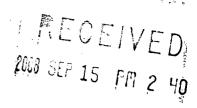
1R -

REPORTS

DATE:

Sept. 2008





SITE CLOSURE REQUEST

DENTON GATHERING

SECTION 11, TOWNSHIP 15 SOUTH, RANGE 37 EAST NORTHEAST OF LOVINGTON LEA COUNTY, NEW MEXICO

NMOCD Reference No. 1R-454

Prepared for:

Centurion Pipeline L.P. 6 Desta Drive, Suite 5050 Midland, Texas 79705



Prepared by:

NOVA Safety and Environmental

2057 Commerce Drive Midland, Texas 79703

September 2008

Ronald K Rounsaville

Project Manager

Todd K. Choban, P.G.

Vice President, Technical Services

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1.0 INTRODUCTION AND SITE BACKGROUND

On behalf of Centurion Pipeline L.P. (Centurion), NOVA Safety and Environmental (NOVA) has prepared this Site Closure Request for the site known as Denton Gathering. The Denton Gathering pipeline is an inactive 6-inch crude oil pipeline operated by Centurion Pipeline. The release site is located in Section 11, Township 15 South, Range 37 East, Lea County, New Mexico. A site location map is provided as Figure 1.

On March 7, 2003, BP (former owner of the line) reported a release of crude oil from a 6-inch gathering pipeline located approximately 15 miles northeast of Lovington, New Mexico on property owned by Mr. Darr Angell. Following line repairs, the initial excavation activities removed visibly affected soil. From April 1 through August 20, 2003, several episodes of over-excavation and confirmation soil sampling were conducted. Final soil sample results indicated all crude oil affected soils above NMOCD cleanup standards were removed from the excavation and stockpiled on-site for remediation.

On September 30, 2003, a Soil Assessment Report and Remedial Work Plan was submitted to the NMOCD for review. On February 25, 2004, a Workplan for monitor well installation was submitted to the NMOCD and subsequently approved on April 13, 2004. In June 2004, four monitor wells were installed at the site and groundwater samples collected. Laboratory analytical results on groundwater samples collected indicated the groundwater beneath the site was not impacted by the release. In August 2004, a Site Investigation Report was submitted to the NMOCD documenting the assessment and remediation activities conducted at the site. On November 15, 2004, Delta Environmental submitted a Request for Closure Workplan to the NMOCD summarizing the soil excavation, sampling activities and groundwater monitoring activities and requested NMOCD approval to close the groundwater investigation. The Closure Workplan requested a resolution the issue of the 5,000 cubic yards of impacted soil stockpiled at the site based on three scenerios: Off-site disposal of impacted soils, installation of a poly-liner, or mixing and blending of impacted soils to below 100 mg/Kg. In a letter dated November 22, 2005 from the NMOCD, approval was granted for the plugging and abandonment of the four existing monitor wells along with the soil blending option for soil remediation.

2.0 NMOCD SITE CLASSIFICATION

The groundwater investigation activities conducted at the site indicated that groundwater is approximately 60 feet below ground surface (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 zero 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 Denton Gathering site has a ranking score of 20 points. The soil cleanup levels for a site with a ranking of 20 require benzene concentrations below 10 mg/Kg, total benzene, toluene, ethylbenzene and xylene (BTEX) concentrations below 50 mg/Kg and total petroleum

hydrocarbons gasoline range organics / diesel range organics (TPH-GRO/DRO) concentrations below 100 mg/Kg.

On February 26, 2008, Centurion was granted approval, in an e-mail correspondence with Mr. Wayne Price of the NMOCD, to backfill the existing excavation area upon receipt of laboratory analytical results confirming that the blended soil stockpiles were below the NMOCD regulatory guideline of 100 mg/Kg requirement.

3.0 SUMMARY OF FIELD ACTIVITIES

On May 19, 2008, soil blending activities began on the three existing soil stockpiles totaling approximately 5,000 cubic yards (cy) of hydrocarbon impacted soil previously excavated from the site. The excavated soil was staged on site pending final disposition. A Site Details Map indicating sample locations and other site details is provided as Figure 2.

The southeast and southwest soil stockpiles, each consisting of approximately 1,500 cy, along with the north soil stockpile, approximately 2,000 cy, were separated into several piles, tilled and spread in lifts of approximately 2 feet thick and allowed to aerate. Non-impacted soil surrounding the excavation area was used to blend with the impacted soil. From May 27 through June 24, 2008, as blending and mixing activities continued, NOVA personnel collected composite soil samples from each of the separately blended soil stockpiles and submitted the soil samples for laboratory analysis for TPH-GRO/DRO by EPA Method 8015M.

Based on results of laboratory analyzed confirmation soil samples obtained from the remediated soil piles, the NMOCD approved the backfilling of the excavation area with remediated soil. Backfilling of the excavation commenced on June 26, 2008. The blended soil stockpile was placed in the excavation in twelve-inch lifts and compacted. A water truck was used to supply moisture to the soil to provide adequate moisture required for proper compaction.

On July 1, 2008, backfilling activities were completed and the disturbed area was contoured to fit the surrounding topography. On July 23, 2008, the disturbed area was reseeded with a grass seed mixture as requested by the property owner.

4.0 SITE CLOSURE REQUEST

In summary, the analytical results of final confirmation soil samples collected from the remediated soil stockpiles indicate TPH concentrations are below the required NMOCD regulatory levels of 100 mg/Kg. Based on the analytical results of confirmation soil samples NOVA recommends that Centurion provide the NMOCD a copy of this *Site Closure Request* and request the NMOCD grant closure to the Denton Gathering release site of March 7, 2003.

5.0 LIMITATIONS

NOVA has prepared this *Site Closure Request* 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 has relied 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 Site Closure Request has been prepared for the benefit of Centurion. 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 Centurion.

6.0 DISTRIBUTION

Copy 1: Ed Hansen

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Drive

Santa Fe, NM 87505

Copy 2: Larry Johnson

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division (District 1)

1625 French Drive Hobbs, NM 88240

Copy 3: Darrel Lester

Centurion Pipeline L.P.

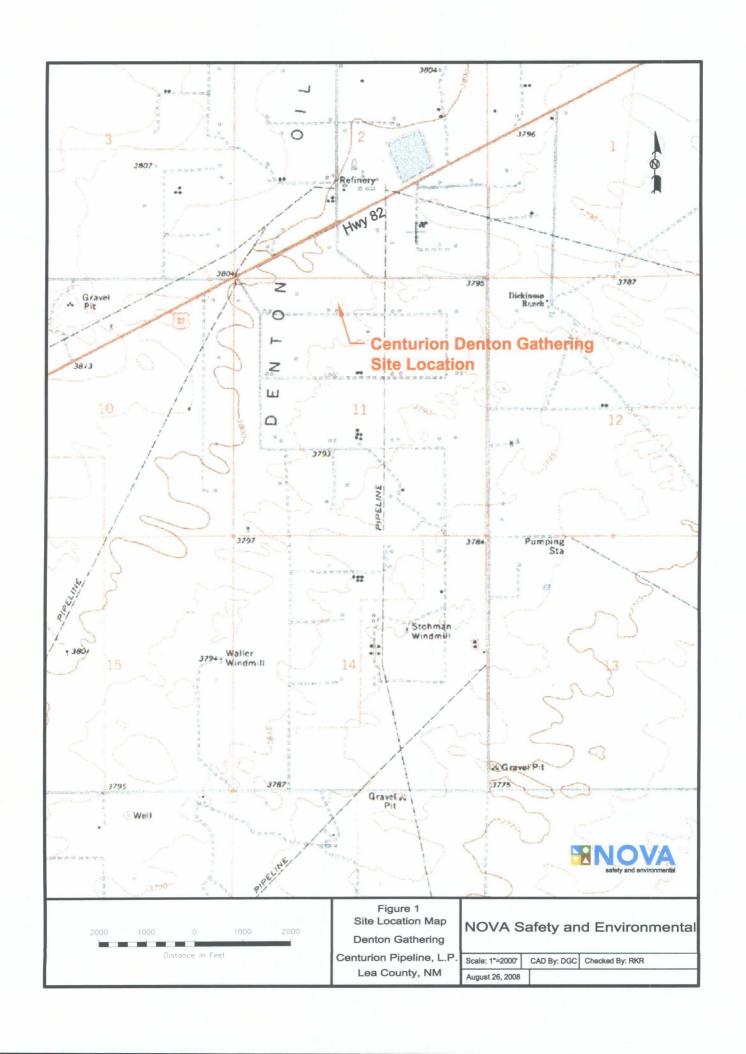
P.O. Box 51790 Midland, Texas 79710 Darrel_Lester@Oxy.com

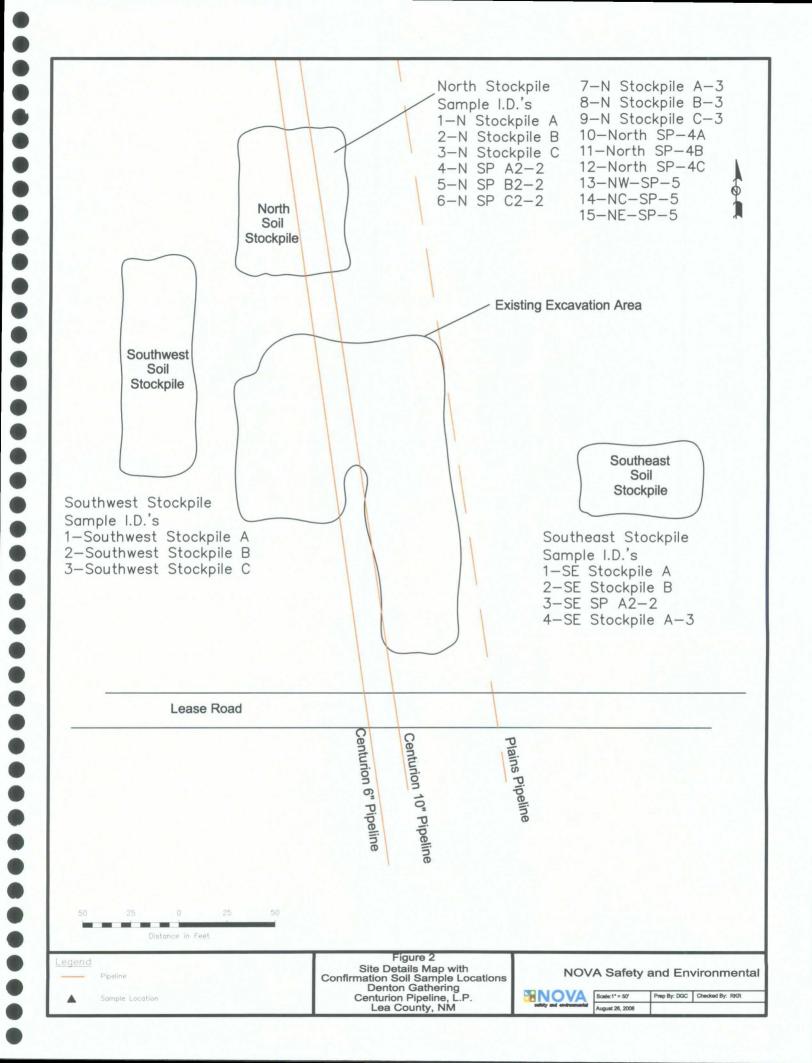
Copy 4: NOVA Safety and Environmental.

2057 Commerce Drive Midland, Texas 79703

rrounsaville@novatraining.cc

FIGURES





TABLES

TABLE 1

Analytical Results - Confirmation Soil Samples Centurion, Denton Gathering Lovington, Lea Country, New Mexico Centurion Pipeline, LP

			i	TPH Analyzed By Method 8015B			
SAMPLE DATE	SAMPLE IDENTIFICATION	SAMPLE DEPTH	SOIL STATUS	GRO C6-C12 mg/Kg	DRO >C12-C35 mg/Kg	Total TPH C6-C35 mg/Kg	
NMOCD	REGULATORY STANDARDS					100	
05/27/08	SW Stockpile A	Stockpile	Backfill	<1.00	58.2	58.2	
05/27/08	SW Stockpile B	Stockpile	Backfill	<1.00	<50.0	<50.0	
05/27/08	SW Stockpile C	Stockpile	Backfill	<1.00	<50.0	<50.0	
05/27/08	SE Stockpile A	Stockpile	Backfill	<1.00	101	101	
05/27/08	SE Stockpile B	Stockpile	Backfill	<1.00	72.8	72.8	
100		17 (74.15)		Section 1		40 W	
05/29/08	N. Stockpile A	Stockpile	Backfill	7.38	243	250.4	
05/29/08	N. Stockpile B	Stockpile	Backfill	60.7	250	311	
05/29/08	N. Stockpile C	Stockpile	Backfill	39.9	377	417	
	and the second second second second	The second		3 110			
06/05/08	SE-SP A2-2	Stockpile	Backfill	<1.00	126	126	
06/05/08	N-SP A2-2	Stockpile	Backfill	13.6	244	257.6	
06/05/08	N-SP B2-2	Stockpile	Backfill	22.6	323	345.6	
06/05/08	N-SP C2-2	Stockpile	Backfill	8.9	224	233	
	The state of the s						
06/11/08	N. Stockpile A-3	Stockpile	Backfill	<1.00	287	287	
06/11/08	N. Stockpile B-3	Stockpile	Backfill	3.94	189	193	
06/11/08	N. Stockpile C-3	Stockpile	Backfill	1.48	145	146.5	
06/11/08	SE. Stockpile A-3	Stockpile	Backfill	<1.00	89.3	89.3	
			grander e				
06/19/08	North SP -4A	Stockpile	Backfill	<1.00	206	206	
06/19/08	North SP -4B	Stockpile	Backfill	<1.00	121	121	
06/19/08	North SP -4C	Stockpile	Backfill	<1.00	141	141	
		Party and	A THE STATE OF THE				
06/24/08	NW-SP-5	Stockpile	Backfill	<1.00	51.3	51.3	
06/24/08	NC-SP-5	Stockpile	Backfill	<1.00	<50.0	<50.0	
06/24/08	NE-SP-5 TPH concentration above regulatory gui	Stockpile	Backfill	<1.00	<50.0	<50.0	

Bold: Indicates TPH concentration above regulatory guidelines

APPENDICES

APPENDIX A



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1

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Ft. Worth, Texas 76132

E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

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

Report Date: June 2, 2008

Work Order:

Project Location: Lea County, NM

Project Name: Project Number: Denton Gathering Line Denton Gathering Line

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
161350	SW Stockpile A	soil	2008-05-27	12:10	2008-05-27
161351	SW Stockpile B	soil	2008-05-27	12:15	2008-05-27
161352	SW Stockpile C	soil	2008-05-27	12:20	2008-05-27
161353	SE Stockpile A	soil	2008-05-27	12:00	2008-05-27
161354	SE Stockpile B	soil	2008-05-27	12:05	2008-05-27

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.

Dr. Blair Leftwich, Director

Certifications Lubbock - NELAP T104704219-08-TX El Paso - NELAP T104704221-08-TX

Standard Flags

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

Case Narrative

Samples for project Denton Gathering Line were received by TraceAnalysis, Inc. on 2008-05-27 and assigned to work order 8052742. Samples for work order 8052742 were received intact at a temperature of 3.5 deg C.

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

Test	Method				
TPH DRO	Mod. 8015B				
TPH GRO	S 8015B				

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 8052742 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.

Work Order: 8052742 Denton Gathering Line Page Number: 4 of 11 Lea County, NM

Analytical Report

Sample: 161350 - SW Stockpile A

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039

Analytical Method: Date Analyzed:

Mod. 8015B 2008-05-30 Sample Preparation: 2008-05-30

Prep Method: N/A Analyzed By: LDPrepared By: LD

RLResult Parameter Flag DRO 58.2

Units Dilution RLmg/Kg 50.0

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		161	mg/Kg	1	100	161	10 - 250.4

Sample: 161350 - SW Stockpile A

Midland Laboratory:

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034

Analytical Method: S 8015B Date Analyzed: 2008-05-31 Sample Preparation: 2008-05-30

Prep Method: S 5035 Analyzed By: DCPrepared By: DC

RLFlag Parameter Result Units Dilution RL<1.00 GRO mg/Kg 1 1.00

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\bf Spike} \\ {\bf Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	70 - 130

Sample: 161351 - SW Stockpile B

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039

Analytical Method: Mod. 8015B Date Analyzed: 2008-05-30 Sample Preparation: 2008-05-30

Prep Method: N/A Analyzed By: LDPrepared By: LD

RLFlag Result Units Dilution RLParameter DRO < 50.0 mg/Kg 50.0

Work Order: 8052742 Denton Gathering Line Page Number: 5 of 11 Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		95.9	mg/Kg	1	100	96	10 - 250.4

Sample: 161351 - SW Stockpile B

Laboratory: Midland

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034 Analytical Method: S 8015B
Date Analyzed: 2008-05-31
Sample Preparation: 2008-05-30

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

RL

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	70 - 130

Sample: 161352 - SW Stockpile C

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039 Analytical Method: Mod. 8015B Date Analyzed: 2008-05-30 Sample Preparation: 2008-05-30 Prep Method: N/A Analyzed By: LD Prepared By: LD

RL

		•			Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		111	mg/Kg	1	100	111	10 - 250.4

Sample: 161352 - SW Stockpile C

Laboratory: Midland

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034 Analytical Method: S 8015B Date Analyzed: 2008-05-31 Sample Preparation: 2008-05-30 Prep Method: S 5035 Analyzed By: DC Prepared By: DC

continued ...

Work Order: 8052742 Denton Gathering Line Page Number: 6 of 11 Lea County, NM

sample 161352 continued ...

Parameter	Flag		RL Result		Units	D	ilution	RL
Donnester	Flor		RL		TT-:+-	D	:1	DI
Parameter	Flag		Result		Units	D:	ilution	RL
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT	<u>')</u>		1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.01	mg/Kg	1	1.00	101	70 - 130

Sample: 161353 - SE Stockpile A

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039 Analytical Method: Mo
Date Analyzed: 200
Sample Preparation: 200

Mod. 8015B 2008-05-30 2008-05-30 Prep Method: N/A Analyzed By: LD Prepared By: LD

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		106	mg/Kg	1	100	106	10 - 250.4

Sample: 161353 - SE Stockpile A

Laboratory: Midland

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034 Analytical Method: S 8015B Date Analyzed: 2008-05-31 Sample Preparation: 2008-05-30

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	70 - 130

Work Order: 8052742 Denton Gathering Line Page Number: 7 of 11 Lea County, NM

Sample: 161354 - SE Stockpile B

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039

Analytical Method: Mod. 8015B Date Analyzed: 2008-05-30 Sample Preparation: 2008-05-30

Prep Method: N/A Analyzed By: LDPrepared By: LD

Parameter	Flag	Result	Units	Dilution	RL
DRO	В	72.8	mg/Kg	1	50.0

					\mathbf{S} pike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	-	102	mg/Kg	1	100	102	10 - 250.4

Sample: 161354 - SE Stockpile B

Laboratory: Midland

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034

Analytical Method: S 8015B Date Analyzed: 2008-05-31 Sample Preparation: 2008-05-30 Prep Method: S 5035 Analyzed By: DC Prepared By: DC

		m RL			,
Parameter	${f Flag}$	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

					Spike	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.985	mg/Kg	1	1.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.980	mg/Kg	1	1.00	98	70 - 130

Method Blank (1) QC Batch: 48921

QC Batch: 48921

Prep Batch: 42039

Date Analyzed: 2008-05-30 QC Preparation: 2008-05-30 Analyzed By: LD Prepared By: LD

MDL

Parameter	Flag	Result	Units	RL
DRO		19.0	mg/Kg	50

					\mathbf{Spike}	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	${f Amount}$	Recovery	Limits
n-Triacontane		104	mg/Kg	1	100	104	30.9 - 146.4

Report	Date:	June	2,	2008
Denton	Gathe	ering l	Lin	ıe

Work Order: 8052742 Denton Gathering Line Page Number: 8 of 11 Lea County, NM

	Meth	\mathbf{b}	Blank	(1)	į
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QC Batch: 48934

QC Batch: 48934 Prep Batch: 42034 Date Analyzed: 200 QC Preparation: 200

2008-05-31 2008-05-30 Analyzed By: DC Prepared By: DC

MDL

•		1111111		
Parameter	Flag	Result	${f Units}$	RL
GRO		< 0.739	mg/Kg	1

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.970	mg/Kg	1	1.00	97	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 48921

Date Analyzed: 2008-05-30 QC Preparation: 2008-05-30

Analyzed By: LD

Prep Batch: 42039 QC Preparation:

Prepared By: LD

	LCS			Spike	Matrix		Rec.
Param	Result	\mathbf{Units}	Dil.	Amount	Result	Rec.	${f Limit}$
DRO	234	mg/Kg	1	250	19	86	27.8 - 152.1

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
DRO	232	mg/Kg	1	250	19	85	27.8 - 152.1	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
n-Triacontane	75.4	75.4	mg/Kg	1	100	75	75	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 48934 Prep Batch: 42034 Date Analyzed: 200 QC Preparation: 200

2008-05-31 2008-05-30 Analyzed By: DC Prepared By: DC

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit 7.97 mg/Kg 10.0 < 0.739 80 70 - 130 GRO

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

Work Order: 8052742 Denton Gathering Line Page Number: 9 of 11 Lea County, NM

Result												
CRO	D				~	_						RPD
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.												Limit
LCS	GRO		8.34	mg/Kg	1	10.0	< 0.739	83	70 -	130	4	20
Surrogate	Percent recovery is based	on the spi	ke result. 1	RPD is ba	sed on	the spike	and spike o	luplicate :	result.			
Surrogate			T 00	T CC	'n			O 11 -	T CIC	T (2)	375	TD.
Trifidorotoluene (TFT)	Cumomata					Ilmita						Rec.
### Abromofluorobenzene (4-BFB)												Limit 70 - 130
Matrix Spike (MS-1) Spiked Sample: 161350 QC Batch: 48921 Date Analyzed: 2008-05-30 Analyzed By: Prep Batch: 42039 QC Preparation: 2008-05-30 Analyzed By: Prepared By: Prepared By: MS Spike Matrix Result Result Units Dil. Amount Result Result Rec. Lind Result Rec. Lind Rec. Lind Rec. Lind Rec. Lind Result Rec. Lind Rec. Lind Result Rec. Lind Rec. Rec. Rec. Lind Rec. Rec. Rec. Lind Rec. Rec. Lind Rec. Rec. Rec. Lind Rec. Rec. Rec. Lind Rec. Rec. Rec. Rec. Rec. Lind Rec. Rec. Rec. Rec. Rec. Rec. Rec. Rec.		RFR)				-, -						70 - 130
QC Batch: 48921	4-Diomondorobenzene (4-	Dr <i>D)</i>	1.02	1.0	0	mg/rxg		1.00	102	10	<u> </u>	70 - 130
Param Result DRO 1 735 mg/Kg 1 250 58.18 271 18 - 18 - 18 - 18 - 18 - 18 - 18 - 18 -	QC Batch: 48921	Spiked S	_	Date Ana	•						•	-
DRO 1 735 mg/Kg 1 250 58.18 271 18 - Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. MSD Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit RPD DRO 2 516 mg/Kg 1 250 58.18 183 18 - 179.5 35 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. MS MSD Spike MS MSD Result Result NSD Result Result Result Spike MS MSD MSD Res. Lin	Param				nits	Dil.	•			Rec.		Rec. Limit
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. MSD		, 1									18	3 - 179.5
MSD		on the eni	ko rosult			the coike						
Param Result Units Dil. Amount Result Rec. Limit RPD DRO 2 516 mg/Kg 1 250 58.18 183 18 - 179.5 35 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. MS MSD Spike MS MSD Result Surrogate Result Result Units Dil. Amount Rec. Rec. Lin n-Triacontane 128 100 mg/Kg 1 100 128 100 34.1 Matrix Spike (MS-1) Spike (MS-1) Spike Matrix Analyzed By: QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By:	1 electione recovery is based	on one spi	.KC 1CSulv.	101 10 10 00	isca on	one spike	and spine (aupircate :	csui.			
DRO 2 516 mg/Kg 1 250 58.18 183 18 - 179.5 35 Percent recovery is based on the spike result. MS MSD Spike and spike duplicate result. MSD Spike MS MSD Result Surrogate Result Units Dil. Amount Rec. Rec. Lin n-Triacontane 128 100 mg/Kg 1 100 128 100 34.1 Matrix Spike (MS-1) Spiked Sample: 161565 QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: Prepared By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: MS Spike Matrix F Param Result Units Dil. Amount Result Rec. Lin			MSD	'		Spike	Matrix		Rec	: .		RPD
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. MS												Limit
MS MSD Spike MS MSD Result Result Units Dil. Amount Rec. Rec. Lin n-Triacontane 128 100 mg/Kg 1 100 128 100 34.1 Matrix Spike (MS-1) Spiked Sample: 161565 QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: MS Spike Matrix F Param Result Units Dil. Amount Result Rec. Lin	DRO	2	516	mg/Kg	1	250	58.18	183	18 - 1'	79.5	35	20
Surrogate Result Result Units Dil. Amount Rec. Rec. Lin n-Triacontane 128 100 mg/Kg 1 100 128 100 34.1 Matrix Spike (MS-1) Spike (MS-1) Spike Matrix Analyzed By: QC Batch: 48934 QC Preparation: 2008-05-31 Prepared By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: Param Result Units Dil. Amount Result Rec. Lin	Percent recovery is based	on the spi	ke result.	RPD is ba	sed on	the spike	and spike o	luplicate :	result.			
Surrogate Result Result Units Dil. Amount Rec. Rec. Lin n-Triacontane 128 100 mg/Kg 1 100 128 100 34.1 Matrix Spike (MS-1) Spike (MS-1) Spike Matrix Analyzed By: QC Batch: 48934 QC Preparation: 2008-05-31 Prepared By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: Param Result Units Dil. Amount Result Rec. Lin	•	MC	Man				O 11	3.40	7	Man		D
n-Triacontane 128 100 mg/Kg 1 100 128 100 34.1 Matrix Spike (MS-1) Spiked Sample: 161565 Analyzed: 2008-05-31 Analyzed By: Prep Batch: 42034 Analyzed By: Prepared By: Prep	C			TIm	:+-	D:1	-					Rec. Limit
Matrix Spike (MS-1) Spiked Sample: 161565 QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: MS Spike Matrix F Param Result Units Dil. Amount Result Rec. Li												
QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: MS Spike Matrix F Param Result Units Dil. Amount Result Rec. L	II- Triacontane	120	100	1118/	ıĸg		100	120	<u> </u>	100		1.1 - 108
Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: MS Spike Matrix F Param Result Units Dil. Amount Result Rec. L	Matrix Spike (MS-1)	Spiked S	Sample: 16	1565								
Prep Batch: 42034 QC Preparation: 2008-05-30 Prepared By: MS Spike Matrix F Param Result Units Dil. Amount Result Rec. L	OC Batch: 48934			Date Ana	lvzed:	2008-05-	31			Anal	vzed B	y: DC
Param Result Units Dil. Amount Result Rec. L												
Param Result Units Dil. Amount Result Rec. L												
Param Result Units Dil. Amount Result Rec. L			MS				Spike	Ma	atrix			Rec.
	Param				nits	Dil.	•			Rec	:.	Limit
0112 1100 10001 110 10	GRO	3	54.2	2 m	g/Kg	1	10.0			143	}	70 - 130

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

continued ...

¹Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

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

Report	Date:	June	2,	2008
Denton	Gathe	ering l	Lin	.e

Work Order: 8052742 Denton Gathering Line Page Number: 10 of 11 Lea County, NM

matrix	spikes	continued				
7700001 000	Opinoco	COTTOTTO	•	•	٠	

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	52.3	mg/Kg	1	10.0	39.8607	124	70 - 130	4	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)	0.961	0.919	mg/Kg	1	1	96	92	70 - 130
4-Bromofluorobenzene (4-BFB)	1.03	0.944	mg/Kg	1	1	103	94	70 - 130

Standard (ICV-1)

QC Batch: 48921

Date Analyzed: 2008-05-30

Analyzed By: LD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	257	103	85 - 115	2008-05-30

Standard (CCV-1)

QC Batch: 48921

Date Analyzed: 2008-05-30

Analyzed By: LD

			$rac{ ext{CCVs}}{ ext{True}}$	CCVs Found	$\begin{array}{c} \text{CCVs} \\ \text{Percent} \end{array}$	Percent Recovery	Date
\mathbf{Param}	${f Flag}$	Units	Conc.	Conc.	Recovery	${f Limits}$	${f Analyzed}$
DRO		mg/Kg	250	236	94	85 - 115	2008-05-30

Standard (ICV-1)

QC Batch: 48934

Date Analyzed: 2008-05-31

Analyzed By: DC

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.949	95	85 - 115	2008-05-31

Standard (CCV-1)

QC Batch: 48934

Date Analyzed: 2008-05-31

Analyzed By: DC

Work Order: 8052742 Denton Gathering Line Page Number: 11 of 11 Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
	1 100						
GRO		${ m mg/Kg}$	1.00	0.941	94	85 - 115	2008-05-31

8052742 LAB Order ID #

TraceAnalysis, Inc.

email: lab@traceanalysis.com

Company Name:

F.,...

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296

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6015 Harris Pkwy., Suite 110 Ft. Worth, Texas 76132 Tel (817) 201-5260 ш 200 East Sunsel Rd., Sulte E El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-3944
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PIOH Turn Around Time if different from standard or Specify Method No. Dry Weight Basis Required Check If Special Reporting Limits Are Needed TRRP Report Required **ANALYSIS REQUEST** Moisture Content REMARKS: BOD, TSS, pH Pesticides 8081A / 608 PCB's 8082 / 608 GC/MS Semi. Vol. 8270C / 625 GC/W2 A91. 8260B / 624 RCI TCLP Pesticides TCLP Semi Volatiles Circle TCLP Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg AB USE Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 ONLY PAH 8270C / 625 TPH 8015 GRO / DRO) TVHC Headspace TPH 418,1 / TX1005 / TX1005 Ext(C35) Intact BTEX 8021B / 602 / 8260B / 624 8021B / 602 / 8260B / 624 MTBE 1200 205 1210 5/21 1220 SAMPLING **JMIT** novatraining. CC r Ü 12 1655 **JTAQ** Time: Time CAATHERING PRESERVATIVE NONE 27/08 ICE METHOD 0 Sampler Signature ИаОН Ν Date: Date: 1 OS2H 0 Project Name: HNO3 Phone #: HCI MOUNTAN IIL E-maji Received at Laboratory by SCUDGE MATRIX かなと ЯIA ROIL **A**∃TAW Received by: Received by 407 ĭ ر truomA \ emuloV ž # CONTAINERS entalian Time: Time: Time: XX 4 80 STA BUNNAVI FIELD CODE SW STAPLE STEAPLE STCKALE STYPPLE Project Location (including state): 1 350 Southwest Date: oun tr Date: (Street, City, Zip) (If different from above) SE (A) Relinguished by: Relinquished by: Relinquished by: 4 Contact Person: LAB USE 357 383 354 invoice to S Project #: 148# 148 Address:

o Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.

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Log-in-Review



E-Mail: lab@traceanalysis.com

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432 • 689 • 6301

Analytical and Quality Control Report

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

Report Date: June 2, 2008

Work Order: 8052943

Project Location: Lea County, NM Project Name: Denton Gathering Line Project Number: Denton Gathering Line

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
161563	N. Stockpile A	soil	2008-05-29	12:35	2008-05-29
161564	N. Stockpile B	soil	2008-05-29	12:40	2008-05-29
161565	N. Stockpile C	soil	2008-05-29	12:45	2008-05-29

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

Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX El Paso - NELAP T104704221-08-TX

Standard Flags

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

Case Narrative

Samples for project Denton Gathering Line were received by TraceAnalysis, Inc. on 2008-05-29 and assigned to work order 8052943. Samples for work order 8052943 were received intact at a temperature of 4.0 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8052943 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.

Work Order: 8052943 Denton Gathering Line Page Number: 4 of 9 Lea County, NM

Analytical Report

Sample: 161563 - N. Stockpile A

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039 Analytical Method: Mod. 8015B Date Analyzed: 2008-05-30 Sample Preparation: 2008-05-30 Prep Method: N/A
Analyzed By: LD
Prepared By: LD

RL

Parameter	\mathbf{Flag}	Result	Units	Dilution	RL
DRO		243	mg/Kg	1	50.0

					\mathbf{Spike}	Percent	Recovery
Surrogate	Flag	Result	${f Units}$	Dilution	Amount	Recovery	Limits
n-Triacontane		133	mg/Kg	1	100	133	10 - 250.4

Sample: 161563 - N. Stockpile A

Laboratory: Midland

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034 Analytical Method: S 8015B
Date Analyzed: 2008-05-31
Sample Preparation: 2008-05-30

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

RL

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		7.38	mg/Kg	1	1.00

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	\mathbf{Result}	${f Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.991	mg/Kg	1	1.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	70 - 130

Sample: 161564 - N. Stockpile B

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039

DRO

Analytical Method: Mod. 8015B
Date Analyzed: 2008-05-30
Sample Preparation: 2008-05-30

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

Parameter Flag F

 Result
 Units

 250
 mg/Kg

 Dilution
 RL

 1
 50.0

Work Order: 8052943 Denton Gathering Line Page Number: 5 of 9 Lea County, NM

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
n-Triacontane		127	mg/Kg	1	100	127	10 - 250.4

Sample: 161564 - N. Stockpile B

Laboratory: Midland

TPH GRO Analysis: QC Batch: 48934 Prep Batch: 42034

Analytical Method: S 8015B Date Analyzed:

2008-05-31 Sample Preparation: 2008-05-30 Prep Method: S 5035 Analyzed By: DCPrepared By: DC

		RL			
Parameter	Flag	Result	${ m Units}$	Dilution	RL
GRO		60.7	mg/Kg	1	1.00

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.919	mg/Kg	1	1.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1 .	1.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1 .	1.00	105	

Sample: 161565 - N. Stockpile C

Laboratory: Midland

Analysis: TPH DRO QC Batch: 48921 Prep Batch: 42039

Analytical Method: Mod. 8015B Date Analyzed: 2008-05-30 Sample Preparation: 2008-05-30

Prep Method: N/A Analyzed By: LDPrepared By: LD

		m RL			
Parameter	Flag	Result	Units	Dilution	RL
DRO		377	mg/Kg	1	50.0

					$_{ m Spike}$	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		165	mg/Kg	1	100	165	10 - 250.4

Sample: 161565 - N. Stockpile C

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 48934 Prep Batch: 42034

Analytical Method: S 8015B Date Analyzed: 2008-05-31 Sample Preparation: 2008-05-30 Prep Method: S 5035 Analyzed By: DCPrepared By: DC

continued ...

Work Order: 8052943 Denton Gathering Line Page Number: 6 of 9 Lea County, NM

sample 161565 continued ...

Parameter	Flag	RL Result			Units	Dilution		RL	
· _			RL			_	_		
Parameter	Flag		Result		\mathbf{Units}	Dilution		m RL	
GRO			39.9		mg/Kg		1	1.00	
						Spike	Percent	Recovery	
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	${f Amount}$	Recovery	Limits	
Trifluorotoluene (T	TFT)		0.955	mg/Kg	1	1.00	96	70 - 130	
4-Bromofluorobenzene (4-BFB)			0.964	mg/Kg	1	1.00	96	70 - 130	

Method Blank (1) QC Batch: 48921

Flag

QC Batch: 48921 Date Analyzed:

2008-05-30

Analyzed By: LD

Prep Batch: 42039

QC Preparation: 2008-05-30 Prepared By: LD

Parameter DRO

MDL Result 19.0

Units mg/Kg RL50

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		104	mg/Kg	1	100	104	30.9 - 146.4

Method Blank (1) QC Batch: 48934

48934 QC Batch:

Date Analyzed:

2008-05-31

Analyzed By: DC Prepared By: DC

Prep Batch: 42034 QC Preparation: 2008-05-30

MDL

Result Units Parameter Flag RL< 0.739 GRO mg/Kg

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	· 	1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.970	mg/Kg	1	1.00	97	70 - 130

Work Order: 8052943 Denton Gathering Line Page Number: 7 of 9 Lea County, NM

QC Batch: 48921 Prep Batch: 42039 Date Analyzed: 2008-05-30 QC Preparation: 2008-05-30

Analyzed By: LD Prepared By: LD

LCS Spike Matrix Rec. Result Param Units Dil. Amount Result Limit Rec. $\overline{\mathrm{D}\mathrm{RO}}$ 234 mg/Kg 1 250 19 86 27.8 - 152.1

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

LCSD RPD Spike Matrix Rec. Result Units Dil. RPD Param Amount Result Rec. Limit Limit DRO 232 mg/Kg 250 19 85 27.8 - 152.1 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	\mathbf{Units}	Dil.	Amount	${ m Re}c.$	Rec.	${f Limit}$
n-Triacontane	75.4	75.4	mg/Kg	1	100	75	75	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 48934 Prep Batch: 42034 Date Analyzed: 2008-05-31 QC Preparation: 2008-05-30

Analyzed By: DC Prepared By: DC

LCS Spike Matrix Rec. Result Units Dil. Result Amount Rec. Limit Param 7.97 < 0.739 $\overline{G}RO$ mg/Kg 10.0 80 70 - 130

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

LCSD RPD Spike Matrix Rec. Dil. RPD Result Units Result Limit Limit Param Amount Rec. \overline{GRO} 8.34 mg/Kg 1 10.0 < 0.73983 70 - 130 4 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)	1.03	1.04	mg/Kg	1	1.00	103	104	70 - 130
4-Bromofluorobenzene (4-BFB)	1.02	1.00	mg/Kg	1	1.00	102	100	70 - 130

Matrix Spike (MS-1) Spiked Sample: 161350

QC Batch: 48921 Prep Batch: 42039 Date Analyzed: 2008-05-30 QC Preparation: 2008-05-30

Analyzed By: LD Prepared By: LD

Work Order: 8052943 Denton Gathering Line Page Number: 8 of 9 Lea County, NM

		MS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
DRO	1	735	mg/Kg	1	250	58.18	271	18 - 179.5
<u> </u>		I. DDT	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	. 1	, ,, ,	1 1.		

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	\mathbf{Units}	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	2	516	mg/Kg	1	250	58.18	183	18 - 179.5	35	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-Triacontane	128	100	mg/Kg	1	100	128	100	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 161565

QC Batch: 48934

Date Analyzed: 2008-05-31

Analyzed By: DC Prepared By: DC

Prep Batch: 42034

QC Preparation: 2008-05-30

MS Matrix Spike Rec. Param Result Units Dil. Amount Result Rec. Limit $\overline{\text{GRO}}$ 54.2 39.8607 143 70 - 130 mg/Kg 10.0

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
GRO	52.3	mg/Kg	1	10.0	39.8607	124	70 - 130	4	$\overline{20}$

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

Surrogate	$rac{ ext{MS}}{ ext{Result}}$	MSD Result	Units	Dil.	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.961	0.919	mg/Kg	1	1	96	92	70 - 130
4-Bromofluorobenzene (4-BFB)	1.03	0.944	mg/Kg	1	1	103	94	70 - 130

Standard (CCV-1)

QC Batch: 48921

Date Analyzed: 2008-05-30

Analyzed By: LD

	,		CCVs True	CCVs Found	$\begin{array}{c} { m CCVs} \\ { m Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	236	94	85 - 115	2008-05-30

¹Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

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

Report Date: June 2, 2008 Denton Gathering Line			Vork Order: 805 enton Gathering	Page Number: 9 of 9 Lea County, NM			
Standard	(CCV-2)						
QC Batch:	48921		Date An	alyzed: 2008-0	5-30	Ana	lyzed By: LD
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	214	86	85 - 115	2008-05-30
Standard QC Batch:			Date Ana	alyzed: 2008-0	5-31	Ana	lyzed By: DC
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.949	95	85 - 115	2008-05-31
Standard	(CCV-1)			•			
QC Batch:	48934		Date Ana	alyzed: 2008-0	5-31	Anal	lyzed By: DC
T.	771	TT **	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param GRO	Flag	Units mg/Kg	Conc. 1.00	Conc. 0.941	Recovery 94	Limits 85 - 115	Analyzed 2008-05-31



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Ft. Worth, Texas 76132

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E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

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

Report Date: June 12, 2008

Work Order: 8060602

Project Location: Lea County, NM
Project Name: Denton Gathering
Project Number: Denton Gathering

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

			Date	${f Time}$	Date
Sample	Description	Matrix	\mathbf{Taken}	Taken	Received
162074	SE-SP A2-2	soil	2008-06-05	11:20	2008-06-05
162075	N-SP A2-2	soil	2008-06-05	11:50	2008-06-05
162076	N-SP B2-2	soil	2008-06-05	11:30	2008-06-05
162077	N-SP C2-2	soil	2008-06-05	11:40	2008-06-05

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

Dr. Blair Leftwich, Director

Certifications Lubbock - NELAP T104704219-08-TX El Paso - NELAP T104704221-08-TX

Standard Flags

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

Case Narrative

Samples for project Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-05 and assigned to work order 8060602. Samples for work order 8060602 were received intact at a temperature of 3.0 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8060602 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.

Denton Gathering

Work Order: 8060602 Denton Gathering

Page Number: 4 of 11 Lea County, NM

Analytical Report

Sample: 162074 - SE-SP A2-2

Laboratory:

Midland

Analysis:

TPH DRO

QC Batch: 49132 Prep Batch: 42187

Analytical Method:

Date Analyzed:

2008-06-06 Sample Preparation: 2008-06-06

Mod. 8015B

Prep Method: N/A Analyzed By:

LD Prepared By:

RL

Parameter

Surrogate

n-Triacontane

Flag

Result

122

Flag

Flag

Result 126

Units mg/Kg Dilution

122

RL

50.0

DRO

Units

mg/Kg

Dilution

1

Spike Percent Amount Recovery

100

Recovery Limits

10 - 250.4

Sample: 162074 - SE-SP A2-2

Laboratory:

Midland

Analysis: QC Batch: Prep Batch:

TPH GRO 49181 42245

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015B 2008-06-09 Prep Method: S 5035 Analyzed By:

DC

RLResult 2008-06-09

Prepared By:

DC

Parameter GRO

1.00

Units

Dilution

Recovery

93

100

RL

<1.00

mg/Kg

1.00

Surrogate

Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)

Flag

Units Result 0.928mg/Kg Dilution

1 1 Percent

Spike

Amount

1.00

1.00

Recovery

Limits

67.5 - 135.2 63.8 - 141

Sample: 162075 - N-SP A2-2

Laboratory:

Prep Batch: 42187

Midland

Analysis: QC Batch: TPH DRO 49132

Analytical Method: Date Analyzed:

Mod. 8015B 2008-06-06 Sample Preparation: 2008-06-06

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

RL

Parameter	\mathbf{Flag}	Result	Units	Dilution	RL
DRO		244	${ m mg/Kg}$	1	50.0

mg/Kg

Denton Gathering

Work Order: 8060602 Denton Gathering

Page Number: 5 of 11 Lea County, NM

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	\mathbf{Result}	${f Units}$	Dilution	${\bf Amount}$	Recovery	Limits
n-Triacontane		164	${ m mg/Kg}$	1	100	164	10 - 250.4

Sample: 162075 - N-SP A2-2

Laboratory: Midland

Analysis: TPH GRO QC Batch: 49181 Prep Batch: 42245

Analytical Method: Date Analyzed:

S 8015B 2008-06-09 Sample Preparation: 2008-06-09 Prep Method: S 5035 Analyzed By: DCPrepared By: DC.

RL

Result Parameter Flag Units Dilution RLGRO 13.6 mg/Kg 1.00

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.945	mg/Kg	1	1.00	94	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.11	mg/Kg	1	1.00	111	63.8 - 141

Sample: 162076 - N-SP B2-2

Laboratory: Midland

TPH DRO Analysis: QC Batch: 49132 Prep Batch: 42187

Analytical Method: Date Analyzed:

RL

Mod. 8015B 2008-06-06 Sample Preparation: 2008-06-06

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

Flag Result Parameter $\overline{\text{DRO}}$ 323

Units mg/Kg RL

50.0

C	Dla	Dogult	Ilmita	Dibution	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount_	Recovery	Limits
n-Triacontane		148	mg/Kg	1	100	148	10 - 250.4

Sample: 162076 - N-SP B2-2

Laboratory: Midland

Analysis: TPH GRO QC Batch: 49181 Prep Batch: 42245

Analytical Method: Date Analyzed: Sample Preparation:

S 8015B 2008-06-09 2008-06-09 Prep Method: S 5035 Analyzed By: DCPrepared By:

continued ...

Dilution

Report	Date:	June	12,	2008
Denton	Gathe	ering		

Work Order: 8060602 Denton Gathering Page Number: 6 of 11 Lea County, NM

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Parameter	Flag	,, <u>=</u> =	RL Result		Units		Dilution	RL
Parameter	Flag		$rac{ ext{RL}}{ ext{Result}}$		Units		Dilution	m RL
GRO	Tiag		22.6		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (T 4-Bromofluorobenz			0.952 1.18	mg/Kg mg/Kg	1 1	1.00 1.00	95 118	67.5 - 135.2 63.8 - 141

Sample: 162077 - N-SP C2-2

Laboratory: Midland

Analysis: TPH DRO QC Batch: 49132 Prep Batch: 42187 Analytical Method: Mod. 8015B Date Analyzed: 2008-06-06 Sample Preparation: 2008-06-06

 od. 8015B
 Prep Method:
 N/A

 08-06-06
 Analyzed By:
 LD

 08-06-06
 Prepared By:
 LD

DRO		224	mg/Kg	1	50.0
Parameter	Flag	\mathbf{Result}	\mathbf{Units}	Dilution	RL
		KL			

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		148	$_{ m mg/Kg}$	1	100	148	10 - 250.4

Sample: 162077 - N-SP C2-2

Laboratory: Midland

Analysis: TPH GRO QC Batch: 49233 Prep Batch: 42289 Analytical Method: S 8015B
Date Analyzed: 2008-06-10
Sample Preparation: 2008-06-10

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

		${ m RL}$			
Parameter	Flag	\mathbf{Result}	Units	Dilution	RL
GRO		8.90	mg/Kg	1	1.00

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.923	mg/Kg	1	1.00	92	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.10	$_{ m mg/Kg}$	1	1.00	110	63.8 - 141

Report Date: June 12, 2008 Work Order: 8060602 Page Number: 7 of 11 Denton Gathering Denton Gathering Lea County, NM QC Batch: 49132 Method Blank (1) QC Batch: 49132 Date Analyzed: 2008-06-06 Analyzed By: LD Prep Batch: 42187 QC Preparation: 2008-06-06 Prepared By: LD MDL Parameter Result Units RLFlag DRO <15.8 mg/Kg 50 Spike Percent Recovery Surrogate Flag Result Units Dilution Amount Recovery Limits n-Triacontane 81.1 100 81 30.9 - 146.4 mg/Kg 1 Method Blank (1) QC Batch: 49181 QC Batch: 49181 Date Analyzed: 2008-06-09 Analyzed By: DC Prep Batch: 42245 QC Preparation: 2008-06-09 Prepared By: DC MDL Flag Result Units RLParameter GRO < 0.739mg/Kg Percent Spike Recovery Units Surrogate Flag Result Dilution Amount Recovery Limits Trifluorotoluene (TFT) 1.02mg/Kg 1 1.00 102 39.2 - 135.2 0.988 4-Bromofluorobenzene (4-BFB) mg/Kg 1 1.00 99 16.8 - 138.1 Method Blank (1) QC Batch: 49233 QC Batch: Date Analyzed: 2008-06-10 Analyzed By: DC 49233 Prep Batch: 42289 QC Preparation: 2008-06-10 Prepared By: DC MDL Result Parameter Flag Units RL $\overline{\text{GRO}}$ < 0.739 mg/Kg 1

Flag

Surrogate

Trifluorotoluene (TFT)

4-Bromofluorobenzene (4-BFB)

Result

0.959

0.933

Units

mg/Kg

mg/Kg

Dilution

1

1

Spike

Amount

1.00

1.00

Percent

Recovery

96

93

Recovery

Limits

39.2 - 135.2

16.8 - 138.1

Report Date: June 12, 2008 Denton Gathering Work Order: 8060602 Denton Gathering Page Number: 8 of 11 Lea County, NM

Laboratory Control Spike (LCS-1)

QC Batch: 49132 Prep Batch: 42187 Date Analyzed: 2008-06-06 QC Preparation: 2008-06-06 Analyzed By: LD Prepared By: LD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	197	mg/Kg	1	250	<15.8	79	27.8 - 152.1

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	\mathbf{Limit}
DRO	208	mg/Kg	1	250	<15.8	83	27.8 - 152.1	5	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-Triacontane	81.6	83.1	mg/Kg	1	100	82	83	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 49181 Prep Batch: 42245 Date Analyzed: 2008-06-09 QC Preparation: 2008-06-09 Analyzed By: DC Prepared By: DC

	LCS			Spike	Matrix		Rec.
Param	Result	${f Units}$	Dil.	Amount	Result	Rec.	Limit
GRO	9.65	mg/Kg	1	10.0	< 0.739	96	57.5 - 106.4

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
GRO	10.2	mg/Kg	1	10.0	< 0.739	102	57.5 - 106.4	6	20

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

Surrogate	$rac{ ext{LCS}}{ ext{Result}}$	$\begin{array}{c} { m LCSD} \\ { m Result} \end{array}$	Units	Dil.	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.05	1.06	mg/Kg	1	1.00	105	106	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	1.04	1.05	mg/Kg	1	1.00	104	105	53.3 - 123.6

Laboratory Control Spike (LCS-1)

QC Batch: 49233 Prep Batch: 42289 Date Analyzed: 2008-06-10 QC Preparation: 2008-06-10

Analyzed By: DC Prepared By: DC

Denton Gathering

Work Order: 8060602 Denton Gathering Page Number: 9 of 11 Lea County, NM

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	7.67	mg/Kg	1	10.0	< 0.739	77	57.5 - 106.4

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	7.74	mg/Kg	1	10.0	< 0.739	77	57.5 - 106.4	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)	0.906	0.925	mg/Kg	1	1.00	91	92	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.905	0.913	mg/Kg	1	1.00	90	91	53.3 - 123.6

Matrix Spike (MS-1) Spiked Sample: 162074

QC Batch: 49132 Prep Batch: 42187 Date Analyzed: 2008-06-06 QC Preparation: 2008-06-06 Analyzed By: LD Prepared By: LD

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	395	mg/Kg	1	250	125.86	108	18 - 179.5

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.	${f Limit}$	RPD	Limit
DRO	336	mg/Kg	1	250	125.86	84	18 - 179.5	16	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-Triacontane	141	138	mg/Kg	1	100	141	138	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 161949

QC Batch: 49181 Prep Batch: 42245 Date Analyzed: 2008-06-09 QC Preparation: 2008-06-09 Analyzed By: DC Prepared By: DC

	MS			\mathbf{Spike}	Matrix		Rec.
Param	Result	\mathbf{Units}	Dil.	Amount	Result	Rec.	${f Limit}$
GRO	11.6	mg/Kg	1	10.0	< 0.739	116	10 - 139.3

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

Denton Gathering

Work Order: 8060602 Denton Gathering

Page Number: 10 of 11 Lea County, NM

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	I	20.4	mg/Kg	1	10.0	< 0.739	204	10 - 139.3	55	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)	1.08	1.09	mg/Kg	1	1	108	109	21.3 - 119
4-Bromofluorobenzene (4-BFB)	1.05	1.06	mg/Kg	1	1	105	106	52.5 - 154

Matrix Spike (MS-1) Spiked Sample: 162290

QC Batch:

49233 Prep Batch: 42289 Date Analyzed: QC Preparation: 2008-06-10

2008-06-10

Analyzed By: DC

Prepared By: DC

	MS			Spike	Matrix		Rec.
Param	Result	${f Units}$	Dil.	Amount	Result	Rec.	Limit
GRO	10.4	mg/Kg	1	10.0	< 0.739	104	10 - 139.3

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	\mathbf{Units}	Dil.	Amount	Result	Rec.	Limit	RPD	\mathbf{Limit}
GRO	 10.3	mg/Kg	1	10.0	< 0.739	103	10 - 139.3	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	${f Units}$	Dil.	Amount	Rec.	${ m Rec.}$	\mathbf{Limit}
Trifluorotoluene (TFT)	0.900	0.908	mg/Kg	1	1	90	91	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.975	0.975	mg/Kg	1	1	98	98	52.5 - 154

Standard (ICV-1)

QC Batch: 49132

Date Analyzed: 2008-06-06

Analyzed By: LD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	212	85	85 - 115	2008-06-06

Standard (CCV-1)

QC Batch: 49132

Date Analyzed: 2008-06-06

Analyzed By: LD

¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: June 12, 2008 Denton Gathering Work Order: 8060602 Denton Gathering Page Number: 11 of 11 Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	225	90	85 - 115	2008-06-06

Standard (ICV-1)

QC Batch: 49181

Date Analyzed: 2008-06-09

Analyzed By: DC

			ICVs True	ICVs Found	$egin{array}{l} ext{ICVs} \ ext{Percent} \end{array}$	Percent	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Recovery Limits	Analyzed
GRO		mg/Kg	1.00	1.08	108	85 - 115	2008-06-09

Standard (CCV-1)

QC Batch: 49181

Date Analyzed: 2008-06-09

Analyzed By: DC

			CCVs	\mathbf{CCVs}	\mathbf{CCVs}	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.939	94	85 - 115	2008-06-09

Standard (ICV-1)

QC Batch: 49233

Date Analyzed: 2008-06-10

Analyzed By: DC

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.996	100	85 - 115	2008-06-10

Standard (CCV-1)

QC Batch: 49233

Date Analyzed: 2008-06-10

Analyzed By: DC

			CCVs	CCVs	CCVs	Percent	
			True	\mathbf{Found}	$\operatorname{Percent}$	Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.948	95	85 - 115	2008-06-10

ploH 8808 Camp Bowle Blvd. West, Suite 180 Ft Worth. Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336 Turn Around Time if different from standard S O Circle or Specify Method Dry Weight Basis Required Check If Special Reporting Ari + colo-Midlend TRRP Report Required **ANALYSIS REQUEST** Moisture Content Limits Are Needed BOD, TSS, pH Pesticides 8081A / 608 PCB's 8082 / 608 200 East Sunset Rd., Sulte El Paso, Texas 79922 Tel (915) 585-3443 Fs (915) 586-3944 1 (888) 588-3443 GC/MS 26ml; Vol. 8270C / 625 REMARKS GC/W2 AOI: 8560B / 624 TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles **450 USE** TCLP Metals Ag As Ba Cd Cr Pb Se Hg Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 3 PAH 8270C / 625 TPH 8015 GRO / DRO TVHC ×× TPH 418.1 / TX1005 / TX1005 EX(C35) Carrier # BTEX 8021B / 602 / 8260B / 624 3.2.6 Temp^oc: Temp°c: Temp°c: 8021B / 602 / 8260B / 624 **BATM** rrounsaville a nometraining, cc SAMPLING TIME 日に日 Time: TIMe: Time: 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 784-1296 Fax (806) 794-1298 1 (800) 378-1296 **DATE** Date: NONE -172 PRESERVATIVE METHOD Thace ulston ICE Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. Sampler Signature: NaOH Company: Company: Company: PS2D1 Project Name [€]ONH HCI E-mail: Received by: Received by: STUDGE MATRIX AIR Dertas بعر SOIF **MATER** Envilonment AL email: lab@traceanalysis.com 402 InnomA \ emuloV TIme: Time: CounsAvilla # CONTAINERS Centurion Date: Project Location (including state): FIELD CODE Company: Company NOVA (Street, City, Zip) シーツス (If different from above) 首種ハーング Relinquished by: Company Name Contact Person: nvoice to: Project #: Address

ORIGINAL COPY

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LAB Order ID #

TraceAnalysis, Inc.



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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Analytical and Quality Control Report

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

Report Date:

June 19, 2008

Work Order:

8061238

Project Location: Lea County, NM Project Name: **Denton Gathering** Project Number: Denton Gathering

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

			Date	rune	Date
Sample	Description	Matrix	Taken	Taken	Received
162999	N. Stockpile A-3	soil	2008-06-11	12:05	2008-06-12
163000	N. Stockpile B-3	soil	2008-06-11	12:10	2008-06-12
163001	N. Stockpile C-3	soil	2008-06-11	12:15	2008-06-12
163002	SE Stockpile A-3	soil	2008-06-11	12:00	2008-06-12

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

Dr. Blair Leftwich, Director

Certifications Lubbock - NELAP T104704219-08-TX El Paso - NELAP T104704221-08-TX

Standard Flags

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

Case Narrative

Samples for project Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-12 and assigned to work order 8061238. Samples for work order 8061238 were received intact at a temperature of 3.4 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8061238 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.

Denton Gathering

Work Order: 8061238 Denton Gathering

Page Number: 4 of 10 Lea County, NM

Analytical Report

Sample: 162999 - N. Stockpile A-3

Laboratory: Analysis:

Midland TPH DRO 49287

Analytical Method: Date Analyzed:

Mod. 8015B 2008-06-12

Prep Method: N/A

QC Batch: Prep Batch: 42344

Sample Preparation: 2008-06-12

Analyzed By: LD Prepared By: LD

RΤ

Parameter	Flag	Result	· Units	Dilution	RL
DRO		287	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	1	270	mg/Kg	1	100	270	10 - 250.4

Sample: 162999 - N. Stockpile A-3

Laboratory: Midland

TPH GRO Analysis: QC Batch: 49451 Prep Batch: 42420

Analytical Method:

Date Analyzed:

S 8015B 2008-06-17 Sample Preparation: 2008-06-16 Prep Method: S 5035

Analyzed By: DC Prepared By: DC

RL

Parameter	Flag	Result	\mathbf{Units}	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} \text{Spike} \\ \text{Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.900	mg/Kg	1	1.00	90	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)	_	0.899	mg/Kg	1	1.00	90	63.8 - 141

Sample: 163000 - N. Stockpile B-3

Laboratory: Midland

TPH DRO Analysis: 49287 QC Batch: Prep Batch: 42344

Analytical Method: Mod. 8015B Date Analyzed: 2008-06-12

Sample Preparation: 2008-06-12

Prep Method: N/A Analyzed By: LDPrepared By: LD

RL

				1(11)
DRO	189	mg/Kg	1	50.0

¹High surrogate recovery due to peak interference.

Denton Gathering

Work Order: 8061238 Denton Gathering

Page Number: 5 of 10 Lea County, NM

M.					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		219	mg/Kg	1	100	219	10 - 250.4

Sample: 163000 - N. Stockpile B-3

Laboratory: Midland

Analysis: TPH GRO QC Batch: 49451 Prep Batch: 42420

Analytical Method: Date Analyzed:

S 8015B 2008-06-17 Sample Preparation: 2008-06-16 Prep Method: S 5035 Analyzed By:

DCPrepared By: DC

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		3.94	mg/Kg	1 .	1.00

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} \mathbf{Spike} \ \mathbf{Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.902	mg/Kg	1	1.00	90	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.946	mg/Kg	1	1.00	95	63.8 - 141

Sample: 163001 - N. Stockpile C-3

Laboratory: Midland

Analysis: TPH DRO QC Batch: 49287 Prep Batch: 42344

Analytical Method: Date Analyzed:

Mod. 8015B 2008-06-12 Sample Preparation: 2008-06-12

Prep Method: N/A Analyzed By: LD

Prepared By: LD

RL.

Parameter	\mathbf{Flag}	Result	Units	Dilution	RL
DRO		145	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		162	mg/Kg	1	100	162	10 - 250.4

Sample: 163001 - N. Stockpile C-3

Laboratory: Midland

TPH GRO Analysis: QC Batch: 49451 Prep Batch: 42420

Analytical Method: Date Analyzed: Sample Preparation:

S 8015B 2008-06-17 2008-06-16 Prep Method: S 5035 Analyzed By: DCPrepared By: DC

continued ...

Denton Gathering

Work Order: 8061238 Denton Gathering

Page Number: 6 of 10 Lea County, NM

sample 163001 continued ...

Parameter	Flag		RL Result		Units		Dilution	RL
			RL					
Parameter	Flag		Result		${f Units}$		Dilution	m RL
GRO			1.48		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (7. 4-Bromofluoroben:			0.960 1.02	mg/Kg mg/Kg	1 1	1.00 1.00	96 102	67.5 - 135.2 63.8 - 141

Sample: 163002 - SE Stockpile A-3

Laboratory: Midland

Analysis: QC Batch:

Prep Batch: 42344

TPH DRO

49287

Analytical Method:

Date Analyzed:

2008-06-12 Sample Preparation: 2008-06-12

Mod. 8015B

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

•		m RL			
Parameter	Flag	Result	\mathbf{Units}	Dilution	RL
DRO		89.3	mg/Kg	1	50.0
			Spil.	zo Dorgont	Pagarant

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		128	mg/Kg	1	100	128	10 - 250.4

Sample: 163002 - SE Stockpile A-3

Laboratory: Midland

Analysis: QC Batch:

Prep Batch: 42420

TPH GRO 49451

Analytical Method: Date Analyzed:

S 8015B 2008-06-17 Sample Preparation: 2008-06-16 Prep Method: S 5035 Analyzed By: DC Prepared By: DC

		${ m RL}$			
Parameter	Flag	Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.903	mg/Kg	1	1.00	90	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.947	mg/Kg	1	1.00	95	63.8 - 141

Report Date: June 19, 2008 Work Order: 8061238 Page Number: 7 of 10 Denton Gathering Denton Gathering Lea County, NM Method Blank (1) QC Batch: 49287 QC Batch: Date Analyzed: 49287 2008-06-12 Analyzed By: LD Prep Batch: 42344 QC Preparation: 2008-06-12 Prepared By: LD MDL Parameter Flag Result Units RLDRO <15.8 mg/Kg 50 Spike Percent Recovery Surrogate Flag Result Units Dilution Amount Recovery Limits n-Triacontane $\overline{135}$ 1 100 135 30.9 - 146.4 mg/Kg Method Blank (1) QC Batch: 49451 QC Batch: 49451 Date Analyzed: 2008-06-17 Analyzed By: DC Prep Batch: 42420 QC Preparation: 2008-06-16 Prepared By: DC MDL Flag Parameter Result Units RLGRO < 0.739 mg/Kg Spike Percent Recovery

Laboratory Control Spike (LCS-1)

QC Batch: 49287 Prep Batch: 42344

Trifluorotoluene (TFT)

4-Bromofluorobenzene (4-BFB)

Surrogate

Date Analyzed: 2008-06-12 QC Preparation: 2008-06-12

Units

mg/Kg

mg/Kg

Dilution

1

1

Amount

1.00

1.00

Recovery

89

88

Analyzed By: LD Prepared By: LD

Limits

39.2 - 135.2

16.8 - 138.1

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit DRO 235 mg/Kg 250 <15.8 94 27.8 - 152.1

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

Result

0.891

0.883

Flag

	$_{ m LCSD}$			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	232	mg/Kg	1	250	<15.8	93	27.8 - 152.1	1	20

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

continued ...

Report Date: June 19, Denton Gathering	2008		Work O Dento		Page Number: 8 of 10 Lea County, NM			
control spikes continued	<i>l</i>							
	LCS	LCSD	•		\mathbf{Spike}	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	101	95.3	mg/Kg	1	100	101	95	38 - 130.4
QC Batch: 49451 Prep Batch: 42420	Spike (LC	Ē	Oate Analyzed: QC Preparation					yzed By: DC ared By: DC
		LCS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		8.16	mg/Kg	1	10.0	< 0.739	82	57.5 - 106.4
Percent recovery is base	ed on the sp	oike result. R	PD is based of	n the spike	e and spike o	luplicate res	ult.	
		LCSD		Spike	Matrix		Rec.	RPD
Param			Units Dil.	Amount	Result	Rec.	Limit	RPD Limit
GRO		8.25 m	ng/Kg 1	10.0	< 0.739	82 57	.5 - 106.4	1 20
Percent recovery is base	ed on the sp	oike result. R	PD is based or	n the spike	e and spike o	luplicate res	ult.	
		LCS	LCSD		Sp	ike LCS	LCSD	Rec.
Surrogate		Result	Result	Units	-	ount Rec		Limit
Trifluorotoluene (TFT)		0.892	0.895	ng/Kg	1 1.	00 89	90	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.915	0.919	ng/Kg	1 1.	00 92	92	53.3 - 123.6
Matrix Spike (MS-1) QC Batch: 49287 Prep Batch: 42344	Spiked		864 Oate Analyzed: OC Preparation					yzed By: LD ared By: LD
Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	_	Rec. Limit

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	1300	mg/Kg	1	250	1230	28	18 - 179.5

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

	MSD			Spike	Matrix		${ m Rec.}$		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	1300	mg/Kg	1	250	1230	28	18 - 179.5	0	20

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

Denton Gathering

Work Order: 8061238 Denton Gathering

Page Number: 9 of 10 Lea County, NM

		MS	MSD			Spike	MS	MSD	Rec.
Surrogate		Result	Result	Units	$\mathbf{Dil}.$	Amount	Rec.	Rec.	Limit
n-Triacontane	2 3	362	530	mg/Kg	1	100	362	530	34.1 - 158

Matrix Spike (MS-1)

Spiked Sample: 162999

QC Batch: Prep Batch: 42420

49451

Date Analyzed:

2008-06-17

QC Preparation: 2008-06-16

Analyzed By: DC Prepared By: DC

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	12.6	mg/Kg	1	10.0	< 0.739	126	10 - 139.3

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
GRO	13.8	mg/Kg	1	10.0	< 0.739	138	10 - 139.3	9	20

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

	MS	MSD			\mathbf{Spike}	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.879	0.886	mg/Kg	1	1	88	89	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.917	0.881	mg/Kg	1	1	92	88	52.5 - 154

Standard (ICV-1)

QC Batch: 49287

Date Analyzed: 2008-06-12

Analyzed By: LD

			ICVs True	ICVs Found	$\begin{array}{c} \text{ICVs} \\ \text{Percent} \end{array}$	$rac{ ext{Percent}}{ ext{Recovery}}$	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	234	94	85 - 115	2008-06-12

Standard (CCV-1)

QC Batch: 49287

Date Analyzed: 2008-06-12

Analyzed By: LD

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	233	93	85 - 115	2008-06-12

²High surrogate recovery due to peak interference.

³High surrogate recovery due to peak interference.

Report Date: June 19, 2008 Work Order: 8061238 Page Number: 10 of 10 Denton Gathering Denton Gathering Lea County, NM Standard (ICV-1) QC Batch: 49451 Date Analyzed: 2008-06-17 Analyzed By: DC **ICVs ICVs ICVs** Percent True Found Percent Recovery Date Param Flag Units Conc. Conc. Recovery Limits Analyzed $\overline{\text{GRO}}$ 1.00 0.970 2008-06-17 mg/Kg 97 85 - 115 Standard (CCV-1) QC Batch: 49451 Date Analyzed: 2008-06-17 Analyzed By: DC **CCVs CCVs CCVs** Percent

Found

Conc.

0.960

Percent

Recovery

96

Recovery

Limits

85 - 115

Date

Analyzed

2008-06-17

True

Conc.

1.00

Param

 $\overline{\text{GRO}}$

Flag

Units

mg/Kg

DIOH 8808 Camp Bowie Blvd. West, Suite 180 Ft. Worth. Toxas 76116 Ft. 816 817) 201-5260 Fax (817) 560-4336 Turn Around Time if different from standard Circle or Specify Method No. Dry Weight Basis Required Check If Special Reporting Limits Are Needed All tests. Hilland TRRP Report Required Moisture Content **ANALYSIS REQUEST** Hq, RST, GOB Pesticides 8081A / 608 PCB's 8082 / 608 200 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 GC/MS Semi. Vol. 8270C / 625 REMARKS: GC/W2 AOI' 8560B / 624 RCI TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg Carrier # CADAY Total Metals Ag As Ba Cd Cr Pb Se Hg 60108/200.7 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 PAH 8270C / 625 TOHO ORO I DRO TVHC TPH 418.1 / TX1005 / TX1005 Ext(C35) BTEX 8021B / 602 / 8260B / 624 80218 / 602 / 82608 / 624 **BATM** Temp' Temp Temp 8 202/80/11 0/2/ 1215 92/ SAMPLING **HIME** 3 Time: 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 Mounsayille & nowatraining.ce ~ ز **3TA** B Date: PRESERVATIVE NONE SATTERING. × × Х × METHOD ICE 520-772 mpler 80 nature Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. NaOH Company: Company OS2H Project Name FONH Phone #: HCI E-mail SUDDE Received by: Received by MATRIX DENTEN TraceAnalysis, Inc. AIR × × TIOS **ABTAW** $\frac{1}{4}$ email: lab@traceanalysis.com Yolume / Amount Time: Time: Time: EMVICONMENTAL 200 # CONTAINERS entulion Ô Date: Date: M }) Į Kounstille STOCKPile A SE Stockpile A Ø N. STOCKAILE C PIELD CODE Company: Project Location (including state): Company See N. Sparke (Street, City, Zip our ty (If different from above) Relinguished by: Relinquished by: Company Name: Contact Person: Ser. FA Relinqulsfik (EXENSE) Invoice to: Project #: # 9 Address

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LAB Order ID # 9061239

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6701 Aberdeen Avenue; Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 Lubbock, Texas 79424 El Paso; Texas 79922 Midland, Texas 79703

800 • 378 • 1296 888 • 588 • 3443 806 • 794 • 1296 915 • 585 • 3443 432 • 689 • 6301 817 • 201 • 5260 FAX 806 • 794 • 1298 FAX 915 • 595 • 4944 FAX 432 • 689 • 6313

6015 Harris Parkway: Suite 110 Ft. Worth, Texas 76132

E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

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

Report Date: J

June 24, 2008

Work Order:

8062031

Project Location: Lea County, NM
Project Name: Denton Gathering
Project Number: Denton Gathering

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
164280	North SP-4A	soil	2008-06-19	11:35	2008-06-20
164281	North SP-4B	soil	2008-06-19	11:30	2008-06-20
164282	North SP-4C	soil	2008-06-19	11:40	2008-06-20

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

Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX El Paso - NELAP T104704221-08-TX

Standard Flags

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

Case Narrative

Samples for project Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-20 and assigned to work order 8062031. Samples for work order 8062031 were received intact at a temperature of 3.8 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8062031 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.

Denton Gathering

Work Order: 8062031 Denton Gathering

Page Number: 4 of 9 Lea County, NM

Analytical Report

Sample: 164280 - North SP-4A

Laboratory:

Midland

Analysis: QC Batch: TPH DRO 49614

Analytical Method: Date Analyzed:

Mod. 8015B

2008-06-20 Sample Preparation: 2008-06-20

1

Prep Method: Analyzed By:

Prepared By:

Prep Batch:

42583

RL

mg/Kg

Result Parameter Flag DRO 206

Units mg/Kg Dilution

RL50.0

N/A

LD

LD

Surrogate Flag Result 138 Units Dilution

Spike Percent Amount Recovery 100 138

Recovery Limits 10 - 250.4

n-Triacontane

Sample: 164280 - North SP-4A

Laboratory:

Midland

Analysis: QC Batch:

TPH GRO 49664 Prep Batch: 42653

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015B

2008-06-24 2008-06-23 Prep Method: S 5035

Analyzed By: DCPrepared By: DC

RL

Result Units Dilution RLParameter Flag <1.00 1.00 GRO mg/Kg

					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.967	mg/Kg	1	1.00	97	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.980	mg/Kg	1	1.00	98	63.8 - 141

Sample: 164281 - North SP-4B

Laboratory:

Midland

Analysis: QC Batch: TPH DRO

49614 Prep Batch: 42583

Analytical Method: Date Analyzed:

Sample Preparation:

Mod. 8015B 2008-06-20 2008-06-20

Prep Method: N/AAnalyzed By: LD

Prepared By: LD

RL

Dilution Flag Result Units RLParameter 121 $\overline{\text{DRO}}$ mg/Kg 50.0

Denton Gathering

Work Order: 8062031 Denton Gathering

Page Number: 5 of 9 Lea County, NM

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	$\begin{array}{c} {\rm Recovery} \\ {\rm Limits} \end{array}$
n-Triacontane		120	mg/Kg	1	100	120	10 - 250.4

Sample: 164281 - North SP-4B

Laboratory:

Midland

Analysis: QC Batch: Prep Batch:

TPH GRO

49664 42653 Analytical Method: Date Analyzed:

S 8015B

2008-06-24 Sample Preparation: 2008-06-23 Prep Method: S 5035

Analyzed By: DCPrepared By: DC

Dilution

RLResult Parameter Flag

GRO <1.00

Units mg/Kg

RL1.00

Spike Percent Recovery Flag Surrogate Units Dilution Amount Limits Result Recovery Trifluorotoluene (TFT) 0.970 1.00 67.5 - 135.2 mg/Kg 1 97 4-Bromofluorobenzene (4-BFB) 1.01 mg/Kg 1 1.00 101 63.8 - 141

Sample: 164282 - North SP-4C

Laboratory: Midland

Analysis: QC Batch: Prep Batch:

TPH DRO 49614

42583

Analytical Method: Date Analyzed:

Mod. 8015B 2008-06-20

Prep Method: N/A

Analyzed By: LDPrepared By: LD

RLResult

Flag Parameter DRO

Sample Preparation: 2008-06-20

Units

mg/Kg

Dilution RL

50.0

Spike Percent Recovery Flag Surrogate Result Units Dilution Amount Recovery Limits 127 mg/Kg 100 127 10 - 250.4 n-Triacontane 1

Sample: 164282 - North SP-4C

Laboratory:

Prep Batch:

Midland

42653

Analysis: TPH GRO QC Batch: 49664

Analytical Method: Date Analyzed:

Sample Preparation:

141

S 8015B 2008-06-24 2008-06-23 Prep Method: S 5035 Analyzed By: DC Prepared By: DC

continued ...

Report Date: June 24, 2008 Denton Gathering

Work Order: 8062031 Denton Gathering

Page Number: 6 of 9 Lea County, NM

sample	164282	continued				
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Danson et en	Tilo m		RL Passalt		Tīm:+a		Dilution	m RL
Parameter	Flag_		Result		Units		Ditution	
			RL					
Parameter	Flag		Result		\mathbf{Units}		Dilution	RL
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (T	TFT)		0.925	mg/Kg	1	1.00	92	67.5 - 135.2
4-Bromofluorobenz	ene (4-BFB)		0.939	mg/Kg	1	1.00	94	63.8 - 141

Method Blank (1)

QC Batch: 49614

QC Batch:

49614

Date Analyzed:

2008-06-20

Analyzed By: LD

Prep Batch: 42583

QC Preparation:

2008-06-20

Prepared By: LD

		MDL
arameter	\mathbf{Flag}	Result

Parameter	Flag	Result	${f Units}$	RL
DRO		44.9	mg/Kg	50

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		121	mg/Kg	1	100	121	30.9 - 146.4

Method Blank (1)

QC Batch: 49664

QC Batch: 49664 Date Analyzed: 2008-06-24 Analyzed By: DC

Prep Batch: 42653

QC Preparation: 2008-06-23

Prepared By: DC

MDL

Parameter	Flag	Result	Units	${ m RL}$
GRO		< 0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	·	0.978	mg/Kg	1	1.00	98	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.957	mg/Kg	1	1.00	96	16.8 - 138.1

Denton Gathering

Work Order: 8062031 Denton Gathering

Page Number: 7 of 9 Lea County, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 42583

49614

Date Analyzed:

2008-06-20

QC Preparation: 2008-06-20

Analyzed By: LD

Prepared By: LD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit
DRO	260	mg/Kg	1	250	44.9	86	27.8 - 152.1

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	267	mg/Kg	1	250	44.9	89	27.8 - 152.1	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	Result	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
n-Triacontane	112	113	mg/Kg	1	100	112	113	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch:

49664 Prep Batch: 42653 Date Analyzed:

2008-06-24 QC Preparation: 2008-06-23

Analyzed By: DC Prepared By: DC

	LCS			Spike	Matrix		Rec.
Param	Result	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	${ m Re}c.$	Limit
GRO	8.32	mg/Kg	1	10.0	< 0.739	83	57.5 - 106.4

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	\mathbf{Limit}
GRO	8.51	mg/Kg	1	10.0	< 0.739	85	57.5 - 106.4	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	\mathbf{Units}	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.00	0.954	mg/Kg	1	1.00	100	95	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.992	0.962	mg/Kg	1	1.00	99	96	53.3 - 123.6

Matrix Spike (MS-1) Spiked Sample: 164280

QC Batch: 49614 Prep Batch: 42583 Date Analyzed: 2008-06-20 QC Preparation: 2008-06-20

Analyzed By: LD Prepared By: LD

Denton Gathering

Work Order: 8062031 Denton Gathering Page Number: 8 of 9 Lea County, NM

Donom		MS Resu		TIm:to	D:1	Spike	Mat			Rec. Limit
Param DRO	•	318		Units ng/Kg	Dil.	$\frac{\mathrm{Amount}}{250}$	Res 205			8 - 179.5
Donasat assessment i	a based on the on	ilea magnelt	DDD :	hoood on	the aniles o	and on the de				
Percent recovery i	s based on the sp	ike resuit.	RPD is	based on	tne spike a	ına spike ai	ipiicate i	resuit.		
		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		307	mg/Kg	1	250	205.8	40	18 - 179.5	4	20
Percent recovery i	s based on the sp	ike result.	RPD is	based on	the spike a	nd spike du	plicate r	esult.		
•	_				•	-	•			
	MS	MSD				Spike	MS	S MSD		Rec.
Surrogate	Result	Result	Ţ	Jnits	Dil.	Amount	Rec	e. Rec.		Limit

Matrix Spike (MS-1) Spiked

10001

Spiked Sample: 164282

115

122

QC Batch: 49664

Date Analyzed:

2008-06-24

100

122

Analyzed By: DC

34.1 - 158

115

Prep Batch: 42653

n-Triacontane

QC Preparation: 2

mg/Kg

2008-06-23

Prepared By: DC

		MS			\mathbf{Spike}	Matrix		Rec.
Param		Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
GRO	 1	25.3	mg/Kg	1	10.0	< 0.739	253	10 - 139.3

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	\mathbf{Limit}
GRO	2	13.7	mg/Kg	1	10.0	< 0.739	137	10 - 139.3	60	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)	1.02	0.955	mg/Kg	1	1	102	96	21.3 - 119
4-Bromofluorobenzene (4-BFB)	1.09	0.977	mg/Kg	1	1	109	98	52.5 - 154

Standard (CCV-1)

QC Batch: 49614

Date Analyzed: 2008-06-20

Analyzed By: LD

			\mathbf{CCVs}	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	242	97	85 - 115	2008-06-20

¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

²MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Work Order: 8062031 Page Number: 9 of 9 Report Date: June 24, 2008 Lea County, NM Denton Gathering Denton Gathering Standard (CCV-2) Date Analyzed: 2008-06-20 Analyzed By: LD QC Batch: 49614 **CCVs CCVs CCVs** Percent Found True Percent Recovery Date Analyzed Param Flag Units Conc. Conc. Recovery Limits DRO mg/Kg 250 265 106 85 - 115 2008-06-20 Standard (ICV-1) QC Batch: 49664 Date Analyzed: 2008-06-24 Analyzed By: DC **ICVs ICVs ICVs** Percent True Found Percent Recovery Date Param Flag Units Conc. Conc. Recovery Limits Analyzed GRO 1.00 0.979 98 85 - 115 2008-06-24 mg/Kg Standard (CCV-1) QC Batch: 49664 Date Analyzed: 2008-06-24 Analyzed By: DC

CCVs

Found

Conc.

1.03

CCVs

Percent

Recovery

103

Percent

Recovery

Limits

85 - 115

Date

Analyzed

2008-06-24

CCVs

True

Conc.

1.00

Flag

 ${\bf Units}$

mg/Kg

Param

GRO

LAB Order 10# \$0 62031

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 78424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296

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200

DD East Sunset Rd., Suite E | Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-494 1 (888) 588-3443

8808 Camp Bowie Bivd. West, Suite 180 F. Worth, Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336 ш

Hold bisboats mort freieflib it emiT bouorA muT Circle or Specify Method No.) All tate Hillany Dry Weight Basis Required Check If Special Reporting Limits Are Needed TRRP Report Required **ANALYSIS REQUEST** Moisture Content Hq, RST, GOB Pesticides 8081A / 608 PCB's 8082 / 608 GC/MS Semi. Vol. 8270C / 625 REMARKS GC/W2 AOI: 8560B / 624 RCI TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 PAH 8270C 7 625 TPH 8015 GRO / DRO TVHC TPH 418.1 / TX1005 / TX1005 Ext(C35) 8021B \ 602 \ 8260B \ 624 X3T8 *w* % 80218 / 602 / 82608 / 624 **BATM** Temp Temp 1130 1140 6/A/8/1135 SAMPLING TIME 17.12 Time: Time: _ **3TA**0 mfelix@novatraining.cc <u>නී</u> Date: Date: PRESERVATIVE NONE × ICE METHOD 0 AMHERING SZ0-772 Fax#: HOSN Company: ⁷OS²H Company Company TRACE Project Name HNO³ Phone #: нсі E-mail: Received by: STADGE Received by: MATRIX Received by ЯIA \succ TIOS **MATER** 485 7 3 Volume I Amount 202 Time: Time: # CONTAINERS 20/08 Centarcion Kounsaville Date: Date: Noeth SP - 48 ABOUNDEST SP - 4C LINE NORTH SP-4A 22 PIELD CODE Company: NOVA (Street, City, Zlp) Company: Project Location (Including state (if different from above) Relipeduished by: Relinquished by: Contact Person: Company Name: T nvoice to: 23 Project #: 148# Address:

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O.

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Camp,

Carrier #

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6701 Aberdeen Avenue; Suife 9 200 East Sunset Road, Suite E

Lubbock, Texas 79424 El Paso, Texas 79922 800 • 378 • 1296 888 • 588 • 3443 806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298 FAX 915 • 595 • 4944

5002 Basin Street, Suite Al . .

Midland, Texas 79703

432 • 689 • 6301 817 • 201 • 5260 FAX:432 • 689 • 6313

6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132

E-Mail: lab@traceanalysis.com

NELAP Certifications

Lubbock T104704219-08-TX

El Paso T104704221-08-TX

Midland T104704392-08-TX

Analytical and Quality Control Report

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

Report Date:

June 26, 2008

Work Order:

8062505

Project Location: East of Lovington, NM Project Name: Centurion Denton Gathering Project Number: Centurion Denton Gathering

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

			Date	${f Time}$	Date
Sample	Description	Matrix	Taken	Taken	Received
164533	NW-SP-5	soil	2008-06-24	15:10	2008-06-25
164534	NC-SP-5	soil	2008-06-24	15:05	2008-06-25
164535	NE-SP-5	soil	2008-06-24	15:00	2008-06-25

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

Michael Abril
Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project Centurion Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-25 and assigned to work order 8062505. Samples for work order 8062505 were received intact at a temperature of 3.5 deg C.

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

Test	Method					
TPH DRO	Mod. 8015B					
TPH GRO	S 8015B					

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 8062505 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.

Work Order: 8062505 Centurion Denton Gathering

Page Number: 4 of 9 East of Lovington, NM

Analytical Report

Sample: 164533 - NW-SP-5

Laboratory:

Midland

Analysis: QC Batch: Prep Batch: TPH DRO 49716 42683

Analytical Method: Date Analyzed:

Sample Preparation:

Mod. 8015B

2008-06-25 2008-06-25 Prep Method: N/A

Analyzed By: LDPrepared By: LD

RL

Parameter Flag $\overline{\text{DRO}}$

Result 51.3

Units mg/Kg Dilution

RL50.0

Surrogate

Units

mg/Kg

Percent

Recovery Limits

n-Triacontane

Result 97.4 Dilution $\overline{1}$

Amount 100

Spike

Recovery 97

10 - 250.4

Sample: 164533 - NW-SP-5

Laboratory:

Midland

Analysis: QC Batch:

TPH GRO 49738 Prep Batch: 42695

Analytical Method: Date Analyzed:

S 8015B

2008-06-25

Prep Method: S 5035

Analyzed By: DC Prepared By:

RL

<1.00

Parameter

Result

Sample Preparation: 2008-06-25

Units

Dilution RL

Flag GRO

Flag

mg/Kg

1.00

LD

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.930	mg/Kg	1	1.00	93	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.939	mg/Kg	1	1.00	94	63.8 - 141

Sample: 164534 - NC-SP-5

Laboratory:

Prep Batch:

Midland

42683

Analysis: QC Batch:

DRO

TPH DRO 49716

Analytical Method: Date Analyzed:

Mod. 8015B 2008-06-25 2008-06-25

Prep Method: N/A Analyzed By: LD

Prepared By:

Sample Preparation:

RLParameter Flag Result Units Dilution RL< 50.0 mg/Kg 50.0 1

Work Order: 8062505 Centurion Denton Gathering Page Number: 5 of 9 East of Lovington, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		85.2	mg/Kg	1	100	85	10 - 250.4

Sample: 164534 - NC-SP-5

Laboratory: Midland

Analysis: TPH GRO QC Batch: 49738 Prep Batch: 42695 Analytical Method: S 8015B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

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

Surrogate	Flag	Result	Units	Dilution	$\begin{array}{c} {\rm Spike} \\ {\rm Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.968	mg/Kg	1	1.00	97	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.931	mg/Kg	1	1.00	93	63.8 - 141

Sample: 164535 - NE-SP-5

Laboratory: Midland

Analysis: TPH DRO QC Batch: 49716 Prep Batch: 42683 Analytical Method: Mod. 8015B Date Analyzed: 2008-06-25 Sample Preparation: 2008-06-25

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		109	mg/Kg	1	100	109	10 - 250.4

Sample: 164535 - NE-SP-5

Laboratory: Midland

Analysis: TPH GRO
QC Batch: 49738
Prep Batch: 42695

Analytical Method: S 8015B
Date Analyzed: 2008-06-25
Sample Preparation: 2008-06-25

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

continued ...

Work Order: 8062505 Centurion Denton Gathering

Page Number: 6 of 9 East of Lovington, NM

sample 164535 continued ...

			RL					
Parameter	Flag		Result		Units		Dilution	RL
			RL					
Parameter	Flag		Result		Units		Dilution	RL
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TF	T)		0.982	mg/Kg	1	1.00	98	67.5 - 135.2
4-Bromofluorobenzer	4-Bromofluorobenzene (4-BFB)		0.951	mg/Kg	1	1.00	95	63.8 - 141

Method Blank (1)

QC Batch: 49716

QC Batch: 49716 Date Analyzed:

2008-06-25

Analyzed By: LD

Prep Batch: 42683

 $\overline{\mathrm{DRO}}$

QC Preparation: 2008-06-25

Prepared By: LD

Parameter Flag

MDL Result

Units mg/Kg

RL50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	$\begin{array}{c} {\rm Recovery} \\ {\rm Limits} \end{array}$
n-Triacontane		132	mg/Kg	1	100	132	30.9 - 146.4

20.7

Method Blank (1)

QC Batch: 49738

QC Batch:

49738

Date Analyzed:

2008-06-25

Analyzed By: DC

Prep Batch: 42695

QC Preparation:

2008-06-25

Prepared By: DC

MDL Flag Result Parameter Units RL< 0.739 GRO mg/Kg

Cumanata	Flor	Dogula	Units	Dilution	Spike	Percent	Recovery Limits
Surrogate	Flag	Result	Units	Difficion	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	1	1.00	98	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.949	mg/Kg	1	1.00	95	16.8 - 138.1

Work Order: 8062505 Centurion Denton Gathering

Page Number: 7 of 9 East of Lovington, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 42683

49716

Date Analyzed:

2008-06-25

QC Preparation: 2008-06-25

Analyzed By: LD

Prepared By: LD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	246	mg/Kg	1	250	20.7	90	27.8 - 152.1

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
DRO	249	mg/Kg	1	250	20.7	91	27.8 - 152.1	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.	${ m Rec.}$	Limit
n-Triacontane	97.8	99.0	mg/Kg	1	100	98	99	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch:

49738 Prep Batch: 42695 Date Analyzed: QC Preparation:

2008-06-25 2008-06-25 Analyzed By: DC Prepared By: DC

LCS Spike Matrix Rec. Result Dil. Amount Result Limit Param Units Rec. 94 57.5 - 106.4 GRO 9.38 mg/Kg 10.0 < 0.739

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	\mathbf{Limit}
GRO	9.71	mg/Kg	1	10.0	< 0.739	97	57.5 - 106.4	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	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.956	0.993	mg/Kg	1	1.00	96	99	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.974	0.988	mg/Kg	1	1.00	97	99	53.3 - 123.6

Matrix Spike (MS-1) Spiked Sample: 164533

QC Batch: Prep Batch: 42683

49716

Date Analyzed:

2008-06-25

Analyzed By: LD Prepared By: LD

QC Preparation:

2008-06-25

Param

 $\overline{\text{DRO}}$

Flag

Units

mg/Kg

Work Order: 8062505 Centurion Denton Gathering Page Number: 8 of 9 East of Lovington, NM

		MS					ike		trix			Rec.
Param		Resu		Units	Dil.		ount	Res		Rec.		Limit
DRO		279) 	mg/Kg	1	28	50	51	3	91	18	3 - 179.5
Percent recovery is based o	n the sp	ike result.	RPD i	s based o	on the spike	and sp	ike dup	licate	result.			
		MSD			Spike	Ma	trix		$R\epsilon$	ec.		RPD
Param		Result	Units		Amount			Rec.	Lin		RPD	Limit
DRO		297	mg/K	g 1	250	51	3	98	18 - 1	179.5	6	20
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.												
	MS	MSD				Sp	ike	M	S	MSD		Rec.
Surrogate	Result	Result	t	Units	Dil.		ount	Re	c.	Rec.		Limit
n-Triacontane	82.0	89.7		mg/Kg	1	10	00	82	2	90	34	1.1 - 158
QC Batch: 49738 Prep Batch: 42695				Analyzed reparatio		-					yzed By ared By	,
		MS				\mathbf{Sp}	ike	Mat	trix			Rec.
Param		Resu		Units	Dil.	Amo		Res		Rec.		Limit
GRO		11.7		mg/Kg	1	10		1.0		106	10	- 139.3
Percent recovery is based o	n the spi	ike result.	RPD is	s based o	on the spike	and sp	ike dup	licate	result.			
		MSD			Spike	Ma	$ ext{trix}$		$R\epsilon$	ec.		RPD
Param		Result	Units	s Dil.	Amount	Res	sult]	Rec.	Lin	nit	RPD	Limit
GRO		10.4	mg/K	g 1	10.0	1.0	759	93	10 - :	139.3	12	20
Percent recovery is based o	n the spi	ike result.	RPD is	s based c	on the spike	and sp	ike dup	licate	result.			
		MS		MSD			Spik	æ	MS	MSI)	Rec.
Surrogate		Resu		Result	Units	Dil.	Amou	ınt	Rec.	Rec.		Limit
Trifluorotoluene (TFT)		0.93		0.947	mg/Kg	1	1		93	95		.3 - 119
4-Bromofluorobenzene (4-B	FB)	1.00)	1.06	mg/Kg	1	1		100	106	52	2.5 - 154
Standard (ICV-1) QC Batch: 49716			Date A	Analyzed	: 2008-06-	25				Anal	yzed B	y: LD
											•	,

ICVs

Found

Conc.

247

ICVs

Percent

Recovery

99

Percent

Recovery

Limits

85 - 115

Date

Analyzed

2008-06-25

ICVs

True

Conc.

250

Work Order: 8062505 Centurion Denton Gathering Page Number: 9 of 9 East of Lovington, NM

Standard (CCV-1)

QC Batch: 49716

Date Analyzed: 2008-06-25

Analyzed By: LD

			CCVs	\mathbf{CCVs}	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
$\overline{\mathrm{DRO}}$		mg/Kg	250	258	103	85 - 115	2008-06-25

Standard (ICV-1)

QC Batch: 49738

Date Analyzed: 2008-06-25

Analyzed By: DC

			ICVs True	$\begin{array}{c} \text{ICVs} \\ \text{Found} \end{array}$	$\begin{array}{c} \rm ICVs \\ \rm Percent \end{array}$	Percent Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
$\overline{\text{GRO}}$		mg/Kg	1.00	1.11	111	85 - 115	2008-06-25

Standard (CCV-1)

QC Batch: 49738

Date Analyzed: 2008-06-25

Analyzed By: DC

		er er er	CCVs True	CCVs Found	${\operatorname{CCVs}} \ {\operatorname{Percent}}$	Percent Recovery	Date
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.05	105	85 - 115	2008-06-25

PIOH 6015 Harris Pkwy., Suite 110 Ft. Worth, Texas 76132 Tel (817) 201-5260 Transport of Turn Around Time if different from standard the san 可多 REMARKS: Late - Mudland Circle or Specify Method No.) Dry Weight Basis Required Check If Special Reporting Limits Are Needed TRRP Report Required **ANALYSIS REQUEST** Moisture Content 200 East Sunset Rd., Suite E. El Paso, Taxas 79922 Tel (915) 585-3443 Fax (916) 585-4944 1 (888) 588-3443 BOD, TSS, pH Pesticides 8081A \ 608 PCB's 8082 / 608 GC/MS Semi, Vol. 8270C / 625 CC/W2 A91 8560B / 624 TCLP Pesticides TCLP Semi Volatiles 5002 Basin Street, Sulte A1 Midland, Texas, 79703 Tel (432) 689-6301 Fax (432) 689-6313 TCLP Volatiles LAB order 10 # \$0 6 2 5 0 5 TCLP Metals Ag As Ba Cd Cr Pb Se Hg 3 Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 PAH 8270C / 625 TPH 8015 GRO / DRO / TVHC TPH 418.1 / TX1005 / TX1005 Ext(C35) Carrier # BTEX 8021B / 602 / 8260B / 624 8051B \ 605 \ 8560B \ 654 **BBTM** 3:05 3:006 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 3. ∑. S. SAMPLING TIME 0 BO-472-9 6.24.08 · BO-172-9 Conthering **DATE** 8,76 Time: NONE PRESERVATIVE Un 4/25/08 ပ ICE METHOD > Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. 432.520.7720 Fax#: 432.520.770 E-mail: 80/50/08 CENTUR LOW Denton Sampler Signature: **HOsN** Date: ^bOS^zH Project Name FONH Phone #: HCI SLUDGE MATRIX ЯIA TraceAnalysis, Inc. TIOS **A**3TAW Received by email: lab@traceanalysis.com 402 72 704 Volume / Amount # CONTAINERS Safety & Environmental (Street, City, Zip) (enterior 70.9 Time: 8:260. TIme: 425/08 Haskel FIELD CODE Lovington D. A 80.52.0 Project Location (including state): Date: NC. 58. - 5 NE 58 - 5 (If different from above) 48.37 Confect Person: Relinquished by: Company Name 523 To To 2 2 nvoice to: Project #: East

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APPENDIX B



Photographic Documentation

Client: Centurion Pipeline, L.P.

Site Location: Lea County, New Mexico

Photograph Date: As Noted

Prepared by: NOVA

Photographer: Ron Rounsaville Project Name: Denton Gathering

Photograph No. 1

Date: 05/25/08

Direction: Northeast



Description: View of impacted soil stockpiles being spread out for

aeration.

Photograph No. 2

Date: 05/25/08

Direction: North

Description:

View of impacted soil stockpiles being spread out for aeration.





Photographic Documentation

Client: Centurion Pipeline, L.P.

Site Location: Lea County, New Mexico

Photograph Date: As Noted

Prepared by: NOVA

Photographer: Ron Rounsaville Project Name: Denton Gathering

Photograph No. 3

Date: 06/25/08

Direction: Northeast

Description: View of excavation area following backfilling activities.



Photograph No. 4

Date: 06/25/08

Direction: Southeast.

Description: View of excavation area following backfilling activities.





Photographic Documentation

Client: Centurion Pipeline, L.P.

Site Location: Lea County, New Mexico

Photograph Date: As Noted

Prepared by: NOVA

Photographer: Ron Rounsaville Project Name: Denton Gathering

Photograph No. 5

Date: 07/23/08

Direction: Northeast

Description: View of backfilled excavation area following reseeding activities.



Photograph No. 6

Date: 07/23/08

Direction: East.

Description: View of backfilled excavation area following reseeding.

