluene, Ethyl-benzene and Xylenes (BTEX) by EPA method 8021B, Total Petroleum Hydrocarbons (TPH) by EPA method 8015 and Chlorides by EPA method SM 4500-C1B. Appropriate chain-of-custody documentation and shipping protocols were followed. The laboratory analytical reports are provided in Appendix A. For reference, Figure 2 displays the locations of the confirmation soil samples and Table 1 presents the analytical results for the laboratory analyzed soil samples.

The analytical results of these six samples indicated TPH and BTEX concentrations were below the NMOCD regulatory standards of 100 mg/Kg and 50 mg/Kg, respectively, with the exception of three soil samples collected from the excavation sidewalls identified as South Side Wall, East Side Wall and West Side Wall. The analytical results for samples collected from the excavation sidewalls exhibited total petroleum hydrocarbon (TPH) concentrations ranging from 88.5 mg/Kg to 181 mg/Kg. Analytical results for chlorides on the six soil samples exhibited concentrations below 200 mg/Kg.

On August 31 and September 27, 2010, upon receipt of initial analytical results, the area surrounding the impacted South, West and East Side Walls were excavated further to the south, west and east approximately 1-2 feet. Confirmation soil sample were collected from the walls and submitted for laboratory analysis. The analytical results of the three soil samples indicated TPH and BTEX concentrations were below the NMOCD regulatory standards of 100 mg/Kg and 50 mg/Kg, respectively.

3.4 Backfilling and Surface Restoration

The entire excavation area was backfilled following receipt of the confirmation analytical results and the site was restored to original grade. Caliche material from the driveway was removed and clean top soil was placed down and reseeded with a mixture required by the New Mexico State Land Office.

4.0 SUMMARY AND REQUEST FOR CLOSURE

Based on the analytical results of laboratory analyzed confirmation soil samples obtained from the excavation floor and side walls, the area below the former tank battery are below applicable NMOCD clean up levels. NOVA on behalf of Sunoco, Inc. respectfully requests that the NMOCD grant closure to the Sunoco Denton/Lovington Station site.

5.0 LIMITATIONS

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

This report has been prepared for the benefit of Sunoco, Inc. The information contained in this report including all exhibits and attachments may not be used by any other party without the express written consent of NOVA and/or Sunoco, Inc.

6.0 DISTRIBUTION

Sunoco, Inc. Denton/Lovington Station, Crude Oil Tank Battery Site Closure Report

Copy 1, 2 & 3: Craig Rutland

Sunoco, Inc

401 Cypress, Suite 610 Abilene, Texas 79601

Copy 4: Geoffrey Leking

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

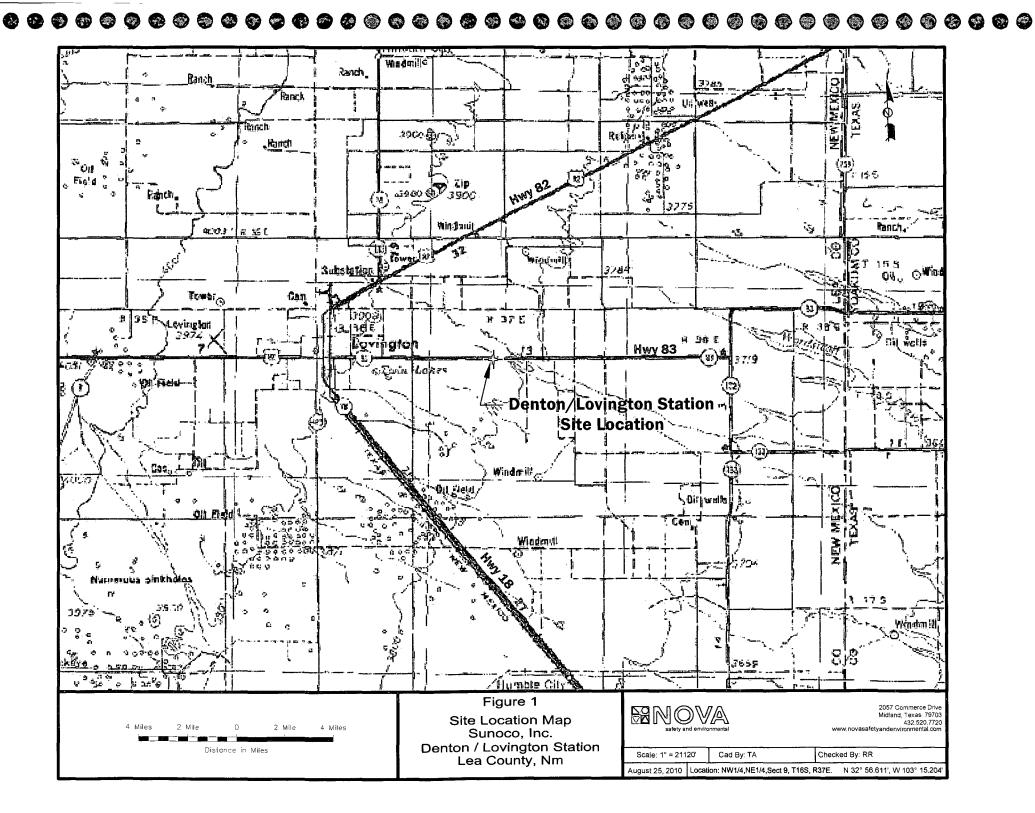
1625 French Drive Hobbs, NM 88240

Copy 5: NOVA Safety and Environmental

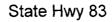
2057 Commerce Street Midland, TX 79703

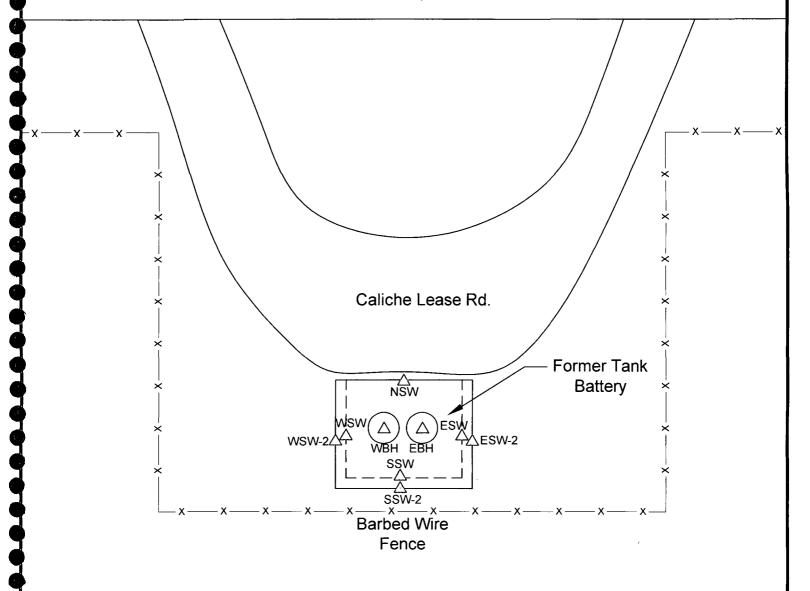
rrounsaville@novatraining.cc

FIGURES









LEGEND:

△ Soil Sample Locations

Figure 2
Site Details and Confirmation
Soil Sample Locations

Sunoco, Inc. Denton / Lovington Station Lea County, NM

safety and environmental

2057 Commerce Drive Midland, Texas 79703 432.520.7720 www.novasafetyandenvironmental.com

NW1/4 SE1/4 Sec 24 T16S R33E N 32° 56.611' W 103° 15.204'
Scale: NTS CAD By: TA Checked By: RKR

June 26, 2010

TABLES

TABLE 1

Analytical Results - Confirmation Soil Samples Sunoco Denton/Lovington Station Lea County, New Mexico Sunoco, Inc.

		SAMPLE	SOIL	Laboratory Analyzed By Method 8015B			SW 846-8021B, 5030					
SAMPLE DATE	SAMPLE IDENTIFICATION	DEPTH		TPH (GRO) C ₆ -C ₁₂	TPH (DRO) >C ₁₂ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	Benzene	Toluene	Ethyl- Benzene	Xylene	Total BTEX	Chlorides
08/16/10	North Side Wall	2'	In-Situ	< 2.00	<50.0	<50.0						<200
08/16/10	South Side Wall	2'	Excavated	<2.00	181	181						<200
08/16/10	East Side Wall	2'	Excavated	<2.00	88.5	88.5	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	<200
08/16/10	West Side Wall	2'	Excavated	<2.00	105	105	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	<200
08/16/10	East Bottom Hole	3'	In-Situ	< 2.00	<50.0	<50.0						<200
08/16/10	West Bottom Hole	3'	In-Situ	<2.00	<50.0	<50.0						<200
		Truck y	No.	14 1	001	7	, and a second	the state of the s		¥		10. 15%
08/31/10	East Side Wall-2	2'	In-Situ	<2.00	<50.0	<50.0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
08/31/10	West Side Wall-2	2'	In-Situ	<2.00	<50.0	<50.0	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	
ar lait	A STATE OF THE STA			44.3.2	25,882	794: i				- Land		
09/27/10	South Side Wall-2	2'	In-Situ	<1.00	<50.0	<50.0	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	

APPENDICES

APPENDIX A Laboratory Analytical Reports



6701 Aberdeen Avenue, Suite-9, 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway, Suite 110

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Certifications

WBENC: 237019 HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA

WFWB38444Y0909

NELAP Certifications

Lubbock:

T104704219-08-TX

El Paso:

T104704221-08-TX

LELAP-02002

Midland: T104704392-08-TX

LELAP-02003 Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville

Nova Safety & Environmental

2057 Commerce St.

Midland, TX, 79703

Report Date: August 26, 2010

Work Order: 10081723

Project Location: Lovington, NM

Project Name:

Sunoco Denton/Lovington Station

Project Number:

BL-1214

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

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			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
241587	North Side Wall	soil	2010-08-16	14:15	2010-08-17
241588	South Side Wall	soil	2010-08-16	14:25	2010-08-17
241589	East Side Wall	soil	2010-08-16	14:40	2010-08-17
241590	West Side Wall	soil	2010-08-16	14:20	2010-08-17
241591	East Bottom Hole	soil	2010-08-16	14:30	2010-08-17
241592	West Bottom Hole	soil	2010-08-16	14:35	2010-08-17

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 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Notes:

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

Standard Flags

- U Not detected. The analyte is not detected above the SDL.
- J Estimated. The analyte is positively identified and the value is approximated between the SDL and MQL.
- ${f B}$ The sample contains less than ten times the concentration found in the method blank.
- JB The analyte is positively identified and the value is approximated between the SDL and MQL. The sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.

Michael april

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

Case Narrative

Samples for project Sunoco Denton/Lovington Station were received by TraceAnalysis, Inc. on 2010-08-17 and assigned to work order 10081723. Samples for work order 10081723 were received intact at a temperature of 3.9 C.

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

()

		Prep	Prep	QC	${f Analysis}$
Test	Method	Batch	Date	Batch	\mathbf{Date}
BTEX	S 8021B	62423	2010-08-21 at 17:00	72813	2010-08-22 at 10:38
BTEX	S 8021B	62544	2010-08-25 at 11:00	72948	2010-08-25 at 15:27
TPH DRO - NEW	S 8015 D	62428	2010-08-20 at 13:56	72812	2010 - 08 - 20 at 13.56
TPH GRO	S 8015 D	62423	2010-08-21 at 17:00	72815	2010-08-22 at 11:05

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 10081723 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 26, 2010 BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station

Analytical Report

Sample: 241587 - North Side Wall

Laboratory:

 $\overline{\text{DRO}}$

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0

P

Midland

Analysis: TPH DRO - NEW

QC Batch: 72812 Prep Batch: 62428 Analytical Method:

S 8015 D

1

Date Analyzed: Sample Preparation: 2010-08-20

Units

mg/Kg

2010-08-20

Prep Method: N/A

Page Number: 4 of 16

Lovington, NM

Analyzed By: kg Prepared By:

SDLMQL Method

< 50.0

Based Based Blank Flag Parameter Result Result

<14.5

Result

<14.5

Dilution SDL

14.5

MQL MDL (Unadjusted)

50

(Unadjusted) 14.5

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

Sample: 241587 - North Side Wall

Laboratory:

Midland

Analysis:

TPH GRO

QC Batch: 72815 Prep Batch: 62423

Analytical Method:

Date Analyzed:

S 8015 D 2010-08-22 2010-08-21

Prep Method: S 5035 Analyzed By: Prepared By:

AG

Sample Preparation: SDLMQL

Method

Blank

 \mathbf{AG}

MQL Based Based MDL SDLDilution Parameter Flag Result Result Result Units (Unadjusted) (Unadjusted) GRO < 1.65< 2.00 < 1.65mg/Kg 1 1.652 1.65

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.27	mg/Kg	1	2.00	64	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.12	${ m mg/Kg}$	1	2.00	56	42 - 159

Sample: 241588 - South Side Wall

Laboratory:

Midland TPH DRO - NEW

Analysis: QC Batch: 72812 Prep Batch: 62428

Analytical Method: Date Analyzed:

S 8015 D 2010-08-20 Sample Preparation: 2010-08-20 Prep Method: N/A Analyzed By: kg Prepared By:

SDLMQL Method

Based Based Flag Result Result

Blank

SDL Dilution

MQL

MDL

kg

Parameter Result Units (Unadjusted) (Unadjusted) DRO 181 < 250< 72.5mg/Kg 5 72.550 14.5

Report Date: August 26, 2010 BL-1214 Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 5 of 16 Lovington, NM

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
n-Tricosane	1	188	mg/Kg	5	100	188	70 - 130

Sample: 241588 - South Side Wall

Laboratory: Midland

4

0

0

0

3

(2)

0

Analysis: TPH GRO QC Batch: 72815 Prep Batch: 62423 Analytical Method: S 8015 D Date Analyzed: 2010-08-22 Sample Preparation: 2010-08-21 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

SDL MQL Method Based Based Blank

MQLMDL SDL Parameter Flag Result Result Result Units Dilution (Unadjusted) (Unadjusted) \overline{GRO} < 1.65 < 2.00 < 1.65 mg/Kg 1.65 1.65 1

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	${ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.34	mg/Kg	1	2.00	67	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.18	${ m mg/Kg}$	1	2.00	59	42 - 159

Sample: 241589 - East Side Wall

Laboratory: Midland

Analysis: BTEX QC Batch: 72948 Prep Batch: 62544 Analytical Method: S 8021B Date Analyzed: 2010-08-25 Sample Preparation: 2010-08-25

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

SDL MQLMethod MQLBased Blank MDL Based Flag Result Result Result Units Dilution SDL(Unadjusted) Parameter (Unadjusted) mg/Kg 1 0.02 0.015 Benzene < 0.0150 < 0.0200 < 0.0150 0.0150 \boldsymbol{U} mg/Kg Toluene < 0.00950 < 0.0200 < 0.00950 1 0.00950 0.02 0.0095U< 0.0106 < 0.0106 1 0.02 0.0106 Ethylbenzene < 0.0200 mg/Kg 0.0106 \boldsymbol{U} < 0.00930 < 0.0200 < 0.00930 1 0.00930 0.020.0093Xylene mg/Kg

					\mathbf{Spike}	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	` Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.59	${ m mg/Kg}$	1	2.00	80	38.4 - 157

Sample: 241589 - East Side Wall

Laboratory: Midland

Analysis: TPH DRO - NEW

Analytical Method: S 8015 D

Prep Method: N/A

¹High surrogate recovery due to peak interference.

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Report Date: August 26, 2010 Work Order: 10081723 Page Number: 6 of 16 BL-1214 Sunoco Denton/Lovington Station Lovington, NM OC Batch: 72812 Date Analyzed: 2010-08-20 Analyzed By: kg Prep Batch: 62428 Sample Preparation: 2010-08-20 Prepared By: kg SDL MQLMethod Blank MQL MDL Based Based Flag Parameter Result Result Result Units Dilution SDL (Unadjusted) (Unadjusted) ORO 88.5 88.5 < 14.5mg/Kg 14.550 14.51 Spike Percent Recovery Flag Result Units Dilution Amount Recovery Limits urrogate 122 122 mg/Kg 100 70 - 130 -Tricosane 1

Sample: 241589 - East Side Wall

Laboratory: Midland

Analysis: TPH GRO QC Batch: 72815 Prep Batch: 62423

Analytical Method: S 8015 D Date Analyzed: 2010-08-22 Sample Preparation: 2010-08-21 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

SDL MQL Method Based Based Blank MQLMDL Flag Result Result Result Units Dilution SDLarameter (Unadjusted) (Unadjusted) RO < 1.65 < 2.00 < 1.65mg/Kg 1 1.652 1.65

					Spike	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	2.00	51	48.5 - 152
4-Bromofluorobenzene (4-BFB)		0.845	mg/Kg	1	2.00	42	42 - 159

Sample: 241590 - West Side Wall

Laboratory: Midland

Analysis: BTEX QC Batch: 72813 Prep Batch: 62423 Analytical Method: S 8021B Date Analyzed: 2010-08-22 Sample Preparation: 2010-08-21

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

		SDL	MQL	Method					
		Based	Based	Blank				$_{ m MQL}$	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
Benzene	\overline{v}	< 0.0150	< 0.0200	< 0.0150	mg/Kg	1	0.0150	0.02	0.015
Toluene	U	< 0.00950	< 0.0200	< 0.00950	mg/Kg	1	0.00950	0.02	0.0095
Ethylbenzene	U	< 0.0106	< 0.0200	< 0.0106	mg/Kg	1	0.0106	0.02	0.0106
Xylene	<i>U</i>	< 0.00930	< 0.0200	< 0.00930	mg/Kg	1	0.00930	0.02	0.0093

					Spike	$\operatorname{Percent}$	$\operatorname{Recovery}$
Surrogate	Flag	Result	${ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.44	mg/Kg	1	2.00	72	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	2.00	62	38.4 - 157

Report Date: August 26, 2010 BL-1214 Analysis: QC Batch: DRO

(1) 1

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 7 of 16 Lovington, NM

Sample: 241590 - West Side Wall

Laboratory: Midland

TPH DRO - NEW

72812Prep Batch: 62428

Analytical Method: Date Analyzed:

S 8015 D 2010-08-20 Sample Preparation: 2010-08-20 Prep Method: N/AAnalyzed By: kg Prepared By:

SDLMQL Method

Based Based Blank MQL MDL Parameter Flag Result Result Result Units Dilution SDL(Unadjusted) (Unadjusted) 105 105 < 14.5mg/Kg 1 14.5 $\overline{50}$ 14.5

					Spike	$\operatorname{Percent}$	Recovery
Surrogate	Flag	Result	Units	Dilution	${f Amount}$	Recovery	Limits
n-Tricosane	2	134	m mg/Kg	1	100	134	70 - 130

Sample: 241590 - West Side Wall

Laboratory: Midland

Prep Batch:

Analysis: TPH GRO QC Batch: 72815

62423

Analytical Method: Date Analyzed:

S 8015 D 2010-08-22 Sample Preparation: 2010-08-21 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

MDL

(Unadjusted)

1.65

SDL MQL Method Blank MQLBased Based Result Result Result Units Dilution SDL Parameter Flag (Unadjusted) \overline{GRO} <1.65 < 2.00 < 1.65mg/Kg 1 1.652

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.60	mg/Kg	1	2.00	80	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	2.00	66	42 - 159

Sample: 241591 - East Bottom Hole

Laboratory: Midland

Prep Batch:

Analysis: TPH DRO - NEW QC Batch: 72812

62428

Analytical Method: Date Analyzed: Sample Preparation:

S 8015 D 2010-08-20 2010-08-20 Prep Method: N/A Analyzed By: kgPrepared By:

SDL MQL Method Based Based Blank MQLMDL Flag Result Result Result Units SDLParameter Dilution (Unadjusted) (Unadjusted) $\overline{\text{DRO}}$ 24.2 < 50.0 <14.5 mg/Kg 1 14.550 14.5

²High surrogate recovery due to peak interference.

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 8 of 16 Lovington, NM

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

Sample: 241591 - East Bottom Hole

Laboratory:

营

Midland

Analysis: QC Batch: Prep Batch:

GRO

TPH GRO 72815

62423

Analytical Method: Date Analyzed:

S 8015 D 2010-08-22 Sample Preparation: 2010-08-21

1

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

SDL MQLMethod Based Based Parameter Flag Result Result

<1.65

Blank Result < 1.65

MQLDilution SDL(Unadjusted) 1.65

MDL (Unadjusted) 1.65

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	2.00	52	48.5 - 152
4-Bromofluorobenzene (4-BFB)		0.838	mg/Kg	11	2.00	42	42 - 159

Units

mg/Kg

Sample: 241592 - West Bottom Hole

Laboratory:

Midland

Flag

Analysis: QC Batch:

Parameter

 $\overline{\text{DRO}}$

TPH DRO - NEW

Result

40.2

Analytical Method: Date Analyzed: Sample Preparation:

S 8015 D 2010-08-20 2010-08-20

1

Prep Method: N/A Analyzed By: kg Prepared By: kg

72812Prep Batch: 62428

SDL MQL Method Based Based

Result

< 50.0

< 2.00

Blank Result

<14.5

MQL Dilution SDL (Unadjusted)

14.5

50

MDL

(Unadjusted)

14.5

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

Units

mg/Kg

Sample: 241592 - West Bottom Hole

Laboratory:

Prep Batch:

Midland

62423

Analysis: TPH GRO QC Batch: 72815

Analytical Method: Date Analyzed: Sample Preparation:

S 8015 D 2010-08-22 2010-08-21 Prep Method: S 5035 Analyzed By: AGPrepared By: AG

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 9 of 16 Lovington, NM

		SDL	MQL	Method					
		Based	Based	Blank				MQL	MDL
Parameter	Flag	Result	Result	Result	Units	Dilution	SDL	(Unadjusted)	(Unadjusted)
$\overline{\text{GRO}}$	\overline{U}	< 1.65	< 2.00	< 1.65	mg/Kg	1	1.65	2	1.65

					\mathbf{Spike}	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.77	mg/Kg	1	2.00	88	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.43	$_{ m mg/Kg}$	11	2.00	72	42 - 159

Method Blank (1)

QC Batch: 72812 Prep Batch: 62428 Date Analyzed: 2010-08-20 QC Preparation: 2010-08-20 Analyzed By: kg Prepared By: kg

				Reporting
Parameter	Flag	Result	${f Units}$	Limits
DRO		<14.5	mg/Kg	14.5

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	$_$ Amount	Recovery	Limits
n-Tricosane		98.6	mg/Kg	1	100	99	70 - 130

Method Blank (1)

QC Batch: 72813 Prep Batch: 62423 Date Analyzed: 2010-08-22 QC Preparation: 2010-08-21 Analyzed By: AG Prepared By: AG

Parameter	Flag	Result	${ m Units}$	$egin{array}{c} ext{Reporting} \ ext{Limits} \end{array}$
Benzene		< 0.0150	mg/Kg	0.015
Toluene		< 0.00950	${ m mg/Kg}$	0.0095
Ethylbenzene		< 0.0106	${ m mg/Kg}$	0.0106
Xylene		< 0.00930	mg/Kg	0.0093

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	2.00	66	55,4 - 132

Method Blank (1)

QC Batch: 72815 Prep Batch: 62423

Date Analyzed: 2010-08-22 QC Preparation: 2010-08-21

Analyzed By: AG Prepared By: AG Report Date: August 26, 2010 BL-1214 Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 10 of 16 Lovington, NM

Parameter	Flag		Result		Units		Reporting Limits
GRO			<1.65		mg/Kg		1.65
					Spike	Percent	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	,	2.07	mg/Kg	1	2.00	104	67.6 - 150
4-Bromofluorobenzene (4-BF)	B)	1.43	${ m mg/Kg}$	1	2.00	72	52.4 - 130

Method Blank (1)

QC Batch: 72948 Prep Batch: 62544 Date Analyzed: 2010-08-25 QC Preparation: 2010-08-25 Analyzed By: AG Prepared By: AG

Parameter	Flag	Result	Units	Reporting Limits
Benzene		< 0.0150	mg/Kg	0.015
Toluene		< 0.00950	${ m mg/Kg}$	0.0095
Ethylbenzene		< 0.0106	${ m mg/Kg}$	0.0106
Xylene		< 0.00930	m mg/Kg	0.0093

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	2.00	62	55.4 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 72812 Prep Batch: 62428 Date Analyzed: 2010-08-20 QC Preparation: 2010-08-20 Analyzed By: kg Prepared By: kg

	LCS			\mathbf{Spike}	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
DRO	241	mg/Kg	1	250	<14.5	96	57.4 - 133.4

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

	LCSD			$_{ m Spike}$	Matrix		$\operatorname{Rec.}$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$	RPD	Limit
DRO	234	mg/Kg	1	250	<14.5	94	57.4 - 133.4	3	20

	LCS	LCSD			$_{ m Spike}$	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	110	108	mg/Kg	1	100	110	108	70 - 130

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 11 of 16 Lovington, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 62423

1

72813

Date Analyzed:

2010-08-22 QC Preparation: 2010-08-21

Analyzed By: AG Prepared By: AG

	LCS			\mathbf{Spike}	Matrix		Rec.
Param	Result	${ m Units}$	Dil.	Amount	Result	Rec.	${f Limit}$
Benzene	1.98	mg/Kg	1	2.00	< 0.0150	99	81.9 - 108
Toluene	1.87	${ m mg/Kg}$	1	2.00	< 0.00950	94	81.9 - 107
Ethylbenzene	1.69	$_{ m mg/Kg}$	1	2.00	< 0.0106	84	78.4 - 107
Xylene	5.09	mg/Kg	1	6.00	< 0.00930	85	79.1 - 107

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$	RPD	Limit
Benzene	2.06	mg/Kg	1	2.00	< 0.0150	103	81.9 - 108	4	20
Toluene	1.95	${ m mg/Kg}$	1	2.00	< 0.00950	98	81.9 - 107	4	20
Ethylbenzene	1.81	mg/Kg	1	2.00	< 0.0106	90	78.4 - 107	7	20
Xylene	5.43	mg/Kg	1	6.00	< 0.00930	90	79.1 - 107	6	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.	${f Limit}$
Trifluorotoluene (TFT)	1.66	1.61	mg/Kg	1	2.00	83	80	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.49	1.43	mg/Kg	1	2.00	74	72	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 62423

72815

Date Analyzed:

2010-08-22 QC Preparation: 2010-08-21

Analyzed By: AG Prepared By: AG

	LCS			\mathbf{Spike}	Matrix		Rec .
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	14.3	mg/Kg	1	20.0	< 1.65	72	69.9 - 95.4

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	14.2	mg/Kg	1	20.0	< 1.65	71	69.9 - 95.4	1	20

	LCS	LCSD			$_{ m Spike}$	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	2.05	1.86	mg/Kg	1	2.00	102	93	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.64	1.51	mg/Kg	1	2.00	82	76	68.2 - 132

BL-1214

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Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 12 of 16 Lovington, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 62544

72948

Date Analyzed: QC Preparation:

2010-08-25 2010-08-25 Analyzed By: AG Prepared By: AG

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Limit Rec. mg/Kg Benzene 2.04 2.00 < 0.0150 $\overline{102}$ 81.9 - 108 Toluene 1.93 2.00 mg/Kg 1 < 0.00950 96 81.9 - 107 Ethylbenzene 1.77 mg/Kg 1 2.00 < 0.0106 88 78.4 - 107 Xvlene 5.25mg/Kg 1 6.00 < 0.00930 88 79.1 - 107

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

	LCSD			\mathbf{Spike}	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	2.07	mg/Kg	1	2.00	< 0.0150	104	81.9 - 108	1	20
Toluene	1.96	${ m mg/Kg}$	1	2.00	< 0.00950	98	81.9 - 107	2	20
Ethylbenzene	1.81	mg/Kg	1	2.00	< 0.0106	90	78.4 - 107	2	20
Xylene	5.38	mg/Kg	1	6.00	< 0.00930	90	79.1 - 107	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.	${f Limit}$
Trifluorotoluene (TFT)	1.95	1.93	mg/Kg	1	2.00	98	96	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.53	1.51	mg/Kg	1	2.00	76	76	69.8 - 121

Matrix Spike (MS-1) Spiked Sample: 241463

QC Batch:

72812

Date Analyzed:

2010-08-20

Analyzed By: kg

Prep Batch: 62428

QC Preparation: 2010-08-20

Prepared By:

	MS			\mathbf{Spike}	Matrix		$\mathrm{Rec.}$
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	216	${ m mg/Kg}$	1	250	<14.5	86	35.2 - 167.1

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

	MSD			\mathbf{Spike}	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	226	mg/Kg	1	250	<14.5	90	35.2 - 167.1	4	20

	MS	MSD			\mathbf{Spike}	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	${f Limit}$
n-Tricosane	98.4	104	${ m mg/Kg}$	1	100	98	104	70 - 130

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 13 of 16 Lovington, NM

Matrix Spike (MS-1)

Spiked Sample: 241471

QC Batch: Prep Batch: 62423

BL-1214

72813

Date Analyzed: QC Preparation:

2010-08-22 2010-08-21 Analyzed By: AG Prepared By: AG

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Benzene 2.38mg/Kg 2.00 < 0.0150 11980.5 - 112 Toluene 2.32 mg/Kg 1 2.00 < 0.00950 116 82.4 - 1132.27 Ethylbenzene mg/Kg 1 2.00 < 0.0106 114 83.9 - 114 6.80 mg/Kg 1 6.00 < 0.00930 113 84 - 114 Xylene

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	2.16	mg/Kg	1	2.00	< 0.0150	108	80.5 - 112	10	20
Toluene	2.13	mg/Kg	1	2.00	< 0.00950	106	82.4 - 113	8	20
Ethylbenzene	2.10	mg/Kg	1	2.00	< 0.0106	105	83.9 - 114	8	20
Xylene	6.31	mg/Kg	1	6.00	< 0.00930	105	84 - 114	8	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)	1.68	1.43	mg/Kg	1	2	84	72	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.57	1.28	${ m mg/Kg}$	1	2	78	64	35.5 - 129

Matrix Spike (MS-1)

Spiked Sample: 241593

QC Batch:

72815

Date Analyzed:

2010-08-22

Analyzed By: AG Prepared By: AG

Prep Batch: 62423

QC Preparation:

2010-08-21

MS Spike Matrix Rec. Dil. Limit Param Result Units Amount Result Rec. GRO 16.6mg/Kg 20.0 < 1.6583 61.8 - 114

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	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	16.4	mg/Kg	1	20.0	<1.65	82	61.8 - 114	1	20

	MS	MSD			Spike	MS	MSD	$\mathrm{Rec.}$
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.70	2.03	mg/Kg	1	2	85	102	50 - 162
4-Bromofluorobenzene (4-BFB)	1.54	1.80	${ m mg/Kg}$	1	2	77	90	50 - 162

³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

⁴Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 14 of 16 Lovington, NM

Matrix Spike (MS-1)

Spiked Sample: 242010

QC Batch:

72948

Date Analyzed:

2010-08-25

Analyzed By: AG

Prep Batch: 62544

QC Preparation: 2010-08-25

Prepared By: AG

		MS			$_{ m Spike}$	Matrix		$\operatorname{Rec.}$
Param		Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	Limit
Benzene	5	2.31	mg/Kg	1	2.00	< 0.0150	116	80.5 - 112
Toluene		2.25	${ m mg/Kg}$	1	2.00	< 0.00950	112	82.4 - 113
Ethylbenzene		2.18	${ m mg/Kg}$	1	2.00	< 0.0106	109	83.9 - 114
Xylene		6.44	mg/Kg	1	6.00	< 0.00930	107	84 - 114

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

N.	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Benzene	2.18	mg/Kg	1	2.00	< 0.0150	109	80.5 - 112	6	20
Toluene	2.13	mg/Kg	1	2.00	< 0.00950	106	82.4 - 113	6	20
Ethylbenzene	2.08	mg/Kg	1	2.00	< 0.0106	104	83.9 - 114	5	20
Xylene	6.14	mg/Kg	1	6.00	< 0.00930	102	84 - 114	5	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.	${f Limit}$
Trifluorotoluene (TFT)	2.21	2.06	mg/Kg	1	2	110	103	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.76	1.64	mg/Kg	1	2	88	82	35.5 - 129

Standard (CCV-2)

QC Batch: 72812

Date Analyzed: 2010-08-20

Analyzed By: kg

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	230	92	80 - 120	2010-08-20

Standard (CCV-3)

QC Batch: 72812

Date Analyzed: 2010-08-20

Analyzed By: kg

			CCVs True	CCVs Found	$egin{array}{c} ext{CCVs} \ ext{Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	239	96	80 - 120	2010-08-20

Standard (CCV-4)

QC Batch: 72812

Date Analyzed: 2010-08-20

Analyzed By: kg

⁵Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 15 of 16 Lovington, NM

			CCVs True	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	$rac{ ext{CCVs}}{ ext{Percent}}$	Percent Recovery	Date
Param	Flag	${f Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	228	91	80 - 120	2010-08-20

Standard (CCV-2)

QC Batch: 72813

Date Analyzed: 2010-08-22

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.105	105	80 - 120	2010-08-22
Toluene		${ m mg/Kg}$	0.100	0.0994	99	80 - 120	2010-08-22
Ethylbenzene		mg/Kg	0.100	0.0915	92	80 - 120	2010-08-22
Xylene		mg/Kg	0.300	0.274	91	80 - 120	2010-08-22

Standard (CCV-3)

QC Batch: 72813

Date Analyzed: 2010-08-22

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.103	103	80 - 120	2010-08-22
Toluene		mg/Kg	0.100	0.0972	97	80 - 120	2010-08-22
Ethylbenzene		${ m mg/Kg}$	0.100	0.0878	88	80 - 120	2010-08-22
Xylene		mg/Kg	0.300	0.264	88	80 - 120	2010-08-22

Standard (CCV-1)

QC Batch: 72815

Date Analyzed: 2010-08-22

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.892	89	80 - 120	2010-08-22

Standard (CCV-2)

QC Batch: 72815

Date Analyzed: 2010-08-22

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.860	86	80 - 120	2010-08-22

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 16 of 16 Lovington, NM

Standard (CCV-3)

QC Batch: 72815

Date Analyzed: 2010-08-22

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
$\overline{\text{GRO}}$		mg/Kg	1.00	0.931	93	80 - 120	2010-08-22

Standard (CCV-1)

QC Batch: 72948

Date Analyzed: 2010-08-25

Analyzed By: AG

			$rac{ ext{CCVs}}{ ext{True}}$	${ m CCVs} \ { m Found}$	$\begin{array}{c} { m CCVs} \\ { m Percent} \end{array}$	Percent Recovery	Date
Param	Flag	${ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.100	100	80 - 120	2010-08-25
Toluene		mg/Kg	0.100	0.0945	94	80 - 120	2010-08-25
Ethylbenzene		mg/Kg	0.100	0.0846	85	80 - 120	2010-08-25
Xylene		${ m mg/Kg}$	0.300	0.254	85	80 - 120	2010-08-25

Standard (CCV-2)

QC Batch: 72948

\$ 30 mg

0

 $Date \ Analyzed: \ \ 2010\text{-}08\text{-}25$

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.104	104	80 - 120	2010-08-25
Toluene		${ m mg/Kg}$	0.100	0.0988	99	80 - 120	2010-08-25
Ethylbenzene		mg/Kg	0.100	0.0906	91	80 - 120	2010-08-25
Xylene		mg/Kg	0.300	0.266	89	80 - 120	2010-08-25

LAB Order ID #	10081723
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of

TraceAnalysis, Inc.

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6701 Aherdean:Avenue; Śuite 9. 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway, Suite 110

El Paso; Texas 79922 Midland, Texas 79703 Ft. Worth, Texas 76132

888 • 588 • 3443

915. 585 3443 432 • 689 • 6301

FAX 915 • 585 • 4944 FAX 432 • 689 • 6313

817 • 201 • 5260

E-Mail. lab@traceanalysis.com

Certifications

WBENC: 237019 HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA

WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX

El Paso: T104704221-08-TX LELAP-02002

Midland: T104704392-08-TX

LELAP-02003

Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville

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6

Nova Safety & Environmental

2057 Commerce St.

Midland, TX, 79703

Report Date: September 14, 2010

Work Order:

10081723

Project Location:

Lovington, NM

Project Name:

Sunoco Denton/Lovington Station

Project Number:

BL-1214

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
241587	North Side Wall	soil	2010-08-16	14:15	2010-08-17
241588	South Side Wall	soil	2010-08-16	14:25	2010-08-17
241589	East Side Wall	soil	2010-08-16	14:40	2010-08-17
241590	West Side Wall	soil	2010-08-16	14:20	2010-08-17
241591	East Bottom Hole	soil	2010-08-16	14:30	2010-08-17
241592	West Bottom Hole	soil	2010-08-16	14:35	2010-08-17

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

Standard Flags

 ${f B}$ - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Sunoco Denton/Lovington Station were received by TraceAnalysis, Inc. on 2010-08-17 and assigned to work order 10081723. Samples for work order 10081723 were received intact at a temperature of 3.9 C.

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	62931	2010-09-09 at 09:22	73396	2010-09-10 at 11:24

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 10081723 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 14, 2010

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 4 of 7 Lovington, NM

Analytical Report

Sample: 241587 - North Side Wall

Laboratory:

Midland

Analysis:

Chloride (Titration)

QC Batch:

73396

Analytical Method: Date Analyzed:

SM 4500-Cl B

2010-09-10

Prep Method: N/A

Prep Batch:

62931

Sample Preparation:

2010-09-09

Analyzed By: Prepared By:

ARAR

Parameter Chloride

Flag

Result <200

RL

Units mg/Kg Dilution 50 RL

4.00

Laboratory:

Midland

Sample: 241588 - South Side Wall

Analysis:

Chloride (Titration)

Analytical Method:

SM 4500-Cl B

Prep Method:

N/A

QC Batch: Prep Batch:

73396 62931

Date Analyzed: Sample Preparation: 2010-09-10 2010-09-09

Analyzed By: Prepared By:

ARAR

RL

Parameter Chloride

Flag

Result <200

Units mg/Kg Dilution

50

RL4.00

Sample: 241589 - East Side Wall

Laboratory:

Midland

Analysis:

Chloride (Titration)

Analytical Method:

SM 4500-Cl B

Prep Method: N/A AR

QC Batch: Prep Batch:

73396 62931

Date Analyzed: Sample Preparation:

2010-09-10 2010-09-09

Analyzed By: Prepared By:

AR

RL

Parameter Chloride

Flag

Result

<200

Units mg/Kg Dilution

RL

4.00

Sample: 241590 - West Side Wall

Laboratory: Analysis:

Midland

Chloride (Titration)

Analytical Method: Date Analyzed:

SM 4500-Cl B

Prep Method: N/A

AR

AR

QC Batch: Prep Batch: 62931

73396

Sample Preparation:

2010-09-10 2010-09-09

Analyzed By: Prepared By:

 $continued \dots$

Work Order: 10081723 Report Date: September 14, 2010 Page Number: 5 of 7 BL-1214 Sunoco Denton/Lovington Station sample 241590 continued ... RLParameter Flag Result Units Dilution RLFlag Result Units Dilution Parameter <200 Chloride mg/Kg50 Sample: 241591 - East Bottom Hole Laboratory: Midland Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: QC Batch: 73396 Date Analyzed: 2010-09-10 Analyzed By: Prep Batch: 62931 Sample Preparation: 2010-09-09 Prepared By: RLParameter Result Units Dilution Flag <200 mg/Kg Chloride 50 Sample: 241592 - West Bottom Hole Laboratory: Midland Chloride (Titration) Analytical Method: SM 4500-Cl B Analysis: Prep Method: QC Batch: 73396 Date Analyzed: 2010-09-10 Analyzed By: Prep Batch: 62931 Sample Preparation: 2010-09-09 Prepared By: RLParameter Flag Result Units Dilution Chloride <200 mg/Kg 50

Date Analyzed:

QC Preparation:

2010-09-10

2010-09-09

MDL

Result

< 2.18

Method Blank (1)

73396

62931

QC Batch:

Parameter

Chloride

Prep Batch:

QC Batch: 73396

Flag

Lovington, NM

RL

RL

4.00

N/A

AR

AR

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4.00

AR

RL

4

Analyzed By:

Prepared By:

Units

mg/Kg

Report Date: September 14, 2010

BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station Page Number: 6 of 7 Lovington, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 62931

73396

Date Analyzed:

2010-09-10 QC Preparation: 2010-09-09

Analyzed By: AR

Prepared By: AR

	LCS			\mathbf{Spike}	Matrix		Rec.
Param	Result	${f Units}$	Dil.	Amount	Result	Rec.	Limit
Chloride	96.0	mg/Kg	1	100	< 2.18	96	85 - 115

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec .	Limit	RPD	Limit
Chloride	101	mg/Kg	1	100	< 2.18	101	85 - 115	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: 241596

QC Batch: Prep Batch: 62931

73396

Date Analyzed:

2010-09-10 QC Preparation: 2010-09-09 Analyzed By: AR Prepared By: AR

	MS			$_{ m Spike}$	Matrix		Rec.
Param	Result	${ m Units}$	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Chloride	9970	mg/Kg	100	10000	<218	100	85 - 115

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	Result	Units	Dil.	${f Amount}$	Result	Rec.	$_{ m Limit}$	RPD	Limit
Chloride	10200	mg/Kg	100	10000	<218	102	85 - 115	2	20

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

Standard (ICV-1)

QC Batch: 73396

Date Analyzed: 2010-09-10

Analyzed By: AR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	${ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		${ m mg/Kg}$	100	100	100	85 - 115	2010-09-10

Standard (CCV-1)

QC Batch: 73396

Date Analyzed: 2010-09-10

Analyzed By: AR

Report Date: September 14, 2010 BL-1214

Work Order: 10081723 Sunoco Denton/Lovington Station

Page Number: 7 of 7 Lovington, NM

n	T) I	TT *4	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	${ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2010-09-10

AB Order ID #	10081723

Page	/	of	·
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TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9 **Lubbock, Texas 79424** Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 5002 Basin Street, Suite A1 **Midland, Texas 79703** Tel (432) 689-6301 Fax (432) 689-6313 200 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 BioAquatic Testing 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Tel (972) 242-7750

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Contact Per	son: RON ROUNSAU	illo				E	-mail:								(6)	,		Hg 5010/200./													dard	
Invoice to:	from above)	7 79 1	212	M	VA									1	Ext(C35)			Selection													star	
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Certifications

WBENC: 237019

HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock:

T104704219-08-TX

El Paso: T104704221-08-TX

LELAP-02002

Midland: T104704392-08-TX

LELAP-02003

Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville Nova Safety & Environmental 2057 Commerce St. Midland, TX, 79703

Report Date: September 3, 2010

Work Order:

10090128

Project Location:

Lovington, NM

Project Name:

Sunoco Denton/Lovington Station

Project Number:

BL-1214

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
243259	South Side Wall-2	soil	2010-08-31	13:20	2010-09-01
243260	West Side Wall-2	soil	2010-08-31	13:40	2010-09-01

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 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael abel

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

Standard Flags

 $\boldsymbol{B}\,$ - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Sunoco Denton/Lovington Station were received by TraceAnalysis, Inc. on 2010-09-01 and assigned to work order 10090128. Samples for work order 10090128 were received intact at a temperature of 4.0 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	62762	2010-09-01 at 12:00	73174	2010-09-01 at 09:52
TPH DRO - NEW	S 8015 D	62781	2010-09-02 at 10:12	73210	2010-09-02 at 10:12
TPH GRO	S 8015 D	62762	2010-09-01 at 12:00	73175	2010-09-01 at 10:20

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 10090128 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.

BL-1214

Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 4 of 11 Lovington, NM

Analytical Report

Sample: 243259 - South Side Wall-2

Laboratory: Midland

Analysis: **BTEX** QC Batch: 73174 Prep Batch: 62762

Analytical Method:

S 8021B Date Analyzed: 2010-09-01 Sample Preparation: 2010-09-01 Prep Method: S 5035

Analyzed By: AG Prepared By: AG

RL

		1612			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0200	mg/Kg	1	0.0200
Toluene		< 0.0200	m mg/Kg	1	0.0200
Ethylbenzene		< 0.0200	mg/Kg	1	0.0200
Xylene		< 0.0200	m mg/Kg	1	0.0200

•					Spike	Percent	Recovery
Surrogate	Flag	Result	${ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.22	mg/Kg	1	2.00	111	38.4 - 157

Sample: 243259 - South Side Wall-2

Laboratory:

Midland Analysis: TPH DRO - NEW

QC Batch: 73210 Prep Batch: 62781

Analytical Method: Date Analyzed:

S 8015 D 2010-09-02 Sample Preparation: 2010-09-02 Prep Method: N/A

Analyzed By: kg Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	$_{ m L}$
DRO		< 50.0	mg/Kg	1	50.0

					Spike	$\operatorname{Percent}$	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		99.4	mg/Kg	1	100	99	70 - 130

Sample: 243259 - South Side Wall-2

Laboratory: Midland

Analysis: TPH GRO QC Batch: 73175 Prep Batch: 62762

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015 D 2010-09-01 2010-09-01 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

 $continued \dots$

Report Date: September 3, 2010 BL-1214

Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 5 of 11 Lovington, NM

sample 243259 continued ...

(2)

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,			RL					
Parameter	Flag		Result		Units	<u>D</u>	ilution	RL
			RL					
Parameter	Flag		Result		Units	Γ	ilution	RL
GRO			< 2.00		mg/Kg		1	2.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	$\overline{ ext{Amount}}$	Recovery	Limits
Trifluorotoluene (ΓFT)		2.16	mg/Kg	1	2.00	108	48.5 - 152
4-Bromofluoroben	zene (4-BFB)		1.94	${ m mg/Kg}$	1	2.00	97	42 - 159

Sample: 243260 - West Side Wall-2

Laboratory: Midland

Analysis: BTEX QC Batch: 73174 Prep Batch: 62762 Analytical Method: S 8021B Date Analyzed: 2010-09-01 Sample Preparation: 2010-09-01 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

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

					\mathbf{Spike}	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.23	mg/Kg	1	2.00	112	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.20	${ m mg/Kg}$	1	2.00	110	38.4 - 157
			<u>~,v</u>				

Sample: 243260 - West Side Wall-2

Laboratory: Midland

Analysis: TPH DRO - NEW QC Batch: 73210 Prep Batch: 62781

Analytical Method: S 8015 D
Date Analyzed: 2010-09-02
Sample Preparation: 2010-09-02

Prep Method: N/A
Analyzed By: kg
Prepared By: kg

		m RL			
Parameter	Flag	Result	\mathbf{Units}	Dilution	RL
DRO		< 50.0	${ m mg/Kg}$	1	50.0

BL-1214

Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 6 of 11 Lovington, NM

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		94.6	mg/Kg	1	100	95	70 - 130

Sample: 243260 - West Side Wall-2

Midland Laboratory:

Analysis: TPH GRO QC Batch: 73175 Prep Batch: 62762

Analytical Method: S 8015 D Date Analyzed: 2010-09-01

Sample Preparation: 2010-09-01 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

RLFlag Result Units Dilution RLParameter < 2.00 2.00 $\overline{\text{GRO}}$ mg/Kg $\overline{1}$

					\mathbf{Spike}	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	${f Amount}$	Recovery	Limits
Trifluorotoluene (TFT)		2.19	mg/Kg	1	2.00	110	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.96	${ m mg/Kg}$	1	2.00	98	42 - 159

QC Batch: 73174 Method Blank (1)

QC Batch: 73174 Prep Batch: 62762

Date Analyzed: 2010-09-01 QC Preparation: 2010-09-01

Analyzed By: AG Prepared By: AG

MDL Parameter Flag Result Units RL< 0.0150 mg/Kg 0.02 Benzene < 0.00950 mg/Kg Toluene 0.02mg/Kg Ethylbenzene < 0.0106 0.02< 0.00930 mg/Kg Xylene 0.02

					Spike	$\operatorname{Percent}$	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.05	$_{ m mg/Kg}$	1	2.00	102	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.87	m mg/Kg	1	2.00	94	55.4 - 132

Method Blank (1) QC Batch: 73175

QC Batch: 73175 Date Analyzed: 2010-09-01 Analyzed By: AG Prep Batch: 62762 QC Preparation: 2010-09-01 Prepared By: AG

Report Date: September 3, 2010 BL-1214

Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 7 of 11 Lovington, NM

Parameter	Flag		$rac{ ext{MDL}}{ ext{Result}}$		Unit_{i}	s	m RL
GRO			<1.65		mg/K	g	2
					Spike	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	${f Amount}$	Recovery	Limits
Trifluorotoluene (TFT)		2.02	mg/Kg	1	2.00	101	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1 \	2.00	84	52.4 - 130

Method Blank (1)

QC Batch: 73210

QC Batch: 73210 Date Analyzed: 2010-09-02 Analyzed By: kg

RL

50

Prep Batch: 62781

DRO

QC Preparation: 2010-09-02 Prepared By:

MDL Parameter Flag Result

Units mg/Kg

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		96.7	mg/Kg	1	100	97	70 - 130

<14.5

Laboratory Control Spike (LCS-1)

QC Batch:

6

Prep Batch: 62762

73174

Date Analyzed:

2010-09-01

QC Preparation: 2010-09-01

Analyzed By: AG

Prepared By: AG

Param	$egin{array}{c} ext{LCS} \ ext{Result} \end{array}$	Units	Dil.	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Matrix Result	Rec.	$egin{array}{l} ext{Rec.} \ ext{Limit} \end{array}$
Benzene	2.12	mg/Kg	1	2.00	< 0.0150	106	81.9 - 108
Toluene	2.10	$_{ m mg/Kg}$	1	2.00	< 0.00950	105	81.9 - 107
Ethylbenzene	2.14	$_{ m mg/Kg}$	1	2.00	< 0.0106	107	78.4 - 107
Xylene	6.38	mg/Kg	1	6.00	< 0.00930	106	79.1 - 107

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

	LCSD	•		$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	2.11	mg/Kg	1	2.00	< 0.0150	106	81.9 - 108	0	20
Toluene	2.10	mg/Kg	1	2.00	< 0.00950	105	81.9 - 107	0	20
Ethylbenzene	2.14	mg/Kg	1	2.00	< 0.0106	107	78.4 - 107	0	20
Xylene	6.41	mg/Kg	1	6.00	< 0.00930	107	79.1 - 107	0	20

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

Report Date: September 3, 2010 BL-1214

Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 8 of 11 Lovington, NM

Surrogate	$rac{ ext{LCS}}{ ext{Result}}$	LCSD Result	Units	Dil.	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	LCS Rec.	LCSD Rec.	${ m Rec.} \ { m Limit}$
Trifluorotoluene (TFT)	1.97	2.02	mg/Kg	1	2.00	98	101	70.2 - 114
4-Bromofluorobenzene (4-BFB)	2.18	2.23	mg/Kg	1	2.00	109	112	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 73175 Prep Batch: 62762 Date Analyzed: 2010-09-01 QC Preparation: 2010-09-01 Analyzed By: AG Prepared By: AG

	LCS			$_{ m Spike}$	Matrix		$\mathrm{Rec}.$
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	16.7	mg/Kg	1	20.0	<1.65	84	69.9 - 95.4

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil .	Amount	Result	Rec.	Limit	RPD	Limit
GRO	17.6	mg/Kg	1	20.0	< 1.65	88	69.9 - 95.4	5	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)	2.05	2.04	mg/Kg	1	2.00	102	102	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.86	1.81	${ m mg/Kg}$. 1	2.00	93	90	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 73210 Prep Batch: 62781 Date Analyzed: 2010-09-02 QC Preparation: 2010-09-02 Analyzed By: kg Prepared By: kg

	LCS			Spike	Matrix		${ m Rec.}$
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit
DRO	224	mg/Kg	1	250	<14.5	90	57.4 - 133.4

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	\mathbf{Units}	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	220	mg/Kg	1	250	<14.5	88	57.4 - 133.4	2	20

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

	LCS	LCSD			\mathbf{Spike}	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	Result	Units	Dil.	${f Amount}$	Rec.	Rec.	Limit
n-Tricosane	107	105	mg/Kg	1	100	107	105	70 - 130

BL-1214

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Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 9 of 11 Lovington, NM

Matrix Spike (MS-1)

Spiked Sample: 243259

QC Batch: 73174 Prep Batch: 62762 Date Analyzed: 2010-09-01 QC Preparation: 2010-09-01 Analyzed By: AG Prepared By: AG

MS Spike Matrix Rec. Dil. Param Result Units Amount Result Rec. Limit 80.5 - 112 1.95 2.00 < 0.0150 Benzene mg/Kg 1 98 2.00 Toluene 2.01 mg/Kg 1 < 0.00950100 82.4 - 113Ethylbenzene 2.17 mg/Kg 1 2.00 < 0.0106 108 83.9 - 114 < 0.00930 Xylene 6.38 mg/Kg 1 6.00 106 84 - 114

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit	RPD	Limit
Benzene	1.92	mg/Kg	1	2.00	< 0.0150	96	80.5 - 112	2	20
Toluene	2.00	mg/Kg	1	2.00	< 0.00950	100	82.4 - 113	0	20
Ethylbenzene	2.18	mg/Kg	1	2.00	< 0.0106	109.	83.9 - 114	0	20
Xylene	6.42	mg/Kg	1	6.00	< 0.00930	107	84 - 114	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 .	\mathbf{Limit}
Trifluorotoluene (TFT)	2.10	2.11	mg/Kg	1	2	105	106	41.3 - 117
4-Bromofluorobenzene (4-BFB)	2.31	2.28	mg/Kg	1	2	116	114	35.5 - 129

Matrix Spike (MS-1)

Spiked Sample: 243065

QC Batch: 73175 Prep Batch: 62762 Date Analyzed: 2010-09-01 QC Preparation: 2010-09-01 Analyzed By: AG Prepared By: AG

MS Spike Matrix Rec. Result Units Dil. Amount Result Limit Param Rec. \overline{GRO} 18.9 20.0 < 1.65 61.8 - 114 mg/Kg 94 1

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	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	20.2	mg/Kg	1	20.0	< 1.65	101	61.8 - 114	7	20

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

	MS	MSD			Spike	MS	MSD	$\mathrm{Rec.}$
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	${f Limit}$
Trifluorotoluene (TFT)	2.10	2.19	mg/Kg	1	2	105	110	50 - 162
4-Bromofluorobenzene (4-BFB)	2.46	2.48	mg/Kg	1	2	123	124	50 - 162

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Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 10 of 11 Lovington, NM

Matrix Spike (MS-1)

Spiked Sample: 243260

QC Batch:

73210Prep Batch: 62781 Date Analyzed:

2010-09-02

QC Preparation: 2010-09-02

Analyzed By: kg Prepared By:

	MS			Spike	Matrix		Rec.
Param	Result	${ m Units}$	Dil.	Amount	Result	Rec.	Limit
DRO	187	${ m mg/Kg}$	1	250	<14.5	75	35.2 - 167.1

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	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	197	mg/Kg	1	250	<14.5	79	35.2 - 167.1	5	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	89.1	86.6	mg/Kg	1	100	89	87	70 - 130

Standard (CCV-1)

QC Batch: 73174

Date Analyzed: 2010-09-01

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	$egin{array}{c} ext{Date} \ ext{Analyzed} \end{array}$
Benzene		mg/Kg	0.100	0.104	104	80 - 120	2010-09-01
Toluene		mg/Kg	0.100	0.102	102	80 - 120	2010-09-01
Ethylbenzene		mg/Kg	0.100	0.0992	99	80 - 120	2010-09-01
Xylene		mg/Kg	0.300	0.303	101	80 - 120	2010-09-01

Standard (CCV-2)

QC Batch: 73174

Date Analyzed: 2010-09-01

Analyzed By: AG

Analyzed By: AG

			$rac{ ext{CCVs}}{ ext{True}}$	${ m CCVs} \ { m Found}$	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.103	103	80 - 120	2010-09-01
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2010-09-01
Ethylbenzene		mg/Kg	0.100	0.0984	98	80 - 120	2010-09-01
Xylene		mg/Kg	0.300	0.291	97	80 - 120	2010-09-01

Standard (CCV-1)

QC Batch: 73175

Date Analyzed: 2010-09-01

Report Date: September 3, 2010 BL-1214

Work Order: 10090128 Sunoco Denton/Lovington Station Page Number: 11 of 11 Lovington, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	$egin{array}{c} ext{Date} \ ext{Analyzed} \end{array}$
GRO		mg/Kg	1.00	1.11	111	80 - 120	2010-09-01

Standard (CCV-2)

QC Batch: 73175

(2)

0

Date Analyzed: 2010-09-01

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.882	88	80 - 120	2010-09-01

Standard (CCV-1)

QC Batch: 73210

Date Analyzed: 2010-09-02

Analyzed By: kg

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	218	87	80 - 120	2010-09-02

Standard (CCV-2)

QC Batch: 73210

Date Analyzed: 2010-09-02

Analyzed By: kg

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	220	88	80 - 120	2010-09-02

LAB Order ID#	100901	28
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Page_______ of _______

Company Nam Address:	ne: NOVA (Street, City, Zip)				n						Tel Fax 1	(806 (806 (800)	1 exa 3) 794 3) 794 378-	794 1296 -1298 1296	Suite 9 24 3	5002 Ba Midia Tel Fax	nd, (432) 689	i s 79 7 9-630 9-631	1			Fax (915) (915)	585-3 585-4 588-3	3443 4944				C	3FFO			as 75 -7750		
Address:	(Street, City, Zip)							Pho	ne #	:														AN	ALY	'SIS	R	EQ	UE	ST						
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Contact Perso	on: Ron Row	nsavi	1/2					E-m	ail:						-				32)		0/200.7	Б													standard	
Invoice to: (If different fro		NOVA										-) X		g 601	Se Hg													n sta	
Project #:	BL-1Z14 ion (including state): a Co, NM			Su	ınc	co	1	Pro en	ject 70A	Nam ر	<u>L</u> 0	ווע	n qt	on	STA	الموادة	8260 / 624	8260 / 624	K1005 E	2	Cd Cr Pb Se Hg 6010/200	Cd Cr Pb				1,625	020				Alkalinity				rent fror	
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Lab# (Lab Use) (Only)	FIELD CODE		CONTAINERS	Volume / Amount	WATER	SOIL	AIR	LODGE	HCI	HNO ₃	1 ₂ SO ₄	NaOH	NONE		DATE	TIME	8021	BTEX 8021Y 602	TPH 418.1/TX1005/TX1005 Ext(C35)	PAH 8270 / 625	Total Metals Ag As	TCLP Metals Ag As Ba	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	PCB's 8082 / 608	Pesticides 8081 /	BOD, TSS, pH	Moisture Content	CI, FI, S04, NO3,	Na, Ca, Mg, K, TDS,			Turn Around Time if different from	Hold
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ORIGINAL COPY

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

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210

1000 Rio Brazos Road, Aztec, NM 87410 District IV
1220 S. St. Francis Dr. Santa Fe. NM 87505

* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources OCT 2 2 2010

RECEIVED

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr.

HOBBSOCD

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

1220 0. 00. 11011			, 	Sa	ınta I	e, NM 875	05			Side of John						
			Rele	ease Notific	atio	on and Co	rrective A	ction								
						OPERA	TOR	X In	itial Report	Final Report						
Name of Co	mpany S	unoco, Inc.				Contact	JEFF GI		itidi Report	Timal Report						
Address 40			ilene, Te	xas 79601		Telephone No. 325-671-8050										
Facility Nar						Facility Type TANK BATTERY										
Surface Ow	ner			Mineral C	wner			Lease	No							
Surface OW	1101			<u></u>				Least	110.							
	T 6	·				ON OF RELEASE										
Unit Letter B	Section 9	Township 16 S	Range 37 E	Feet from the	Nort	h/South Line	Feet from the	East/West Line	County Lea	ļ						
LatitudeLongitude																
	•		•	NAT	URI	E OF REL	EASE			•						
Type of Relea	ase Un	known		1		Volume of		Volume	Recovered							
Source of Re							lour of Occurrenc	e Date ar	d Hour of Disc	overy						
Was Immedia	ate Notice C		Yes X	No 🗌 Not Re	quired	If YES, To	Whom?									
By Whom?						Date and F										
Was a Water	course Reac	hed?	Yes X	No		If YES, Vo	lume Impacting t	he Watercourse.								
If a Watercou	rse was Im	pacted, Descr	ibe Fully.	*			 									
	•	•	•													
								***************************************	****							
•																
Describe Cau	se of Proble	em and Reme	dial Action	n Taken.*												
In 2006. The	Denton/Lo	vington statio	n eguinme	nt was dismantled	d and r	emoved. The	soils underneath th	ne tanks, includi	ng the berm wal	lls, were excavated						
				hin the excavation						, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
										}						
Describe Are	a Affected	and Cleanup	Action Tak	cen.*		·····			·····							
								•								
I hereby certi	fy that the i	nformation g	ven above	is true and comp	lete to	the best of my	knowledge and u	nderstand that pr	rsuant to NMC	CD rules and						
regulations al	loperators	are required t	o report ar	nd/or file certain r	elease	notifications as	nd perform correct	tive actions for r	eleases which r	nay endanger						
							arked as "Final Re on that pose a thre									
							e the operator of r									
federal, state,	or local lay	ws and/ar regu	lations.													
	111	A					OIL CONS	SERVATIO	N DIVISIO	<u>N</u>						
Signature:		Ilum					ENV ENDINEER	,								
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Printed Name	: Je	tt bro	1					- Saleton	A JOHSWA	5						
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E-mail Addre	ss: jdgi	rcen@si	INOCO /	<u> 109 istics . C</u> 325-671-80	om.	Conditions of	Approval: SUB P	TH FINAL	Attached							
Date: 09/	20120	10	Phone;	325-67/- <i>80</i>	50	CURAN +1	· · · · · · · · · · · · · · · · · · ·	Chinanie 10	IRP-10	0-9-2618						
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