CORRECTIVE ACTION REPORT

Property:

30137 Pipeline Release
32.653889, -104.129961
SWSE ¼, S24 T19S R28E
Eddy County, New Mexico

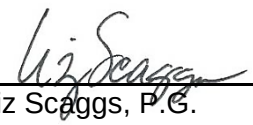
January 2015
Apex Project No. 7030714G073.001

Prepared for:

Enterprise Field Services LLC
PO Box 4324
Houston, TX 77252
Attention: Dina Babinski

Prepared by:

Karolanne Toby
Project Geologist



Liz Scaggs, P.G.
Senior Program Manager

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CORRECTIVE ACTION REPORT

30137 Pipeline Release
32.653889, -104.129961
SWSE ¼, S24 T19S R28E
Eddy County, New Mexico
ECIRTS: 23805

Apex Project No. 7030714G073.001

1.0 INTRODUCTION

Site Description & Background

The 30137 pipeline lateral is located within the Enterprise Field Services LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of the southeast (SE) ¼ of Section 24 in Township 19 South and Range 28 East in Eddy County, New Mexico, (32.653889, -104.129961) referred to hereinafter as the "Site". The Site is located on property owned by the State of New Mexico, and consists of native vegetation range land periodically interrupted by oil and gas gathering facilities including one (1) Enterprise natural gas gathering pipeline which traverses the area east to west.

On September 29, 2014, Enterprise was informed of a pipeline leak by field personnel passing by at the Carlsbad Gathering lateral. Enterprise isolated the leaking portion, and the pipeline section was blown down to carry out repair activities. Approximately five (5) barrels (bbls) of pipeline liquids were released from the pipeline and coated surface soils east and west of the release point. The initial excavation was carried out on September 29, 2014. Excavation activities resumed October 2, 2014, to remediate surface soil impacts from the release of pipeline liquids.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of constituents of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

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

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 0. This ranking is based on the following:

- The approximate depth to the initial groundwater-bearing zone is greater than 100 feet at the Site.
- Distance from the impacted area to the closest private domestic water source is greater than 200 feet.
- Distance to the nearest surface water body is greater than 1,000 feet.

Based on a Total Ranking Score of 0, cleanup goals for soils remaining in place include: 10 milligrams per kilogram (mg/Kg) for benzene, 50 mg/Kg for total benzene, toluene, ethlybenzene and xylene (BTEX) and 5,000 mg/Kg for Total Petroleum Hydrocarbons (TPH).

3.0 RESPONSE ACTIVITIES

3.1 Soil Excavation Activities

On September 29, 2014, Enterprise was informed of a pipeline leak by field personnel passing by at the Carlsbad gathering lateral. Enterprise isolated the leaking portion, and the pipeline section was blown down to carry out repair activities. Approximately five (5) barrels (bbls) of pipeline liquids was released from the pipeline and coated surface soils west of the release point.

The initial excavation was carried out on September 29, 2014. Excavation activities resumed October 2, 2014, at Area-1 to remediate surface impact from the release of pipeline liquids. On October 6, 2014, excavation activities continued at Area-2 and Area-3. Based on the laboratory analytical results for the initial confirmation samples, the affected areas along the excavation

walls and floor were over-excavated from each excavation (Area-1, Area-2 and Area-3). Additional confirmation samples were collected subsequent to over-excavating the petroleum impacted soils.

During corrective action activities, Willbros Construction provided heavy equipment and labor support, and Will Ferguson, an Apex environmental professional, provided environmental support.

The Site was excavated utilizing heavy equipment to remove soils affected by the pipeline liquids starting from the release point to the areas immediately east and west of the point of impact. The excavated area Area-1 measures approximately forty-one (41) feet long by twenty (20) feet wide. The excavated Area-2 measures fifteen (15) feet long by forty-two (42) feet wide. The excavated Area-3 measures thirty (30) feet long by twelve (12) feet wide. Approximately 162 cubic yards were excavated and removed from the pipeline release impacted area, and transported off-site for final disposal.

On November 20, 2014, the excavated stockpile was transported to Lea Landfill for disposal by Willbros Construction. The excavation was backfilled with non-impacted material and returned to approximate original grade.

3.2 Sampling Program

On October 7, 2014, Apex collected five (5) confirmation soil samples (A-1 S Wall, A-1 E Wall, A-1 W Wall, A-1 N Wall and A-1 RP) from locations within the excavation zone at Area-1. The samples were collected along the sidewalls and floor of the excavation at an approximate depth of eight (8) feet to twelve (12) feet below ground surface (bgs) based on measurements taken during excavation activities. Based upon the laboratory results further excavation was performed.

On October 14, 2014, Apex collected thirteen (13) confirmation soil samples (A2 CS-1, A2 CS-2, A2 CS-3, A2 CS-4, A2 CS-5, A2 CS-6, A2 CS-7, A3 CS-1, A3 CS-2, A3 CS-3, A3 CS-4, A3 CS-5 and A3 CS-6) from locations within the excavation zone at Area-2 and Area-3. Based upon the laboratory results further excavation was performed.

On November 3, 2014, and subsequent to over-excavation activities, Apex collected nine (9) additional confirmation soil samples (A1 N Wall RE, A2 CS-3 RE, A2 CS-4 RE, A2 CS-5 RE, A3 CS-1 RE, A3 CS-2 RE, A3 CS-3 RE, A3 CS-4 RE and A3 CS-6 RE) from the locations along the sidewalls and floor of the excavation at each area (Area-1, Area-2 and Area-3) at an approximate depth of three (3) to eight (8) feet bgs based on measurements taken at the time of sampling.

On November 12, 2014, and subsequent to over-excavation activities, Apex collected two (2) additional confirmation soil samples (A-2 CS-3 RE 2 and A-2 CS-4 RE 2) from locations along the sidewalls and floor of the excavation from Area 2 at an approximate depth of four (4) feet bgs based on measurements taken at the time of sampling.

Soil samples were collected and delivered under chain of custody control to Trace Analysis laboratory in Midland, Texas for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) utilizing EPA SW-846 Method #8021B, and total petroleum hydrocarbons (TPH), gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA SW-846 Method #8015.

Executed chain-of-custody form and laboratory data sheets are provided in Appendix D. All samples were analyzed within specified holding times.

Figure 3 is a Sample Location map that indicates the approximate location of the confirmation soil samples in relation to pertinent land features and general excavation boundaries (Appendix A).

4.0 RESULTS

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 *Remediation*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Excavation Confirmation Samples

Apex compared the BTEX and TPH concentrations or sample detection limits (SDLs) associated with the soil samples collected from the Site to the OCD Recommended Remediation Action Levels (RRALs) for sites having a total ranking score of 0.

Laboratory analyses of the confirmation samples from Area-1 ((A-1 S Wall, A-1 E Wall, A-1 W Wall, A-1 N Wall and A-1 RP) indicated BTEX concentrations ranging from 0.104 to 17.412. Confirmation samples from Area-1 indicated TPH GRO/DRO concentrations of 147 mg/Kg to 1,588 mg/Kg. All confirmation samples from Area-1 are below the OCD RRAL of 50 mg/Kg for a Site ranking of 0.

Laboratory analyses of confirmation samples from Area-2 (A2 CS-1, A2 CS-2, A2 CS-3, A2 CS-4, A2 CS-5, A2 CS-6 and A2 CS-7) indicated BTEX concentrations ranging from 0.1646 to 0.281. TPH GRO/DRO concentrations range from 127 mg/Kg to 2,926.55 mg/Kg. All confirmation samples from Area-1 are below the OCD RRAL limits for a Site ranking of 0.

Laboratory analyses of confirmation samples from Area-3 (A3 CS-1, A3 CS-2, A3 CS-3, A3 CS-4, A3 CS-5 and A3 CS-6) indicated BTEX concentrations ranging from 0.230 mg/Kg to 1.489. Confirmation samples A-3 CS-1, A-3 CS-4, A-3 CS-5 and A-3 CS-6 indicated TPH GRO/DRO concentrations of 3,258 mg/Kg, 2,280 mg/Kg and 571 mg/Kg respectively. These concentrations are below the OCD RRAL limits for a Site ranking of 0. Confirmation samples A-3 CS-2 and A-3 CS-3 exhibited TPH GRO/DRO concentrations of 6327.4 mg/Kg and 5,230 mg/Kg respectively. These confirmation samples exceed the OCD RRALs of 5,000 mg/Kg.

Subsequent to over-excavation activities, laboratory analyses of the additional confirmation soil samples from Area-3 (A3 CS-2 RE and A3 CS-3 RE) did not indicate total benzene, BTEX and TPH GRO/DRO concentrations above the applicable OCD RRALs of 10 mg/Kg, 50 mg/Kg and 1,000 mg/Kg, respectively.

In an effort to be conservative, the levels of groundwater were assumed to be less than one-hundred (100) feet below ground surface at the time of excavation. This would have given the Site a Site ranking of 10, which would have set the applicable OCD RRAL concentrations of BTEX as 50 mg/Kg and 1,000 mg/Kg for TPH GRO/DRO. Therefore, additional confirmation

samples (A1 N Wall RE, A2 CS-3 RE, A2 CS-4 RE, A2 CS-5 RE, A3 CS-1 RE and A3 CS-4 RE and A3 CS-6 RE) were taken. BTEX and TPH GRO/DRO concentrations from these additional samples were below the applicable OCD RRALs of 10 mg/Kg, 50 mg/Kg and 1,000 mg/Kg, respectively.

Confirmation sample A-2 CS-3 RE, taken subsequent to over-excavation activities, exhibited a Chloride concentration of 1,210 mg/kg. This is above the applicable OCD RRALS of 1,000 mg/Kg. However, due to the levels of groundwater in the vicinity of the site being greater than one-hundred (100) feet below ground surface, it is safe to assume that the concentration will decline at depth and be protective of groundwater.

Subsequent to over-excavation activities, laboratory analyses of the additional confirmation samples from Area-2 (A-2 CS-3 RE 2 and A-2 CS-4 RE 2) did not indicate chlorides above the applicable OCD RRALs of 5,000 mg/Kg.

Confirmation sample results are provided in Table 1 in Appendix B.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 30137 pipeline lateral is located within the Enterprise Field Services LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of the southeast (SE) ¼ of Section 24 in Township 19 South and Range 28 East in Eddy County, New Mexico, (32.653889, -104.129961) referred to hereinafter as the "Site". The Site is located on property owned by the State of New Mexico, and consists of native vegetation range land periodically interrupted by oil and gas gathering facilities including one (1) Enterprise natural gas gathering pipeline which traverses the area east to west.

On October 7, 2014, Apex collected five (5) confirmation soil samples (A-1 S Wall, A-1 E Wall, A-1 W Wall, A-1 N Wall and A-1 RP) from locations within the excavation zone at Area-1. The samples were collected along the sidewalls and floor of the excavation at an approximate depth of eight (8) feet to twelve (12) feet below ground surface (bgs) based on measurements taken during excavation activities. Based upon the laboratory results further excavation was performed

- The primary objective of the corrective action was to reduce the concentration of COC's in the on-Site soils to below the New Mexico EMNRD OCD R*RALs* using the New Mexico EMNRD OCD'S *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

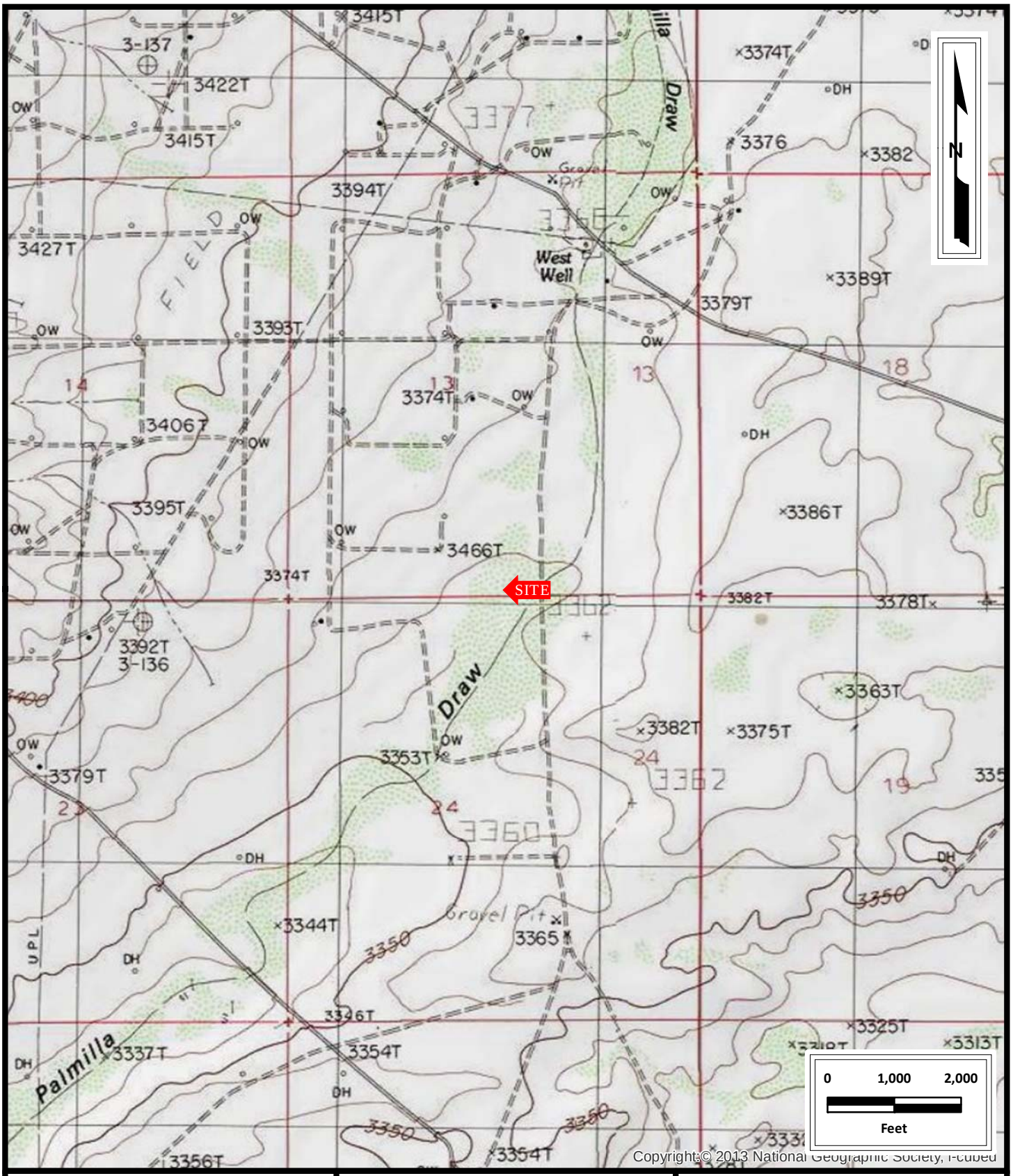
- The Site was excavated utilizing heavy equipment to remove soils affected by the pipeline liquids starting from the release point to the areas immediately east and west of the point of impact. The excavated area Area-1 measures approximately forty-one (41) feet long by twenty (20) feet wide. The excavated Area-2 measures fifteen (15) feet long by forty-two (42) feet wide. The excavated Area-3 measures thirty (30) feet long by twelve (12) feet wide. Approximately 162 cubic yards were excavated and removed from the pipeline release impacted area.

- The excavated stockpile was transported to Lea Landfill for disposal by Willbros Construction. The excavation was backfilled with non-impacted material and returned to approximate original grade.

- Thirteen (13) initial confirmation samples were collected from initial excavation for laboratory analyses. Based on analytical results, the soils that remained in place exhibited COC concentrations above the OCD *RRALs* for a site ranking of 0.

- Following over-excavation activities, eleven (11) additional confirmation samples were taken from the sample locations within the excavation. Based on analytical results, the soils remaining in place did not indicate total benzene, BTEX and TPH GRO/DRO concentrations above the applicable OCD RRALs of 10 mg/Kg, 50 mg/Kg and 5,000 mg/Kg, respectively for the Site Total Ranking Score of 0.

Based on completed on-Site response actions and laboratory analytical results, no additional investigation and/or remediation appears warranted at this time.



Letter Report
30137 Pipeline
Enterprise Products Operating LLC
Eddy County, New Mexico
32.653889, -104.129961
SWSE ¼, S24 T19S R28E

Project No. 7030714G073

Apex Companies, LLC
505 N. Big Springs St., Suite 301A
Midland, Texas 79707
Phone: (432) 695-6016
www.apexcos.com

FIGURE 1
Topographic Map
Illinois Camp, NM Quadrangle
1985

Letter Report
30137 Pipeline
Enterprise Products Operating LLC
Eddy County, New Mexico
32.653889, -104.129961
SWSE ¼, S24 T19S R28E

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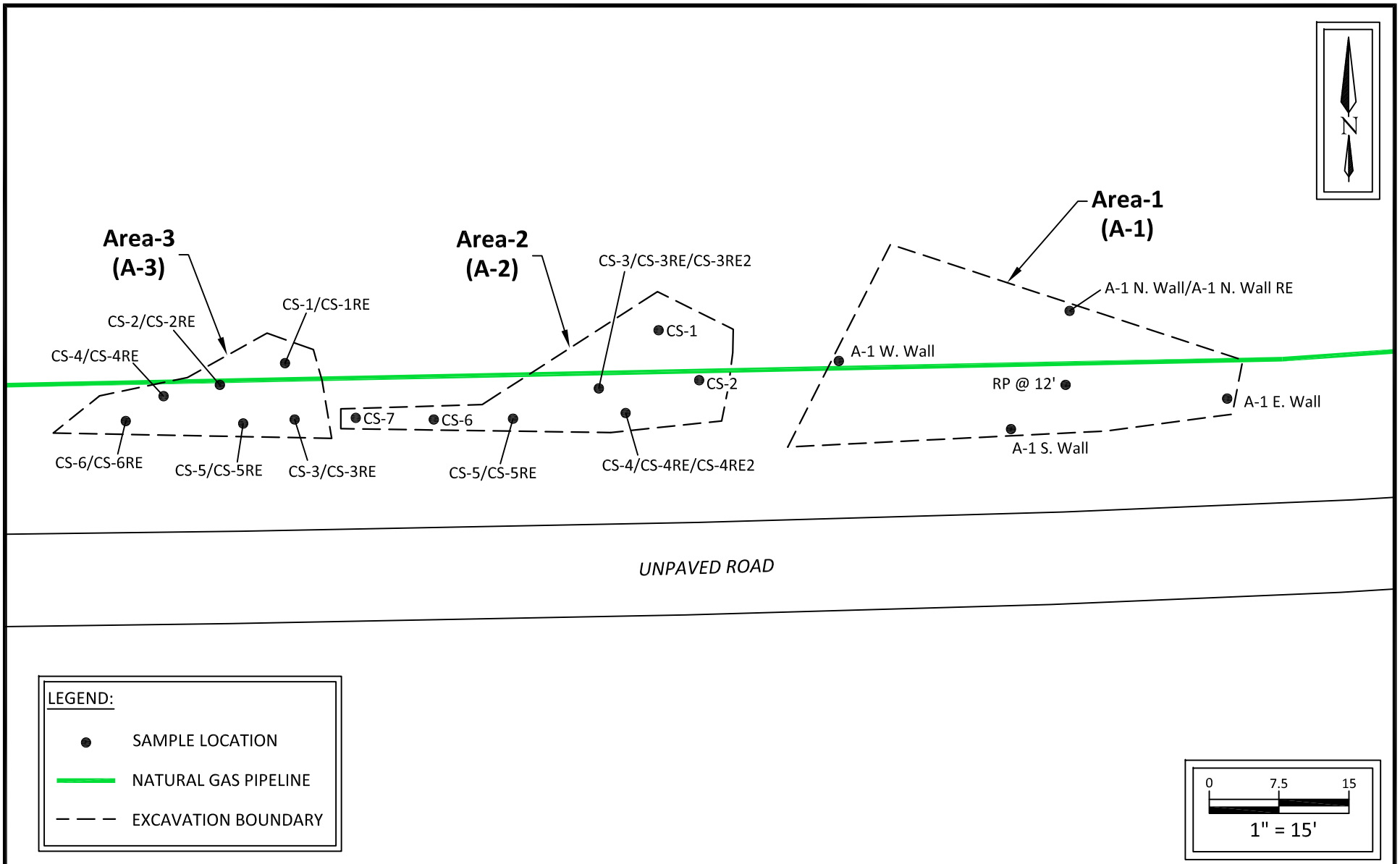
FIGURE 2
Site Vicinity Map
April 2013 Aerial Photograph
Source Google Earth



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A Subsidiary of Apex Companies, LLC

FIGURE 3
Site Plan

Z:\Houston South\Drafting\Midland 07\2014\7030714G073\CAD\0714G073 Fig3.dwg 01/09/15

APEX

TABLE 1
30137 PIPELINE RELEASE
SOIL ANALYTICAL RESULTS

Sample ID	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	BTEX (mg/kg)	Chlorides (mg/Kg)	TPH DRO (mg/kg)	TPH GRO (mg/kg)
New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	1,000	5,000	
SOIL CONFIRMATION SAMPLES										
A-1 S Wall @8'	10/7/14	8	<0.0200	0.0576	0.0410	0.0817	0.1803	995	<4.00	147
A-1 E Wall @8'	10/7/14	8	<0.0200	0.0526	0.0445	0.143	0.2411	<20.0	13.9	329
A-1 W Wall @8'	10/7/14	8	0.0992	0.336	0.186	1.64	2.2612	149	107	564
A-1 N Wall @8'	10/7/14	8	0.692	4.93	1.99	9.80	17.412	<20.0	**558**	**1030**
A-1 N WallRE	11/03/14	8	<0.0200	<0.0200	0.0774	0.270	0.3474	151	103	4.12
A-1 RP @12'	10/7/14	12	<0.0200	<0.0200	<0.0200	0.104	0.104	<20.0	7.75	553
A-2 CS-1 @1'	10/14/14	1	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	379	315	<4.00
A-2 CS-2 @3'	10/14/14	3	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	711	<50.0	<4.00
A-2 CS-3 @3'	10/14/14	3	<0.0200	<0.0201	<0.0202	<0.0203	<0.0204	**4550**	**1960**	<4.00
A-2 CS-3 RE	11/03/14	3.5	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	**1210**	272	<4.00
A-2 CS-3 RE 2	11/12/14	4	NA	NA	NA	NA	NA	287	NA	NA
A-2 CS-4 @3'	10/14/14	3	<0.0200	0.0813	0.0417	0.158	0.281	**3930**	**2920**	6.55
A-2 CS-4 RE	11/03/14	3.5	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	**1960**	1010	<4.00
A-2 CS-4 RE 2	11/12/14	4	NA	NA	NA	NA	NA	247	NA	NA
A-2 CS-5 @2'	10/14/14	2	<0.0200	0.0530	0.0406	0.0710	0.1646	**3400**	858	<4.00
A-2 CS-5 RE	11/03/14	3	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0	1700	<4.00
A-2 CS-6 @2.5'	10/14/14	2.5	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	138	127	<4.00
A-2 CS-7 @2.5'	10/14/14	2.5	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	46.0	<50.0	<4.00
A-3 CS-1 @6'	10/14/14	0.5	<0.0400	<0.0400	<0.0400	0.230	0.230	758	**3240**	18.0
A-3 CS-1 RE	11/03/14	1.5	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0	<50.0	<4.00
A-3 CS-2 @1'	10/14/14	1	<0.100	0.325	0.200	0.964	1.489	900	**6260**	67.4
A-3 CS-2 RE	11/03/14	2	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0	<50.0	<4.00
A-3 CS-3 @1'	10/14/14	1	<0.100	<0.100	<0.100	<0.100	<0.100	<20.0	**5230**	<20.0
A-3 CS-3 RE	11/03/14	2	<0.0200	0.0708	0.0591	0.190	0.3199	<20.0	2530	<4.00
A-3 CS-4 @1'	10/14/14	1	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	**1470**	**2280**	<4.00
A-3 CS-4 RE	11/03/14	2	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	101	837	4.49
A-3 CS-5 @1.5'	10/14/14	1.5	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0	<50.0	<4.00
A-3 CS-6 @2'	10/14/14	2	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	427	**571**	<4.00
A-3 CS-6 RE	11/03/14	3	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<20.0	158	<4.00

mg/Kg- milligrams per Kilograms

Note: Concentrations in bold and orange exceed the applicable OCD Remediation Action Level

- indicates overexcavated area or subsequently treated

NA- Not Analyzed

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Will Ferguson
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx, 75220

Report Date: October 10, 2014

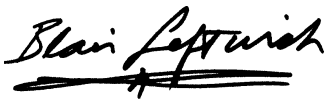
Work Order: 14100811

Project Name: 30137 Pipeline Release
Project Number: 7030714G073

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
376164	A-1 S Wall @ 8’	soil	2014-10-07	14:20	2014-10-08
376165	A-1 E Wall @ 8’	soil	2014-10-07	14:22	2014-10-08
376166	A-1 W Wall @ 8’	soil	2014-10-07	14:24	2014-10-08
376167	A-1 N Wall @ 8’	soil	2014-10-07	14:26	2014-10-08
376168	A-1 RP @ 12’	soil	2014-10-07	14:30	2014-10-08

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.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project 30137 Pipeline Release were received by TraceAnalysis, Inc. on 2014-10-08 and assigned to work order 14100811. Samples for work order 14100811 were received intact at a temperature of 9.6 C. Samples had been on ice.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	98247	2014-10-09 at 10:23	116190	2014-10-10 at 10:43
Chloride (Titration)	SM 4500-Cl B	98225	2014-10-08 at 12:46	116147	2014-10-08 at 14:51
TPH DRO - NEW	S 8015 D	98244	2014-10-08 at 17:00	116171	2014-10-09 at 11:15
TPH GRO	S 8015 D	98247	2014-10-09 at 10:23	116191	2014-10-10 at 10:48

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 14100811 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.

Analytical Report

Sample: 376164 - A-1 S Wall @ 8'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116190	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	**0.0576**	mg/Kg	1	0.0200
Ethylbenzene		1	**0.0410**	mg/Kg	1	0.0200
Xylene		1	**0.0817**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.63	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

Sample: 376164 - A-1 S Wall @ 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116147	Date Analyzed:	2014-10-08	Analyzed By:	MM
Prep Batch:	98225	Sample Preparation:	2014-10-08	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**995**	mg/Kg	5	4.00

Sample: 376164 - A-1 S Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116171	Date Analyzed:	2014-10-09	Analyzed By:	SC
Prep Batch:	98244	Sample Preparation:		Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**147**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	70 - 130

Sample: 376164 - A-1 S Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116191	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	70 - 130

Sample: 376165 - A-1 E Wall @ 8'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116190	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	**0.0526**	mg/Kg	1	0.0200
Ethylbenzene		1	**0.0445**	mg/Kg	1	0.0200
Xylene		1	**0.143**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Sample: 376165 - A-1 E Wall @ 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116147	Date Analyzed:	2014-10-08	Analyzed By:	MM
Prep Batch:	98225	Sample Preparation:	2014-10-08	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 376165 - A-1 E Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116171	Date Analyzed:	2014-10-09	Analyzed By:	SC
Prep Batch:	98244	Sample Preparation:		Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**329**	mg/Kg	1	50.0

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

Sample: 376165 - A-1 E Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116191	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**13.9**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 376166 - A-1 W Wall @ 8'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116190	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0992**	mg/Kg	1	0.0200
Toluene		1	**0.336**	mg/Kg	1	0.0200
Ethylbenzene		1	**0.186**	mg/Kg	1	0.0200
Xylene		1	**1.64**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	2.83	mg/Kg	1	2.00	142	70 - 130

Sample: 376166 - A-1 W Wall @ 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116147	Date Analyzed:	2014-10-08	Analyzed By:	MM
Prep Batch:	98225	Sample Preparation:	2014-10-08	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**149**	mg/Kg	5	4.00

Sample: 376166 - A-1 W Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116171	Date Analyzed:	2014-10-09	Analyzed By:	SC
Prep Batch:	98244	Sample Preparation:		Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**564**	mg/Kg	1	50.0

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

Sample: 376166 - A-1 W Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116191	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**107**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.74	mg/Kg	1	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3.78	mg/Kg	1	2.00	189	70 - 130

Sample: 376167 - A-1 N Wall @ 8'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116190	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.692**	mg/Kg	5	0.0200
Toluene		1	**4.93**	mg/Kg	5	0.0200
Ethylbenzene		1	**1.99**	mg/Kg	5	0.0200
Xylene		1	**9.80**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.06	mg/Kg	5	10.0	81	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	15.0	mg/Kg	5	10.0	150	70 - 130

Sample: 376167 - A-1 N Wall @ 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116147	Date Analyzed:	2014-10-08	Analyzed By:	MM
Prep Batch:	98225	Sample Preparation:	2014-10-08	Prepared By:	MM

continued ...

sample 376167 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 376167 - A-1 N Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116171	Date Analyzed:	2014-10-09	Analyzed By:	SC
Prep Batch:	98244	Sample Preparation:		Prepared By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**1030**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		134	mg/Kg	1	100	134	70 - 130

Sample: 376167 - A-1 N Wall @ 8'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116191	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**558**	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.57	mg/Kg	5	10.0	86	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	24.3	mg/Kg	5	10.0	243	70 - 130

Sample: 376168 - A-1 RP @ 12'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116190	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene		1	**0.104**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.62	mg/Kg	1	2.00	81	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 376168 - A-1 RP @ 12'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116147	Date Analyzed:	2014-10-08	Analyzed By:	MM
Prep Batch:	98225	Sample Preparation:	2014-10-08	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 376168 - A-1 RP @ 12'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116171	Date Analyzed:	2014-10-09	Analyzed By:	SC
Prep Batch:	98244	Sample Preparation:		Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**553**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		143	mg/Kg	1	100	143	70 - 130

Sample: 376168 - A-1 RP @ 12'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116191	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	Sample Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**7.75**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Method Blanks

Method Blank (1) QC Batch: 116147

QC Batch:	116147	Date Analyzed:	2014-10-08	Analyzed By:	MM
Prep Batch:	98225	QC Preparation:	2014-10-08	Prepared By:	MM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 116171

QC Batch:	116171	Date Analyzed:	2014-10-09	Analyzed By:	SC
Prep Batch:	98244	QC Preparation:	2014-10-08	Prepared By:	SC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	8.36	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

Method Blank (1) QC Batch: 116190

QC Batch:	116190	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	QC Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.58	mg/Kg	1	2.00	79	70 - 130

continued ...

method blank continued . . .

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

Method Blank (1) QC Batch: 116191

QC Batch:	116191	Date Analyzed:	2014-10-10	Analyzed By:	AK
Prep Batch:	98247	QC Preparation:	2014-10-09	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.69	mg/Kg	1	2.00	84	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 116147 | Date Analyzed: 2014-10-08 | Analyzed By: MM
Prep Batch: 98225 | QC Preparation: 2014-10-08 | Prepared By: MM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2840	mg/Kg	5	2500	<19.2	114	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2740	mg/Kg	5	2500	<19.2	109	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 116171 | Date Analyzed: 2014-10-09 | Analyzed By: SC
Prep Batch: 98244 | QC Preparation: 2014-10-08 | Prepared By: SC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	261	mg/Kg	1	250	8.36	101	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	267	mg/Kg	1	250	8.36	103	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	96.5	96.8	mg/Kg	1	100	96	97	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116190 | Date Analyzed: 2014-10-10 | Analyzed By: AK
Prep Batch: 98247 | QC Preparation: 2014-10-09 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.89	mg/Kg	1	2.00	<0.00533	94	70 - 130
Toluene		1	1.91	mg/Kg	1	2.00	<0.00645	96	70 - 130
Ethylbenzene		1	1.84	mg/Kg	1	2.00	<0.0116	92	70 - 130
Xylene		1	5.59	mg/Kg	1	6.00	<0.00874	93	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.84	mg/Kg	1	2.00	<0.00533	92	70 - 130	3	20
Toluene		1	1.86	mg/Kg	1	2.00	<0.00645	93	70 - 130	2	20
Ethylbenzene		1	1.83	mg/Kg	1	2.00	<0.0116	92	70 - 130	0	20
Xylene		1	5.58	mg/Kg	1	6.00	<0.00874	93	70 - 130	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.66	1.69	mg/Kg	1	2.00	83	84	70 - 130
4-Bromofluorobenzene (4-BFB)	1.93	1.96	mg/Kg	1	2.00	96	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116191 | Date Analyzed: 2014-10-10 | Analyzed By: AK
Prep Batch: 98247 | QC Preparation: 2014-10-09 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	22.0	mg/Kg	1	20.0	<2.32	110	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	24.5	mg/Kg	1	20.0	<2.32	122	70 - 130	11	20

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

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.95	1.97	mg/Kg	1	2.00	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	1.74	1.73	mg/Kg	1	2.00	87	86	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 376168

QC Batch: 116147 | Date Analyzed: 2014-10-08 | Analyzed By: MM
Prep Batch: 98225 | QC Preparation: 2014-10-08 | Prepared By: MM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2640	mg/Kg	5	2500	<19.2	106	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2590	mg/Kg	5	2500	<19.2	104	78.9 - 121	2	20

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

Matrix Spike (xMS-1) Spiked Sample: 376228

QC Batch: 116171 | Date Analyzed: 2014-10-09 | Analyzed By: SC
Prep Batch: 98244 | QC Preparation: 2014-10-08 | Prepared By: SC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO Qs	Qs	1	350	mg/Kg	1	250	<7.41	140	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO Qs	Qs	1	356	mg/Kg	1	250	<7.41	142	70 - 130	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	126	122	mg/Kg	1	100	126	122	70 - 130

Matrix Spike (MS-1) Spiked Sample: 376168

QC Batch: 116190 | Date Analyzed: 2014-10-10 | Analyzed By: AK
Prep Batch: 98247 | QC Preparation: 2014-10-09 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.54	mg/Kg	1	2.00	<0.00533	77	70 - 130
Toluene		1	1.59	mg/Kg	1	2.00	<0.00645	80	70 - 130
Ethylbenzene		1	1.63	mg/Kg	1	2.00	<0.0116	82	70 - 130
Xylene		1	5.06	mg/Kg	1	6.00	0.1037	83	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.65	mg/Kg	1	2.00	<0.00533	82	70 - 130	7	20
Toluene		1	1.72	mg/Kg	1	2.00	<0.00645	86	70 - 130	8	20
Ethylbenzene		1	1.79	mg/Kg	1	2.00	<0.0116	90	70 - 130	9	20
Xylene		1	5.54	mg/Kg	1	6.00	0.1037	91	70 - 130	9	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.62	1.67	mg/Kg	1	2	81	84	70 - 130
4-Bromofluorobenzene (4-BFB)	2.11	2.11	mg/Kg	1	2	106	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 376168

QC Batch: 116191 | Date Analyzed: 2014-10-10 | Analyzed By: AK
Prep Batch: 98247 | QC Preparation: 2014-10-09 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	29.0	mg/Kg	1	20.0	7.75	106	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	29.6	mg/Kg	1	20.0	7.75	109	70 - 130	2	20

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

continued . . .

matrix spikes continued . . .

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.83	1.81	mg/Kg	1	2	92	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.80	1.77	mg/Kg	1	2	90	88	70 - 130

Calibration Standards

Standard (ICV-1)

QC Batch: 116147 | Date Analyzed: 2014-10-08 | Analyzed By: MM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2014-10-08

Standard (CCV-1)

QC Batch: 116147 | Date Analyzed: 2014-10-08 | Analyzed By: MM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2014-10-08

Standard (CCV-1)

QC Batch: 116171 | Date Analyzed: 2014-10-09 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	278	111	80 - 120	2014-10-09

Standard (CCV-2)

QC Batch: 116171 | Date Analyzed: 2014-10-09 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	281	112	80 - 120	2014-10-09

Standard (CCV-3)

QC Batch: 116171 | Date Analyzed: 2014-10-09 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	253	101	80 - 120	2014-10-09

Standard (CCV-1)

QC Batch: 116190 | Date Analyzed: 2014-10-10 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0947	95	80 - 120	2014-10-10
Toluene		1	mg/kg	0.100	0.0935	94	80 - 120	2014-10-10
Ethylbenzene		1	mg/kg	0.100	0.0893	89	80 - 120	2014-10-10
Xylene		1	mg/kg	0.300	0.275	92	80 - 120	2014-10-10

Standard (CCV-2)

QC Batch: 116190 | Date Analyzed: 2014-10-10 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0915	92	80 - 120	2014-10-10
Toluene		1	mg/kg	0.100	0.0918	92	80 - 120	2014-10-10
Ethylbenzene		1	mg/kg	0.100	0.0871	87	80 - 120	2014-10-10
Xylene		1	mg/kg	0.300	0.264	88	80 - 120	2014-10-10

Standard (CCV-1)

QC Batch: 116191 | Date Analyzed: 2014-10-10 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.08	108	80 - 120	2014-10-10

Standard (CCV-2)

QC Batch: 116191 | Date Analyzed: 2014-10-10 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.00	100	80 - 120	2014-10-10

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

14100811

CHAIN OF CUSTODY RECORD

APEX

Office Location Midland

Project Manager Will Ferguson

Laboratory: Trace

Address:

Contact: Will Ferguson

Phone: 3252459810

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 9.6°

1	2	3	4	5

Page ____ of ____

Sampler's Name: Will Ferguson

Sampler's Signature:

Proj. No.: 703071G073

Project Name: 30137 Pipline Release

No/Type of Containers

ANALYSIS REQUESTED: TPH GRO/DRO; BTEX 8021; Chlorides

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/7/14	14:20			A-1 S. Wall @ 8'								376164
S	"	14:22			A-1 E. Wall @ 8'								165
S	"	14:24			A-1 W Wall @ 8'								166
S	"	14:26			A-1 N Wall @ 8'								167
S	10/7	14:30			A-1 RP @ 12'								168

NFE

Turn around time ❑ Normal ❑ 25% Rush ❑ 50% Rush ❑ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/8/14	10:41		10/8/14	10:41
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: 48 hr TAT

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other ____

Summary Report

Will Ferguson
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx 75220

Report Date: October 10, 2014

Work Order: 14100811

Project Name: 30137 Pipeline Release
Project Number: 7030714G073

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
376164	A-1 S Wall @ 8'	soil	2014-10-07	14:20	2014-10-08
376165	A-1 E Wall @ 8'	soil	2014-10-07	14:22	2014-10-08
376166	A-1 W Wall @ 8'	soil	2014-10-07	14:24	2014-10-08
376167	A-1 N Wall @ 8'	soil	2014-10-07	14:26	2014-10-08
376168	A-1 RP @ 12'	soil	2014-10-07	14:30	2014-10-08

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
376164 - A-1 S Wall @ 8'	<0.0200	**0.0576**	**0.0410**	**0.0817**	**147** Qs	<4.00
376165 - A-1 E Wall @ 8'	<0.0200	**0.0526**	**0.0445**	**0.143**	**329** Qs	**13.9**
376166 - A-1 W Wall @ 8'	**0.0992**	**0.336**	**0.186**	**1.64**	**564** Qs	**107**
376167 - A-1 N Wall @ 8'	**0.692**	**4.93**	**1.99**	**9.80**	**1030** Qs	**558**
376168 - A-1 RP @ 12'	<0.0200	<0.0200	<0.0200	**0.104**	**553** Qs	**7.75**

Sample: 376164 - A-1 S Wall @ 8'

Param	Flag	Result	Units	RL
Chloride		**995**	mg/Kg	4

Sample: 376165 - A-1 E Wall @ 8'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 376166 - A-1 W Wall @ 8'

Param	Flag	Result	Units	RL
Chloride		**149**	mg/Kg	4

Sample: 376167 - A-1 N Wall @ 8'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 376168 - A-1 RP @ 12'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Will Ferguson
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx, 75220

Report Date: October 21, 2014

Work Order: 14101618

Project Name: 30137 Pipeline Release
Project Number: 7030714G073

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
376986	A3 CS-1 @ 6	soil	2014-10-14	14:23	2014-10-16
376987	A3 CS-2 @ 1'	soil	2014-10-14	14:25	2014-10-16
376988	A3 CS-3 @ 1'	soil	2014-10-14	14:27	2014-10-16
376989	A3 CS-4 @ 1'	soil	2014-10-14	14:29	2014-10-16
376990	A3 CS-5 @ 1.5	soil	2014-10-14	14:31	2014-10-16
376991	A3 CS-6 @ 2'	soil	2014-10-14	14:33	2014-10-16
376992	A2 CS-1 @ 1'	soil	2014-10-14	14:40	2014-10-16
376993	A2 CS-2 @ 3'	soil	2014-10-14	14:43	2014-10-16
376994	A2 CS-3 @3'	soil	2014-10-14	14:45	2014-10-16
376995	A2 CS-4 @ 3'	soil	2014-10-14	14:47	2014-10-16
376996	A2 CS-5 @ 2'	soil	2014-10-14	14:50	2014-10-16
376997	A2 CS-6 @ 2.5'	soil	2014-10-14	14:52	2014-10-16
376998	A2 CS-7 @ 2.5	soil	2014-10-14	14:54	2014-10-16

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

TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project 30137 Pipeline Release were received by TraceAnalysis, Inc. on 2014-10-16 and assigned to work order 14101618. Samples for work order 14101618 were received intact at a temperature of 5.3 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	98423	2014-10-16 at 15:00	116381	2014-10-17 at 07:24
BTEX	S 8021B	98467	2014-10-17 at 06:47	116432	2014-10-20 at 06:48
Chloride (Titration)	SM 4500-Cl B	98456	2014-10-17 at 15:12	116422	2014-10-17 at 20:09
Chloride (Titration)	SM 4500-Cl B	98463	2014-10-17 at 16:03	116427	2014-10-19 at 12:34
TPH DRO - NEW	S 8015 D	98420	2014-10-16 at 15:15	116397	2014-10-17 at 11:43
TPH GRO	S 8015 D	98423	2014-10-16 at 15:00	116382	2014-10-17 at 07:34
TPH GRO	S 8015 D	98467	2014-10-17 at 06:47	116434	2014-10-20 at 07:10

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 14101618 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.

Analytical Report

Sample: 376986 - A3 CS-1 @ 6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene [1]	U	1	<0.0400	mg/Kg	2	0.0200
Toluene	U	1	<0.0400	mg/Kg	2	0.0200
Ethylbenzene	U	1	<0.0400	mg/Kg	2	0.0200
Xylene		1	**0.230**	mg/Kg	2	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.25	mg/Kg	2	4.00	81	70 - 130
4-Bromofluorobenzene (4-BFB)			3.90	mg/Kg	2	4.00	98	70 - 130

Sample: 376986 - A3 CS-1 @ 6

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**758**	mg/Kg	5	4.00

Sample: 376986 - A3 CS-1 @ 6

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**3240**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		281	mg/Kg	1	100	281	70 - 130

Sample: 376986 - A3 CS-1 @ 6

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	**18.0**	mg/Kg	2	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.77	mg/Kg	2	4.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			4.11	mg/Kg	2	4.00	103	70 - 130

Sample: 376987 - A3 CS-2 @ 1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
Benzene	2	U	1	<0.100	mg/Kg	5	0.0200
Toluene			1	**0.325**	mg/Kg	5	0.0200
Ethylbenzene			1	**0.200**	mg/Kg	5	0.0200
Xylene			1	**0.964**	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.01	mg/Kg	5	10.0	80	70 - 130
4-Bromofluorobenzene (4-BFB)			9.67	mg/Kg	5	10.0	97	70 - 130

Sample: 376987 - A3 CS-2 @ 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**900**	mg/Kg	5	4.00

Sample: 376987 - A3 CS-2 @ 1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**6260**	mg/Kg	2	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		335	mg/Kg	2	100	335	70 - 130

Sample: 376987 - A3 CS-2 @ 1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO		1	**67.4**	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.14	mg/Kg	5	10.0	91	70 - 130
4-Bromofluorobenzene (4-BFB)			8.80	mg/Kg	5	10.0	88	70 - 130

Sample: 376988 - A3 CS-3 @ 1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene [3]	U	1	<0.100	mg/Kg	5	0.0200
Toluene	U	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene	U	1	<0.100	mg/Kg	5	0.0200
Xylene	U	1	<0.100	mg/Kg	5	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			7.65	mg/Kg	5	10.0	76	70 - 130
4-Bromofluorobenzene (4-BFB)			8.94	mg/Kg	5	10.0	89	70 - 130

Sample: 376988 - A3 CS-3 @ 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**47.0**	mg/Kg	5	4.00

Sample: 376988 - A3 CS-3 @ 1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**5230**	mg/Kg	2	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		278	mg/Kg	2	100	278	70 - 130

Sample: 376988 - A3 CS-3 @ 1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	[4]	[1]	<20.0	mg/Kg	5	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.46	mg/Kg	5	10.0	95	70 - 130
4-Bromofluorobenzene (4-BFB)			8.67	mg/Kg	5	10.0	87	70 - 130

Sample: 376989 - A3 CS-4 @ 1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.61	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Sample: 376989 - A3 CS-4 @ 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

continued ...

sample 376989 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1470**	mg/Kg	5	4.00

Sample: 376989 - A3 CS-4 @ 1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**2280**	mg/Kg	2	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		294	mg/Kg	2	100	294	70 - 130

Sample: 376989 - A3 CS-4 @ 1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 376990 - A3 CS-5 @ 1.5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.61	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	70 - 130

Sample: 376990 - A3 CS-5 @ 1.5

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 376990 - A3 CS-5 @ 1.5

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			90.4	mg/Kg	1	100	90	70 - 130

Sample: 376990 - A3 CS-5 @ 1.5

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 376991 - A3 CS-6 @ 2'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116432	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.87	mg/Kg	1	2.00	94	70 - 130

Sample: 376991 - A3 CS-6 @ 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

continued ...

sample 376991 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**427**	mg/Kg	5	4.00

Sample: 376991 - A3 CS-6 @ 2'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**571**	mg/Kg	1	50.0

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

Sample: 376991 - A3 CS-6 @ 2'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Sample: 376992 - A2 CS-1 @ 1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.61	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1	2.00	94	70 - 130

Sample: 376992 - A2 CS-1 @ 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**379**	mg/Kg	5	4.00

Sample: 376992 - A2 CS-1 @ 1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**315**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			114	mg/Kg	1	100	114	70 - 130

Sample: 376992 - A2 CS-1 @ 1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.73	mg/Kg	1	2.00	86	70 - 130

Sample: 376993 - A2 CS-2 @ 3'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1	2.00	94	70 - 130

Sample: 376993 - A2 CS-2 @ 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

continued ...

sample 376993 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**711**	mg/Kg	5	4.00

Sample: 376993 - A2 CS-2 @ 3'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			92.6	mg/Kg	1	100	93	70 - 130

Sample: 376993 - A2 CS-2 @ 3'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 376994 - A2 CS-3 @3'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.85	mg/Kg	1	2.00	92	70 - 130

Sample: 376994 - A2 CS-3 @3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**4550**	mg/Kg	5	4.00

Sample: 376994 - A2 CS-3 @3'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**1960**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		156	mg/Kg	1	100	156	70 - 130

Sample: 376994 - A2 CS-3 @3'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	Sample Preparation:	2014-10-16	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Sample: 376995 - A2 CS-4 @ 3'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116432	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	**0.0813**	mg/Kg	1	0.0200
Ethylbenzene		1	**0.0417**	mg/Kg	1	0.0200
Xylene		1	**0.158**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	70 - 130

Sample: 376995 - A2 CS-4 @ 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116422	Date Analyzed:	2014-10-17	Analyzed By:	MM
Prep Batch:	98456	Sample Preparation:	2014-10-17	Prepared By:	MM

continued ...

sample 376995 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**3930**	mg/Kg	5	4.00

Sample: 376995 - A2 CS-4 @ 3'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**2920**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		208	mg/Kg	1	100	208	70 - 130

Sample: 376995 - A2 CS-4 @ 3'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs	1	**6.55**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 376996 - A2 CS-5 @ 2'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116432	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	**0.0530**	mg/Kg	1	0.0200
Ethylbenzene		1	**0.0406**	mg/Kg	1	0.0200
Xylene		1	**0.0710**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 376996 - A2 CS-5 @ 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116427	Date Analyzed:	2014-10-19	Analyzed By:	MM
Prep Batch:	98463	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**3400**	mg/Kg	5	4.00

Sample: 376996 - A2 CS-5 @ 2'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qs	1	**858**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		145	mg/Kg	1	100	145	70 - 130

Sample: 376996 - A2 CS-5 @ 2'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	70 - 130

Sample: 376997 - A2 CS-6 @ 2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116432	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	70 - 130

Sample: 376997 - A2 CS-6 @ 2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116427	Date Analyzed:	2014-10-19	Analyzed By:	MM
Prep Batch:	98463	Sample Preparation:	2014-10-17	Prepared By:	MM

continued ...

sample 376997 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**138**	mg/Kg	5	4.00

Sample: 376997 - A2 CS-6 @ 2.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	**127**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			117	mg/Kg	1	100	117	70 - 130

Sample: 376997 - A2 CS-6 @ 2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.58	mg/Kg	1	2.00	79	70 - 130

Sample: 376998 - A2 CS-7 @ 2.5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116432	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.62	mg/Kg	1	2.00	81	70 - 130
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	70 - 130

Sample: 376998 - A2 CS-7 @ 2.5

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116427	Date Analyzed:	2014-10-19	Analyzed By:	MM
Prep Batch:	98463	Sample Preparation:	2014-10-17	Prepared By:	MM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**46.0**	mg/Kg	5	4.00

Sample: 376998 - A2 CS-7 @ 2.5

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			113	mg/Kg	1	100	113	70 - 130

Sample: 376998 - A2 CS-7 @ 2.5

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	Sample Preparation:	2014-10-17	Prepared By:	AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			1.58	mg/Kg	1	2.00	79	70 - 130

Method Blanks

Method Blank (1) QC Batch: 116381

QC Batch:	116381	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	QC Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.67	mg/Kg	1	2.00	84	70 - 130

Method Blank (1) QC Batch: 116382

QC Batch:	116382	Date Analyzed:	2014-10-17	Analyzed By:	AK
Prep Batch:	98423	QC Preparation:	2014-10-16	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.49	mg/Kg	1	2.00	74	70 - 130

Method Blank (1) QC Batch: 116397

QC Batch:	116397	Date Analyzed:	2014-10-17	Analyzed By:	SC
Prep Batch:	98420	QC Preparation:	2014-10-16	Prepared By:	SC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<7.41	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			97.8	mg/Kg	1	100	98	70 - 130

Method Blank (1) QC Batch: 116422

QC Batch: 116422 Date Analyzed: 2014-10-17 Analyzed By: MM
Prep Batch: 98456 QC Preparation: 2014-10-17 Prepared By: MM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 116427

QC Batch: 116427 Date Analyzed: 2014-10-19 Analyzed By: MM
Prep Batch: 98463 QC Preparation: 2014-10-17 Prepared By: WK

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 116432

QC Batch: 116432 Date Analyzed: 2014-10-20 Analyzed By: AK
Prep Batch: 98467 QC Preparation: 2014-10-17 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.61	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	70 - 130

Method Blank (1) QC Batch: 116434

QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	QC Preparation:	2014-10-17	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.39	mg/Kg	1	2.00	70	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 116381 | Date Analyzed: 2014-10-17 | Analyzed By: AK
Prep Batch: 98423 | QC Preparation: 2014-10-16 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.81	mg/Kg	1	2.00	<0.00533	90	70 - 130
Toluene		1	1.82	mg/Kg	1	2.00	<0.00645	91	70 - 130
Ethylbenzene		1	1.75	mg/Kg	1	2.00	<0.0116	88	70 - 130
Xylene		1	5.29	mg/Kg	1	6.00	<0.00874	88	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.78	mg/Kg	1	2.00	<0.00533	89	70 - 130	2	20
Toluene		1	1.79	mg/Kg	1	2.00	<0.00645	90	70 - 130	2	20
Ethylbenzene		1	1.69	mg/Kg	1	2.00	<0.0116	84	70 - 130	4	20
Xylene		1	5.13	mg/Kg	1	6.00	<0.00874	86	70 - 130	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.66	1.72	mg/Kg	1	2.00	83	86	70 - 130
4-Bromofluorobenzene (4-BFB)	1.88	1.84	mg/Kg	1	2.00	94	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116382 | Date Analyzed: 2014-10-17 | Analyzed By: AK
Prep Batch: 98423 | QC Preparation: 2014-10-16 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	24.0	mg/Kg	1	20.0	<2.32	120	70 - 130

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

continued . . .

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	26.1	mg/Kg	1	20.0	<2.32	130	70 - 130	8	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	1.94	mg/Kg	1	2.00	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	1.65	1.63	mg/Kg	1	2.00	82	82	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116397 | Date Analyzed: 2014-10-17 | Analyzed By: SC
Prep Batch: 98420 | QC Preparation: 2014-10-16 | Prepared By: SC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	309	mg/Kg	1	250	<7.41	124	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	316	mg/Kg	1	250	<7.41	126	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	111	112	mg/Kg	1	100	111	112	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116422 | Date Analyzed: 2014-10-17 | Analyzed By: MM
Prep Batch: 98456 | QC Preparation: 2014-10-17 | Prepared By: MM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2800	mg/Kg	5	2500	<19.2	112	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2700	mg/Kg	5	2500	<19.2	108	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 116427 | Date Analyzed: 2014-10-19 | Analyzed By: MM
Prep Batch: 98463 | QC Preparation: 2014-10-17 | Prepared By: WK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2760	mg/Kg	5	2500	<19.2	110	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2720	mg/Kg	5	2500	<19.2	109	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 116432 | Date Analyzed: 2014-10-20 | Analyzed By: AK
Prep Batch: 98467 | QC Preparation: 2014-10-17 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.81	mg/Kg	1	2.00	<0.00533	90	70 - 130
Toluene		1	1.80	mg/Kg	1	2.00	<0.00645	90	70 - 130
Ethylbenzene		1	1.70	mg/Kg	1	2.00	<0.0116	85	70 - 130
Xylene		1	5.11	mg/Kg	1	6.00	<0.00874	85	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.81	mg/Kg	1	2.00	<0.00533	90	70 - 130	0	20
Toluene		1	1.80	mg/Kg	1	2.00	<0.00645	90	70 - 130	0	20
Ethylbenzene		1	1.73	mg/Kg	1	2.00	<0.0116	86	70 - 130	2	20
Xylene		1	5.20	mg/Kg	1	6.00	<0.00874	87	70 - 130	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.62	1.61	mg/Kg	1	2.00	81	80	70 - 130
4-Bromofluorobenzene (4-BFB)	1.62	1.59	mg/Kg	1	2.00	81	80	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	QC Preparation:	2014-10-17	Prepared By:	AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	22.7	mg/Kg	1	20.0	<2.32	114	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	25.8	mg/Kg	1	20.0	<2.32	129	70 - 130	13	20

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

Surrogate			LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			1.93	1.98	mg/Kg	1	2.00	96	99	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	1.36	1.40	mg/Kg	1	2.00	68	70	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 376591

QC Batch: 116381 | Date Analyzed: 2014-10-17 | Analyzed By: AK
Prep Batch: 98423 | QC Preparation: 2014-10-16 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.59	mg/Kg	1	2.00	<0.00533	80	70 - 130
Toluene		1	1.63	mg/Kg	1	2.00	<0.00645	82	70 - 130
Ethylbenzene		1	1.63	mg/Kg	1	2.00	<0.0116	82	70 - 130
Xylene		1	5.01	mg/Kg	1	6.00	<0.00874	84	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.52	mg/Kg	1	2.00	<0.00533	76	70 - 130	4	20
Toluene		1	1.63	mg/Kg	1	2.00	<0.00645	82	70 - 130	0	20
Ethylbenzene		1	1.66	mg/Kg	1	2.00	<0.0116	83	70 - 130	2	20
Xylene		1	5.10	mg/Kg	1	6.00	<0.00874	85	70 - 130	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.66	1.60	mg/Kg	1	2	83	80	70 - 130
4-Bromofluorobenzene (4-BFB)	1.98	1.94	mg/Kg	1	2	99	97	70 - 130

Matrix Spike (MS-1) Spiked Sample: 376591

QC Batch: 116382 | Date Analyzed: 2014-10-17 | Analyzed By: AK
Prep Batch: 98423 | QC Preparation: 2014-10-16 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	19.3	mg/Kg	1	20.0	<2.32	96	70 - 130

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

continued . . .

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	20.7	mg/Kg	1	20.0	<2.32	104	70 - 130	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.80	1.79	mg/Kg	1	2	90	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.74	1.76	mg/Kg	1	2	87	88	70 - 130

Matrix Spike (xMS-1) Spiked Sample: 377007

QC Batch: 116397 | Date Analyzed: 2014-10-17 | Analyzed By: SC
Prep Batch: 98420 | QC Preparation: 2014-10-16 | Prepared By: SC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	290	mg/Kg	1	250	<7.41	116	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	Qs	Qs 1	338	mg/Kg	1	250	<7.41	135	70 - 130	15	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	118	131	mg/Kg	1	100	118	131	70 - 130

Matrix Spike (MS-1) Spiked Sample: 376995

QC Batch: 116422 | Date Analyzed: 2014-10-17 | Analyzed By: MM
Prep Batch: 98456 | QC Preparation: 2014-10-17 | Prepared By: MM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			6350	mg/Kg	5	2500	3930	97	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			6590	mg/Kg	5	2500	3930	106	78.9 - 121	4	20

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

Matrix Spike (MS-1) Spiked Sample: 376853

QC Batch: 116427 | Date Analyzed: 2014-10-19 | Analyzed By: MM
Prep Batch: 98463 | QC Preparation: 2014-10-17 | Prepared By: WK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2620	mg/Kg	5	2500	92	101	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2620	mg/Kg	5	2500	92	101	78.9 - 121	0	20

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

Matrix Spike (MS-1) Spiked Sample: 376991

QC Batch: 116432 | Date Analyzed: 2014-10-20 | Analyzed By: AK
Prep Batch: 98467 | QC Preparation: 2014-10-17 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.68	mg/Kg	1	2.00	<0.00533	84	70 - 130
Toluene		1	1.71	mg/Kg	1	2.00	<0.00645	86	70 - 130
Ethylbenzene		1	1.73	mg/Kg	1	2.00	<0.0116	86	70 - 130
Xylene		1	5.28	mg/Kg	1	6.00	<0.00874	88	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.71	mg/Kg	1	2.00	<0.00533	86	70 - 130	2	20
Toluene		1	1.76	mg/Kg	1	2.00	<0.00645	88	70 - 130	3	20
Ethylbenzene		1	1.79	mg/Kg	1	2.00	<0.0116	90	70 - 130	3	20
Xylene		1	5.51	mg/Kg	1	6.00	<0.00874	92	70 - 130	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.65	1.60	mg/Kg	1	2	82	80	70 - 130
4-Bromofluorobenzene (4-BFB)	1.85	1.85	mg/Kg	1	2	92	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 376991

QC Batch:	116434	Date Analyzed:	2014-10-20	Analyzed By:	AK
Prep Batch:	98467	QC Preparation:	2014-10-17	Prepared By:	AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	25.5	mg/Kg	1	20.0	<2.32	128	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	Qs	Qs 1	28.7	mg/Kg	1	20.0	<2.32	144	70 - 130	12	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.55	1.82	mg/Kg	1	2	78	91	70 - 130
4-Bromofluorobenzene (4-BFB)	1.70	1.77	mg/Kg	1	2	85	88	70 - 130

Calibration Standards

Standard (CCV-2)

QC Batch: 116381 Date Analyzed: 2014-10-17 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0914	91	80 - 120	2014-10-17
Toluene		1	mg/kg	0.100	0.0916	92	80 - 120	2014-10-17
Ethylbenzene		1	mg/kg	0.100	0.0866	87	80 - 120	2014-10-17
Xylene		1	mg/kg	0.300	0.261	87	80 - 120	2014-10-17

Standard (CCV-3)

QC Batch: 116381 Date Analyzed: 2014-10-17 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0906	91	80 - 120	2014-10-17
Toluene		1	mg/kg	0.100	0.0901	90	80 - 120	2014-10-17
Ethylbenzene		1	mg/kg	0.100	0.0834	83	80 - 120	2014-10-17
Xylene		1	mg/kg	0.300	0.252	84	80 - 120	2014-10-17

Standard (CCV-2)

QC Batch: 116382 Date Analyzed: 2014-10-17 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.12	112	80 - 120	2014-10-17

Standard (CCV-3)

QC Batch: 116382 Date Analyzed: 2014-10-17 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.12	112	80 - 120	2014-10-17

Standard (CCV-1)

QC Batch: 116397 Date Analyzed: 2014-10-17 Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	300	120	80 - 120	2014-10-17

Standard (CCV-2)

QC Batch: 116397 Date Analyzed: 2014-10-17 Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	293	117	80 - 120	2014-10-17

Standard (CCV-3)

QC Batch: 116397 Date Analyzed: 2014-10-17 Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	289	116	80 - 120	2014-10-17

Standard (ICV-1)

QC Batch: 116422 Date Analyzed: 2014-10-17 Analyzed By: MM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2014-10-17

Standard (CCV-1)

QC Batch: 116422 Date Analyzed: 2014-10-17 Analyzed By: MM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.0	98	85 - 115	2014-10-17

Standard (ICV-1)

QC Batch: 116427 Date Analyzed: 2014-10-19 Analyzed By: MM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2014-10-19

Standard (CCV-1)

QC Batch: 116427 Date Analyzed: 2014-10-19 Analyzed By: MM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2014-10-19

Standard (CCV-1)

QC Batch: 116432 Date Analyzed: 2014-10-20 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0897	90	80 - 120	2014-10-20
Toluene		1	mg/kg	0.100	0.0883	88	80 - 120	2014-10-20
Ethylbenzene		1	mg/kg	0.100	0.0828	83	80 - 120	2014-10-20
Xylene		1	mg/kg	0.300	0.248	83	80 - 120	2014-10-20

Standard (CCV-2)

QC Batch: 116432 Date Analyzed: 2014-10-20 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0888	89	80 - 120	2014-10-20
Toluene		1	mg/kg	0.100	0.0903	90	80 - 120	2014-10-20
Ethylbenzene		1	mg/kg	0.100	0.0850	85	80 - 120	2014-10-20
Xylene		1	mg/kg	0.300	0.256	85	80 - 120	2014-10-20

Standard (CCV-1)

QC Batch: 116434 Date Analyzed: 2014-10-20 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.09	109	80 - 120	2014-10-20

Standard (CCV-2)

QC Batch: 116434 Date Analyzed: 2014-10-20 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.06	106	80 - 120	2014-10-20

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 Dilution due to hydrocarbons.
2 Dilution due to hydrocarbons.
3 Dilution due to hydrocarbons.
4 Dilution due to hydrocarbons.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

14101618

CHAIN OF CUSTODY RECORD

APEX

Office Location: Midland

Project Manager: Will Ferguson

Laboratory: Trace

Address:

Contact:

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 5.3

1 | 2 | 3 | 4 | 5

Page 1 of 2

Sampler's Name: Will Ferguson

Sampler's Signature:

Proj. No.: 703071460 73

Project Name: 30137 line

ANALYSIS REQUESTED

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	TPH GRO DRO	BTEX	Chlorides	Lab Sample ID (Lab Use Only)
S	10/14/14	1423			A3 CS-1 @6"								X	X	X	376986
		1425			A3CS-2@1'											987
		1427			A3CS-3@1'											988
		1429			A3 CS-4@1'											989
		1431			A3 CS-5@1.5'											990
		1433			A3 CS-6@2'											991
		1440			A2 CS-1 @1'											992
		1443			A2CS-2 @3'											993
		1445			A2CS-3@3'											994
S	10/14/14	1447			A2CS-4@3'								X	X	X	995

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10-16-14	11 38		10-16-14	11:39
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: 48hr TAT

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

14101618

CHAIN OF CUSTODY RECORD

APEX

Office Location: Midland

Project Manager: Will Ferguson

Laboratory: Trace

Address:

Contact:

Phone:

PO/SO #:

Sampler's Name: Will Ferguson

Sampler's Signature:

Proj. No.: 703071G073

Project Name: 30137 line

No/Type of Containers

ANALYSIS REQUESTED: TPH GRO DRO; BTEX; Chlorides

Lab use only
Due Date:

Temp. of coolers when received (C°): 5.3

1 | 2 | 3 | 4 | 5

Page 1 of 2

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/14/14	1423			A3 CS-1 @6"								376986
		1425			A3CS-2@1'								987
		1427			A3CS-3@1'								988
		1429			A3 CS-4@1'								989
		1431			A3 CS-5@1.5'								990
		1433			A3 CS-6@2'								991
		1440			A2 CS-1 @1'								992
		1443			A2CS-2 @3'								993
		1445			A2CS-3@3'								994
S	10/14/14	1447			A2CS-4@3'								995

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10-16-14	11 38		10-16-14	11:39
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: 48hr TAT

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

14101618

CHAIN OF CUSTODY RECORD

APEX

Office Location: Midland

Project Manager: Will Ferguson

Laboratory: Trace

Address:

Contact:

Phone:

PO/SO #:

Sampler's Name: Will Ferguson

Sampler's Signature:

Proj. No.: 203714G073

Project Name: 30137 Line Release

ANALYSIS REQUESTED

Lab use only
Due Date:

Temp. of coolers when received (C°): 5.3

1 | 2 | 3 | 4 | 5

Page 2 of 2

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	8015 TPH GRO DRO	8021 BTEX	300 Chloride	Lab Sample ID (Lab Use Only)
S	10/14/14	1450			A2CS-5@2'								X	X	X	376996
S		1452			A2CS-6@2.5'								X	X	X	997
S	10/14/14	1454			A2CS-7@2.5'								X	X	X	998

NFE WF

Turn around time ❑ Normal ❑ 25% Rush ❑ 50% Rush ❑ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/16/14	11:38		10/16/14	11:39
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: 48 hr TAT

Report Sent 10-20-14 AH

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

Summary Report

Will Ferguson
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx 75220

Report Date: October 20, 2014

Work Order: 14101618

Project Name: 30137 Pipeline Release
Project Number: 7030714G073

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
376986	A3 CS-1 @ 6	soil	2014-10-14	14:23	2014-10-16
376987	A3 CS-2 @ 1'	soil	2014-10-14	14:25	2014-10-16
376988	A3 CS-3 @ 1'	soil	2014-10-14	14:27	2014-10-16
376989	A3 CS-4 @ 1'	soil	2014-10-14	14:29	2014-10-16
376990	A3 CS-5 @ 1.5	soil	2014-10-14	14:31	2014-10-16
376991	A3 CS-6 @ 2'	soil	2014-10-14	14:33	2014-10-16
376992	A2 CS-1 @ 1'	soil	2014-10-14	14:40	2014-10-16
376993	A2 CS-2 @ 3'	soil	2014-10-14	14:43	2014-10-16
376994	A2 CS-3 @3'	soil	2014-10-14	14:45	2014-10-16
376995	A2 CS-4 @ 3'	soil	2014-10-14	14:47	2014-10-16
376996	A2 CS-5 @ 2'	soil	2014-10-14	14:50	2014-10-16
376997	A2 CS-6 @ 2.5'	soil	2014-10-14	14:52	2014-10-16
376998	A2 CS-7 @ 2.5	soil	2014-10-14	14:54	2014-10-16

	BTEX				TPH DRO - NEW	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
376986 - A3 CS-1 @ 6	<0.0400 [1]	<0.0400	<0.0400	**0.230**	**3240** Qs	**18.0**
376987 - A3 CS-2 @ 1'	<0.100 [2]	**0.325**	**0.200**	**0.964**	**6260** Qs	**67.4**
376988 - A3 CS-3 @ 1'	<0.100 [3]	<0.100	<0.100	<0.100	**5230** Qs	<20.0 [4]
376989 - A3 CS-4 @ 1'	<0.0200	<0.0200	<0.0200	<0.0200	**2280** Qs	<4.00
376990 - A3 CS-5 @ 1.5	<0.0200	<0.0200	<0.0200	<0.0200	<50.0 Qs	<4.00
376991 - A3 CS-6 @ 2'	<0.0200	<0.0200	<0.0200	<0.0200	**571** Qs	<4.00 Qs
376992 - A2 CS-1 @ 1'	<0.0200	<0.0200	<0.0200	<0.0200	**315** Qs	<4.00
376993 - A2 CS-2 @ 3'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0 Qs	<4.00

continued ...

[1] Dilution due to hydrocarbons.
[2] Dilution due to hydrocarbons.
[3] Dilution due to hydrocarbons.
[4] Dilution due to hydrocarbons.

. . . continued

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
376994 - A2 CS-3 @3'	<0.0200	<0.0200	<0.0200	<0.0200	**1960** Qs	<4.00
376995 - A2 CS-4 @ 3'	<0.0200	**0.0813**	**0.0417**	**0.158**	**2920** Qs	**6.55** Qs
376996 - A2 CS-5 @ 2'	<0.0200	**0.0530**	**0.0406**	**0.0710**	**858** Qs	<4.00 Qs
376997 - A2 CS-6 @ 2.5'	<0.0200	<0.0200	<0.0200	<0.0200	**127** Qs	<4.00 Qs
376998 - A2 CS-7 @ 2.5	<0.0200	<0.0200	<0.0200	<0.0200	<50.0 Qs	<4.00 Qs

Sample: 376986 - A3 CS-1 @ 6

Param	Flag	Result	Units	RL
Chloride		**758**	mg/Kg	4

Sample: 376987 - A3 CS-2 @ 1'

Param	Flag	Result	Units	RL
Chloride		**900**	mg/Kg	4

Sample: 376988 - A3 CS-3 @ 1'

Param	Flag	Result	Units	RL
Chloride		**47.0**	mg/Kg	4

Sample: 376989 - A3 CS-4 @ 1'

Param	Flag	Result	Units	RL
Chloride		**1470**	mg/Kg	4

Sample: 376990 - A3 CS-5 @ 1.5

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 376991 - A3 CS-6 @ 2'

Param	Flag	Result	Units	RL
Chloride		**427**	mg/Kg	4

Sample: 376992 - A2 CS-1 @ 1'

Param	Flag	Result	Units	RL
Chloride		**379**	mg/Kg	4

Sample: 376993 - A2 CS-2 @ 3'

Param	Flag	Result	Units	RL
Chloride		**711**	mg/Kg	4

Sample: 376994 - A2 CS-3 @3'

Param	Flag	Result	Units	RL
Chloride		**4550**	mg/Kg	4

Sample: 376995 - A2 CS-4 @ 3'

Param	Flag	Result	Units	RL
Chloride		**3930**	mg/Kg	4

Sample: 376996 - A2 CS-5 @ 2'

Param	Flag	Result	Units	RL
Chloride		**3400**	mg/Kg	4

Sample: 376997 - A2 CS-6 @ 2.5'

Param	Flag	Result	Units	RL
Chloride		**138**	mg/Kg	4

Sample: 376998 - A2 CS-7 @ 2.5

Param	Flag	Result	Units	RL
Chloride		**46.0**	mg/Kg	4

TRACEANALYSIS, INC.

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

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Will Ferguson
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx, 75220

Report Date: November 5, 2014

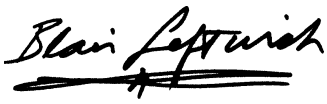
Work Order: 14110327

Project Name: 30137 Pipeline Release
Project Number: 7030714G073

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
378468	A1 N Wall RE	soil	2014-11-03	12:26	2014-11-03
378469	A2 CS-3 RE	soil	2014-11-03	12:30	2014-11-03
378470	A2 CS-4 RE	soil	2014-11-03	12:32	2014-11-03
378471	A2 CS-5 RE	soil	2014-11-03	12:35	2014-11-03
378472	A3 CS-1 RE	soil	2014-11-03	12:38	2014-11-03
378473	A3 CS-2 RE	soil	2014-11-03	12:40	2014-11-03
378474	A3 CS-3 RE	soil	2014-11-03	12:43	2014-11-03
378475	A3 CS-4 RE	soil	2014-11-03	12:46	2014-11-03
378476	A3 CS-6 RE	soil	2014-11-03	12:49	2014-11-03

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.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project 30137 Pipeline Release were received by TraceAnalysis, Inc. on 2014-11-03 and assigned to work order 14110327. Samples for work order 14110327 were received intact at a temperature of 21.2 C. Samples received straight from field.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	98842	2014-11-04 at 08:34	116940	2014-11-05 at 07:03
Chloride (Titration)	SM 4500-Cl B	98845	2014-11-04 at 07:45	116921	2014-11-04 at 09:30
TPH DRO - NEW	S 8015 D	98836	2014-11-03 at 16:29	116922	2014-11-04 at 10:10
TPH GRO	S 8015 D	98842	2014-11-04 at 08:34	116941	2014-11-05 at 07:06

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 14110327 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.

Analytical Report

Sample: 378468 - A1 N Wall RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		5	**0.0774**	mg/Kg	1	0.0200
Xylene		5	**0.270**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.62	mg/Kg	1	2.00	81	70 - 130
4-Bromofluorobenzene (4-BFB)			2.44	mg/Kg	1	2.00	122	70 - 130

Sample: 378468 - A1 N Wall RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride			**151**	mg/Kg	5	4.00

Sample: 378468 - A1 N Wall RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO		5	**103**	mg/Kg	1	50.0

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

Sample: 378468 - A1 N Wall RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		5	**4.12**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.71	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.37	mg/Kg	1	2.00	118	70 - 130

Sample: 378469 - A2 CS-3 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.81	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			2.51	mg/Kg	1	2.00	126	70 - 130

Sample: 378469 - A2 CS-3 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**1000**	mg/Kg	5	4.00

Sample: 378469 - A2 CS-3 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		5	**272**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			128	mg/Kg	1	100	128	70 - 130

Sample: 378469 - A2 CS-3 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 378470 - A2 CS-4 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Benzene	U	5		<0.0200	mg/Kg	1	0.0200
Toluene	U	5		<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5		<0.0200	mg/Kg	1	0.0200
Xylene	U	5		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.66	mg/Kg	1	2.00	83	70 - 130
4-Bromofluorobenzene (4-BFB)			2.21	mg/Kg	1	2.00	110	70 - 130

Sample: 378470 - A2 CS-4 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1210**	mg/Kg	5	4.00

Sample: 378470 - A2 CS-4 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		5	**1010**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	146	mg/Kg	1	100	146	70 - 130

Sample: 378470 - A2 CS-4 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	70 - 130

Sample: 378471 - A2 CS-5 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.66	mg/Kg	1	2.00	83	70 - 130
4-Bromofluorobenzene (4-BFB)			2.23	mg/Kg	1	2.00	112	70 - 130

Sample: 378471 - A2 CS-5 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

continued ...

sample 378471 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**1960**	mg/Kg	5	4.00

Sample: 378471 - A2 CS-5 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		5	**1700**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		175	mg/Kg	1	100	175	70 - 130

Sample: 378471 - A2 CS-5 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.70	mg/Kg	1	2.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Sample: 378472 - A3 CS-1 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			2.48	mg/Kg	1	2.00	124	70 - 130

Sample: 378472 - A3 CS-1 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 378472 - A3 CS-1 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

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

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

Sample: 378472 - A3 CS-1 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

Sample: 378473 - A3 CS-2 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.63	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.38	mg/Kg	1	2.00	119	70 - 130

Sample: 378473 - A3 CS-2 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

continued ...

sample 378473 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 378473 - A3 CS-2 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	U	5	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			108	mg/Kg	1	100	108	70 - 130

Sample: 378473 - A3 CS-2 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.73	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.87	mg/Kg	1	2.00	94	70 - 130

Sample: 378474 - A3 CS-3 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Benzene	U	5	<0.0200		mg/Kg	1	0.0200
Toluene		5	**0.0708**		mg/Kg	1	0.0200
Ethylbenzene		5	**0.0591**		mg/Kg	1	0.0200
Xylene		5	**0.190**		mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			2.32	mg/Kg	1	2.00	116	70 - 130

Sample: 378474 - A3 CS-3 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
Chloride	U		<20.0		mg/Kg	5	4.00

Sample: 378474 - A3 CS-3 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	Result	RL Result	Units	Dilution	RL
DRO		5	**2530**		mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	202	mg/Kg	1	100	202	70 - 130

Sample: 378474 - A3 CS-3 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.74	mg/Kg	1	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70 - 130

Sample: 378475 - A3 CS-4 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.44	mg/Kg	1	2.00	122	70 - 130

Sample: 378475 - A3 CS-4 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

continued ...

sample 378475 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**101**	mg/Kg	5	4.00

Sample: 378475 - A3 CS-4 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		5	**837**	mg/Kg	1	50.0

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

Sample: 378475 - A3 CS-4 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		5	**4.49**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.71	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			2.44	mg/Kg	1	2.00	122	70 - 130

Sample: 378476 - A3 CS-6 RE

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	116940	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.36	mg/Kg	1	2.00	118	70 - 130

Sample: 378476 - A3 CS-6 RE

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	116921	Date Analyzed:	2014-11-04	Analyzed By:	AK
Prep Batch:	98845	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 378476 - A3 CS-6 RE

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	116922	Date Analyzed:	2014-11-04	Analyzed By:	SC
Prep Batch:	98836	Sample Preparation:	2014-11-03	Prepared By:	SC

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO		5	**158**	mg/Kg	1	50.0

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

Sample: 378476 - A3 CS-6 RE

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	Sample Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
GRO	U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.71	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	70 - 130

Method Blanks

Method Blank (1) QC Batch: 116921

QC Batch: 116921 | Date Analyzed: 2014-11-04 | Analyzed By: AK
Prep Batch: 98845 | QC Preparation: 2014-11-04 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 116922

QC Batch: 116922 | Date Analyzed: 2014-11-04 | Analyzed By: SC
Prep Batch: 98836 | QC Preparation: 2014-11-03 | Prepared By: SC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		5	<7.41	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			118	mg/Kg	1	100	118	70 - 130

Method Blank (1) QC Batch: 116940

QC Batch: 116940 | Date Analyzed: 2014-11-05 | Analyzed By: AK
Prep Batch: 98842 | QC Preparation: 2014-11-04 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		5	<0.00533	mg/Kg	0.02
Toluene		5	<0.00645	mg/Kg	0.02
Ethylbenzene		5	<0.0116	mg/Kg	0.02
Xylene		5	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.63	mg/Kg	1	2.00	82	70 - 130

continued ...

method blank continued ...

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

Method Blank (1) QC Batch: 116941

QC Batch:	116941	Date Analyzed:	2014-11-05	Analyzed By:	AK
Prep Batch:	98842	QC Preparation:	2014-11-04	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		5	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.69	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 116921 | Date Analyzed: 2014-11-04 | Analyzed By: AK
Prep Batch: 98845 | QC Preparation: 2014-11-04 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2660	mg/Kg	5	2500	<19.2	106	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2560	mg/Kg	5	2500	<19.2	102	85 - 115	4	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 116922 | Date Analyzed: 2014-11-04 | Analyzed By: SC
Prep Batch: 98836 | QC Preparation: 2014-11-03 | Prepared By: SC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[5]	285	mg/Kg	1	250	<7.41	114	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		[5]	284	mg/Kg	1	250	<7.41	114	70 - 130	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	108	108	mg/Kg	1	100	108	108	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116940 | Date Analyzed: 2014-11-05 | Analyzed By: AK
Prep Batch: 98842 | QC Preparation: 2014-11-04 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	1.70	mg/Kg	1	2.00	<0.00533	85	70 - 130
Toluene		5	1.80	mg/Kg	1	2.00	<0.00645	90	70 - 130
Ethylbenzene		5	1.94	mg/Kg	1	2.00	<0.0116	97	70 - 130
Xylene		5	5.91	mg/Kg	1	6.00	<0.00874	98	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	1.72	mg/Kg	1	2.00	<0.00533	86	70 - 130	1	20
Toluene		5	1.87	mg/Kg	1	2.00	<0.00645	94	70 - 130	4	20
Ethylbenzene		5	1.98	mg/Kg	1	2.00	<0.0116	99	70 - 130	2	20
Xylene		5	6.09	mg/Kg	1	6.00	<0.00874	102	70 - 130	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.62	1.65	mg/Kg	1	2.00	81	82	70 - 130
4-Bromofluorobenzene (4-BFB)	2.52	2.27	mg/Kg	1	2.00	126	114	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 116941 | Date Analyzed: 2014-11-05 | Analyzed By: AK
Prep Batch: 98842 | QC Preparation: 2014-11-04 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		5	17.0	mg/Kg	1	20.0	<2.32	85	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		5	18.2	mg/Kg	1	20.0	<2.32	91	70 - 130	7	20

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

continued ...

control spikes continued . . .

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.64	1.60	mg/Kg	1	2.00	82	80	70 - 130
4-Bromofluorobenzene (4-BFB)	1.90	1.96	mg/Kg	1	2.00	95	98	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 378476

QC Batch: 116921 | Date Analyzed: 2014-11-04 | Analyzed By: AK
Prep Batch: 98845 | QC Preparation: 2014-11-04 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2660	mg/Kg	5	2500	<19.2	106	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2610	mg/Kg	5	2500	<19.2	104	78.9 - 121	2	20

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

Matrix Spike (MS-1) Spiked Sample: 378468

QC Batch: 116922 | Date Analyzed: 2014-11-04 | Analyzed By: SC
Prep Batch: 98836 | QC Preparation: 2014-11-03 | Prepared By: SC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		[5]	349	mg/Kg	1	250	103	98	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		[5]	415	mg/Kg	1	250	103	125	70 - 130	17	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	90.9	119	mg/Kg	1	100	91	119	70 - 130

Matrix Spike (MS-1) Spiked Sample: 378469

QC Batch: 116940 | Date Analyzed: 2014-11-05 | Analyzed By: AK
Prep Batch: 98842 | QC Preparation: 2014-11-04 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	1.79	mg/Kg	1	2.00	<0.00533	90	70 - 130
Toluene		5	1.89	mg/Kg	1	2.00	<0.00645	94	70 - 130
Ethylbenzene		5	1.99	mg/Kg	1	2.00	<0.0116	100	70 - 130
Xylene		5	6.05	mg/Kg	1	6.00	<0.00874	101	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	1.78	mg/Kg	1	2.00	<0.00533	89	70 - 130	1	20
Toluene		5	1.92	mg/Kg	1	2.00	<0.00645	96	70 - 130	2	20
Ethylbenzene		5	2.04	mg/Kg	1	2.00	<0.0116	102	70 - 130	2	20
Xylene		5	6.21	mg/Kg	1	6.00	<0.00874	104	70 - 130	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.65	1.63	mg/Kg	1	2	82	82	70 - 130
4-Bromofluorobenzene (4-BFB)	2.36	2.22	mg/Kg	1	2	118	111	70 - 130

Matrix Spike (MS-1) Spiked Sample: 378469

QC Batch: 116941 | Date Analyzed: 2014-11-05 | Analyzed By: AK
Prep Batch: 98842 | QC Preparation: 2014-11-04 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		5	19.2	mg/Kg	1	20.0	<2.32	96	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		5	18.4	mg/Kg	1	20.0	<2.32	92	70 - 130	4	20

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

continued . . .

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.59	1.56	mg/Kg	1	2	80	78	70 - 130
4-Bromofluorobenzene (4-BFB)	1.87	1.90	mg/Kg	1	2	94	95	70 - 130

Calibration Standards

Standard (ICV-1)

QC Batch: 116921 | Date Analyzed: 2014-11-04 | Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2014-11-04

Standard (CCV-1)

QC Batch: 116921 | Date Analyzed: 2014-11-04 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2014-11-04

Standard (CCV-1)

QC Batch: 116922 | Date Analyzed: 2014-11-04 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		5	mg/Kg	250	265	106	80 - 120	2014-11-04

Standard (CCV-2)

QC Batch: 116922 | Date Analyzed: 2014-11-04 | Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		5	mg/Kg	250	276	110	80 - 120	2014-11-04

Standard (CCV-1)

QC Batch: 116940 | Date Analyzed: 2014-11-05 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/kg	0.100	0.0979	98	80 - 120	2014-11-05
Toluene		5	mg/kg	0.100	0.0988	99	80 - 120	2014-11-05
Ethylbenzene		5	mg/kg	0.100	0.0970	97	80 - 120	2014-11-05
Xylene		5	mg/kg	0.300	0.299	100	80 - 120	2014-11-05

Standard (CCV-2)

QC Batch: 116940 | Date Analyzed: 2014-11-05 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/kg	0.100	0.0991	99	80 - 120	2014-11-05
Toluene		5	mg/kg	0.100	0.0985	98	80 - 120	2014-11-05
Ethylbenzene		5	mg/kg	0.100	0.0950	95	80 - 120	2014-11-05
Xylene		5	mg/kg	0.300	0.290	97	80 - 120	2014-11-05

Standard (CCV-1)

QC Batch: 116941 | Date Analyzed: 2014-11-05 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		5	mg/Kg	1.00	0.921	92	80 - 120	2014-11-05

Standard (CCV-2)

QC Batch: 116941 | Date Analyzed: 2014-11-05 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		5	mg/Kg	1.00	0.902	90	80 - 120	2014-11-05

Appendix

Report Definitions

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

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

F	Description
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 14110327

Page _____ of _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Apex Titan
Phone #: 325 2459810
Address: (Street, City, Zip)
Fax #:
Contact Person: Will Ferguson
E-mail:
Invoice to:
(If different from above)
Project #: 703014G073
Project Name: 30137 Pipeline release
Project Location (including state): Eddy County, NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
378468	A1 N.wall RE				X									11/3/14	1226
469	A2 CS-3 RE														1230
470	A2 CS-4 RE														1232
471	A2 CS-5 RE														1235
472	A3 CS-1 RE														1238
473	A3 CS-2 RE														1240
474	A3 CS-3 RE														1243
475	A3 CS-4 RE														1246
476	A3CS-6 RE				X									11/3/14	1249
								NFE				WF		11/3/14	

ANALYSIS REQUEST	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	X
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
(C) F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	X
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Apex	11/3/14	15:31		TA	11/3/14	1531	INST 1.4 °C OBS 22.3 °C COR 21.2 °C
								INST ____ °C OBS ____ °C COR ____ °C
								INST ____ °C OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: 48 hr TAT

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

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

Carrier # _____

ORIGINAL COPY

Summary Report

Will Ferguson
APEX/Titan
2351 W. Northwest Hwy.
Suite 3321
Dallas, Tx 75220

Report Date: November 5, 2014

Work Order: 14110327

Project Name: 30137 Pipeline Release
Project Number: 7030714G073

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
378468	A1 N Wall RE	soil	2014-11-03	12:26	2014-11-03
378469	A2 CS-3 RE	soil	2014-11-03	12:30	2014-11-03
378470	A2 CS-4 RE	soil	2014-11-03	12:32	2014-11-03
378471	A2 CS-5 RE	soil	2014-11-03	12:35	2014-11-03
378472	A3 CS-1 RE	soil	2014-11-03	12:38	2014-11-03
378473	A3 CS-2 RE	soil	2014-11-03	12:40	2014-11-03
378474	A3 CS-3 RE	soil	2014-11-03	12:43	2014-11-03
378475	A3 CS-4 RE	soil	2014-11-03	12:46	2014-11-03
378476	A3 CS-6 RE	soil	2014-11-03	12:49	2014-11-03

	BTEX				TPH DRO - NEW	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
378468 - A1 N Wall RE	<0.0200	<0.0200	**0.0774**	**0.270**	**103**	**4.12**
378469 - A2 CS-3 RE	<0.0200	<0.0200	<0.0200	<0.0200	**272**	<4.00
378470 - A2 CS-4 RE	<0.0200	<0.0200	<0.0200	<0.0200	**1010**	<4.00
378471 - A2 CS-5 RE	<0.0200	<0.0200	<0.0200	<0.0200	**1700**	<4.00
378472 - A3 CS-1 RE	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
378473 - A3 CS-2 RE	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
378474 - A3 CS-3 RE	<0.0200	**0.0708**	**0.0591**	**0.190**	**2530**	<4.00
378475 - A3 CS-4 RE	<0.0200	<0.0200	<0.0200	<0.0200	**837**	**4.49**
378476 - A3 CS-6 RE	<0.0200	<0.0200	<0.0200	<0.0200	**158**	<4.00

Sample: 378468 - A1 N Wall RE

Param	Flag	Result	Units	RL
Chloride		**151**	mg/Kg	4

Sample: 378469 - A2 CS-3 RE

Param	Flag	Result	Units	RL
Chloride		**1000**	mg/Kg	4

Sample: 378470 - A2 CS-4 RE

Param	Flag	Result	Units	RL
Chloride		**1210**	mg/Kg	4

Sample: 378471 - A2 CS-5 RE

Param	Flag	Result	Units	RL
Chloride		**1960**	mg/Kg	4

Sample: 378472 - A3 CS-1 RE

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 378473 - A3 CS-2 RE

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 378474 - A3 CS-3 RE

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 378475 - A3 CS-4 RE

Param	Flag	Result	Units	RL
Chloride		**101**	mg/Kg	4

Sample: 378476 - A3 CS-6 RE

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Enterprise Products

ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

October 13, 2014

Return Receipt Requested
7014 1200 0001 0918 2109

Mr. Mike Bratcher
New Mexico Oil Conservation Division
District 2 Office
811 South First Street
Artesia, New Mexico 88210

RE: Form C-141 Report for Enterprise Field Services LLC
Release on Carlsbad Area Gathering Lines

Dear Mr. Bratcher,

Enclosed, please find the required initial C-141 Form report for the unplanned release on our 30137 Line in Eddy County on September 29, 2014.

This report is sent pursuant to NMAC 19.15.29 and as follow-up to verbal notifications made to your office over the phone by Osman De Leon on September 29th, 2014 at 10:46 AM CDT. Cleanup activities are currently underway, and a final C-141 form will be submitted when soil sampling results demonstrate that cleanup of the affected area is complete.

If you have any questions or need additional information, please contact Dina Babinski, our area Environmental Supervisor at 210-528-3824, or me at 713-381-6684.

Yours truly,

Jon E. Fields
Director, Field Environmental

/bjm
Attachment

P. O. BOX 4324
HOUSTON, TX 77210-4324
713.381.6500

1100 LOUISIANA STREET
HOUSTON, TX 77002-5227
www.enterpriseproducts.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company *Enterprise Field Services LLC*	Contact *Dina Babinski*
PO Box 4324, Houston, TX 77252	Telephone No. *210-528-3824*
Facility Name *Pipeline ROW, 30137 Gathering Lateral*	Facility Type: *Gas Gathering Pipeline*

Surface Owner *State of New Mexico*	Mineral Owner *NA - Pipeline*	Lease No. *NA*

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
SWSE	*13*	*19S*	*28E*	*60*	*South*	*144*	*West*	*Eddy*

Latitude: *N 32.653889* **Longitude:** *W -104.129961*

NATURE OF RELEASE

Type of Release *Natural Gas, Pipeline Liquids*	Volume of Release: *1647 MCF, 5 BBL Liquids*	Volume Recovered: *N/A*
Source of Release *Pipeline Leak.*	Date and Hour of Occurrence *09/29/2014 @ 08:40 MDT*	Date and Hour of Discovery *09/29/2014 @ 08:40 MDT*
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? *Mike Bratcher, District 2*	
By Whom? *Osman De Leon*	Date and Hour *09/29/2014 @ 10:46 MDT*	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Pipeline leak was detected by pumper driving by. Pipeline segment was clamped and blown down, and leaking portion was repaired.

Describe Area Affected and Cleanup Action Taken.*

Liquid spill occurred within pipeline ROW. Cleanup activities are currently being performed and additional sampling has been requested to confirm cleanup is satisfactory.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: *Jon E. Fields*	Approved by District Supervisor:	
Title: *Director, Field Environmental*	Approval Date:	Expiration Date:
E-mail Address: *jefields@eprod.com*	Conditions of Approval:	Attached ☐
Date: *10/13/2014* Phone: *713-381-6684*		

* Attach Additional Sheets If Necessary

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 105105 | 1. PAGE ___ OF ___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

15. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS	

21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 105066 | 1. PAGE ___OF___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

TRANSPORTER

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. **TRANSPORTER (1)**	17. **TRANSPORTER (2)**
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048

PERMIT NO. WM-01-035 - New Mexico

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 105106 | 1. PAGE __OF__ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

15. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS	

21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 105021 | 1. PAGE ___OF___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME PHONE NO 24-HOUR EMERGENCY NO.

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. **TRANSPORTER (1)**	17. **TRANSPORTER (2)**
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS	

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 DISPOSAL SITE: COPIES 2 & 3 TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 105022 | 1. PAGE ___ OF ___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME PHONE NO 24-HOUR EMERGENCY NO.

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048

PERMIT NO.	20. COMMENTS
WM-01-035 - New Mexico	

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 DISPOSAL SITE: COPIES 2 & 3 TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 105020 | 1. PAGE ___ OF ___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

15. GENERATOR'S CERTIFICATION: I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048
PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS	

21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 104909 | 1. PAGE ___ OF ___ | 2. TRAILER NO. 02

GENERATOR

3. COMPANY NAME | 4. ADDRESS | 5. PICK-UP DATE

PHONE NO. | CITY | STATE | ZIP | 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

TRANSPORTER

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. **TRANSPORTER (1)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

17. **TRANSPORTER (2)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME _____

SIGNATURE _____ DATE _____

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME _____

SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC | ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM | PHONE: 575-887-4048

PERMIT NO. WM-01-035 - New Mexico | 20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE | CELL NO. | DATE | TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 104937 | 1. PAGE __OF__ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

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TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048

PERMIT NO.	20. COMMENTS
WM-01-035 - New Mexico	

21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 104938 | 1. PAGE ___ OF ___ | 2. TRAILER NO.

GENERATOR

3. COMPANY NAME / PHONE NO.	4. ADDRESS / CITY / STATE / ZIP	5. PICK-UP DATE / 6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED:	8. CONTAINERS No.	8. CONTAINERS Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a.					
b.					
c.					
d.					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME | PHONE NO | 24-HOUR EMERGENCY NO.

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PRINTED/TYPED NAME | SIGNATURE | DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME:	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT:	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE:	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME _____	PRINTED/TYPED NAME _____
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048

PERMIT NO. WM-01-035 - New Mexico	20. COMMENTS

21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME

GENERATOR: COPIES 1 & 6 | DISPOSAL SITE: COPIES 2 & 3 | TRANSPORTERS: COPIES 4 & 5

COPY 5