1R - 400

REPORTS

DATE:
May 202



SOIL CLOSURE REQUEST

TEXACO SKELLY F

SW 1/4 NW 1/4 SECTION 21, TOWNSHIP 20 SOUTH, RANGE 37 EAST LEA COUNTY, NEW MEXICO PLAINS SRS NUMBER: 2002-11229 **NMOCD Reference Number 1R-0420**

Prepared for:

PLAINS MARKETING, L.P.

333 Clay Street, Suite 1600 Houston, Texas 77002



Prepared by:

NOVA Safety and Environmental

2057 Commerce Midland, Texas 79703

May 2012

Ronald K. Rounsaville

Senior Project Manager

Brittan K. Byerly, P.G.

President



June 8, 2012

Mr. Edward Hansen New Mexico Oil Conservation Division Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RE:

Plains Pipeline, L.P. Texaco Skelly F Site

NMOCD Reference # 1R-0420

Unit Letter E of Section 21, Township 20 South, Range 37 East

Lea County, New Mexico

Dear Mr. Hansen:

Plains Pipeline, L.P. is pleased to submit the attached *Soil Closure Request*, dated May 2012, for the Texaco Skelly F site. This document details the soil remediation activities performed at the site.

Should you have any questions or comments, please contact me at (575) 441-1099.

Sincerely.

Jason Henry

Remediation Coordinator

Plains Pipeline, L.P.

CC: Geoff Leking, NMOCD, Hobbs Office

Enclosure

TABLE OF CONTENTS

1.0	INTRODUCTION
2.0	NMOCD SITE CLASSIFICATION
3.0	SUMMARY OF FIELD ACTIVITIES
4.0	PSH RECOVERY EFFORTS
5.0	SOIL CLOSURE REQUEST
6.0	LIMITATIONS
7.0	DISTRIBUTION LIST6
FIGUR FIGUR FIGUR	E 1: Site Location Map E 2: Excavation Area Map
TABL TABLI	
APPEN APPEN	NDICES NDIX A: Notification of Release and Corrective Action (Form C-141) NDIX B: Laboratory Reports (On the attached CD) NDIX C: Photographs

1.0 INTRODUCTION

On behalf of Plains Pipeline, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Soil Closure Request to the New Mexico Oil Conservation Division (NMOCD) for the site known as Texaco Skelly "F" (SRS # 2002-11229). The site is located approximately three and one-half miles south of the town of Monument, New Mexico, in the SW ¼ of the NW ¼ of Section 21, Township 20 South, Range 37 East in Lea County, New Mexico. The Texaco Skelly "F" Crude Oil Release was discovered September 15, 1998; the cause of the release was attributed to internal pipeline corrosion. The Release Notification and Corrective Action (Form C-141) is provided as Appendix D. Approximately thirty barrels of crude oil was released from a four inch pipeline with no recovery. The release resulted in a surface stain approximately thirty feet by one hundred feet oriented parallel to the pipeline. This Soil Closure Request details the results of the NMOCD approved activities completed at the site. For reference, a Site Location Map is provided as Figure 1.

2.0 NMOCD SITE CLASSIFICATION

The depth to groundwater at the site is approximately 25 feet bgs. Based on the NMOCD soil classification system, 20 points would be assigned to the site as a result of this criterion. There are no receptor water wells located within 1,000 feet of the site. Based on the NMOCD Soil Classification System, 0 points would be assigned to the site as a result of this criterion. There are no surface-water features identified within a one-mile radius of the site. Based on the NMOCD Soil Classification System, 0 points would be assigned to the site as a result of this criterion. The NMOCD guidelines indicate that the site would have a Ranking Score of >19. The soil action levels for a site with a Ranking Score of >19 points are as follows:

- Benzene 10 ppm
- BTEX 50 ppm
- TPH 100 ppm

The approved Soil Closure Work Plan proposed that if hydrocarbon impact exceeding NMOCD cleanup standards existed in the soil below 20 feet in depth, then a synthetic liner would be installed in the excavation over the area exceeding the cleanup standards. Impacted excavated soil from the surface to 20 feet bgs would be treated on-site by blending and aeration techniques to achieve target concentrations (or below) as stated in the Work Plan. Pursuant to the Work Plan, treated soil above the liner will be blended to less than 1000 mg/kg TPH, less than 10 mg/Kg benzene and less than 50 mg/Kg total BTEX. The upper one foot of each excavation area will be backfilled with non-impacted top soil exhibiting a TPH concentration less than 100 mg/Kg.

3.0 SUMMARY OF FIELD ACTIVITIES

3.1 Impacted Soil Removal

Pursuant to the Soil Closure Work Plan, approved by the NMOCD on February 19, 2008, excavation of the impacted soils in the area of the release began on September 20, 2011. An excavator was utilized to remove impacted soil from the floor and sidewalls of the excavation area. The excavated soil was stockpiled on-site, pending laboratory analysis. As excavation activities progressed, soil samples were collected from the floor and sidewalls of the excavation area. Based on visual and olfactory observations, the final dimensions of the excavation area were approximately 100 feet in length (north to south) by 70 feet in width (east to west) and averaged approximately 24 feet in depth. An estimated 6,222 cubic yards of soil was brought to surface and remediated by mixing, blending and aeration methods. Excavation activities were completed on April 16, 2012. Figure 2 is an Excavation Area Map depicting the pipelines, the excavation area and other site details.

3.2 Excavated Soil Remediation

Excavated soil was staged in a large cleared area located north and west of the excavation area. Non-impacted near-surface soil collected from within the cleared area was pushed up and used to blend with the impacted soil. Mixing and blending activities continued concurrently with excavation activities. Approximately 6,222 cubic yards of soil were brought to the surface for remediation. Following blending activities, twelve confirmation soil samples were collected, one for every 500 cubic yards of material and submitted for laboratory analysis for BTEX, EPA method 8021 and Total Petroleum Hydrocarbons, EPA method 8015.

3.3 Confirmation Soil Sampling – Excavation Areas

Confirmation soil samples collected from walls and floor of the excavation areas were submitted for laboratory analysis for TPH by Method 8015M and BTEX by Method 8021B. Laboratory submitted samples were placed in a new sterile glass container, equipped with a Teflon-lined lid furnished by the laboratory. Samples were labeled, placed on ice, and chilled to a temperature of approximately 4° C. Appropriate chain-of-custody documentation and shipping protocols were followed. The laboratory analytical reports are presented on the attached CD provided in Appendix C. Table 1 displays the analytical results of confirmation soil samples.

Main Excavation Area

On September 28, 2011, October 3 and 5, 2011, confirmation soil samples were collected from the sidewalls of the main excavation area. The analytical results of these soil samples indicated TPH and BTEX concentrations were below the NMOCD regulatory standards of 100 mg/Kg and 50 mg/Kg, respectively.

On October 13, 2011, confirmation soil samples were collected from the floor of the main excavation area. The analytical results of these soil samples indicated TPH and BTEX concentrations were below the NMOCD regulatory standards of 100 mg/Kg and 50 mg/Kg,

respectively, with the exception of the soil samples collected at the location identified as NE. FLR-2, 20 ft. The analytical results for soil sample NE. FLR-2, 20 ft. indicated a TPH concentration of 292.4 mg/Kg.

On October 20, 2011, upon receipt of the analytical results, the floor area surrounding soil sample NE. FLR-1, 20 ft. was excavated further to the north approximately 3 feet. Confirmation soil sample NE. FLR-2B, 20 ft. was collected from the excavation floor and submitted for laboratory analysis. The analytical results for soil sample NE. FLR-2B, 20 ft. indicated TPH concentrations were below the NMOCD regulatory standards. A Confirmation Sample Locations Map for the Main Excavation Area is provided as Figure 3. Table 1 displays the analytical results of confirmation soil samples.

During excavation activities, at Plains request, four interceptor sumps were excavated in the floor of the main excavation area, each to a depth of approximately 29 feet bgs. The trenches were located along the south and east floor areas, in the central portion of the floor and the fourth lying in between recovery wells RW-1 and RW-2 in a north-south position. Groundwater was observed at approximately twenty-seven feet bgs. Each of the sumps measured approximately 25 feet in length by approximately 5 feet wide in order to capture Phase Separated Hydrocarbons (PSH) observed on top of the groundwater. As the excavation activities progressed within the Main Excavation area, the entire floor was excavated to groundwater to delineate the presence of PSH. The main excavation area consisted of friable silty sand approximately 10-11 feet thick overlying a fractured caliche bed approximately 11-30 feet thick. The impacted soil from the floor area was added to the excavated soil stockpile for blending and mixing. Figure 3 illustrates the extent and depth of the extended floor excavation.

3.4 Confirmation Soil Sampling – Blended Soil Piles

From September 20, 2011 through March 28, 2012, the estimated 6,222 cubic yards of impacted soil from the main excavation area was staged in cleared areas to the north and west of the excavation area. Non-impacted soil collected from the staging area was used to mix with the impacted soil.

On October 5 and 13, 2011, four composite soil samples were collected from the western blended soil stockpile, SP-2A through SP-2D, and submitted to the laboratory for analysis. The analytical results indicated the TPH concentration of the soil stockpile SP-2 ranged from 247.5 mg/Kg to 339.8 mg/Kg. Benzene concentrations were less than 0.020 mg/Kg and total BTEX concentrations were below 50 mg/Kg. On October 20, 2011, following additional soil blending activities, six composite soil samples were collected from the northern soil stockpile, SP-1A through SP-1F, and submitted to the laboratory for analysis. The analytical results indicated three of the six soil stockpile samples (SP-1A, SP-1B and SP-1D) from stockpile SP-1 exceeded the NMOCD approved limit of 1,000 mg/Kg with TPH concentrations ranging from 1,081.9 mg/Kg to 1,302.2 mg/Kg. Benzene concentrations were less than 0.020 mg/Kg and total BTEX concentrations were below 50 mg/Kg. On March 23, 2012, following additional soil blending and mixing activities, three re-blended soil stockpile samples (SP-1A2, SP-1B2 and SP-1D2) were collected and submitted to the laboratory for analysis. The analytical results indicated the

TPH concentrations of the three re-blended stockpile samples were below the approved 1,000 mg/Kg limit with TPH concentrations ranging from 478.4 mg/Kg to 775.5 mg/Kg.

3.5 Synthetic Liner Placement

Upon receipt of laboratory analytical results indicating all of the identified areas of hydrocarbon impact were below the approved criteria set forth in the Soil Closure Work Plan for treated soils, preparation for the installation of the synthetic liner installation began as proposed in the Soil Closure Work Plan dated April 2008. The floor of the excavation was backfilled up to a depth of approximately 20 feet bgs. Following the backfilling activities, a six-inch layer of non-impacted sand, acquired locally, was placed in the excavation. The sand protects the synthetic liner from rips and tears and aids in the proper installation of the liner.

On April 3, 2012, a synthetic liner was installed within the main excavation area at a depth of approximately 20 feet bgs by a vendor trained in the proper installation of impermeable liners. Photographic documentation of the liner installation is provided as Appendix B. Following the synthetic liner installation, an additional six-inch layer of non-impacted sand was placed on top of the liner to further protect the liner during backfilling operations.

3.6 Backfilling and Surface Restoration

Based on analytical results of laboratory analyzed confirmation soil samples obtained from the excavation areas and remediated soil piles, the backfilling of the excavations with remediated soil commenced on April 9, 2012. The blended soil stockpile was placed in the excavations in twelve-inch lifts and compacted. A water truck was used to supply moisture to the soil to facilitate proper compaction.

On April 16, 2012, backfilling activities were completed and the disturbed area was contoured to fit the surrounding topography.

4.0 PSH RECOVERY EFFORTS

During the excavation of the main floor area, PSH and impacted groundwater within the sumps was evacuated using a vacuum truck. From October 6, 2011 through March 29, 2012, approximately 2,282 barrels of impacted groundwater and oil were recovered from the various sumps along the main floor excavation area. On February 9 and March 23, 2012, two- 30 foot deep recovery sumps were constructed within two separate trenches. The first recovery sump (Sump #1) was installed in a trench located north of monitor well MW-7 and the second recovery sump (Sump#2) was installed within the sump trench located between recovery wells RW-1 and RW-2 to enhance PSH recovery. Following the fluid evacuation activities and the installation of the two recovery sumps, PSH thicknesses in two monitor wells and two recovery wells in the near vicinity of the excavation area have diminished to thicknesses ranging from 0.03 ft. to 0.43 ft.

5.0 SOIL CLOSURE REQUEST

Plains has completed the activities proposed in the NMOCD approved Soil Closure Work Plan dated April 2008 and requests NMOCD approval for Soil Closure.

A complete (including groundwater) Site Closure Request will be submitted to the NMOCD upon completion of eight consecutive quarterly groundwater sampling events demonstrating that BTEX concentrations are below the NMOCD regulatory guidelines.

6.0 LIMITATIONS

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

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

7.0 DISTRIBUTION

Copy 1: Ed Hansen

New Mexico Oil Conservation Division

Environmental Bureau

1220 South St. Francis Drive Santa Fe, New Mexico 87505

Copy 2: Geoffrey Leking

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division District 1

1625 French Drive Hobbs, NM 88240

Copy 3: Jason Henry

Plains Marketing, L.P. 2530 State Highway 214 Denver City, TX 79323 jhenry@paalp.com

Copy 4: Jeff Dann

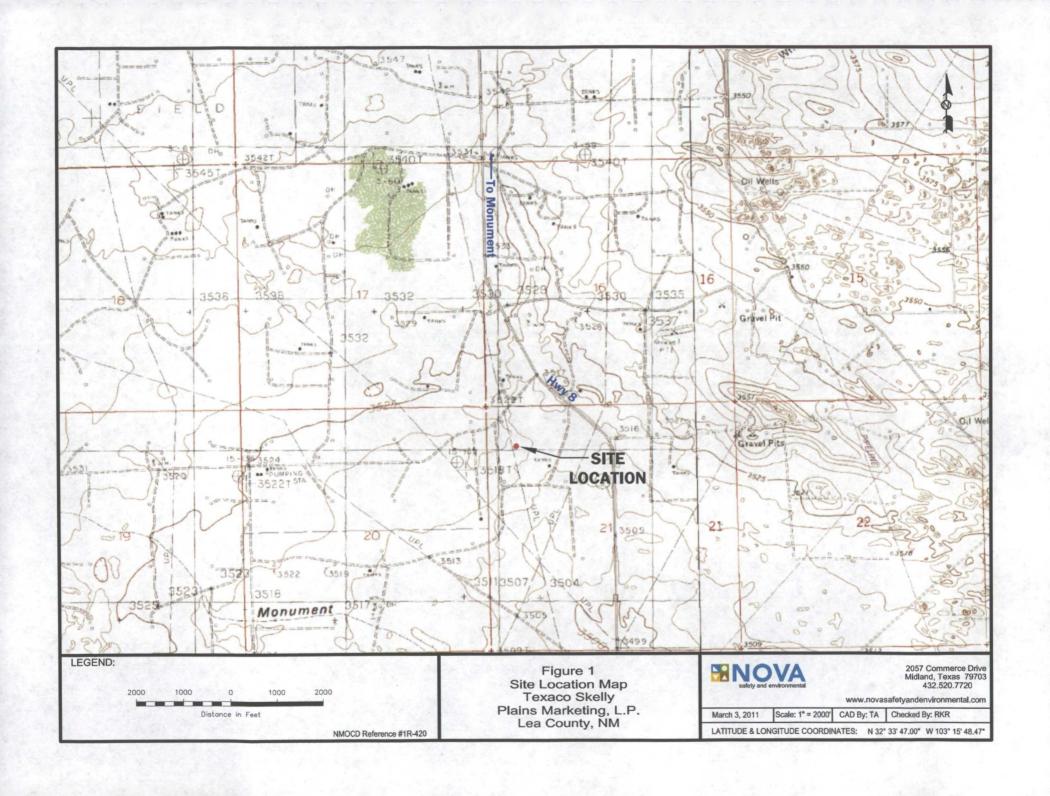
Plains Marketing, L.P. 333 Clay Street, Suite 1600 Houston, Texas 77002 jpdann@paalp.com

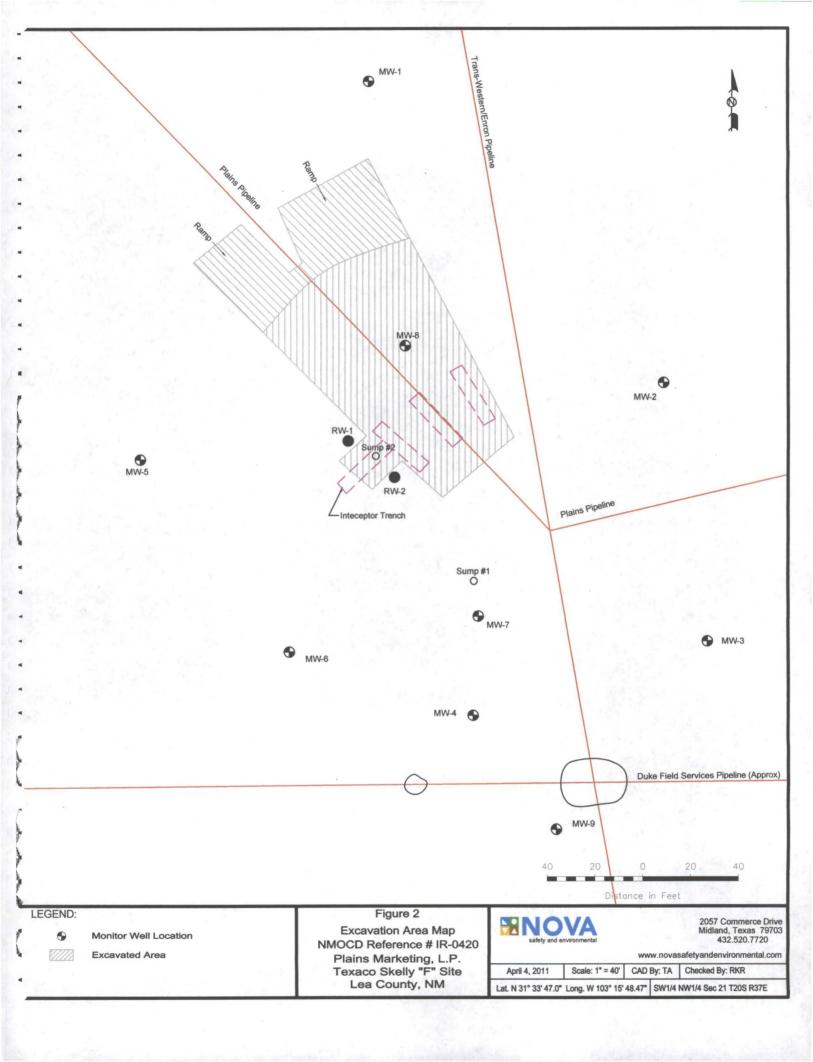
Copy 5: NOVA Safety and Environmental.

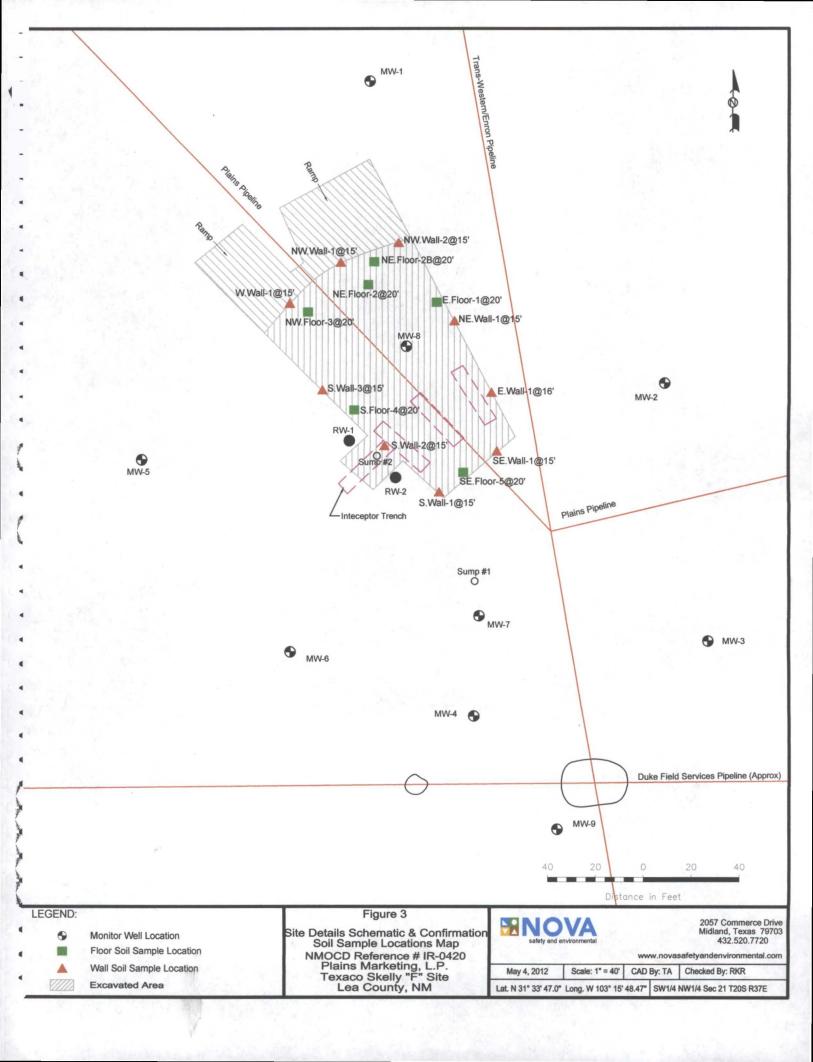
2057 Commerce Drive Midland, Texas 79703

rrounsaville@novatraining.cc











CONCENTRATIONS OF TPH AND BTEX IN SOIL

PLAINS MARKETING, L.P.

TEXACO SKELLY 'F'

Lea County, New Mexico Plains SRS# 2002-11229

NMOCD Reference Number 1R-0420

All concentrations are in mg/kg

SAMPLE DATE					s: EPA SW 846	COLUMB	Methods: EPA SW 846-8020				
	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	C ₆ -C ₁₂	C ₁₂ - C ₃₅	Total TPH C ₆ -C ₃₅	Benzene	Toluene	Ethylbenzene	Total Xylenes	
NMOCD RE	GULATORY STANDARD				-	100	10		-		
Tille		MAIN EXCA	VATION AREA	A TOTAL STATE	F5		12/2013/51-11	# 1 · · · · · ·		· () 學學學() () () () () () () ()	
09/28/11	NE Wall-1, 15'	15'	In-Situ	<2.00	<50.0	<50.0	< 0.0200	< 0.0200	< 0.0200	< 0.0200	
09/28/11	SE Wall-1, 15'	15'	In-Situ	<2.00 ·	<50.0	<50.0	< 0.0200	<0.0200	<0.0200	< 0.0200	
09/28/11	S. Wall-1, 15'	15'	In-Situ	<2.00	<50.0	<50.0	< 0.0200	< 0.0200	<0.0200	<0.0200	
09/28/11	S. Wall-2, 15'	. 15'	In-Situ	<2.00	<50.0	<50.0	< 0.0200	< 0.0200	<0.0200	< 0.0200	
09/28/11	S. Wall-3, 15'	15'	In-Situ	< 2.00	<50.0	<50.0	< 0.0200	< 0.0200	< 0.0200	<0.0200	
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10/03/11	E. Wall-1, 16'	16'	In-Situ	3.70	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	
10/05/11	W Wall-1, 15'	15'	In-Situ	7.01	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	
10/05/11	N West Wall-1, 15'	15'	In-Situ	4.30	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	
10/05/11	N West Wall-2, 15'	15'	In-Situ	3.21	<50.0	<50.0	< 0.0200	<0.0200	<0.0200	<0.0200	
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10/13/11	É FLR-1,	20'	In-Situ	4,43	<50.0	<50.0	< 0.0200	< 0.0200	<0.0200	< 0.0200	
10/13/11	. NE FLR-2	20'	Excavated	15.4	277	292.4	< 0.0200	< 0.0200	< 0.0200	< 0.0200	
10/13/11	NW FLR-3	20'	In-Situ	33.10	<50.0	<50.0	< 0.0200	< 0.0200	< 0.0200	< 0.0200	
10/13/11	S FLR-4	20'	In-Situ	2.74	<50.0	<50.0	< 0.0200	< 0.0200	< 0.0200	< 0.0200	
10/13/11	SE FLR-5	20'	In-Situ	2.82	<50.0	<50.0	< 0.0200	< 0.0200	< 0.0200	< 0.0200	
党队員エンジ		201	T A:. T	2.00	60.0	,500	11.1 (st. 2 . ***)			Jacobs Comment	
10/20/11	NE FLR-2B	20'	In-Situ	3.28	<50.0	<50.0		<u> </u>			
100501		BLENDED SC	IL STOCKPILI	23.8	316	339.8	<0.0200		-,	<0.0200	
10/05/11	South Soil Stockpile SP-2		Blended	. 23.8	310	339.8	<0.0200	<0.0200	<0.0200	<0.0200	
	South Soil Stockpile SP-2, B		Blended	22.5	225	247.5	<0.0200	<0.0200	<0.0200	<0.0200	
	South Soil Stockpile SP-2, C		Blended	15.6	271	286.6	<0.0200	<0.0200	<0.0200	<0.0200	
	South Soil Stockpile SP-2, D		Blended	12.2	289	301.2	< 0.0200	<0.0200	<0.0200	<0.0200	
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	North Soil Stockpile SP-1, A		Blended	45.1	1,170	1,215.1	<0.0200	<0.0200	<0.0200	0.0259	
	North Soil Stockpile SP-1, B		Blended	41.9	1,040	1,081.9	< 0.0200	< 0.0200	< 0.0200	<0.020	
	North Soil Stockpile SP-1, C		Blended	56.6	756	812.6	< 0.0200	<0.0200	<0.0200	<0.020	
	North Soil Stockpile SP-1, D		Blended	52.2	1,250	1,302.2	< 0.0200	<0.0200	<0.0200	<0.020	
	North Soil Stockpile SP-1, E		Blended	69.4	<50.0	69.4	<0.0200	<0.0200	<0.0200	0.0695	
	North Soil Stockpile SP-1, F		Blended	63.3	662	725.3	<0.0200	<0.0200	<0.0200	<0.020	
02/22/12	N. Soil Stockpile SP-1, A2	· · · · · · · · · · · · · · · · · · ·	Reblended	33.5	742	775.5	NA	NA	NA	NA .	
	N. Soil Stockpile SP-1, A2 N. Soil Stockpile SP-1, B2		Reblended	21.4	457	478.4	NA NA	NA NA	NA NA	NA NA	
	N. Soil Stockpile SP-1, B2 N. Soil Stockpile SP-1, D2		Reblended	35.2	497	532.2	NA NA	NA NA	NA NA	NA NA	
03/23/12	N. Soil Stockpile SP-1, D2		Rediction	33.2	4 71	332.4	INA	INA		NA Significant	
	North Soil Stockpile SP-1, G		Blended	15.6	375	390.6	NA	NA	NA	NA	
	North Soil Stockpile SP-1, H		Blended	17.6	375	392.6	NA	NA	NA	NA	

NA - BTEX Analysis not conducted on these samples.



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

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
<u>District II</u>
1301 W. Grand Avenue, Artesia, NM 88210 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Attached

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

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

Form C-141 Revised October 10, 2003

_						0, 1111000								
			Rele	ase Notific	catio	n and Co	rrective A	ction	1					
						OPERA	TOR		x Initia	l Report		Final Repo	or	
Name of Co			Pipeline,			Contact: Camille Reynolds								
Address:				d, TX 79706		Telephone No. 505-441-0965								
Facility Na	me	Texaco	Skelly F			Facility Typ	e: 4". Stee	el Pipel	ine		_		_	
Surface Ow	ner:	Millard D	eck Estat	e Mineral C)wner			-	Lease N	0.			_	
	,			LOCA	ATIC	N OF REI	LEASE							
Unit Letter	Section	Township	Range	Feet from the		h/South Line	Feet from the	East/V	Vest Line	County				
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Was Immedi	ate Notice (Given?				If YES, To				30 00.00			_	
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By Whom?	Frank He	rnandez					lour 02/02/01 0							
Was a Water	course Read		Yes D	71 No		If YES, Vo	lume Impacting t	he Wate	ercourse.					
TC XXX			. –	-									_	
It a Watercou	irse was Im	pacted, Descri	ibe Fully.	•										
Describe Cau	ise of Proble	em and Remed	dial Action	Taken.* Interna	al corre	osion of 4" stee	l pipeline. Forty	feet of t	he line was	replaced.		<u> </u>	_	
							_						_	
Describe Are	a Affected	and Cleanup A	Action Tak	ten.* Forty feet of	f the li	ne was replaced	 The aerial exte 	nt of su	rface impac	t was appro	ximate	ely 30' x		
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should their of	perations h	ave failed to a	dequately	investigate and r	emedia	ate contaminati	on that pose a thre	eat to gr	ound water	, surface w	ater, hi	uman health		
				tance of a C-141	report	does not reliev	e the operator of	responsi	bility for co	ompliance v	vith an	y other		
lederal, state,	or local lav	ws and/or regu	nations.		- (OIL CON	SEDV	ATION	DIVISIO)NI		_	
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Signature:				<u> </u>										
Printed Name	e: Ca	mille Reynolo	ls_			Approved by	District Supervise	or:		,	-			
Title:	Re	mediation Coo	ordinator			Approval Dat	e:	. 1	Expiration I	tion Date:				
E-mail Addre	ess: cjr	eynolds@paal	p.com			Conditions of	Approval:	•		Assahad				

Date: 3/21/2005

Phone:

(505)441-0965

^{*} Attach Additional Sheets If Necessary

APPENDIX B Laboratory Analytical Reports (On the attached CD)



Photographic Documentation

Client: Plains Marketing, L.P. Location: Lea County, New Mexico

Project Name: Texaco Skelly 'F' Photographer: Ron Rounsaville

Photograph No. 1

Direction: East

Description: View of the Main Excavation Area.



Photograph No. 2

Direction: West

Description: View of the ramp entrances along the western portion of the Main Excavation Area.





Photographic Documentation

Client: Plains Marketing, L.P. Location: Lea County, New Mexico

Project Name: Texaco Skelly 'F' Photographer: Ron Rounsaville

Photograph No. 3

Direction: East

Description: View of the oil stained eastern wall of the Main Excavation Area.



Photograph No. 4

Direction: Southeast

Description: View of the three floor sump excavation in the floor of the Main Excavation Area.





Photographic Documentation

Client: Plains Marketing, L.P. Location: Lea County, New Mexico Project Name: Texaco Skelly 'F' Photographer: Ron Rounsaville

Photograph No. 5

Direction: West

Description: View to the west of the floor sump excavation along the southern wall of the excavation area.



Photograph No. 6

Direction: East

Description: View to the east of the excavation floor liner installation.





6701 Aberdeen Avenue: Suite 9

915 • 585 • 3443

FAX 806 * 794 * 1298

200 East Sunset Road; Suite E 5002 Basin Street, Suite A1

El Paso, Texas 79922 Midland, Texas 79703

888 • 588 • 3443

432 • 689 • 6301

FAX 915 • 585 • 4944 FAX 432 • 889 • 6313

6015 Harris Parkway, Suite 110

Ft. Worth, Texas 76132

817 * 201 * 5260

E-Mail: lab@traceanalysis.com

Certifications

NCTRCA DBE **NELAP** DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 25, 2011

Work Order:

11102109

Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002-11229

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

			Date	1 ime	Date
Sample	Description	Matrix	Taken	Taken	Received
280395	NE FLR-2B	soil	2011-10-20	13:45	2011-10-21

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

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report Sample 280395 (NE FLR-2B)	4
Method Blanks QC Batch 85774 - Method Blank (1)	5 5
Laboratory Control Spikes	6
QC Batch 85774 - LCS (1)	6
QC Batch 85816 - LCS (1)	
QC Batch 85774 - MS (1)	
QC Batch 85816 - MS (1)	
Calibration Standards	8
QC Batch 85774 - CCV (1)	8
QC Batch 85774 - CCV (2)	
QC Batch 85816 - CCV (1)	
QC Batch 85816 - CCV (2)	
Appendix	9
Laboratory Certifications	g
Standard Flags	9
Attachments	

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-21 and assigned to work order 11102109. Samples for work order 11102109 were received intact at a temperature of 4.7 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
TPH DRO - NEW	S 8015 D	72853	2011-10-24 at 10:25	85816	2011-10-24 at 10:25
TPH GRO	S 8015 D	72814	2011-10-21 at 14:00	85774	2011-10-21 at 16:15

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11102109 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: October 25, 2011 Work Order: 11102109 Texaco Skelley

2002-11229

Page Number: 4 of 9 Monument, NM

Analytical Report

Sample: 280395 - NE FLR-2B

Laboratory:

Midland

Analysis: QC Batch: TPH DRO - NEW

85816

Analytical Method: Date Analyzed:

S 8015 D 2011-10-24 Prep Method: N/A Analyzed By:

kg

Prep Batch:

72853

Sample Preparation:

2011-10-24

Prepared By: kg

RL

Flag Cert Dilution Parameter Result Units RLQs,U $\overline{\text{DRO}}$ < 50.0 mg/Kg 50.0 1

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			115	mg/Kg	1	100	115	67.5 - 147.1

Sample: 280395 - NE FLR-2B

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85774 Prep Batch: 72814

Analytical Method: Date Analyzed:

S 8015 D 2011-10-21 Sample Preparation: 2011-10-21

Prep Method: S 5035 Analyzed By: AG

Prepared By: AG

RL

Flag Parameter Cert Result Units Dilution RLGRO 3.28 Qr,Qs mg/Kg 2.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	22.4 - 149

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 5 of 9 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85774

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

RL

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

 MDL Parameter Flag Cert Result Units GRO 1.01 mg/Kg

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		-	1.91	mg/Kg	1	2.00	96	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.77	mg/Kg	1	2.00	88	52.4 - 130

Method Blank (1)

QC Batch: 85816

QC Batch:

85816 Prep Batch: 72853

Date Analyzed: QC Preparation: 2011-10-24

2011-10-24

Analyzed By:

kg Prepared By:

MDL Parameter Flag Cert Result Units RLDRO <14.5 mg/Kg

Surragata	Flore	Cont	Dagult	Units	Dilution	Spike	Percent Recovery	Recovery Limits
Surrogate	Flag	Cert	Result	/	Dilution	Amount	necovery	
n-Tricosane			117	mg/Kg	<u> </u>	100	117	52.7 - 133.8

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 6 of 9 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
GRO		1	17.5	mg/Kg	1	20.0	< 0.753	88	60.9 - 95.4

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
GRO		1	18.2	mg/Kg	1	20.0	< 0.753	91	60.9 - 95.4	4	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.97	1.95	mg/Kg	1	2.00	98	98	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.90	1.85	mg/Kg	1	2.00	95	92	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

85816

Date Analyzed:

2011-10-24

Analyzed By: kg

Prep Batch: 72853

QC Preparation: 2011-10-24

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	241	mg/Kg	1	250	<14.5	96	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	242	mg/Kg	1	250	<14.5	97	64.5 - 146.9	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	116	111	mg/Kg	1	100	116	111	65.3 - 135.8

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 7 of 9 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 280395

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	Qs	1	29.3	mg/Kg	1	20.0	3.28	130	61.8 - 114

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
GRO	Qr	1	21.6	mg/Kg	1	20.0	3.28	108	61.8 - 114	30	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.97	1.96	mg/Kg	1	2	98	98	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.12	2.05	mg/Kg	1	2	106	102	37.3 - 162

Matrix Spike (MS-1)

Spiked Sample: 280401

QC Batch:

85816

Prep Batch: 72853

Date Analyzed: 2011-10-24

QC Preparation: 2011-10-24

Analyzed By: kg Prepared By: kg

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
DRO	Qs	1	1100	mg/Kg	1	250	662	175	38.8 - 153.3

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	1020	mg/Kg	1	250	662	143	38.8 - 153.3	8	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	146	143	mg/Kg	1	100	146	143	54.6 - 149.8

2002-11229

Work Order: 11102109 Texaco Skelley Page Number: 8 of 9 Monument, NM

Calibration Standards

Standard (CCV-1)

QC Batch: 85774

Date Analyzed: 2011-10-21

Analyzed By: AG

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits .	Analyzed
GRO	-	1	mg/Kg	1.00	1.14	114	80 - 120	2011-10-21

Standard (CCV-2)

QC Batch: 85774

Date Analyzed: 2011-10-21

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.17	117	80 - 120	2011-10-21

Standard (CCV-1)

QC Batch: 85816

Date Analyzed: 2011-10-24

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	239	96	80 - 120	2011-10-24

Standard (CCV-2)

QC Batch: 85816

Date Analyzed: 2011-10-24

Analyzed By: kg

				$\rm CCVs$	CCVs	CCVs	$\operatorname{Percent}$	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	243	97	80 - 120	2011-10-24

Report Date: October 25, 2011 Work Order: 11102109 Page Number: 9 of 9 2002-11229 Texaco Skelley Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F Description

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

Attachments

The scanned attachments will follow this page.

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

11100100

TraceAnalysis, Inc.

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

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

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

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

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5701 Aberdeen Avenue: Suite 9 200 East Sunset Road, Suite E

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Certifications

NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 25, 2011

Work Order:

11102109

Project Location: Monument, NM Project Name: Texaco Skelley

Project Number: 2002-11229

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

			Date	rime	Date
Sample	Description	Matrix	Taken	Taken	Received .
280395	NE FLR-2B	soil	2011-10-20	13:45	2011-10-21

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

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report Sample 280395 (NE FLR-2B)	4 4
Method Blanks QC Batch 85774 - Method Blank (1)	5 5 5
aboratory Control Spikes	6
QC Batch 85774 - LCS (1)	6
QC Batch 85816 - LCS (1)	6
QC Batch 85774 - MS (1)	7
QC Batch 85816 - MS (1)	7
Calibration Standards	8
QC Batch 85774 - CCV (1)	8
QC Batch 85774 - CCV (2)	8
QC Batch 85816 - CCV (1)	
QC Batch 85816 - CCV (2)	
Appendix	9
Laboratory Certifications	g
Standard Flags	
Attachments	

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-21 and assigned to work order 11102109. Samples for work order 11102109 were received intact at a temperature of 4.7 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
TPH DRO - NEW	S 8015 D	72853	2011-10-24 at 10:25	85816	2011-10-24 at 10:25
TPH GRO	S 8015 D	72814	2011-10-21 at 14:00	85774	2011-10-21 at 16:15

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11102109 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: October 25, 2011 Work Order: 11102109 Page Number: 4 of 9 2002-11229 Texaco Skelley Monument, NM

Analytical Report

Sample: 280395 - NE FLR-2B

Laboratory:

Midland

Analysis: TPH DRO - NEW

QC Batch: 85816 Prep Batch: 72853 Analytical Method: S 8015 D

Date Analyzed: 2011-10-24 Sample Preparation: 2011-10-24 Prep Method: N/A Analyzed By: kg Prepared By: kg

RLParameter Flag Cert Result Units Dilution RLDRO Qs,U< 50.0 mg/Kg 50.0 Percent Spike Recovery Surrogate Flag Cert Result Units Dilution Amount Recovery Limits

n-Tricosane 115 mg/Kg 1 100 115 67.5 - 147.1

Sample: 280395 - NE FLR-2B

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85774 Prep Batch: 72814 Analytical Method: S 8015 D Date Analyzed: 2011-10-2

Date Analyzed: 2011-10-21 Sample Preparation: 2011-10-21 Prep Method: S 5035 Analyzed By: AG

Prepared By: AG

 Parameter
 Flag
 Cert
 Result
 Units
 Dilution
 RL

 GRO
 Qr,Qs
 1
 3.28
 mg/Kg
 1
 2.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	22.4 - 149

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 5 of 9 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85774

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

					MDL			
Parameter	Flag		Cert	•	Result		Units	R.L
GRO			1		1.01		mg/Kg	2
·						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.77	mg/Kg	1	2.00	88	52.4 - 130

Method Blank (1)

QC Batch: 85816

QC Batch:

85816

Date Analyzed:

2011-10-24

Analyzed By: kg

Prep Batch: 72853

QC Preparation: 2011-10-24

Prepared By:

MDLRLParameter Flag Cert Result Units 50 DRO <14.5 mg/Kg

						Spike	Percent	R.ecovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			117	mg/Kg	1	100	117	52.7 - 133.8

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 6 of 9 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.5	mg/Kg	1	20.0	< 0.753	88	60.9 - 95.4

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	· Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
GRO		1	18.2	mg/Kg	1	20.0	< 0.753	91	60.9 - 95.4	4	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.97	1.95	mg/Kg	1	2.00	98	98	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.90	1.85	mg/Kg	1	2.00	95	92	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

Date Analyzed:

2011-10-24

Analyzed By: kg

Prep Batch: 72853

QC Preparation: 2011-10-24

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
DRO		1	241	${ m mg/Kg}$	1	250	<14.5	96	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.			
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit	
DRO		1	242	mg/Kg	1	250	<14.5	97	64.5 - 146.9	0	20	

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	116	111	mg/Kg	1	100	116	111	65.3 - 135.8

2002-11229

Work Order: 11102109

Texaco Skelley

Page Number: 7 of 9 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 280395

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	Qs	1	29.3	mg/Kg	1	20.0	3.28	130	61.8 - 114

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	Qr	1	21.6	mg/Kg	1	20.0	3.28	108	61.8 - 114	30	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.97	1.96	mg/Kg	1	2	98	98	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.12	2.05	mg/Kg	1	2	106	102	37.3 - 162

Matrix Spike (MS-1)

Spiked Sample: 280401

QC Batch:

85816 Prep Batch: 72853

Date Analyzed:

2011-10-24

QC Preparation: 2011-10-24

Analyzed By: kg Prepared By: kg

MS Rec. Spike Matrix Param Result Units Dil. Amount Result Rec. Limit DRO 1100 662 38.8 - 153.3 Qs 250 175 mg/Kg

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

·	•		MSD			Spike	Matrix		Rec.		RPD	
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit	
DRO		1	1020	mg/Kg	1	250	662	143	38 8 - 153 3		20	

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	146	143	mg/Kg	1	100	146	143	54.6 - 149.8

2002-11229

Work Order: 11102109 Texaco Skelley Page Number: 8 of 9 Monument, NM

Calibration Standards

Standard (CCV-1)

QC Batch: 85774

Date Analyzed: 2011-10-21

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2011-10-21

Standard (CCV-2)

QC Batch: 85774

Date Analyzed: 2011-10-21

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.17	117	80 - 120	2011-10-21

Standard (CCV-1)

QC Batch: 85816

Date Analyzed: 2011-10-24

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
•				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	·Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	239	96	80 - 120	2011-10-24

Standard (CCV-2)

QC Batch: 85816

Date Analyzed: 2011-10-24

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DR.O		1	mg/Kg	250	243	97	80 - 120	2011-10-24

2002-11229

Work Order: 11102109 Texaco Skelley Page Number: 9 of 9 Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
~	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F Description

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

Attachments

The scanned attachments will follow this page.

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

LAR	Order	ID	#
-	Oluci	10	77

1110218

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

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6701 Aberdeen Avenue: Suite 9

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El Paso; Texas 79922 Midland, Texas, 79703 888 • 588 • 3443 915 • 585 • 3448 432 • 689 • 6301 FAX 915 • 585 • 4944

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6015 Harris Parkway, Suite 110

817 • 201 • 5260

Ft. Worth, Texas-76132

E-Mail: lab@traceanalysis.com

Certifications

NCTRCA **NELAP** $_{ m DBE}$ DoDLELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 25, 2011

Work Order: 11102109

Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002-11229

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

		*	Date	Line	Date
Sample	Description	Matrix	Taken	Taken	Received
280395	NE FLR-2B	soil	2011-10-20	13:45	2011-10-21

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

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report Sample 280395 (NE FLR-2B)	4
Method Blanks QC Batch 85774 - Method Blank (1)	5 5
Laboratory Control Spikes	6
QC Batch 85774 - LCS (1)	6
QC Batch 85816 - LCS (1)	6
QC Batch 85774 - MS (1)	
QC Batch 85816 - MS (1)	
Calibration Standards	8
QC Batch 85774 - CCV (1)	8
QC Batch 85774 - CCV (2)	8
QC Batch 85816 - CCV (1)	8
QC Batch 85816 - CCV (2)	
$oldsymbol{\Lambda}_{ ext{ppendix}}$	9
Laboratory Certifications	9
Standard Flags	
Attachments	

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-21 and assigned to work order 11102109. Samples for work order 11102109 were received intact at a temperature of 4.7 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
TPH DRO - NEW	S 8015 D	72853	2011-10-24 at 10:25	85816	2011-10-24 at 10:25
TPH GRO	S 8015 D	72814	2011-10-21 at 14:00	85774	2011-10-21 at 16:15

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 11102109 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.

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 4 of 9 Monument, NM

Analytical Report

Sample: 280395 - NE FLR-2B

Laboratory:

Midland

Analysis: QC Batch: TPH DRO - NEW

85816 Prep Batch: 72853

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015 D 2011-10-24 2011-10-24 Prep Method: N/A Analyzed By:

kg Prepared By: kg

RL

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

Surrogate Flag Cert Result Units Dilution Amount Recovery Limits n-Tricosane 67.5 - 147.1 115 mg/Kg 100 115

Sample: 280395 - NE FLR-2B

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85774 Prep Batch: 72814

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015 D 2011-10-21 2011-10-21 Prep Method: S 5035

Analyzed By: AGPrepared By: AG

RLParameter Cert Result Dilution Flag Units RLGRO 3.28 $\overline{\mathrm{Qr,Qs}}$ 2.00 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	30 - 134.6
4-Bromofluorobenzene (4-BFB)		1.95	$_{ m mg/Kg}$	1	2.00	98	22.4 - 149

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 5 of 9 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85774

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

MDL

Parameter Flag Cert Units RLResult GRO 1.01 mg/Kg 2

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	${ m Amount}$	Recovery	Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.77	mg/Kg	1	2.00	88	52.4 - 130

Method Blank (1)

QC Batch: 85816

QC Batch:

85816

Date Analyzed:

2011-10-24

Analyzed By: kg

Prep Batch:

72853

QC Preparation: 2011-10-24

Prepared By:

MDL

Parameter RLFlag Cert Result Units DRO <14.5 mg/Kg

						Spike	Percent	R.ecovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			117	mg/Kg	1	100	117	52.7 - 133.8

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 6 of 9 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

Date Analyzed:

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.5	mg/Kg	1	20.0	< 0.753	88	60.9 - 95.4

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

			LCSD			Spike	Matrix		Rec.		R.P.D
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	R.esult	Rec.	Limit	RPD	Limit
GRO		1	18.2	mg/Kg	1	20.0	< 0.753	91	60.9 - 95.4	4	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.97	1.95	mg/Kg	1	2.00	98	98	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.90	1.85	mg/Kg	1	2.00	95	92	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

Date Analyzed:

2011-10-24

Analyzed By: kg

Prep Batch: 72853

QC Preparation: 2011-10-24

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	241	mg/Kg	1	250	<14.5	96	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	242	mg/Kg	1	250	<14.5	97	64.5 - 146.9	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	116	111	mg/Kg	1	100	116	111	65.3 - 135.8

2002-11229

Work Order: 11102109 Texaco Skelley

Page Number: 7 of 9 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 280395

QC Batch:

85774

Date Analyzed:

2011-10-21

Analyzed By: AG

Prep Batch: 72814

QC Preparation: 2011-10-21

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	F	\mathbf{C}	Result	Units	Dil.	${f A}{f mount}$	Result	Rec.	Limit
GRO	Qs	1	29.3	mg/Kg	1	20.0	3.28	130	61.8 - 114

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

			MSD	•		Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	Qr	1	21.6	mg/Kg	1	20.0	3.28	108	61.8 - 114	30	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.97	1.96	mg/Kg	1	2	98	98	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.12	2.05	mg/Kg	1	2	106	102	37.3 - 162

Matrix Spike (MS-1)

Spiked Sample: 280401

QC Batch:

85816

Date Analyzed:

2011-10-24

Analyzed By: kg

Prep Batch: 72853

QC Preparation: 2011-10-24

Prepared By: kg

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	Qs	1	1100	mg/Kg	1	250	662	175	38.8 - 153.3

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

	•			MSD			Spike	Matrix		Rec.		RPD
Param		F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
DRO			1	1020	mg/Kg	1	250	662	143	38.8 - 153.3	8	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	$_{ m Units}$	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	146	143	mg/Kg	1	100	146	143	54.6 - 149.8

2002-11229

Work Order: 11102109 Texaco Skelley Page Number: 8 of 9 Monument, NM

Calibration Standards

Standard (CCV-1)

QC Batch: 85774

Date Analyzed: 2011-10-21

Analyzed By: AG

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.14	114	80 - 120	2011-10-21

Standard (CCV-2)

QC Batch: 85774

Date Analyzed: 2011-10-21

Analyzed By: AG

				CCVs	· CCVs	CC.Vs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.17	117	80 - 120	2011-10-21

Standard (CCV-1)

QC Batch: 85816

Date Analyzed: 2011-10-24

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	239	96	80 - 120	2011-10-24

Standard (CCV-2)

QC Batch: 85816

Date Analyzed: 2011-10-24

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	243	97	80 - 120	2011-10-24

Report Date: October 25, 2011 Work Order: 11102109
2002-11229 Texaco Skelley

Page Number: 9 of 9

Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
$^{\rm C}$	Authority	Number	Location
_	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F Description

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

Attachments

The scanned attachments will follow this page.

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

LAR	Order	ID	#

Page	/	of	/	
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mpany Name: Phone #:							ANALYSIS REQUEST																									
Address: (Street, City, Zip)					F	ax #:								1.	(Circle or Specify Method No.)																	
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817 * 201 * 5260

E-Mail: lab@traceanalyşis.com

Certifications

NCTRCA DBE **NELAP** DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 19, 2011

11101319 Work Order:

Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002 - 11229

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
279902	E FLR-1	soil	2011-10-13	12:35	2011-10-13
279903	NE FLR-2	soil	2011-10-13	12:48	2011-10-13
279904	NW FLR-3	soil	2011-10-13	12:51	2011-10-13
279905	S FLR-4	soil	2011-10-13	12:44	2011-10-13
279906	SE FLR-5	soil	2011-10-13	12:39	2011-10-13

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

This report consists of a total of 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dlan Left with

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

Report Contents

Case Narrative	4
Analytical Report	5
Sample 279902 (E FLR-1)	5
Sample 279903 (NE FLR-2)	6
Sample 279904 (NW FLR-3)	7
Sample 279905 (S FLR-4)	8
Sample 279906 (SE FLR-5)	9
Method Blanks	11
QC Batch 85574 - Method Blank (1)	11
QC Batch 85575 - Method Blank (1)	11
QC Batch 85576 - Method Blank (1)	11
QC Batch 85579 - Method Blank (1)	12
QC Batch 85689 - Method Blank (1)	12
Laboratory Control Spikes	13
QC Batch 85574 - LCS (1)	13
QC Batch 85575 - LCS (1)	13
QC Batch 85576 - LCS (1)	
	14
QC Batch 85579 - LCS (1)	14
QC Batch 85689 - LCS (1)	15
QC Batch 85574 - MS (1)	15
QC Batch 85575 - MS (1)	16
QC Batch 85576 - MS (1)	17
QC Batch 85579 - MS (1)	17
QC Batch 85689 - MS (1)	18
Calibration Standards	19
QC Batch 85574 - CCV (2)	19
QC Batch 85574 - CCV (3)	19
QC Batch 85575 - CCV (2)	19
QC Batch 85575 - CCV (3)	19
QC Batch 85576 - CCV (2)	20
QC Batch 85576 - CCV (3)	20
QC Batch 85579 - CCV (2)	20
QC Batch 85579 - CCV (3)	20
QC Batch 85689 - CCV (2)	21
QC Batch 85689 - CCV (3)	21
Appendix	22
Laboratory Certifications	22
Standard Flags	22
Attachmonto	22

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-13 and assigned to work order 11101319. Samples for work order 11101319 were received intact at a temperature of 5.3 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	72644	2011-10-13 at 17:00	85574	2011-10-17 at 12:34
BTEX	S 8021B	72644	2011-10-13 at 17:00	85576	2011-10-15 at $06:37$
TPH DRO - NEW	S 8015 D	72738	2011-10-18 at 09:23	85689	2011-10-18 at 09:23
TPH GRO	S 8015 D	72644	2011-10-13 at 17:00	85575	2011-10-14 at 13:00
TPH GRO	S 8015 D	72644	2011-10-13 at 17:00	85579	2011-10-15 at 07:03

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 11101319 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: October 19, 2011 2002-11229

Work Order: 11101319 Texaco Skelley Page Number: 5 of 22 Monument, NM

Analytical Report

Sample: 279902 - E FLR-1

Laboratory: Mi Analysis: BT

Midland BTEX 85574

Analytical Method:
Date Analyzed:

Cert

Flag

U

U

U

U

S 8021B 2011-10-17 2011-10-13 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

1

0.0200

QC Batch: 85574 Prep Batch: 72644

Parameter

Ethylbenzene

Benzene

Toluene

Xylene

Sample Preparation: 2011

RLResult Units Dilution RL< 0.0200 mg/Kg 1 0.0200 1 < 0.0200 mg/Kg 0.02001 mg/Kg< 0.0200 0.0200

mg/Kg

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		•	2.04	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70.6 - 179

< 0.0200

Sample: 279902 - E FLR-1

Laboratory:

: Midland TPH DRO - NEW

Analysis: TPH I QC Batch: 85689 Prep Batch: 72738 Analytical Method: Date Analyzed:

Sample Preparation:

S 8015 D 2011-10-18 2011-10-18 Prep Method: N/A
Analyzed By: kg
Prepared By: kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			96.9	mg/Kg	1	100	97	67.5 - 147.1

Sample: 279902 - E FLR-1

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85575 Prep Batch: 72644 Analytical Method: Stample Preparation:

S 8015 D 2011-10-14 2011-10-13 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

2002-11229

Work Order: 11101319 Texaco Skelley

Page Number: 6 of 22 Monument, NM

					RL				
Parameter	Flag		Cert		Result	Uni	its	Dilution	RL
GRO	Qs		1		4.43	mg/I	ζg	1	2.00
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)				1.87	mg/Kg	1	2.00	94	30 - 134.6
4-Bromofluorobenzene (4-BFB)				1.82	mg/Kg	1	2.00	91	22.4 - 149

Sample: 279903 - NE FLR-2

Laboratory:

Midland

Analysis: BTEX QC Batch: 85574 Prep Batch: 72644

Analytical Method: Date Analyzed:

S 8021B 2011-10-17 Sample Preparation: 2011-10-13 Prep Method: S 5035 Analyzed By: Prepared By:

AGAG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	< 0.0200	mg/Kg	1	0.0200
Toluene	U	1	< 0.0200	${ m mg/Kg}$	1	0.0200
Ethylbenzene	U	1	< 0.0200	mg/Kg	1	0.0200
Xvlene	U	1	< 0.0200	mg/Kg	1	0.0200

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	1	2.00	107	70.6 - 179

Sample: 279903 - NE FLR-2

Laboratory: Midland

TPH DRO - NEW Analysis: QC Batch: 85689 Prep Batch: 72738

Analytical Method: Date Analyzed:

S 8015 D 2011-10-18 Sample Preparation: 2011-10-18 Prep Method: N/A Analyzed By: kg Prepared By: kg

			KL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO		1	277	mg/Kg	1	50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			102	mg/Kg	1	100	102	67.5 - 147.1

2002-11229

Work Order: 11101319 Texaco Skelley

Page Number: 7 of 22 Monument, NM

Sample: 279903 - NE FLR-2

Laboratory: Analysis:

Midland TPH GRO

Analytical Method:

S 8015 D

Prep Method: S 5035 Analyzed By: AG

QC Batch: Prep Batch: 72644

85575

Date Analyzed: Sample Preparation:

2011-10-14 2011-10-13

Prepared By: AG

RL

Parameter Flag Cert Result Units Dilution RLGRO 15.4 Qsmg/Kg2.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	22.4 - 149

Sample: 279904 - NW FLR-3

Laboratory:

Midland

Analysis: BTEX QC Batch: 85574 Prep Batch: 72644

Analytical Method: S 8021B Date Analyzed:

2011-10-17

Prep Method: S 5035 AG

Sample Preparation: 2011-10-13

Analyzed By: Prepared By: AG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	< 0.0200	mg/Kg	1	0.0200
Toluene	U	1	< 0.0200	${ m mg/Kg}$	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)			2.12	mg/Kg	1	2.00	106	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	70.6 - 179

Sample: 279904 - NW FLR-3

Laboratory:

Midland

Analysis: TPH DRO - NEW QC Batch: 85689 Prep Batch: 72738

Analytical Method: Date Analyzed:

S 8015 D 2011-10-18 Sample Preparation: 2011-10-18 Prep Method: N/A Analyzed By: kg Prepared By: kg

 $continued \dots$

Report Date: October 19, 2011 2002-11229

Work Order: 11101319 Texaco Skelley Page Number: 8 of 22 Monument, NM

sample 279904 continued . . .

Parameter		Flag	Cert	F	RL Result	Units	Dilution	RL
Parameter		Flag	Cert	F	RL Result	Units	Dilution	m RL
DRO			1		< 50.0	mg/Kg	1	50.0
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			84.7	mg/Kg	1	100	85	67.5 - 147.1

Sample: 279904 - NW FLR-3

Laboratory: Midland

Analysis: TPH GRO QC Batch: 85575 Prep Batch: 72644 Analytical Method: S 8015 D
Date Analyzed: 2011-10-14
Sample Preparation: 2011-10-13

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

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	Qs	1	33.1	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	30 - 134.6
4-Bromofluorobenzene (4-BFB)		_	2.05	${ m mg/Kg}$	1	2.00	102	22.4 - 149

Sample: 279905 - S FLR-4

Laboratory: Midland

Analysis:BTEXAnalytical Method:S 8021BQC Batch:85576Date Analyzed:2011-10-15Prep Batch:72644Sample Preparation:2011-10-13

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

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

2002-11229

Work Order: 11101319 Texaco Skelley

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	70.6 - 179

Sample: 279905 - S FLR-4

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method:

S 8015 D 2011-10-18 Prep Method: N/A Analyzed By: kg

Page Number: 9 of 22

Monument, NM

QC Batch: 85689 Prep Batch: 72738

Date Analyzed: Sample Preparation: 2011-10-18

Prepared By:

RLParameter Flag Cert Dilution RLResult Units DRO Ū <50.0 50.0 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
n-Tricosane			94.7	mg/Kg	1	100	95	67.5 - 147.1

Sample: 279905 - S FLR-4

Laboratory:

Midland

TPH GRO Analysis: QC Batch: 85579 Prep Batch: 72644

Analytical Method: Date Analyzed:

S 8015 D 2011-10-15 Sample Preparation: 2011-10-13 Prep Method: S 5035

Analyzed By: AGPrepared By: AG

RLParameter Flag Cert Result Units Dilution RLGRO 2.00 2.74 Qr,Qs mg/Kg

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	22.4 - 149

Sample: 279906 - SE FLR-5

Laboratory: Midland

Analysis: **BTEX** QC Batch: 85576 Prep Batch: 72644

Analytical Method: S 8021B Date Analyzed: 2011-10-15 Sample Preparation: 2011-10-13 Prep Method: S 5035 Analyzed By: AGPrepared By: AG

2002-11229

Work Order: 11101319 Texaco Skelley Page Number: 10 of 22 Monument, NM

ico Skelley	Monument, NM
·	

			RL			
Parameter	Flag	Cert	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

				*		Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	70.6 - 179

Sample: 279906 - SE FLR-5

Laboratory:

Midland

Analysis: TPH DRO - NEW QC Batch: 85689 Prep Batch: 72738 Analytical Method: S 8015 D

Date Analyzed: 2011-10-18 Sample Preparation: 2011-10-18 Prep Method: N/A

Analyzed By: kg Prepared By: kg

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

						Spike	Percent	Recovery
Surrogate	Flag_	Cert	Result	Units	Dilution	Amount	Recovery	$_{ m Limits}$
n-Tricosane			97.5	mg/Kg	1	100	98	67.5 - 147.1

Sample: 279906 - SE FLR-5

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85579 Prep Batch: 72644 Analytical Method: S 8015 D
Date Analyzed: 2011-10-15
Sample Preparation: 2011-10-13

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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	22.4 - 149

Report Date: October 19, 2011 2002-11229

Work Order: 11101319 Texaco Skelley

Method Blanks

Page Number: 11 of 22 Monument, NM

Method Blank (1)

QC Batch: 85574

QC Batch:

85574

Date Analyzed:

2011-10-17

Analyzed By: AG

Prep Batch: 72644

QC Preparation: 2011-10-13

Prepared By: AG

	MDL							
Parameter	Flag	Cert	Result	Units	RL			
Benzene	-	1	< 0.0118	mg/Kg	0.02			
Toluene		1	< 0.00600	mg/Kg	0.02			
Ethylbenzene		1	< 0.00850	mg/Kg	0.02			
Xylene		1	< 0.00613	${ m mg/Kg}$	0.02			

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	Ĩ	2.00	100	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	48.4 - 123.1

Method Blank (1)

QC Batch: 85575

QC Batch: Prep Batch: 72644

85575

Date Analyzed:

2011-10-14 QC Preparation: 2011-10-13

Analyzed By: AG Prepared By: AG

RL

Units

MDL Parameter Flag Cert Result **GRO** 1.07

GRO		1			1.07	mg/Kg		2	
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	67.6 - 150	
4-Bromofluorobenzene (4-BFB)			1.59	mg/Kg	1	2.00	80	52.4 - 130	

Method Blank (1)

QC Batch: 85576

QC Batch: 85576Prep Batch: 72644 Date Analyzed: 2011-10-15 QC Preparation: 2011-10-13 Analyzed By: AG Prepared By: AG

2002-11229

Work Order: 11101319

Texaco Skelley

			MDL		
Parameter	Flag	Cert	Result	Units	RL
Benzene		1	< 0.0118	mg/Kg	0.02
Toluene		. 1	< 0.00600	mg/Kg	0.02
Ethylbenzene		1	< 0.00850	mg/Kg	0.02
Xylene		1	< 0.00613	${ m mg/Kg}$	0.02

					•	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.70	mg/Kg	1	2.00	85	48.4 - 123.1

Method Blank (1)

QC Batch: 85579

QC Batch: 85579 Date Analyzed: 2011-10-15 Analyzed By: AG

Page Number: 12 of 22

Monument, NM

Prep Batch: 72644

QC Preparation: 2011-10-13

Prepared By: AG

			MDL		
Parameter	Flag	Cert	Result	Units	RL
GRO		1	0.915	${ m mg/Kg}$	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.56	mg/Kg	1	2.00	78	52.4 - 130

Method Blank (1)

QC Batch: 85689

QC Batch: 85689Prep Batch: 72738 Date Analyzed: QC Preparation: 2011-10-18

2011-10-18

Analyzed By: kg Prepared By: kg

> RL50

			MDL		
Parameter	Flag	Cert	Result	Units]
DRO		1	<14.5	mg/Kg	

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
n-Tricosane			95.8	mg/Kg	1	100	96	52.7 - 133.8

2002-11229

Work Order: 11101319 Texaco Skelley

Page Number: 13 of 22 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

85574

Date Analyzed:

2011-10-17

Analyzed By: AG

Prep Batch: 72644

QC Preparation: 2011-10-13

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	$\mathbf{A}\mathbf{mount}$	Result	Rec.	Limit
Benzene		1	1.97	mg/Kg	1	2.00	< 0.0118	98	77.4 - 121.7
Toluene		1	1.96	${ m mg/Kg}$	1	2.00	< 0.00600	98	88.6 - 121.6
Ethylbenzene		1	1.96	mg/Kg	1	2.00	< 0.00850	98	74.3 - 117.9
Xylene		1	5.92	mg/Kg	1	6.00	< 0.00613	99	73.4 - 118.8

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

Param	F	С	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.98	mg/Kg	1	2.00	< 0.0118	99	77.4 - 121.7	0	20
Toluene		1	1.99	mg/Kg	1	2.00	< 0.00600	100	88.6 - 121.6	2	20
Ethylbenzene		1	1.96	mg/Kg	1	2.00	< 0.00850	98	74.3 - 117.9	0	20
Xylene		1	5.90	mg/Kg	1	6.00	< 0.00613	98	73.4 - 118.8	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)	1.98	2.02	mg/Kg	1	2.00	99	101	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	2.10	2.06	mg/Kg	1	2.00	105	103	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 72644

85575

Date Analyzed:

2011-10-14 QC Preparation: 2011-10-13

Analyzed By: AG Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	18.1	mg/Kg	1	20.0	< 0.753	90	60.9 - 95.4

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

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2002-11229

Work Order: 11101319

Texaco Skelley

Page Number: 14 of 22 Monument, NM

control	spikes	continued			
control	spikes	continued	٠	•	

Param	F	С	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	С	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	17.6	mg/Kg	. 1	20.0	< 0.753	88	60.9 - 95.4	3	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.91	1.90	mg/Kg	1	2.00	96	95	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.76	1.74	${ m mg/Kg}$	1	2.00	88	87	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:

Param

Benzene

Toluene

Xylene

Ethylbenzene

85576 72644 Date Analyzed:

2011-10-15

1

Analyzed By: AG Prepared By: AG

73.4 - 118.8

QC Preparation: 2011-10-13

LCS Spike MatrixRec. F \mathbf{C} Result Units Dil. Amount Result Rec. Limit 1.80 mg/Kg 1 2.00 < 0.0118 90 77.4 - 121.7 1.82mg/Kg 2.00 < 0.00600 91 88.6 - 121.6 1 1.77 mg/Kg 2.00 < 0.00850 74.3 - 117.9 1 88 5.38

6.00

< 0.00613

90

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

Param	F	С	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.84	mg/Kg	1	2.00	< 0.0118	92	77.4 - 121.7	2	20
Toluene		1	1.85	mg/Kg	1	2.00	< 0.00600	92	88.6 - 121.6	2	20
Ethylbenzene		1	1.82	mg/Kg	1	2.00	< 0.00850	91	74.3 - 117.9	3	20
Xylene		1	5.47	mg/Kg	1	6.00	< 0.00613	91	73.4 - 118.8	2	20

mg/Kg

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.86	1.88	mg/Kg	1	2.00	93	94	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.89	1.89	mg/Kg	1	2.00	94	94	56.2 - 132.1

2002-11229

Work Order: 11101319

Texaco Skelley

Page Number: 15 of 22

Monument, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 72644

85579

Date Analyzed:

2011-10-15

Analyzed By: AG Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
GRO		1	16.6	mg/Kg	1	20.0	< 0.753	83	60.9 - 95.4

QC Preparation: 2011-10-13

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	17.0	mg/Kg	1	20.0	< 0.753	85	60.9 - 95.4	2	20

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

·	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.88	1.86	mg/Kg	1	2.00	94	93	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.68	1.69	mg/Kg	1	2.00	84	84	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

85689

Date Analyzed:

2011-10-18

Analyzed By: kg

Prep Batch: 72738

QC Preparation: 2011-10-18

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
DRO		1	237	mg/Kg	1	250	<14.5	95	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	231	mg/Kg	1	250	<14.5	92	64.5 - 146.9	3	20

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

	·	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	•	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane		106	105	mg/Kg	1	100	106	105	65.3 - 135.8

2002-11229

Work Order: 11101319

Page Number: 16 of 22 Texaco Skelley Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 279902

QC Batch:

85574

Date Analyzed:

2011-10-17

Analyzed By: AG

Prep Batch: 72644

QC Preparation: 2011-10-13

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	2.12	mg/Kg	1	2.00	< 0.0118	106	69.4 - 123.6
Toluene		1	2.16	${ m mg/Kg}$	1	2.00	< 0.00600	108	75.4 - 134.3
Ethylbenzene		1	2.24°	mg/Kg	1	2.00	< 0.00850	112	58.8 - 133.7
Xylene		1	6.84	mg/Kg	1	6.00	< 0.00613	114	57 - 134.2

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	2.12	mg/Kg	1	2.00	< 0.0118	106	69.4 - 123.6	0	20
Toluene		1	2.16	mg/Kg	1	2.00	< 0.00600	108	75.4 - 134.3	0	20
Ethylbenzene		1	2.26	mg/Kg	1	2.00	< 0.00850	113	58.8 - 133.7	1	20
Xylene		1	6.79	mg/Kg	1	6.00	< 0.00613	113	57 - 134.2	1	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.08	2.00	mg/Kg	1	2	104	100	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.14	2.13	mg/Kg	1	2	107	106	71 - 167

Matrix Spike (MS-1)

Spiked Sample: 279722

QC Batch: Prep Batch: 72644

85575

Date Analyzed:

2011-10-14 QC Preparation: 2011-10-13

Analyzed By: AG

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	Qs	1	31.3	mg/Kg	1	20.0	2.85	142	61.8 - 114

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
GRO	Qs	1	26.3	mg/Kg	1	20.0	2.85	117	61.8 - 114	17	20

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

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2002-11229

Work Order: 11101319

Page Number: 17 of 22 Texaco Skelley Monument, NM

matrix spikes continued								
Curregate	MS Result	MSD Result	Units	T):1	Spike	MS	MSD Rec.	Rec. Limit
Surrogate	nesuit	nesuit	Units	Dil.	Amount	Rec.	n.ec.	Limit
·	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.90	1.86	mg/Kg	1	2	95	93	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.03	2.04	mg/Kg	1	2	102	102	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 279909

QC Batch: 85576 Prep Batch: 72644 Date Analyzed: QC Preparation: 2011-10-13

2011-10-15

Analyzed By: AG Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	2.14	mg/Kg	1	2.00	< 0.0118	107	69.4 - 123.6
Toluene		1	2.18	mg/Kg	1	2.00	< 0.00600	109	75.4 - 134.3
Ethylbenzene		1	2.29	mg/Kg	1	2.00	< 0.00850	114	58.8 - 133.7
Xylene		1	6.97	mg/Kg	1	6.00	< 0.00613	116	57 - 134.2

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	2.01	mg/Kg	1	2.00	< 0.0118	100	69.4 - 123.6	6	20
Toluene		1	2.13	mg/Kg	1	2.00	< 0.00600	106	75.4 - 134.3	2	20
Ethylbenzene		1	2.25	mg/Kg	1	2.00	< 0.00850	112	58.8 - 133.7	2	20
Xylene		1	6.81	mg/Kg	1	6.00	< 0.00613	114	57 - 134.2	2	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.86	1.90	mg/Kg	1	2	93	95	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.07	2.08	mg/Kg	1	2	104	104	71 - 167

Matrix Spike (MS-1) Spiked Sample: 279813

QC Batch: 85579 Prep Batch: 72644 Date Analyzed: 2011-10-15 QC Preparation: 2011-10-13

Analyzed By: AG Prepared By: AG

2002-11229

Work Order: 11101319

Page Number: 18 of 22

Monument, NM

Texaco Skelley

				MS				Spike	Ν	l atrix			Rec.
Param		\mathbf{F}	$^{\mathrm{C}}$	Result	Unit	s Di	1.	Amoun	it F	Result	Rec.]	Limit
GRO		Qs	1	25.8	mg/F	(g 1		20.0		2.71	115	61	8 - 114
Percent recovery is based on the	spike	resu	ılt. R.PI) is base	d on the	spike ar	nd sp	ike dupl	icate r	esult.			
			MSD)		Spik	e.	Matrix		F	lec.		RPD
Param	\mathbf{F}	\mathbf{C}	Resul			. Amou	ınt	Result	Rec.	$_{ m Li}$	imit	RPD	Limit
GRO	Qr	1	19.4	mg/I	√ g 1	20.0)	2.71	83	61.8	- 114	28	20
Percent recovery is based on the	spike	resu	ılt. RPI) is base	d on the	spike ar	nd sp	ike dupl	licate r	esult.			
			\mathbf{N}	IS M	1SD			Spi	ike	MS	MSD	I	Rec.
Surrogate			Res	sult R	esult	Units	Dil.	. Amo	ount	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)						mg/Kg	1	2		95	94		- 161.7
4 D			1.	97 1	92	mg/Kg	1	2	2	98	96	37.3	3 - 162
	ed Sa	mple	:: 27990! Da		zed: 2	2011-10-1	18				Anal	vzed B	v: kg
Matrix Spike (MS-1) Spik	ed Sa	mple	Da	9 te Analy Prepara		2011-10-1 2011-10-1						yzed B ared B	v
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738			Da QC	te Analy Prepara MS	ation: 2	2011-10-1	18	Spike		ntrix	Prep	ared B	y: kg Rec.
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param		mple F	Da QC	te Analy Prepara MS Result	units	2011-10-1 Dil.	18	Amount	Re	sult	Prep Rec.	ared B	y: kg Rec. imit
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO		F	Da QC	te Analy C Prepara MS Result 488	units	2011-10-1 Dil.	18 	Amount 250	Re 2	sult 89	Prep	ared B	y: kg Rec.
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param		F	Da QC	te Analy C Prepara MS Result 488	units	2011-10-1 Dil.	18 	Amount 250	Re 2	sult 89	Prep Rec.	ared B	y: kg Rec. imit
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO Percent recovery is based on the	spike	F resu	Da QC C 1 1 nlt. RPI MSD	te Analy C Prepara MS Result 488 D is base	Units mg/Kg	Dil. g 1 e spike ar Spike	18 A Ind sp	Amount 250 ike dupl Matrix	Re 2 licate r	esult 189 result. Re	Prep Rec. 80	ared B I L 38.8	Rec. imit - 153.3
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO Percent recovery is based on the		F resu	Da QC C 1 ilt. RPI MSD Result	te Analy C Prepara MS Result 488 D is base Units	Units mg/Kg d on the	Dil. 3 1 spike ar Spike Amoun	18 A Ind sp	Amount 250 ike dupl Aatrix Result	Re 2 licate r	esult 189 result. Ra Lin	Rec. 80 ec. mit	ared B I L 38.8	Rec. imit - 153.3 RPD Limit
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO Percent recovery is based on the Param DRO	e spike	F resu	Da QC C 1 ult. RPI MSD Result 504	te Analy Prepara MS Result 488 D is base Units mg/K	$rac{ ext{Units}}{ ext{mg/Kg}}$ d on the	Dil. g 1 e spike ar Spike Amoun	18 And sp N N The F	Amount 250 ike dupl Matrix Result 289	Rec.	esult 1889 Pesult. Re Lii 38.8 -	Prep Rec. 80	ared B I L 38.8	Rec. imit - 153.3
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO Percent recovery is based on the	e spike	F resu	Da QC C 1 ult. RPI MSD Result 504	te Analy Prepara MS Result 488 D is base Units mg/K	$rac{ ext{Units}}{ ext{mg/Kg}}$ d on the	Dil. g 1 e spike ar Spike Amoun	18 And sp N N The F	Amount 250 ike dupl Matrix Result 289	Rec.	esult 1889 Pesult. Re Lii 38.8 -	Rec. 80 ec. mit	ared B I L 38.8	Rec. imit - 153.3 RPD Limit
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO Percent recovery is based on the Param DRO	e spike	F c resu	Da QC C 1 ult. RPI MSD Result 504	MS Result 488 D is base Units mg/K D is base	$rac{ ext{Units}}{ ext{mg/Kg}}$ d on the	Dil. g 1 e spike ar Spike Amoun	And sp	Amount 250 ike dupl Matrix Result 289	Rec.	esult 89 result. Re Lii 38.8 -	Rec. 80 ec. mit	ared B I I 38.8	Rec. imit - 153.3 RPD Limit
Matrix Spike (MS-1) Spik QC Batch: 85689 Prep Batch: 72738 Param DRO Percent recovery is based on the Param DRO	spike F	F C resu resu S ult	Da QC C 1 ilt. RPI MSD Result 504 ilt. RPI	MS Result 488 D is base Units mg/K D is base	$rac{ ext{Units}}{ ext{mg/Kg}}$ d on the	Dil. g 1 e spike ar Spike Amoun	and sp	Amount 250 ike dupl Matrix Result 289 ike dupl	Rec. Rec. 86	esult. Result. 38.8 - result. Sc.	Rec. 80 ec. mit 153.3	ared B L 38.8 RPD 3	Rec. imit - 153.3 RPD Limit 20

2002-11229

Work Order: 11101319 Texaco Skelley Page Number: 19 of 22 Monument, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 85574

Date Analyzed: 2011-10-17

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0999	100	80 - 120	2011-10-17
Toluene		1	mg/Kg	0.100	0.100	100	80 - 120	2011-10-17
Ethylbenzene		1	mg/Kg	0.100	0.0971	97	80 - 120	2011-10-17
Xylene		1	mg/Kg	0.300	0.294	98	80 - 120	2011-10-17

Standard (CCV-3)

QC Batch: 85574

Date Analyzed: 2011-10-17

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.110	110	80 - 120	2011-10-17
Toluene		1	mg/Kg	0.100	0.108	108	80 - 120	2011-10-17
Ethylbenzene		1	mg/Kg	0.100	0.106	106	80 - 120	2011-10-17
Xylene		1	mg/Kg	0.300	0.316	105	80 - 120	2011-10-17

Standard (CCV-2)

QC Batch: 85575

Date Analyzed: 2011-10-14

Analyzed By: AG

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.01	101	80 - 120	2011-10-14

Standard (CCV-3)

QC Batch: 85575

Date Analyzed: 2011-10-14

Analyzed By: AG

2002-11229

Work Order: 11101319

Texaco Skelley

Page Number: 20 of 22 Monument, NM

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	$_{ m Limits}$	Analyzed
GRO		1	mg/Kg	1.00	1.01	101	80 - 120	2011-10-14

Standard (CCV-2)

QC Batch: 85576

Date Analyzed: 2011-10-15

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date . Analyzed
Benzene		1	mg/Kg	0.100	0.0970	97	80 - 120	2011-10-15
Toluene		1	mg/Kg	0.100	. 0.0981	98	80 - 120	2011-10-15
Ethylbenzene		1	mg/Kg	0.100	0.0968	97	80 - 120	2011-10-15
Xylene		1	mg/Kg	0.300	.0.292	97	80 - 120	2011-10-15

Standard (CCV-3)

QC Batch: 85576

Date Analyzed: 2011-10-15

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/Kg	0.100	0.0969	97	80 - 120	2011-10-15
Toluene		1	${ m mg/Kg}$	0.100	0.0980	98	80 - 120	2011-10-15
Ethylbenzene		1	mg/Kg	0.100	0.0945	94	80 - 120	2011-10-15
Xylene		1	${ m mg/Kg}$	0.300	0.286	95	80 - 120	2011-10-15

Standard (CCV-2)

QC Batch: 85579

Date Analyzed: 2011-10-15

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.998	100	80 - 120	2011-10-15

Report Date: October 19, 2011 2002-11229

Work Order: 11101319 Texaco Skelley

Page Number: 21 of 22 Monument, NM

Standard (CCV-3)

QC Batch: 85579

Date Analyzed: 2011-10-15

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.02	102	80 - 120	2011-10-15

Standard (CCV-2)

QC Batch: 85689

Date Analyzed: 2011-10-18

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	227	91	80 - 120	2011-10-18

Standard (CCV-3)

QC Batch: 85689

Date Analyzed: 2011-10-18

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	$_{ m mg/Kg}$	250	233	93	80 - 120	2011-10-18

Report Date: October 19, 2011 Work Order: 11101319 Page Number: 22 of 22 2002-11229 Texaco Skelley Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

LAB Order ID#		01319	

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Page	//	of	/

TraceAnalysis, Inc.

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 11, 2011

Work Order: 11100605

Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002-11229

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

			Dave	1.11110	15000
Sample	Description	Matrix	Taken	Taken	Received
279149	SP-2	soil	2011-10-05	14:55	2011-10-06

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

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 279149 (SP-2)	4
Method Blanks	6
QC Batch 85361 - Method Blank (1)	6
QC Batch 85443 - Method Blank (1)	•
QC Batch 85444 - Method Blank (1)	6
Laboratory Control Spikes	8
QC Batch 85361 - LCS (1)	8
QC Batch 85443 - LCS (1)	
QC Batch 85444 - LCS (1)	
QC Batch 85361 - MS (1)	
QC Batch 85443 - MS (1)	
QC Batch 85444 - MS (1)	
Calibration Standards	12
QC Batch 85361 - CCV (2)	12
QC Batch 85361 - CCV (3)	
QC Batch 85443 - CCV (2)	
QC Batch 85443 - CCV (3)	
QC Batch 85444 - CCV (2)	
QC Batch 85444 - CCV (3)	
Appendix	14
Laboratory Certifications	14
Standard Flags	
Attachments	

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-06 and assigned to work order 11100605. Samples for work order 11100605 were received intact at a temperature of 4.0 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	72465	2011-10-07 at 07:00	85443	2011-10-07 at 08:34
TPH DRO - NEW	S 8015 D	72468	2011-10-06 at 14:58	85361	2011-10-06 at 14:58
TPH GRO	S 8015 D	72465	2011-10-07 at 07:00	85444	2011-10-07 at 09:00

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 11100605 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: October 11, 2011 Work Order: 11100605 2002-11229 Texaco Skelley

Analytical Report

Sample: 279149 - SP-2

Laboratory: Midland

Analytical Method: Prep Method: S 5035 Analysis: BTEX $\le 8021B$ QC Batch: 85443 Date Analyzed: 2011-10-07 Analyzed By: AGPrep Batch: 72465 Sample Preparation: 2011-10-07 Prepared By: AG

Page Number: 4 of 14

Monument, NM

RLFlag Parameter CertResult Units Dilution RLU Benzene < 0.0200 mg/Kg 0.0200 1 1 U Toluene < 0.0200 mg/Kg 1 0.02001 U Ethylbenzene < 0.0200 mg/Kg 1 0.0200 1 Xylene U < 0.0200 mg/Kg 1 0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	· 1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.28	${ m mg/Kg}$	1	2.00	114	70.6 - 179

Sample: 279149 - SP-2

Laboratory: Midland

Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A QC Batch: 85361 Date Analyzed: 2011-10-06 Analyzed By: kg Prep Batch: 72468 Sample Preparation: 2011-10-06 Prepared By: kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			106	mg/Kg	1	100	106	67.5 - 147.1

Sample: 279149 - SP-2

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 85444 Date Analyzed: 2011-10-07 Analyzed By: AGPrep Batch: 72465 Sample Preparation: 2011-10-07 Prepared By: AG

Report Date: October 11, 2011 2002-11229

Work Order: 11100605 Texaco Skelley

Page Number: 5 of 14 Monument, NM

				RL				
Parameter	Flag	Cert		Result	Uni	its	Dilution	RL
GRO		1		23.8	mg/I	⟨g	1	2.00
						Spike	Percent	Recovery
Surrogate	Flag	g Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.89	mg/Kg	1	2.00	94	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	22.4 - 149

2002-11229

Work Order: 11100605 Texaco Skelley

Page Number: 6 of 14 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85361

QC Batch:

85361

Date Analyzed:

2011-10-06

Analyzed By: kg

Prep Batch:

72468

QC Preparation:

2011-10-06

Prepared By:

MDL

Parameter Units RLFlag Cert Result $\overline{\text{DRO}}$ <14.5 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			79.3	mg/Kg	1	100	79	52.7 - 133.8

Method Blank (1)

QC Batch: 85443

QC Batch: 85443 Prep Batch: 72465

Date Analyzed: 2011-10-07 QC Preparation: 2011-10-07 Analyzed By: AG Prepared By: AG

MDL Parameter Cert Flag Result Units RLBenzene < 0.0118 mg/Kg 0.02 Toluene < 0.00600 mg/Kg 0.02 Ethylbenzene < 0.00850 0.02 mg/Kg mg/Kg Xylene < 0.00613 0.02

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	48.4 - 123.1

Method Blank (1)

QC Batch: 85444

QC Batch:

85444

Date Analyzed:

2011-10-07

Analyzed By: AG Prepared By: AG

Prep Batch: 72465

QC Preparation: 2011-10-07

Report Date: October 11, 2011 2002-11229

Work Order: 11100605 Texaco Skelley

Page Number: 7 of 14 Monument, NM

Parameter	Flag		Cert		MDL Result		Units	RL
GRO			1		0.937		mg/Kg	2
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		-	1.84	mg/Kg	1	2.00	92	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.58	mg/Kg	1	2.00	79	52.4 - 130

Report Date: October 11, 2011 2002-11229

Work Order: 11100605 Texaco Skelley

Page Number: 8 of 14 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

85361

Date Analyzed:

2011-10-06

Analyzed By: kg

Prep Batch: 72468

QC Preparation: 2011-10-06

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	C	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
DRO		1	226	mg/Kg	1	250	<14.5	90	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	224	mg/Kg	1	250	<14.5	90	64.5 - 146.9	1	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	86.7	88.1	mg/Kg	1	100	87	88	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 72465

85443

Date Analyzed:

2011-10-07 QC Preparation: 2011-10-07 Analyzed By: AG Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	2.01	mg/Kg	1	2.00	< 0.0118	100	77.4 - 121.7
Toluene		1	2.02	${ m mg/Kg}$	1	2.00	< 0.00600	101	88.6 - 121.6
Ethylbenzene		1	2.03	${ m mg/Kg}$	1	2.00	< 0.00850	102	74.3 - 117.9
Xylene		1	6.17	mg/Kg	1	6.00	< 0.00613	103	73.4 - 118.8

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	$_{ m Limit}$
Benzene		1	2.01	mg/Kg	1	2.00	< 0.0118	100	77.4 - 121.7	0	20
Toluene		1	2.01	mg/Kg	1	2.00	< 0.00600	100	88.6 - 121.6	0	20
Ethylbenzene		1	2.03	mg/Kg	1	2.00	< 0.00850	102	74.3 - 117.9	0	20
Xylene		1	6.13	mg/Kg	1	6.00	< 0.00613	102	73.4 - 118.8	1	20

2002-11229

Work Order: 11100605 Texaco Skelley

Page Number: 9 of 14 Monument, NM

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Triffuorotoluene (TFT)	1.97	1.99	mg/Kg	1	2.00	98	100	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.98	2.04	mg/Kg	1	2.00	99	102	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch:

85444

Date Analyzed:

2011-10-07

Analyzed By: AG

Prep Batch: 72465

QC Preparation: 2011-10-07

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.4	mg/Kg	1	20.0	< 0.753	87	60.9 - 95.4

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	18.5	mg/Kg	1	20.0	< 0.753	92	60.9 - 95.4	6	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	$\mathbf{Dil}.$	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	1.92	1.91	mg/Kg	1	2.00	96	96	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.77	1.81	mg/Kg	1	2.00	88	90	56.2 - 132

Matrix Spike (MS-1) Spiked Sample: 279152

QC Batch:

85361

Date Analyzed:

2011-10-06

Analyzed By: kg

Prep Batch: 72468

QC Preparation: 2011-10-06

Prepared By: kg

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	511	mg/Kg	1	250	298	85	38.8 - 153.3

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	R.esult	Rec.	Limit	RPD	Limit
DR.O		1	472	mg/Kg	1	250	298	70	38.8 - 153.3	8	20

Report Date: October 11, 2011 2002-11229

Work Order: 11100605. Texaco Skelley Page Number: 10 of 14 Monument, NM

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	$_{ m Units}$	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	99.4	102	mg/Kg	1	100	99	102	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 279152

QC Batch: 85443 Prep Batch: 72465

...

Date Analyzed: 2011-10-07 QC Preparation: 2011-10-07 Analyzed By: AG Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	2.21	mg/Kg	1	2.00	< 0.0118	110	69.4 - 123.6
Toluene		1	2.26	mg/Kg	1	2.00	< 0.00600	113	75.4 - 134.3
Ethylbenzene		1	2.26	$_{ m mg/Kg}$	1	2.00	< 0.00850	113	58.8 - 133.7
Xylene		1	6.84	mg/Kg	1	6.00	< 0.00613	114	57 - 134.2

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	2.08	mg/Kg	1	2.00	< 0.0118	104	69.4 - 123.6	6	20
Toluene		1	2.14	${ m mg/Kg}$	1	2.00	< 0.00600	107	75.4 - 134.3	5	20
Ethylbenzene		1	2.17	${ m mg/Kg}$	1	2.00	< 0.00850	108	58.8 - 133.7	4	20
Xylene		1	6.54	mg/Kg	1	6.00	< 0.00613	109	57 - 134.2	4	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.01	2.03	mg/Kg	1	2	100	102	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.16	2.20	mg/Kg	1	2	108	110	71 - 167

Matrix Spike (MS-1) Spiked Sample: 279142

QC Batch: 85444 Prep Batch: 72465

Date Analyzed:

Date Analyzed: 2011-10-07 QC Preparation: 2011-10-07 Analyzed By: AG Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
GRO		1	20.9	mg/Kg	1	20.0	7.0116	69	61.8 - 114

2002-11229

Work Order: 11100605 Texaco Skelley Page Number: 11 of 14

Monument, NM

			MSD			Spike	Matrix		Rec.		R.P.D
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	20.8	mg/Kg	1	20.0	7.0116	69	61.8 - 114	0	20

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.88	1.88	mg/Kg	1	2	94	94	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.03	1.98	${ m mg/Kg}$	1	2	102	99	37.3 - 162

2002-11229

Work Order: 11100605 Texaco Skelley Page Number: 12 of 14 Monument, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 85361

Date Analyzed: 2011-10-06

Analyzed By: kg

				CCVs .	CCVs	CCVs	Percent	D. t.
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	228	91	80 - 120	2011-10-06

Standard (CCV-3)

QC Batch: 85361

Date Analyzed: 2011-10-06

Analyzed By: kg

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	230	92	80 - 120	2011-10-06

Standard (CCV-2)

QC Batch: 85443

Date Analyzed: 2011-10-07

Analyzed By: AG

				CCVs True	CCVs Found	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Cert	$_{ m Units}$	$\operatorname{Conc.}$	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/Kg	0.100	0.0989	99	80 - 120	2011-10-07
Toluene		1	${ m mg/Kg}$	0.100	0.0994	99	80 - 120	2011-10-07
Ethylbenzene		1	mg/Kg	0.100	0.0969	97	80 - 120	2011-10-07
Xylene		1	${ m mg/Kg}$	0.300	0.293	98	80 - 120	2011-10-07

Standard (CCV-3)

QC Batch: 85443

Date Analyzed: 2011-10-07

Analyzed By: AG

2002-11229

Work Order: 11100605 Texaco Skelley Page Number: 13 of 14 Monument, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0987	99	80 - 120	2011-10-07
Toluene		1	${ m mg/Kg}$	0.100	0.0980	98	80 - 120	2011-10-07
Ethylbenzene		1	mg/Kg	0.100	0.0959	96	80 - 120	2011-10-07
Xylene		1	${ m mg/Kg}$	0.300	0.288	96	80 - 120	2011-10-07

Standard (CCV-2)

QC Batch: 85444

Date Analyzed: 2011-10-07

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2011-10-07

Standard (CCV-3)

QC Batch: 85444

Date Analyzed: 2011-10-07

Analyzed By: AG

Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Danam	Elo <i>m</i>	Cont	IIuita	True	Found	Percent	Recovery	Date

Report Date: October 11, 2011 2002-11229

Work Order: 11100605 Texaco Skelley Page Number: 14 of 14 Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

LAB Order ID#	100605
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TraceAnalysis, Inc.

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

5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 200 East Sunset Rd., Suite E El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443 BioAquatic Testing 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Tel (972) 242-7750

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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

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E-Mail: lab@traceanalysis.com

Certifications

NCTRCA DBE **NELAP** DoDLELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: October 13, 2011

Work Order: 11100604

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Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002-11229

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
279142	West Wall-1, 15'	soil	2011-10-05	15:38	2011-10-06
279143	N West Wall-1, 15'	soil	2011-10-05	15:42	2011-10-06
279144	N West Wall-2, 15'	soil	2011-10-05	15:47	2011-10-06

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

This report consists of a total of 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report Sample 279142 (West Wall-1, 15')	4 4 5 6
Method Blanks	8
QC Batch 85361 - Method Blank (1)	8
QC Batch 85443 - Method Blank (1)	8
QC Batch 85444 - Method Blank (1)	8
QC Batch 85470 - Method Blank (1)	9
Laboratory Control Spikes	10
QC Batch 85361 - LCS (1)	10
QC Batch 85443 - LCS (1)	10
QC Batch 85444 - LCS (1)	11
QC Batch 85470 - LCS (1)	11
QC Batch 85361 - MS (1)	12
QC Batch 85443 - MS (1)	12
QC Batch 85444 - MS (1)	13
QC Batch 85470 - MS (1)	13
Calibration Standards	15
QC Batch 85361 - CCV (2)	15
QC Batch 85361 - CCV (3)	15
QC Batch 85443 - CCV (2)	15
QC Batch 85443 - CCV (3)	15
QC Batch 85444 - CCV (2)	16
QC Batch 85444 - CCV (3)	16
QC Batch 85470 - CCV (2)	16
QC Batch 85470 - CCV (3)	16
Appendix	18
	18
Standard Flags	18
Attachments	18

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-06 and assigned to work order 11100604. Samples for work order 11100604 were received intact at a temperature of 4.0 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	72465	2011-10-07 at 07:00	85443	2011-10-07 at 08:34
TPH DRO - NEW	S 8015 D	72468	2011-10-06 at 14:58	85361	2011-10-06 at 14:58
TPH DRO - NEW	S 8015 D	72560	2011-10-11 at 14:16	85470	2011-10-11 at 14:16
TPH GRO	S 8015 D	72465	2011-10-07 at 07:00	85444	2011-10-07 at 09:00

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 11100604 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.

2002-11229

Work Order: 11100604

Page Number: 4 of 18 Texaco Skelley Monument, NM

Analytical Report

Sample: 279142 - West Wall-1, 15'

Laboratory: Midland

Prep Batch: 72465

Analysis:

QC Batch:

BTEX 85443

Analytical Method:

Date Analyzed:

S 8021B

2011-10-07 Sample Preparation: 2011-10-07 Prep Method: S 5035

Analyzed By: Prepared By:

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	< 0.0200	mg/Kg	1	0.0200
Toluene	U	1	< 0.0200	${ m mg/Kg}$	1	0.0200
Ethylbenzene	U	1	< 0.0200	mg/Kg	1	0.0200
Xvlene	U	1	< 0.0200	mg/Kg	1	0.0200

_						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.19	${ m mg/Kg}$	1	2.00	110	70.6 - 179

Sample: 279142 - West Wall-1, 15'

Laboratory: Midland

Analysis:

QC Batch: 85361 Prep Batch: 72468

TPH DRO - NEW Analytical Method:

S 8015 D Date Analyzed: 2011-10-06 Sample Preparation: 2011-10-06 Prep Method: N/A Analyzed By: kg Prepared By:

RLParameter Flag Cert Result Units Dilution RLDRO <50.0 mg/Kg 50.0

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			82.5	mg/Kg	1	100	82	67.5 - 147.1

Sample: 279142 - West Wall-1, 15'

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85444 Prep Batch: 72465

Analytical Method: S 8015 D Date Analyzed: 2011-10-07 Sample Preparation: 2011-10-07 Prep Method: S 5035 Analyzed By: AGPrepared By: AG

2002-11229

Work Order: 11100604 Texaco Skelley

RLParameter Flag Cert Result Dilution RLUnits GRO 7.012.00 mg/Kg 1 1 Spike Percent Recovery Surrogate Flag Cert Result Units Dilution Amount Recovery Limits Trifluorotoluene (TFT) 2.00 94 30 - 134.6 1.88 mg/Kg 1 4-Bromofluorobenzene (4-BFB) 1.94 mg/Kg 1 2.00 97 22.4 - 149

Sample: 279143 - N West Wall-1, 15'

Laboratory:

Midland

Analysis: QC Batch: Prep Batch:

BTEX 85443 72465

Analytical Method: Date Analyzed:

Sample Preparation:

S 8021B

2011-10-07 2011-10-07

S 5035 Prep Method: Analyzed By: AG

AG

Prepared By:

Page Number: 5 of 18

Monument, NM

RLFlag Parameter Cert Dilution RLResult Units Benzene Ū < 0.0200 0.0200 mg/Kg 1 1 Toluene U 1 0.0200 < 0.0200 mg/Kg Ethylbenzene U mg/Kg1 0.0200< 0.0200 Xylene U 0.0200 < 0.0200 mg/Kg 1

						Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.17	mg/Kg	1	2.00	108	70.6 - 179

Sample: 279143 - N West Wall-1, 15'

Laboratory:

Midland

Analysis: QC Batch: TPH DRO - NEW

85361 Prep Batch: 72468

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015 D 2011-10-06 2011-10-06 Prep Method: N/A Analyzed By: kg Prepared By: kg

RLParameter Flag Cert Result Units Dilution RLDRO U < 50.0 mg/Kg 50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			82.1	mg/Kg	1	100	82	67.5 - 147.1

2002-11229

Work Order: 11100604

Texaco Skelley Monument, NM

Sample: 279143 - N West Wall-1, 15'

Laboratory:

Midland

Analysis: QC Batch: 85444 Prep Batch: 72465

TPH GRO Analytical Method: Date Analyzed:

S 8015 D 2011-10-07 Sample Preparation: 2011-10-07 Prep Method: S 5035

Analyzed By: AGPrepared By:

AG

Page Number: 6 of 18

RL

Parameter	Flag	Cert	Result	Units	Dilution	RL
GR.O		1	4.30	mg/Kg	1	2.00

				•		Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	•		1.88	mg/Kg	1	2.00	94	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	22.4 - 149

Sample: 279144 - N West Wall-2, 15'

Laboratory:

Midland

BTEX Analysis: QC Batch: 85443 Prep Batch: 72465

Analytical Method: Date Analyzed:

S 8021B 2011-10-07 Sample Preparation:

Prep Method: S 5035 Analyzed By: AG

2011-10-07

Prepared By: AG

RLParameter Flag Units Dilution Cert Result RLBenzene U < 0.0200 mg/Kg 0.0200 1 Toluene U < 0.0200 mg/Kg 0.02001 Ethylbenzene U < 0.0200 mg/Kg0.02001 Xylene \mathbf{U} < 0.0200 mg/Kg 0.0200

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70.6 - 179

Sample: 279144 - N West Wall-2, 15'

Laboratory:

Midland

Analysis: QC Batch: 85470 Prep Batch: 72560

TPH DRO - NEW

Analytical Method: Date Analyzed: Sample Preparation:

S 8015 D 2011-10-11 2011-10-11 Prep Method: N/A Analyzed By: kg Prepared By: kg

continued ...

Report Date: October 13, 2011 2002-11229

Work Order: 11100604 Texaco Skelley

......

Page Number: 7 of 18 Monument, NM

sample 279144 continued ...

Parameter		Flag	Cert	F	RL Result	Units	Dilution	RL
Parameter		Flag	Cert .	F	RL Result	Units	Dilution	m RL
DRO		U	1		< 50.0	mg/Kg	1	50.0
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		, ,	75.9	mg/Kg	1	100	76	67.5 - 147.1

Sample: 279144 - N West Wall-2, 15'

Laboratory: Midland

Analysis: TPH GRO QC Batch: 85444

Prep Batch: 72465

Analytical Method:

S 8015 D Date Analyzed: 2011-10-07

Sample Preparation: 2011-10-07

Prep Method: S 5035 Analyzed By: AGAGPrepared By:

RL Cert Units Dilution RLParameter Flag Result $\overline{G}\overline{R}O$ 2.00 3.21 mg/Kg

						Spike	Percent	. Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.82	${ m mg/Kg}$	1	2.00	91	22.4 - 149

2002-11229

Work Order: 11100604 Texaco Skelley

Page Number: 8 of 18 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85361

QC Batch:

85361

Flag

Date Analyzed:

2011-10-06

Analyzed By: kg

Prep Batch:

72468

QC Preparation:

2011-10-06

Prepared By:

Parameter DR.O

MDL Cert Result <14.5

Units RL50 mg/Kg

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Trag	OCIO	79.3	mg/Kg	1	100	79	52.7 - 133.8

Method Blank (1)

QC Batch: 85443

QC Batch:

85443

Date Analyzed:

2011-10-07

Analyzed By: AG

Prep Batch: 72465

QC Preparation: 2011-10-07

Prepared By: AG

	MDL									
Parameter	Flag	Cert	Result	Units	RL					
Benzene		1	< 0.0118	mg/Kg	0.02					
Toluene		1	< 0.00600	$_{ m mg/Kg}$	0.02					
Ethylbenzene		1	< 0.00850	mg/Kg	0.02					
Xylene	<u>.</u>	1 .	< 0.00613	mg/Kg	0.02					

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	48.4 - 123.1

Method Blank (1)

QC Batch: 85444

QC Batch: Prep Batch: 72465

85444

Date Analyzed:

2011-10-07 QC Preparation: 2011-10-07

Analyzed By: AG Prepared By: AG

2002-11229

Work Order: 11100604 Texaco Skelley Page Number: 9 of 18 Monument, NM

Parameter	Flag		Cert		MDL Result		Units	m RL
GRO			1		0.937		2	
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	67.6 - 150
4-Bromofluorobenzene (4-BFB)	•		1.58	mg/Kg	1	2.00	79	52.4 - 130

Method Blank (1)

Prep Batch: 72560

QC Batch: 85470

QC Batch:

85470

Date Analyzed:

Date Analyzed: 2011-10-11 QC Preparation: 2011-10-11

Analyzed By: kg Prepared By: kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			109	mg/Kg	1	100	109	52.7 - 133.8

Report Date: October 13, 2011 2002-11229

Work Order: 11100604 Texaco Skelley

Page Number: 10 of 18 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

85361

Date Analyzed:

2011-10-06

Analyzed By: kg

Prep Batch: 72468

QC Preparation: 2011-10-06

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	С.	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	226	mg/Kg	1	250	<14.5	90	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	224	mg/Kg	1	250	<14.5	90	64.5 - 146.9	1	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
n-Tricosane	86.7	88.1	mg/Kg	1	100	87	88	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 72465

85443

Date Analyzed:

2011-10-07 QC Preparation: 2011-10-07 Analyzed By: AG Prepared By:

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene		1	2.01	mg/Kg	1	2.00	< 0.0118	100	77.4 - 121.7
Toluene		1	2.02	$_{ m mg/Kg}$	1	2.00	< 0.00600	101	88.6 - 121.6
Ethylbenzene		1	2.03	mg/Kg	1	2.00	< 0.00850	102	74.3 - 117.9
Xylene		1	6.17	mg/Kg	1	6.00	< 0.00613	103	73.4 - 118.8

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	R.PD	Limit
Benzene		1	2.01	mg/Kg	1	2.00	< 0.0118	100	77.4 - 121.7	0	20
Toluene		1	2.01	${ m mg/Kg}$	1	2.00	< 0.00600	100	88.6 - 121.6	0	20
Ethylbenzene		1	2.03	${ m mg/Kg}$	1	2.00	<0.00850	102	74.3 - 117.9	0	20
Xylene		1	6.13	${ m mg/Kg}$	1	6.00	< 0.00613	102	73.4 - 118.8	1	20

2002-11229

Work Order: 11100604 Texaco Skelley

Page Number: 11 of 18 Monument, NM

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.97	1.99	mg/Kg	1	2.00	98	100	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.98	2.04	mg/Kg	1	2.00	99	102	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch:

85444

Date Analyzed:

2011-10-07

Analyzed By: AG

Prep Batch: 72465

QC Preparation: 2011-10-07

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	C	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.4	mg/Kg	1	20.0	< 0.753	87	60.9 - 95.4

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
GR.O		1	18.5	mg/Kg	1	20.0	< 0.753	92	60.9 - 95.4	6	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.92	1.91	mg/Kg	1	2.00	96	96	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.77	1.81	mg/Kg	1	2.00	88	90	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

85470

Date Analyzed:

2011-10-11

Analyzed By: kg

Prep Batch: 72560

QC Preparation: 2011-10-11

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	214	mg/Kg	1	250	<14.5	86	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	240	mg/Kg	1	250	<14.5	96	64.5 - 146.9	11	20

2002-11229

Work Order: 11100604 Texaco Skelley

Page Number: 12 of 18

Monument, NM

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	109	103	mg/Kg	1	100	109	103	65.3 - 135.8

Matrix Spike (MS-1)

Spiked Sample: 279152

QC Batch:

Date Analyzed:

2011-10-06

Analyzed By: kg

Prep Batch: 72468

QC Preparation: 2011-10-06

Prepared By: kg

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
DRO		1	511	mg/Kg	1	250	298	85	38.8 - 153.3

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	472	mg/Kg	1	250	298	70	38.8 - 153.3	8	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	99.4	102	mg/Kg	1	100	99	102	54.6 - 149.8

Matrix Spike (MS-1)

Spiked Sample: 279152

QC Batch:

85443

Date Analyzed:

2011-10-07

Analyzed By: AG

Prep Batch: 72465

QC Preparation: 2011-10-07

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Benzene		1	2.21	mg/Kg	1	2.00	< 0.0118	110	69.4 - 123.6
Toluene		1	2.26	${ m mg/Kg}$	1	2.00	< 0.00600	113	75.4 - 134.3
Ethylbenzene		1	2.26	mg/Kg	1	2.00	< 0.00850	113	58.8 - 133.7
Xylene		1	6.84	mg/Kg	1	6.00	< 0.00613	114	57 - 134.2

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

Param	F	С	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.08	mg/Kg	1	2.00	< 0.0118	104	69.4 - 123.6	6	20
Toluene		1	2.14	mg/Kg	1	2.00 -	< 0.00600	107	75.4 - 134.3	5	20
Ethylbenzene		1	2.17	mg/Kg	1	2.00	< 0.00850	108	58.8 - 133.7	4	20

 $continued \dots$

Work Order: 11100604 Texaco Skelley

Page Number: 13 of 18 Monument, NM

matrix spikes continued ...

2002-11229

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Xylene		1	6.54	mg/Kg	1	6.00	< 0.00613	109	57 - 134.2	4	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	2.01	2.03	mg/Kg	1	2	100	102	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.16	2.20	mg/Kg	1	2	108	110	71 - 167

Matrix Spike (MS-1) Spiked Sample: 279142

QC Batch: 85444 Prep Batch: 72465

Date Analyzed:

2011-10-07 QC Preparation: 2011-10-07 Analyzed By: AG

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
GRO		1	20.9	mg/Kg	1	20.0	7.0116	69	61.8 - 114

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
GRO		1	20.8	mg/Kg	1	20.0	7.0116	69	61.8 - 114	0	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.88	1.88	mg/Kg	1	2	94	94	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.03	1.98	mg/Kg	1	2	102	99	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 279144

QC Batch: Prep Batch: 72560

85470

Date Analyzed:

2011-10-11 QC Preparation: 2011-10-11

Analyzed By: kg Prepared By: kg

MS Spike Matrix Rec. \mathbf{F} С Units Limit Param Result Dil. Amount Result Rec. DRO 166 mg/Kg 1 250 <14.5 66 38.8 - 153.3

2002-11229

Work Order: 11100604 Texaco Skelley

Page Number: 14 of 18 Monument, NM

D	म		ASD	TT	D:I	Spike	Matrix	D	Rec.	מממ	RPD
Param	r		esult	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	140	${ m mg/Kg}$	1	250	< 14.5	56	38.8 - 153.3	17	20
Percent recovery is ba	sed on the spike	result.	RPD	is based	on the	spike and	spike dur	olicate i	result.		
Percent recovery is ba	ased on the spike MS		RPD MSD		on the	spike and	•			1	Rec.
Percent recovery is ba Surrogate	•	;			on the	spike and Dil.	spike dup Spike Amount	olicate M Re	S MSD		Rec. imit

2002-11229

Work Order: 11100604 Texaco Skelley Page Number: 15 of 18 Monument, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 85361

Date Analyzed: 2011-10-06

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	228	91	80 - 120	2011-10-06

Standard (CCV-3)

QC Batch: 85361

Date Analyzed: 2011-10-06

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	230	92	80 - 120	2011-10-06

Standard (CCV-2)

QC Batch: 85443

Date Analyzed: 2011-10-07

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/Kg	0.100	0.0989	99	80 - 120	2011-10-07
Toluene		1	mg/Kg	0.100	0.0994	99	80 - 120	2011-10-07
Ethylbenzene		1	mg/Kg	0.100	0.0969	97	80 - 120	2011-10-07
Xylene		1	mg/Kg	0.300	0.293	98	80 - 120	2011-10-07

Standard (CCV-3)

QC Batch: 85443

Date Analyzed: 2011-10-07

Analyzed By: AG

2002-11229

Work Order: 11100604

Texaco Skelley

Page Number: 16 of 18

Monument, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0987	99	80 - 120	2011-10-07
Toluene		1	mg/Kg	0.100	0.0980	98	80 - 120	2011-10-07
Ethylbenzene		1	mg/Kg	0.100	0.0959	96	80 - 120	2011-10-07
Xylene		1	${ m mg/Kg}$	0.300	0.288	96	80 - 120	2011-10-07

Standard (CCV-2)

QC Batch: 85444

Date Analyzed: 2011-10-07

Analyzed By: AG

				CCVs True	CCVs Found	CCVs Percent	Percent	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Recovery Limits	Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2011-10-07

Standard (CCV-3)

QC Batch: 85444

Date Analyzed: 2011-10-07

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.02	102	80 - 120	2011-10-07

Standard (CCV-2)

QC Batch: 85470

Date Analyzed: 2011-10-11

Analyzed By: kg

			•	CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	211	84	80 - 120	2011-10-11

Standard (CCV-3)

QC Batch: 85470

Date Analyzed: 2011-10-11

Analyzed By: kg

Report Date: October 13, 2011 2002-11229

Work Order: 11100604 Texaco Skelley

Page Number: 17 of 18 Monument, NM

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	215	86	80 - 120	2011-10-11

Work Order: 11100604 Texaco Skelley Page Number: 18 of 18 Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
$^{\rm C}$	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

LAB Order ID # 1100604

Page of R

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 Carroliton, Texas 75006 Tel (972) 242-7750

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LAB Order ID # 1100604

Page A of R

TraceAnalysis, Inc.

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

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Certifications WBE HUB NCTRCA \mathbf{DBE} NELAP DoD LELAP Oklahoma ISO 17025 Kansas

Analytical and Quality Control Report

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

Report Date: October 6, 2011

Work Order:

11100403

Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002-11229

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

			Date	1 ime	Date
Sample	Description	Matrix	Taken	Taken	Received
278971	E Wall-1, 16'	soil	2011-10-03	14:42	2011-10-04

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

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report Sample 278971 (E Wall-1, 16')	4
Method Blanks	6
QC Batch 85322 - Method Blank (1)	6
QC Batch 85323 - Method Blank (1)	6
QC Batch 85330 - Method Blank (1)	6
Laboratory Control Spikes	8
QC Batch 85322 - LCS (1)	8
QC Batch 85323 - LCS (1)	
QC Batch 85330 - LCS (1)	
	9
QC Batch 85323 - MS (1)	
QC Batch 85330 - MS (1)	
Calibration Standards	12
QC Batch 85322 - CCV (1)	
QC Batch 85322 - CCV (2)	
QC Batch 85323 - CCV (1)	
QC Batch 85323 - CCV (2)	
QC Batch 85330 - CCV (2)	
QC Batch 85330 - CCV (3)	
Appendix	14
Laboratory Certifications	
Standard Flags	
Attachments	

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-10-04 and assigned to work order 11100403. Samples for work order 11100403 were received intact at a temperature of 3.3 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	72438	2011-10-04 at 11:00	85322	2011-10-04 at 21:44
TPH DRO - NEW	S 8015 D	72444	2011-10-05 at 13:28	85330	2011-10-05 at 13:28
TPH GRO	S 8015 D	72438	2011-10-04 at 11:00	85323	2011-10-04 at 22:10

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 11100403 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Work Order: 11100403 Report Date: October 6, 2011 Page Number: 4 of 14 2002-11229 Texaco Skelley Monument, NM

Analytical Report

Sample: 278971 - E Wall-1, 16'

Laboratory: Midland

Analysis: BTEX QC Batch: 85322 Prep Batch: 72438

Analytical Method: S 8021B Date Analyzed:

2011-10-04 Sample Preparation: 2011-10-04 Prep Method: S 5035 Analyzed By: \overline{AG} Prepared By:

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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.93	${ m mg/Kg}$	1	2.00	96	70.6 - 179

Sample: 278971 - E Wall-1, 16'

Laboratory: Midland

TPH DRO - NEW Analysis: QC Batch: 85330 Prep Batch: 72444

Analytical Method: Date Analyzed:

S 8015 D 2011-10-05 Sample Preparation: 2011-10-05 Prep Method: N/A Analyzed By: kg Prepared By:

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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			82.1	mg/Kg	1	100	82	67.5 - 147.1

Sample: 278971 - E Wall-1, 16'

Laboratory: Midland

Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035 QC Batch: 85323 Date Analyzed: 2011-10-04 Analyzed By: AGPrep Batch: 72438 Sample Preparation: 2011-10-04 Prepared By: AG

Report Date: October 6, 2011 2002-11229

Work Order: 11100403

Texaco Skelley

Page Number: 5 of 14 Monument, NM

					RL				
Parameter	Flag		Cert		Result	Uni	its	Dilution	RL
GRO	Qs		1		3.70	mg/I	ζg	1	2.00
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)				1.86	mg/Kg	1	2.00	93	30 - 134.6
4-Bromofluorobenzene (4-BFB)				1.81	mg/Kg	1	2.00	90	22.4 - 149

Work Order: 11100403 2002-11229 Texaco Skelley

Page Number: 6 of 14 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85322

QC Batch: 85322 Date Analyzed:

2011-10-04

Analyzed By: AG

Prep Batch: 72438

QC Preparation: 2011-10-04

Prepared By: AG

			MDL		
Parameter	Flag	Cert	Result	Units	RL
Benzene		1	< 0.0118	mg/Kg	0.02
Toluene		1	< 0.00600	mg/Kg	0.02
Ethylbenzene		1	< 0.00850	m mg/Kg	0.02
Xylene		1	< 0.00613	mg/Kg	0.02

0	T) I	a .	n b	TT 11	D.: .:	Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	48.4 - 123.1

Method Blank (1)

QC Batch: 85323

QC Batch: 85323 Prep Batch: 72438 Date Analyzed: QC Preparation:

2011-10-04 2011-10-04 Analyzed By: AG Prepared By: AG

MDL

Flag Parameter Cert Result Units RL $\overline{\text{GRO}}$ 0.881 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.53	${ m mg/Kg}$	1	2.00	76	52.4 - 130

Method Blank (1)

QC Batch: 85330

85330 QC Batch: Prep Batch: 72444

Date Analyzed: QC Preparation: 2011-10-05

2011-10-05 Analyzed By: kg Prepared By: kg Report Date: October 6, 2011 2002-11229

Work Order: 11100403

Texaco Skelley

Page Number: 7 of 14 Monument, NM

 MDL Parameter Flag Cert Result Units RL $\overline{\mathrm{DRO}}$ <14.5 mg/Kg50 Spike Recovery Percent Surrogate Flag Cert Result Units Dilution Amount Limits Recovery 82.2 82 52.7 - 133.8 n-Tricosane 100 mg/Kg

Report Date: October 6, 2011 Work Order: 11100403 Page Number: 8 of 14 2002-11229 Texaco Skelley Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 85322 Prep Batch: 72438 Date Analyzed: 2011-10-04 QC Preparation: 2011-10-04 Analyzed By: AG Prepared By: AG

LCS Spike Matrix Rec. Param \mathbf{F} С Result Units Dil. Amount Result Limit Rec. Benzene mg/Kg 1.58 2.00 < 0.0118 79 1 77.4 - 121.7 Toluene 1.90 mg/Kg 2.00 88.6 - 121.6 1 < 0.00600 95 Ethylbenzene 2.03 mg/Kg 2.00 < 0.00850 102 74.3 - 117.9 Xylene 6.14mg/Kg 1 6.00 < 0.00613 102 73.4 - 118.8

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		1	1.61	mg/Kg	1	2.00	< 0.0118	80	77.4 - 121.7	2	20
Toluene		1	1.94	mg/Kg	1	2.00	< 0.00600	97	88.6 - 121.6	2	20
Ethylbenzene		1	2.10	mg/Kg	1	2.00	< 0.00850	105	74.3 - 117.9	3	20
Xylene		1	6.28	mg/Kg	1	6.00	< 0.00613	105	73.4 - 118.8	2	20

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

	LCS	LCSD	** *.	T) 11	Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.94	2.01	mg/Kg	1	2.00	97	100	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.84	1.84	mg/Kg	1	2.00	92	92	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 85323 Prep Batch: 72438

Date Analyzed: 2011-10-04 QC Preparation: 2011-10-04 Analyzed By: AG Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
GRO		1	16.6	mg/Kg	1	20.0	< 0.753	83	60.9 - 95.4

 $\frac{\text{Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.}{continued\dots}$

2002-11229 Monument, NM Texaco Skelley control spikes continued ... LCSD **RPD** Spike Matrix Rec. F С **RPD** Param Result Units Dil. Amount Result Rec. Limit Limit LCSD RPD Spike Rec. Matrix Param \mathbf{C} Result Limit RPD Units Dil. Amount Result Rec. Limit GRO 17.2 mg/Kg 20.0 < 0.753 86 60.9 - 95.4 20 1 4 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCS LCSD Spike LCS LCSD Rec. Surrogate Result Result Units Dil. Amount Rec. Rec. Limit Trifluorotoluene (TFT) 1.88 1.88 mg/Kg 1 2.00 94 94 61.9 - 142 4-Bromofluorobenzene (4-BFB) 56.2 - 1321.73 1.73 mg/Kg 2.00 86 86 Laboratory Control Spike (LCS-1) Analyzed By: kg QC Batch: Date Analyzed: 2011-10-05 Prep Batch: 72444 QC Preparation: 2011-10-05 Prepared By: LCS Spike Matrix Rec. Param F С Result Units Dil. Amount Result Rec. Limit DRO 252 mg/Kg 250 <14.5 101 64.5 - 146.9 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCSD RPD Spike Matrix Rec. \mathbf{C} Param Result Units Dil. Amount Result Rec. Limit RPD Limit **DRO** 64.5 - 146.9 242 mg/Kg 1 250 <14.5 97 20 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCS LCSD LCS LCSD Spike Rec. Surrogate Result Result Units Dil. Amount Rec. Rec. Limit n-Tricosane 100 99.5 100 100 100 65.3 - 135.8 mg/Kg

Work Order: 11100403

Page Number: 9 of 14

Analyzed By: AG

Prepared By:

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Benzene		1	1.62	mg/Kg	1	2.00	< 0.0118	81	69.4 - 123.6

2011-10-04

2011-10-04

Date Analyzed:

QC Preparation:

continued ...

Spiked Sample: 278972

Matrix Spike (MS-1)

Prep Batch: 72438

85322

QC Batch:

Report Date: October 6, 2011

Report Date: October 6, 2011 2002-11229

Work Order: 11100403 Texaco Skelley

Page Number: 10 of 14 Monument, NM

•			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Toluene		1	2.16	mg/Kg	1	2.00	< 0.00600	108	75.4 - 134.3
Ethylbenzene		1	2.42	mg/Kg	1	2.00	< 0.00850	121	58.8 - 133.7
Xylene		1	7.29	mg/Kg	1	6.00	< 0.00613	122	57 - 134.2

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

			MSD			Spike	Matrix		Rec.		RPD
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
Benzene		1	1.68	mg/Kg	1	2.00	< 0.0118	84	69.4 - 123.6	4	20
Toluene		1	2.09	mg/Kg	1	2.00	< 0.00600	104	75.4 - 134.3	3	20
Ethylbenzene		1	2.41	mg/Kg	1	2.00	< 0.00850	120	58.8 - 133.7	0	20
Xylene		1	7.23	mg/Kg	1	6.00	< 0.00613	120	57 - 134.2	1	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.99	2.02	mg/Kg	1	2	100	101	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	1.99	2.01	mg/Kg	1	2	100	100	71 - 167

Matrix Spike (MS-1) Spiked Sample: 278847

QC Batch: 85323 Date Analyzed:

2011-10-04

Analyzed By: AG

Prep Batch: 72438

QC Preparation: 2011-10-04

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
GRO	Qв	1	25.1	mg/Kg	1	20.0	1.6123	117	61.8 - 114

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

			MSD			Spike	Matrix		Rec.		R.P.D	
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit	
GRO		1	24.2	mg/Kg	1	20.0	1.6123	113	61.8 - 114	4	20	-

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	${f Limit}$
Trifluorotoluene (TFT)	1.85	1.86	mg/Kg	1	2	92	93	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	1.95	1.98	mg/Kg	11	2	98	99	37.3 - 162

2002-11229

Work Order: 11100403 Texaco Skelley

Page Number: 11 of 14 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 278971

QC Batch:

85330

Date Analyzed:

2011-10-05

Analyzed By: kg

Prep Batch: 72444

QC Preparation: 2011-10-05

Prepared By: kg

			MS			Spike	Matrix		Rec.
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$
DRO		1	195	mg/Kg	1	250	<14.5	78	38.8 - 153.3

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

			MSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	195	mg/Kg	1	250	<14.5	78	38.8 - 153.3	0	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	80.9	79.3	mg/Kg	1	100	81	79	54.6 - 149.8

Report Date: October 6, 2011 Work Order: 11100403 Page Number: 12 of 14 2002-11229 Texaco Skelley Monument, NM

Calibration Standards

Standard (CCV-1)

QC Batch: 85322

Date Analyzed: 2011-10-04

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0803	80	80 - 120	2011-10-04
Toluene		1	mg/Kg	0.100	0.0963	96	80 - 120	2011-10-04
Ethylbenzene		1	mg/Kg	0.100	0.103	103	80 - 120	2011-10-04
Xylene		1	mg/Kg	0.300	0.307	102	80 - 120	2011-10-04

Standard (CCV-2)

QC Batch: 85322

Date Analyzed: 2011-10-04

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date . Analyzed
Benzene		1	mg/Kg	0.100	0.0829	83	80 - 120	2011-10-04
Toluene		1	${ m mg/Kg}$	0.100	0.101	101	80 - 120	2011-10-04
Ethylbenzene		1	${ m mg/Kg}$	0.100	0.108	108	80 - 120	2011-10-04
Xylene		1	$_{ m mg/Kg}$	0.300	0.321	107	80 - 120	2011-10-04

Standard (CCV-1)

QC Batch: 85323

Date Analyzed: 2011-10-04

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2011-10-04

Standard (CCV-2)

QC Batch: 85323 Date Analyzed: 2011-10-04 Analyzed By: AG

2002-11229

Work Order: 11100403

Texaco Skelley

Page Number: 13 of 14

Monument, NM

				CCVs True	CCVs Found	$rac{ ext{CCVs}}{ ext{Percent}}$	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.02	102	80 - 120	2011-10-04

Standard (CCV-2)

QC Batch: 85330

Date Analyzed: 2011-10-05

Analyzed By: kg

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	237	95	80 - 120	2011-10-05

Standard (CCV-3)

QC Batch: 85330

Date Analyzed: 2011-10-05

Analyzed By: kg

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	218	87	80 - 120	2011-10-05

Report Date: October 6, 2011 Work Order: 11100403 Page Number: 14 of 14 2002-11229 Texaco Skelley Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

(CABUSE) Relinguished Project #: (If different from above) Contact Person: Address: Company Name: Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C. Rélinquished Reinquished by: 1484 Project Location (including state) Invoice to: LAB Order ID # LAB# Monume ğ RS# (Street, City, Zip) Wall 202 raceAnalysis, Sola Company: FIELD CODE Company: ł 7002 email: lab@traceanalysis.com (14/0) -1122 9 asso # CONTAINERS Time: Time: ORIGINAL COPY Volume / Amount WATER Received by: Received by SOIL \succ MATRIX W AIR SLUDGE Fax #: E-mail: Project Name: Phone #: ampler Signature: HCI SKelly Company: Company: 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 ompany: Ӈ Mova HNO₃ PRESERVATIVE H₂SO₄ METHOD NaOH -ICE OHI Date: Date: NONE Time: DATE SAMPLING Time: 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 1442 OBS INST TIME INST COR INST COR COR 3.3 OBS 7.3 ° 300 MTBE 8021 / 602 / 8260 / 624 Carrier # BTEX 8021) 602 / 8260 / 624 TPH 418.1 / TX1005 / TX1005 Ext(C35) TPH 8015 GRO / DRO / TVHC LAB USE ONLY PAH 8270 / 625 Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7 Circle or Specify 200 East Sunset Rd., Suite E IPaso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443 TCLP Metals Ag As Ba Cd Cr Pb Se Hg **TCLP Volatiles** TCLP Semi Volatiles **ANALYSIS REQUEST** Check If Special Reporting Limits Are Needed Dry Weight Basis Required **TCLP Pesticides** TRRP Report Required REMARKS GC/MS Vol. 8260 / 624 GC/MS Semi. Vol. 8270 / 625 PCB's 8082 / 608 Pesticides 8081 / 608 Method Page BOD, TSS, pH Moisture Content BioAquatic Testing 2501 Mayes Rd., Ste 100 Carrollton, Texas 75006 Tel (972) 242-7750 CI, FI, S04, NO3, NO2, Alkalinity Na, Ca, Mg, K, TDS, EC Z0. Turn Around Time if different from standard Hold

으



5701 Aberdeen Avenue: Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1

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

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817 * 201 * 5260

E-Mail: lab@traceanalysis.com

Certifications

NCTRCA DBE NELAP DoD LELAP Oklahoma ISO 17025 Kansas

Analytical and Quality Control Report

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

Report Date: October 3, 2011

Work Order:

11092903

Project Location: Monument, NM Project Name: Texaco Skelley Project Number: 2002-11229

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
278546	N.E. Wall-1, 15'	soil	2011-09-28	14:34	2011-09-28
278547	S.E. Wall-1, 15'	soil	2011-09-28	14:39	2011-09-28
278548	S. Wall-1, 15'	soil	2011-09-28	14:45	2011-09-28
278549	S. Wall-2, 15'	soil	2011-09-28	14:50	2011-09-28
278550	S. Wall-3, 15'	soil	2011-09-28	14:54	2011-09-28

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

This report consists of a total of 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael april

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

Report Contents

Case Narrative	4
•	5
Sample 278547 (S.E. Wall-1, 15')	6
Sample 278548 (S. Wall-1, 15')	7
Sample 278549 (S. Wall-2, 15')	8
Sample 278550 (S. Wall-3, 15')	9
Method Blanks	11
QC Batch 85150 - Method Blank (1)	
QC Batch 85151 - Method Blank (1)	
QC Batch 85197 - Method Blank (1)	
CO Diagon Color Medical Diagna (1)	11
Laboratory Control Spikes	13
QC Batch 85150 - LCS (1)	13
QC Batch 85151 - LCS (1)	13
QC Batch 85197 - LCS (1)	14
QC Batch 85150 - MS (1)	14
QC Batch 85151 - MS (1)	15
QC Batch 85197 - MS (1)	15
Calibration Standards	17
QC Batch 85150 - CCV (2)	17
QC Batch 85150 - CCV (3)	17
QC Batch 85151 - CCV (2)	17
QC Batch 85151 - CCV (3)	17
QC Batch 85197 - CCV (2)	18
QC Batch 85197 - CCV (3)	
	18
QC Batch 85197 - CCV (4)	18
Appendix	19
Laboratory Certifications	19
Standard Flags	19
Attachments	19

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2011-09-28 and assigned to work order 11092903. Samples for work order 11092903 were received intact at a temperature of 4.0 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
BTEX	S 8021B	72291	2011-09-29 at 08:15	85150	2011-09-29 at 09:11
TPH DRO - NEW	S 8015 D	72332	2011-09-30 at 13:48	85197	2011-09-30 at 13:48
TPH GRO	S 8015 D	72291	2011-09-29 at 08:15	85151	2011-09-29 at 09:38

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 11092903 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.

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 5 of 19 Monument, NM

Analytical Report

Sample: 278546 - N.E. Wall-1, 15'

Laboratory: Midland

Prep Batch: 72291

Analysis: QC Batch:

BTEX

85150

Analytical Method:

S 8021B Date Analyzed:

2011-09-29 Sample Preparation: 2011-09-29 Prep Method: S 5035

AGAnalyzed By: Prepared By: AG

			RL			
Parameter	Flag	Cert	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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70.6 - 179

Sample: 278546 - N.E. Wall-1, 15'

Laboratory:

Midland Analysis: TPH DRO - NEW

QC Batch: 85197 Prep Batch: 72332 Analytical Method:

S 8015 D Date Analyzed: 2011-09-30

2011-09-30

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

RLParameter Flag Cert Result Units Dilution RLDRO U < 50.0 mg/Kg 50.0

Sample Preparation:

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			78.1	mg/Kg	1	100	78	67.5 - 147.1

Sample: 278546 - N.E. Wall-1, 15'

Laboratory: Midland

Analysis: TPH GRO QC Batch: 85151 Prep Batch: 72291

Analytical Method: Date Analyzed: Sample Preparation:

S 8015 D 2011-09-29 2011-09-29 Prep Method: S 5035 Analyzed By: AG Prepared By:

kg

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 6 of 19 Monument, NM

				R.L				
Parameter	Flag	Cert		Result	Un	its	Dilution	RL
GR.O		. 1		< 2.00	mg/I	ίg	1	2.00
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.81	${ m mg/Kg}$	1	2.00	90	22.4 - 149

Sample: 278547 - S.E. Wall-1, 15'

Laboratory:

Midland

BTEX Analysis: QC Batch: 85150 Prep Batch: 72291

Analytical Method: Date Analyzed:

S 8021B 2011-09-29 Sample Preparation: 2011-09-29 Prep Method: S 5035

Analyzed By: AGPrepared By: AG

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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	70.6 - 179

Sample: 278547 - S.E. Wall-1, 15'

Laboratory:

Midland

Analysis: TPH DRO - NEW QC Batch: 85197 Prep Batch: 72332

Analytical Method: Date Analyzed:

S 8015 D 2011-09-30 Sample Preparation: 2011-09-30

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

RLCert Units Parameter Flag Result Dilution RLDRO < 50.0 U 1 mg/Kg 1 50.0

					Spike	Percent	Recovery
Surrogate	Fla	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		 75.6	mg/Kg	1	100	76	67.5 - 147.1

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 7 of 19 Monument, NM

Sample: 278547 - S.E. Wall-1, 15'

Laboratory: Analysis:

Midland TPH GRO

Analytical Method:

S 8015 D

2011-09-29

Prep Method: S 5035

QC Batch: Prep Batch: 72291

85151

Date Analyzed:

Analyzed By: AG AG

Sample Preparation:

2011-09-29

Prepared By:

RL

Parameter Flag Cert Units Dilution Result RLGRO < 2.00 2.00 mg/Kg

•						Spike	Percent	R.ecovery	
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	30 - 134.6	
4-Bromofluorobenzene (4-BFB)			1.81	mg/Kg	1	2.00	90 -	22.4 - 149	

Sample: 278548 - S. Wall-1, 15'

Laboratory: Midland

Analysis: QC Batch:

BTEX 85150 Prep Batch: 72291

Analytical Method: Date Analyzed:

S 8021B

2011-09-29 Sample Preparation: 2011-09-29 Prep Method: S 5035

AG Analyzed By: AGPrepared By:

			RL			
Parameter	Flag	Cert	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)			2.07	mg/Kg	1	2.00	104	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	70.6 - 179

Sample: 278548 - S. Wall-1, 15'

Laboratory:

Midland

Analysis: QC Batch: 85197 Prep Batch: 72332

TPH DRO - NEW

Analytical Method: Date Analyzed:

S 8015 D 2011-09-30 Sample Preparation: 2011-09-30 Prep Method: N/A Analyzed By: kg Prepared By: kg

continued ...

2002-11229 Texaco Skelley Page Number: 8 of 19 Monument, NM

sample 278548 continued ...

Parameter		Flag	Cert	R	RL esult	Units	Dilution	RL
					RL			
Parameter		Flag	Cert	R	esult	Units	Dilution	RL
DRO		υ	1	-	< 50.0	mg/Kg	1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			75.9	mg/Kg	1	100	76	67.5 - 147.1

Work Order: 11092903

Sample: 278548 - S. Wall-1, 15'

Laboratory: Midland

TPH GRO

Analysis: QC Batch: 85151 Prep Batch: 72291 Analytical Method: S 8015 D Date Analyzed:

2011-09-29 Sample Preparation: 2011-09-29 Prep Method: S 5035

Analyzed By: AGPrepared By: ÁG

			RL			
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO		1	< 2.00	mg/Kg	1	2.00

Surrogate Flag Cert Result Units Dilution Amount Recov	ry Limits
Trifluorotoluene (TFT) 1.87 mg/Kg 1 2.00 94	30 - 134.6
4-Bromofluorobenzene (4-BFB) 1.81 mg/Kg 1 2.00 90	22.4 - 149

Sample: 278549 - S. Wall-2, 15'

Laboratory: Midland

Analysis: BTEXQC Batch: 85150 Prep Batch: 72291

Analytical Method: S 8021BDate Analyzed: 2011-09-29 Sample Preparation: 2011-09-29

Prep Method: S 5035 Analyzed By: AGPrepared By:

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

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 9 of 19 Monument, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	70.6 - 179

Sample: 278549 - S. Wall-2, 15'

Laboratory: Midland Analysis:

TPH DRO - NEW

Qsr

Analytical Method:

S 8015 D

Prep Method: N/A

QC Batch: 85197 Prep Batch:

72332

2011-09-30 Date Analyzed: Sample Preparation: 2011-09-30

Analyzed By: kg Prepared By:

Dilution

66

RLParameter Flag Cert Result

Units mg/Kg

100

kg

67.5 - 147.1

RL

RL

2.00

DRO <50.0 50.0 U Spike Percent Recovery Surrogate Flag Cert Result Units Dilution Amount Recovery Limits

mg/Kg

Sample: 278549 - S. Wall-2, 15'

Laboratory:

n-Tricosane

Midland Analysis: TPH GRO

QC Batch: 85151 Prep Batch: 72291

Analytical Method: Date Analyzed:

Sample Preparation:

65.6

S 8015 D 2011-09-29 2011-09-29 Prep Method: S 5035

Analyzed By: AG Prepared By: AG

RLParameter Flag Cert Result Units Dilution **GRO** < 2.00 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.81	mg/Kg	1	2.00	90	22.4 - 149

Sample: 278550 - S. Wall-3, 15'

Laboratory: Midland

Analysis: BTEX QC Batch: 85150 Prep Batch: 72291

Analytical Method: S 8021B Date Analyzed: 2011-09-29 2011-09-29 Sample Preparation:

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

Report Date: October 3, 2011 2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 10 of 19 Monument, NM

			RL			
Parameter	Flag	Cert	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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			1.96	m mg/Kg	1	2.00	98	70.6 - 179

Sample: 278550 - S. Wall-3, 15'

Laboratory: Midland

Analysis:

TPH DRO - NEW

Analytical Method:

S 8015 D

Prep Method: N/A

QC Batch: Prep Batch: 72332

85197

Date Analyzed:

2011-09-30 Sample Preparation: 2011-09-30 Analyzed By: kg Prepared By:

			RL		
Parameter	Flag	Cert	Result		

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

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane			75.8	${ m mg/Kg}$	1	100	76	67.5 - 147.1

Sample: 278550 - S. Wall-3, 15'

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 85151 Prep Batch: 72291

Analytical Method: Date Analyzed:

S 8015 D 2011-09-29 Sample Preparation: 2011-09-29 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

RL

Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO		1	< 2.00	mg/Kg	1	2.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$\mathbf{U}_{\mathbf{nits}}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	30 - 134.6
4-Bromofluorobenzene (4-BFB)			1.79	mg/Kg	1	2.00	90	22.4 - 149

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 11 of 19 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 85150

QC Batch:

85150

Date Analyzed:

2011-09-29

Analyzed By: AG

Prep Batch: 72291

QC Preparation: 2011-09-29

Prepared By: AG

			MDL		
Parameter	Flag	Cert	Result	Units	RL
Benzene		1	< 0.0118	mg/Kg	0.02
Toluene		1	< 0.00600	${ m mg/Kg}$	0.02
Ethylbenzene		1	< 0.00850	$_{ m mg/Kg}$	0.02
Xylene		1	< 0.00613	${ m mg/Kg}$	0.02

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	48.4 - 123.1

Method Blank (1)

QC Batch: 85151

QC Batch: Prep Batch: 72291

85151

Date Analyzed: 2011-09-29 QC Preparation: 2011-09-29 Analyzed By: AG Prepared By: AG

MDL

Parameter Flag Cert Result Units RLGRO 0.988 mg/Kg

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.64	mg/Kg_	1	2.00	82	52.4 - 130

Method Blank (1)

QC Batch: 85197

QC Batch: 85197 Prep Batch: 72332 Date Analyzed: QC Preparation: 2011-09-30

2011-09-30

Analyzed By: kg Prepared By: kg Report Date: October 3, 2011 2002-11229

Work Order: 11092903 Texaco Skelley Page Number: 12 of 19 Monument, NM

Parameter	Parameter		lag	Cert		MDL tesult	Units	RL
DRO				1	. <	<14.5	mg/Kg	50
Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			107	mg/Kg	1	100	107	52.7 - 133.8

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 13 of 19 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

85150

Date Analyzed:

2011-09-29

Analyzed By: AG

Prep Batch: 72291

QC Preparation: 2011-09-29

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	${f F}$	$^{\rm C}$	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	${f Limit}$
Benzene		1	1.98	mg/Kg	1	2.00	< 0.0118	99	77.4 - 121.7
Toluene		1	2.07	mg/Kg	1	2.00	< 0.00600	104	88.6 - 121.6
Ethylbenzene		1	2.07	mg/Kg	1	2.00	< 0.00850	104	74.3 - 117.9
Xylene		1	6.17	mg/Kg	1	6.00	< 0.00613	103	73.4 - 118.8

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	1.96	mg/Kg	1	2.00	< 0.0118	98	77.4 - 121.7	1	20
Toluene		1	2.00	mg/Kg	1	2.00	< 0.00600	100	88.6 - 121.6	3	20
Ethylbenzene		1	2.02	mg/Kg	1	2.00	< 0.00850	101	74.3 - 117.9	2	20
Xylene		1	6.02	mg/Kg	1	6.00	< 0.00613	100	73.4 - 118.8	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)	1.98	2.00	mg/Kg	1	2.00	99	100	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	1.91	1.88	mg/Kg	1	2.00	96	94	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch:

85151

Date Analyzed: Prep Batch: 72291

2011-09-29

Analyzed By: AG

QC Preparation: 2011-09-29

Prepared By: AG

			LCS			Spike	Matrix		Rec.
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.4	mg/Kg	1	20.0	< 0.753	87	60.9 - 95.4

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

continued ...

Work Order: 11092903

Page Number: 14 of 19 Monument, NM

2002-11229

Texaco Skelley

control spikes continued			T CCD			G :1	M		D		DDD
			LCSD			Spike	Matrix		Rec.		RPD
Param	F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
GRO		1	18.0	mg/Kg	1	20.0	< 0.753	90	60.9 - 95.4	3	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.86	1.86	mg/Kg	1	2.00	93	93	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.77	1.79	mg/Kg	1	2.00	88	90	56.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

85197

Date Analyzed:

2011-09-30

Analyzed By: kg

Prep Batch: 72332

QC Preparation: 2011-09-30

Prepared By: kg

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	243	mg/Kg	1	250	<14.5	97	64.5 - 146.9

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	248	mg/Kg	1	250	<14.5	99	64.5 - 146.9	2	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	108	113	mg/Kg	1	100	108	113	65.3 - 135.8

Matrix Spike (MS-1)

Spiked Sample: 278520

QC Batch:

85150

Date Analyzed:

QC Preparation: 2011-09-29

2011-09-29

Analyzed By: AG

Prep Batch: 72291

Prepared By: AG

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Benzene		1	2.03	mg/Kg	1	2.00	< 0.0118	102	69.4 - 123.6

 $continued \dots$

2002 - 11229

Work Order: 11092903 Texaco Skelley Page Number: 15 of 19 Monument, NM

matrix	spikes	continued		
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			MS			Spike	Matrix		Rec.
Param	\mathbf{F}^{\cdot}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
Toluene		1	2.18	mg/Kg	1	2.00	< 0.00600	109	75.4 - 134.3
Ethylbenzene		1	2.28	mg/Kg	1	2.00	< 0.00850	114	58.8 - 133.7
Xylene		1	6.84	mg/Kg	1	6.00	< 0.00613	114	57 - 134.2

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Benzene		1	2.19	mg/Kg	1	2.00	< 0.0118	110	69.4 - 123.6	8	20
Toluene		1	2.35	mg/Kg	1	2.00	< 0.00600	118	75.4 - 134.3	8	20
Ethylbenzene		1	2.47	mg/Kg	1	2.00	< 0.00850	124	58.8 - 133.7	8	20
Xylene		1	7.42	mg/Kg	1	6.00	< 0.00613	124	57 - 134.2	8	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	2.05	2.03	mg/Kg	1	2	102	102	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.02	2.01	mg/Kg	1	2	101	100	71 - 167

Matrix Spike (MS-1) Spiked Sample: 278550

QC Batch:

85151

1 Date Analyzed:

yzed: 2011-09-29

Analyzed By: AG Prepared By: AG

Prep Batch: 72291

QC Preparation: 2011-09-29

D

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
GRO		1	16.5	mg/Kg	1	20.0	< 0.753	82	61.8 - 114

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	19.6	mg/Kg	1	20.0	< 0.753	98	61.8 - 114	17	20

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

0	MS	MSD	** **	D.11	Spike	MS	MSD	Rec.
Surrogate	Result	R.esult	$_{ m Units}$	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	1.84	1.82	mg/Kg	1	2	92	91	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	1.90	1.92	mg/Kg	1	2	95	96	37.3 - 162

2002-11229

Work Order: 11092903 Texaco Skelley

Page Number: 16 of 19 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 278703

QC Batch:

85197

Date Analyzed:

2011-09-30

Analyzed By: kg

Prep Batch: 72332

QC Preparation: 2011-09-30

Prepared By: kg

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	R.ec.	Limit
DRO		1	192	mg/Kg	1	250	<14.5	77	38.8 - 153.3

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

			MSD			Spike	Matrix		Rec.		RPD
Param	F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	197	mg/Kg	1	250	<14.5	79	38.8 - 153.3	3	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	$_{ m Units}$	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	73.1	77.5	mg/Kg	1	100	73	78	54.6 - 149.8

2002-11229

Work Order: 11092903 Texaco Skelley Page Number: 17 of 19 Monument, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 85150

Date Analyzed: 2011-09-29

Analyzed By: AG

Donon	E1	Cont	T1:4-	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		1	mg/Kg	0.100	0.0976	98	80 - 120	2011-09-29
Toluene		1	${ m mg/Kg}$	0.100	0.102	102	80 - 120	2011-09-29
Ethylbenzene		1	mg/Kg	0.100	0.0989	99	80 - 120	2011-09-29
Xylene		1	$_{ m mg/Kg}$	0.300	0.294	98	80 - 120	2011-09-29

Standard (CCV-3)

QC Batch: 85150

Date Analyzed: 2011-09-29

Analyzed By: AG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0962	96	80 - 120	2011-09-29
Toluene		1	mg/Kg	0.100	0.0986	99	80 - 120	2011-09-29
Ethylbenzene		1	${ m mg/Kg}$	0.100	0.0973	97	80 - 120	2011-09-29
Xylene		1	mg/Kg	0.300	0.291	97	80 - 120	2011-09-29

Standard (CCV-2)

QC Batch: 85151

Date Analyzed: 2011-09-29

Analyzed By: AG

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	$_{ m Date}$
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.03	103	80 - 120	2011-09-29

Standard (CCV-3)

QC Batch: 85151

Date Analyzed: 2011-09-29

Analyzed By: AG

Work Order: 11092903 Page Number: 18 of 19 Report Date: October 3, 2011 2002-11229 Texaco Skelley Monument, NM CCVs CCVsCCVs Percent True Recovery Date Found Percent Flag Cert Units Conc. Conc. Recovery Limits Analyzed Param 80 - 120 **GRO** mg/Kg 1.00 1.02 102 2011-09-29 Standard (CCV-2) Date Analyzed: 2011-09-30 Analyzed By: kg QC Batch: 85197 CCVs CCVsCCVsPercent True Found Percent Recovery Date Param Flag Cert Units Conc. Conc. Limits Analyzed Recovery DRO mg/Kg 250 200 80 80 - 120 2011-09-30 Standard (CCV-3)

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	. Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	${ m mg/Kg}$	250	225	90	80 - 120	2011-09-30

Date Analyzed: 2011-09-30

Analyzed By: kg

QC Batch: 85197

Standard (CCV-4) QC Batch: 85197 Date Analyzed: 2011-09-30 Analyzed By: kg CCVsCCVsCCVs Percent True Found Percent **Recovery** Date Flag Cert Param Units Conc. Conc. Recovery Limits Analyzed $\overline{\mathrm{DRO}}$ mg/Kg 250 226 90 80 - 120 2011-09-30

Report Date: October 3, 2011

2002-11229

Work Order: 11092903 Texaco Skelley Page Number: 19 of 19 Monument, NM

Appendix

Laboratory Certifications

	Certifying	Certification	Laboratory
\mathbf{C}	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F Description

- B Analyte detected in the corresponding method blank above the method detection limit.
- H Analyzed out of hold time
- J Estimated concentration
- Jb The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
- Je Estimated concentration exceeding calibration range.
- Qc Calibration check outside of laboratory limits.
- Qr RPD outside of laboratory limits
- Qs Spike recovery outside of laboratory limits.
- Osr 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 #

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Page	of	

TraceAnalysis, Inc.

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

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

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

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

email: lab@tracea	nalysis.c	om			'	1 (800) 3	794-12 78-129	98 6	rax	(432) (089-63	313			1 (88)							rei (S	372) Z	242-77	0	
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6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1

(BioAquatic) 2501 Mayes Rd., Suite 100

Lubbock. Texas 79424 El Paso, Texas 79922 Texas 79703 Midland,

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806-794-1296 915-585-3443 FAX 915:585-4944. 432 689 6301

972-242-7750

FAX 432 689 6313

Suite 100 Carroliton, Texas 75006 972-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

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

Report Date: April 12, 2012

Work Order:

12041117

Project Location: Monument, NM Project Name:

Project Number:

Texaco Skelley 2002-11229

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
294034	N. Stockpile, SP-1, G	soil	2012-04-10	13:03	2012-04-11
294035	N. Stockpile, SP-1, H	soil	2012-04-10	13:10	2012-04-11

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

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 294034 (N. Stockpile, SP-1, G)	4
Sample 294035 (N. Stockpile, SP-1, H)	4
Method Blanks	6
QC Batch 90159 - Method Blank (1)	6
QC Batch 90178 - Method Blank (1)	6
Laboratory Control Spikes	7
QC Batch 90159 - LCS (1)	7
QC Batch 90178 - LCS (1)	
QC Batch 90159 - MS (1)	
QC Batch 90178 - MS (1)	
Calibration Standards	6
QC Batch 90159 - CCV (3)	ç
QC Batch 90159 - CCV (4)	
QC Batch 90178 - CCV (1)	
QC Batch 90178 - CCV (2)	Ĉ
Appendix	10
Report Definitions	10
Laboratory Certifications	
Standard Flags	
Attachments	

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2012-04-11 and assigned to work order 12041117. Samples for work order 12041117 were received intact at a temperature of 2.6 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
TPH DRO - NEW	S 8015 D	76505	2012-04-11 at 14:12	90159	2012-04-11 at 14:16
TPH GRO	S 8015 D	76518	2012-04-11 at 10:59	90178	2012-04-11 at 11:55

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 12041117 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.

2002-11229

Work Order: 12041117

Page Number: 4 of 10 Texaco Skelley Monument, NM

Analytical Report

Sample: 294034 - N. Stockpile, SP-1, G

Laboratory:

Midland

Analysis:

TPH DRO - NEW

QC Batch: 90159 Analytical Method:

S 8015 D 2012-04-11 Prep Method:

N/A Analyzed By: DA

Prep Batch:

76505

Date Analyzed: Sample Preparation:

2012-04-11

Prepared By:

DA

RL

Units Parameter Flag Cert Result Dilution RLDRO 375 mg/Kg 50.0

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		205	mg/Kg	1	100	205	49.3 - 157.5

Sample: 294034 - N. Stockpile, SP-1, G

Laboratory:

Prep Batch:

Midland

76518

Analysis: TPH GRO QC Batch: 90178

Analytical Method: Date Analyzed:

S 8015 D 2012-04-11 Sample Preparation: 2012-04-11 Prep Method: S 5035

Analyzed By: tcPrepared By:

RL

Flag Dilution Parameter Cert Result Units RLGRO 15.6 mg/Kg 2.00 Qr 1

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.18	mg/Kg	1	2.00	109	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	1	2.00	100	45.1 - 162.2

Sample: 294035 - N. Stockpile, SP-1, H

Laboratory:

Prep Batch:

Midland

76505

Analysis: TPH DRO - NEW QC Batch: 90159

Analytical Method: Date Analyzed:

S 8015 D 2012-04-11 Sample Preparation: 2012-04-11 Prep Method: N/A Analyzed By: DA Prepared By: DA

2002-11229

Work Order: 12041117 Texaco Skelley

RLParameter Flag Cert Result Units Dilution RLDRO 375 mg/Kg 1 50.0 Spike Percent Recovery Limits Surrogate Flag Cert Units Dilution Amount Recovery Result 49.3 - 157.5 n-Tricosane 197 mg/Kg 100 197 Qsr Qsr

Sample: 294035 - N. Stockpile, SP-1, H

Laboratory:

Analysis:

Midland TPH GRO

Analytical Method:

S 8015 D

Prep Method: S 5035

Page Number: 5 of 10

Monument, NM

QC Batch: Prep Batch: 76518

90178

Date Analyzed:

2012-04-11 Sample Preparation: 2012-04-11 Analyzed By: Prepared By:

RLCert Units Dilution RLParameter Flag Result GRO 17.6 mg/Kg 2.00 Qr

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.16	mg/Kg	1	2.00	108	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	45.1 - 162.2

2002-11229

Work Order: 12041117

Page Number: 6 of 10 Monument, NM Texaco Skelley

Method Blanks

Method Blank (1)

QC Batch: 90159

QC Batch:

90159

Date Analyzed:

2012-04-11

Analyzed By: DA

Prep Batch:

DRO

76505

QC Preparation:

2012-04-11

Prepared By: DA

MDLFlag Parameter Cert

Result <14.5

Units RLmg/Kg 50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			117	mg/Kg	1	100	117	52 - 140.8

Method Blank (1)

QC Batch: 90178

QC Batch:

90178

Date Analyzed:

2012-04-11

Analyzed By: tc

Prep Batch: 76518

QC Preparation:

2012-04-11

Prepared By: tc

MDL

Parameter Flag Cert Result Units RL \overline{GRO} < 1.22 mg/Kg 2

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	_1	2.00	94	55 - 100

2002-11229

Work Order: 12041117 Texaco Skelley

Page Number: 7 of 10 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

90159

Date Analyzed:

2012-04-11

Analyzed By: DA

Prep Batch: 76505

QC Preparation: 2012-04-11

Prepared By: DA

			LCS			Spike	Matrix		Rec.		
Param	\mathbf{F}	C	Result	Units	Dil.	Amount	Result	Rec.	Limit		
DRO			233	mg/Kg	1	250	<14.5	03	62 - 128 3		

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	223	mg/Kg	1	250	<14.5	89	62 - 128.3	4	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	$_{ m Units}$	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	110	111	mg/Kg	1	100	110	111	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch:

90178

Date Analyzed:

2012-04-11

Analyzed By: tc

Prep Batch: 76518

QC Preparation: 2012-04-11

Prepared By: tc

			LCS			Spike	Matrix		Rec.
Param	F	C	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
GRO		1	17.0	mg/Kg	1	20.0	<1.22	85	68.3 - 105.7

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	17.3	mg/Kg	1	20.0	<1.22	86	68.3 - 105.7	2	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	${f Amount}$	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.86	1.93	mg/Kg	1	2.00	93	96	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.76	1.85	mg/Kg	1	2.00	88	92	66.4 - 106.6

2002-11229

Work Order: 12041117

Texaco Skelley

Page Number: 8 of 10 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 294035

QC Batch: 90159 Prep Batch: 76505 Date Analyzed: QC Preparation:

2012-04-11 2012-04-11 Analyzed By: DA

Prepared By: DA

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		1	605	mg/Kg	. 1	250	375	92	45.5 - 127

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		1	609	mg/Kg	1	250	375	94	45.5 - 127	1	20

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

			MS	MSD			Spike	MS	MSD	Rec.
Surrogate			Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	Qsr	Qsr	187	200	mg/Kg	1	100	187	200	45.4 - 145.8

Matrix Spike (MS-1)

Spiked Sample: 294034

QC Batch: Prep Batch:

90178 76518 Date Analyzed: QC Preparation: 2012-04-11 2012-04-11 Analyzed By: tc

Prepared By: tc

			MS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
GRO		1	45.9	mg/Kg	1	20.0	15.6364	151	28.2 - 157.2

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

				MSD			Spike	Matrix		Rec.		RPD
Param		F	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	Qr	Qr	1	37.0	mg/Kg	1	20.0	15.6364	107	28.2 - 157.2	22	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	2.19	2.19	mg/Kg	1	2	110	110	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	2.16	2.12	${ m mg/Kg}$	1	2	108	106	77.9 - 122.4

Report Date: April 12, 2012 2002-11229

Work Order: 12041117 Texaco Skelley Page Number: 9 of 10 Monument, NM

Calibration Standards

Standard (CCV-3)

QC Batch: 90159

Date Analyzed: 2012-04-11

Analyzed By: DA

				CCVs True	CCVs Found	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Cert	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	260	104	80 - 120	2012-04-11

Standard (CCV-4)

QC Batch: 90159

Date Analyzed: 2012-04-11

Analyzed By: DA

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	260	104	80 - 120	2012-04-11

Standard (CCV-1)

QC Batch: 90178

Date Analyzed: 2012-04-11

Analyzed By: tc

			•	CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.08	108	80 - 120	2012-04-11

Standard (CCV-2)

QC Batch: 90178

Date Analyzed: 2012-04-11

Analyzed By: tc

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2012-04-11

Report Date: April 12, 2012 Work Order: 12041117 2002-11229 Texaco Skelley Page Number: 10 of 10

Monument, NM

Appendix

Report Definitions

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

Laboratory Certifications

	Certifying	Certification	Laboratory
$^{\rm C}$	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	Midland

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

LAR Order ID #	120411-1
LAB Older ID#	10,001,

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TraceA	nalysis,	Inc.
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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

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

	email: lab	@tracea	nalys	sis.co	m								378-1			Pax	(43	12) 00	59-6 3	13				88) 5	88-34					iei	(912) 242-1	730		•
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E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

NELAP DoD LELAP WBE HUB NCTRCA $_{
m DBE}$ Oklahoma ISO 17025 Kansas

Analytical and Quality Control Report

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

Report Date: March 28, 2012

Work Order:

12032606

<u>EMO EMO EMO EMO EMO EMO EMO EMO EMO E</u>

Project Location:

Monument, NM Texaco Skelley

Project Name: Project Number:

2002-11229

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
292252	SP-1, A2	soil	2012-03-23	12:08	2012-03-26
292253	SP-1, B2	soil	2012-03-23	12:16	2012-03-26
292254	SP-1, D2	soil	2012-03-23	12:25	2012-03-26

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

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report	4
Sample 292252 (SP-1, A2)	4
Sample 292253 (SP-1, B2)	4
Sample 292254 (SP-1, D2)	5
Method Blanks	7
QC Batch 89702 - Method Blank (1)	7
QC Batch 89746 - Method Blank (1)	
Laboratory Control Spikes	8
QC Batch 89702 - LCS (1)	8
QC Batch 89746 - LCS (1)	8
QC Batch 89702 - MS (1)	
QC Batch 89746 - MS (1)	9
Calibration Standards	10
QC Batch 89702 - CCV (2)	10
QC Batch 89702 - CCV (3)	
QC Batch 89746 - CCV (1)	
QC Batch 89746 - CCV (2)	
Appendix	11
Report Definitions	11
Laboratory Certifications	11
Standard Flags	11
Attachments	11

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2012-03-26 and assigned to work order 12032606. Samples for work order 12032606 were received intact at a temperature of 5.8 C.

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

		Prep	Prep	$_{ m QC}$	Analysis
Test	Method	Batch	Date	Batch	Date
TPH DRO - NEW	S 8015 D	76144	2012-03-26 at 15:08	89702	2012-03-26 at 15:12
TPH GRO	S 8015 D	76174	2012-03-27 at 10:36	89746	2012-03-27 at 11:20

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12032606 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: March 28, 2012 Work Order: 12032606 Page Number: 4 of 11 2002-11229 Texaco Skelley Monument, NM

Analytical Report

Sample: 292252 - SP-1, A2

Laboratory: Midland

Analysis: QC Batch:

TPH DRO - NEW

89702 Prep Batch: 76144

Analytical Method: Date Analyzed:

S 8015 D 2012-03-26 Sample Preparation: 2012-03-26 Prep Method: N/A Analyzed By:

DA Prepared By: DA

						RL			
Parameter			Flag	Cert	R	esult	Units	Dilution	RL
DRO				1		742	mg/Kg	5	50.0
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Osr	Osr		222	mg/Kg	5	100	222	49.3 - 157.5

Sample: 292252 - SP-1, A2

Laboratory:

Midland

Analysis: TPH GRO QC Batch: 89746 Prep Batch: 76174

Analytical Method: Date Analyzed:

S 8015 D 2012-03-27 Sample Preparation: 2012-03-27

Prep Method: S 5035

Analyzed By: Prepared By:

			RL	•		
Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO		1	33.5	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.31	mg/Kg	1	2.00	116	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	45.1 - 162.2

Sample: 292253 - SP-1, B2

Laboratory:

Midland

Analysis: TPH DRO - NEW QC Batch: 89702 Prep Batch: 76144

Analytical Method: Date Analyzed:

S 8015 D 2012-03-26 Sample Preparation: 2012-03-26

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

2002-11229

Work Order: 12032606

Page Number: 5 of 11 Texaco Skelley Monument, NM

						RL			
Parameter			Flag	Cert	Re	sult	Units	Dilution	RL
DRO				1		457	mg/Kg	5	50.0
							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qar		162	mg/Kg	5	100	162	49.3 - 157.5

Sample: 292253 - SP-1, B2

Laboratory: Midland

Analysis: TPH GRO QC Batch: 89746

Analytical Method:

Date Analyzed:

S 8015 D 2012-03-27

Analyzed By:

Prep Method: S 5035

Prep Batch: 76174

Sample Preparation: 2012-03-27

Prepared By:

			RL			
Parameter	Flag -	Cert	Result	Units	Dilution	RL
GRO		1	21.4	mg/Kg	1	2.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.41	mg/Kg	1	2.00	120	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			2.17	${ m mg/Kg}$	1	2.00	108	45.1 - 162.2

Sample: 292254 - SP-1, D2

Laboratory:

Midland

TPH DRO - NEW Analysis: QC Batch: 89702 Prep Batch: 76144

Analytical Method: Date Analyzed:

S 8015 D 2012-03-26 Sample Preparation: 2012-03-26 Prep Method: N/A Analyzed By: DAPrepared By: DA

RLParameter Flag Cert Result Units Dilution RLDRO 497 50.0 1 mg/Kg 5

							Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	\mathbf{U} nits	Dilution	${f Amount}$	Recovery	Limits
n-Tricosane	Qsr	Qsr		168	${ m mg/Kg}$	5	100	168	49.3 - 157.5

Report Date: March 28, 2012 Work Order: 12032606

Page Number: 6 of 11 2002-11229 Texaco Skelley

Sample: 292254 - SP-1, D2

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 89746 Prep Batch: 76174

Analytical Method:

S 8015 D 2012-03-27

Date Analyzed: Sample Preparation: 2012-03-27 Prep Method: S 5035

Monument, NM

Analyzed By: tc Prepared By: tc

RL

Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO		1	35.2	mg/Kg	1	2.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	58.5 - 155.1
4-Bromofluorobenzene (4-BFB)			1.91	${ m mg/Kg}$	1	2.00	96	45.1 - 162.2

2002-11229

Work Order: 12032606 Texaco Skelley

Page Number: 7 of 11 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 89702

QC Batch:

89702

Date Analyzed:

2012-03-26

Analyzed By: DA

Prep Batch: 76144

Prepared By: DA

QC Preparation: 2012-03-26

					N	IDL		
Parameter		$\mathbf{F}l$:	ag	Cert	Re	sult	Units	RL
DRO				1		22.7	mg/Kg	50
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
n-Tricosane			99.8	mg/Kg	1	100	100	52 - 140.8

Method Blank (1)

QC Batch: 89746

QC Batch:

89746

Date Analyzed:

2012-03-27

Analyzed By: tc

Prep Batch: 76174

QC Preparation: 2012-03-27

Prepared By: tc

Parameter	Flag		Cert		$rac{ ext{MDL}}{ ext{Result}}$		Units	RL
GRO			1		1.59		mg/Kg	2
						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	78.6 - 111
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	55 - 100

2002-11229

Work Order: 12032606 Texaco Skelley

Page Number: 8 of 11 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

89702

Date Analyzed:

2012-03-26

Analyzed By: DA

Prep Batch: 76144

QC Preparation: 2012-03-26

Prepared By: DA

			LCS			Spike	Matrix		Rec.
Param	\mathbf{F}	C	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		ı	252	mg/Kg	1	250	<14.5	101	62 - 128.3

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$	RPD	Limit
DRO		1	238	mg/Kg	1	250	<14.5	95	62 - 128.3	6	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	102	108	mg/Kg	1	100	102	108	58.6 - 149.6

Laboratory Control Spike (LCS-1)

QC Batch:

Date Analyzed:

2012-03-27

Analyzed By: tc

Prep Batch: 76174

QC Preparation: 2012-03-27

Prepared By: tc

			LCS			Spike	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	19.0	mg/Kg	1	20.0	<1.22	95	68.3 - 105.7

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	19.2	mg/Kg	1	20.0	<1.22	96	68.3 - 105.7	1	20

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

	LCS	LCSD.			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.99	1.95	mg/Kg	1	2.00	100	98	80 - 111.2
4-Bromofluorobenzene (4-BFB)	1.88	1.84	mg/Kg	1	2.00	94	92	66.4 - 106.6

Work Order: 12032606 Texaco Skelley

Page Number: 9 of 11 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 292254

QC Batch:

2002-11229

Date Analyzed:

2012-03-26

Analyzed By: DA

Prep Batch: 76144

89702

QC Preparation: 2012-03-26

Prepared By: DA

			MS			Spike	Matrix		Rec.		
Param	\mathbf{F}	C	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$		
DRO		1	612	mg/Kg	5	250	497	46	45.5 - 127		

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\mathrm{C}}$	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
DRO		1	666	mg/Kg	5	250	497	68	45.5 - 127	8	20

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

			MS	MSD			Spike	MS	MSD	Rec.
Surrogate			Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	Qsr	Qнг	157	186	mg/Kg	5	100	157	186	45.4 - 145.8

Matrix Spike (MS-1)

Spiked Sample: 292254

QC Batch:

89746

Date Analyzed:

2012-03-27

Analyzed By: tc

Prep Batch: 76174

QC Preparation: 2012-03-27

Prepared By: tc

			MS			Spike	Matrix		Rec.		
Param	\mathbf{F}	C	Result	Units	Dil.	Amount	Result	Rec.	Limit		
GRO		1	54.6	mg/Kg	1 .	20.0	35.1928	97	28.2 - 157.2		

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

			MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	\mathbf{C}	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	55.5	mg/Kg	1	20.0	35.1928	102	28.2 - 157.2	2	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.09	2.11	mg/Kg	1	2	104	106	75.5 - 122.3
4-Bromofluorobenzene (4-BFB)	1.98	2.03	${ m mg/Kg}$	1	2	99	102	77.9 - 122.4

2002-11229

Work Order: 12032606 Texaco Skelley Page Number: 10 of 11 Monument, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 89702

Date Analyzed: 2012-03-26

Analyzed By: DA

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	264	106	80 - 120	2012-03-26

Standard (CCV-3)

QC Batch: 89702

Date Analyzed: 2012-03-26

Analyzed By: DA

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found	CCVs Percent	Percent Recovery Limits	Date
Param	rtag	Cert	Omes	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		1	mg/Kg	250	257	103	80 - 120	2012-03-26

Standard (CCV-1)

QC Batch: 89746

Date Analyzed: 2012-03-27

Analyzed By: tc

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.17	117	80 - 120	2012-03-27

Standard (CCV-2)

QC Batch: 89746

Date Analyzed: 2012-03-27

Analyzed By: tc

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	1.15	115	80 - 120	2012-03-27

Report Date: March 28, 2012 Work Order: 12032606 Page Number: 11 of 11 Monument, NM

2002-11229 Texaco Skelley

Appendix

Report Definitions

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

Laboratory Certifications

	Certifying	Certification	Laboratory
С	Authority	Number	Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-11-3	Midland

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

AB Order ID #	120	32606

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Page		_ of _	/

TraceAnalysis, Inc.

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

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Hansen, Edward J., EMNRD

From:

Jason Henry < JHenry@paalp.com>

Sent:

Tuesday, August 21, 2012 2:06 PM

To:

Hansen, Edward J., EMNRD

Subject:

RE: Additional Information Required (1R-420) - Plains Texaco Skelly F Release Site

Attachments:

TexacoSkellySeeding_07132012.pdf; Texaco Skelley Report (Backfill).pdf

Ed,

In compliance with the directives below, the following documents are attached:

- Re-seeding documentation (photographs) from the 07-13-2012 re-seeding event which was conducted by Basin Environmental personnel. The seed mix that was used (BLM #2) was approved by the landowner.
- Analytical Report for the 5-point composite soil sample collected on 08-10-2012 from the backfilled area.

Regarding the closure of the product recovery sumps, Plains proposes to conduct the following P&A activities when the sumps are no longer needed:

- First, attempt to remove the casing at each sump location and then backfill each sump location with native material from on-site.
- If the sump casings cannot be successfully removed intact, then cut each sump casing to below ground level and fill each casing with hydrated bentonite. Finally, pour a cement cap over each sump casing and cover the cement caps with native material from on-site.

Please let me know if you have any questions or need more information.

Thank you, Jason Henry 575-441-1099

From: Hansen, Edward J., EMNRD [mailto:edwardj.hansen@state.nm.us]

Sent: Thursday, June 21, 2012 5:16 PM

To: Jason Henry

Cc: Leking, Geoffrey R, EMNRD; Jeffrey P Dann

Subject: Additional Information Required (1R-420) - Plains Texaco Skelly F Release Site

RE: Soil Closure Request for the Plains Marketing's

Texaco Skelly F Release Site (1R-420)

Unit F, Section 21, T20S, R37E, NMPM, Lea County, New Mexico

Additional Information Required

Dear Mr. Henry:

The New Mexico Oil Conservation Division (OCD) has received Plains Marketing's (Plains) report and soil closure request regarding the above-referenced site (dated May 2012). The report indicates that

additional information is required. Therefore, the OCD cannot approved the soil closure request at this time:

Plains must address the re-vegetation of the site as part of the request.

Plains must address the closure of the current sumps at the site as part of the request.

Plains must address the upper three feet of the backfill regarding the TPH concentration as proposed in the April 2008, Soil Closure Proposal as part of the request.

Please provide the above information to the OCD within 60 days.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact at 505-476-3489.

Edward J. Hansen Hydrologist Environmental Bureau



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

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Carroliton Texas 75006 432-689-6301 972 - 242 - 7750

FAX 432 - 689 - 6313

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

Certifications

DBE NELAP DoD LELAP $_{
m HUB}$ NCTRCA Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: August 20, 2012

Work Order:

12081302

Project Location: Monument, NM Project Name: Texaco Skelley NM-2011

Project Number: SRS #:

2002-11229

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
306548	CV-1A, 18 in.	soil	2012-08-10	12:50	2012-08-10

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

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

Report Contents

Case Narrative	3
Analytical Report Sample 306548 (CV-1A, 18 in.)	4 4
Method Blanks	5
QC Batch 93943 - Method Blank (1)	5
QC Batch 94026 - Method Blank (1)	5
Laboratory Control Spikes	6
QC Batch 93943 - LCS (1)	6
QC Batch 94026 - LCS (1)	6
QC Batch 93943 - MS (1)	
QC Batch 94026 - MS (1)	7
Calibration Standards	8
QC Batch 93943 - CCV (1)	8
QC Batch 93943 - CCV (2)	
QC Batch 93943 - CCV (3)	
QC Batch 94026 - CCV (1)	
	8
Appendix	10
Report Definitions	
Laboratory Certifications	
	10
	10

Case Narrative

Samples for project Texaco Skelley were received by TraceAnalysis, Inc. on 2012-08-10 and assigned to work order 12081302. Samples for work order 12081302 were received intact at a temperature of 5.4 C.

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

		Prep	Prep	QC	Analysis
Test	Method	Batch	Date	Batch	Date
TPH DRO - NEW	S 8015 D	79640	2012-08-15 at 08:00	93943	2012-08-16 at 10:26
TPH GRO	S 8015 D	79710	2012-08-17 at 16:27	94026	2012-08-17 at 16:27

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 12081302 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Work Order: 12081302 Report Date: August 20, 2012 Page Number: 4 of 10 NM-2011 Texaco Skelley Monument, NM

Analytical Report

Sample: 306548 - CV-1A, 18 in.

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 93943 Prep Batch: 79640

Analytical Method: Date Analyzed:

S 8015 D

2012-08-16

Prep Method: N/A CW Analyzed By:

Sample Preparation: 2012-08-15

Prepared By: CW

RL

Parameter	Flag	Cert	Result	Units	Dilution	RL
DR.O	Qr.Qs,U	2	< 50.0	mg/Kg	1	50.0

	,						Spike	Percent	Recovery
Surrogate		Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane	Qsr	Qsr		137	mg/Kg	1	100	137	70 - 130

Sample: 306548 - CV-1A, 18 in.

Laboratory:

Lubbock

Analysis: TPH GRO QC Batch: 94026Prep Batch: 79710

Analytical Method: Date Analyzed:

S 8015 D 2012-08-17 Sample Preparation: 2012-08-17

Analyzed By: Prepared By:

Prep Method: S 5035 MTMT

RLParameter Flag Cert Result Dilution Units RL**GRO** <4.00 mg/Kg 4.00

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.48	mg/Kg	1	2.00	74	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	${ m mg/Kg}$	1	2.00	97	70 - 130

Report Date: August 20, 2012 NM-2011

Work Order: 12081302 Texaco Skelley

Page Number: 5 of 10 Monument, NM

Method Blanks

Method Blank (1)

QC Batch: 93943

QC Batch:

93943

Date Analyzed: 2012-08-16 Analyzed By: CW

Prep Batch:

79640

QC Preparation:

2012-08-15

Prepared By: CW

MDL

Flag Parameter Cert Result Units RLDRO <14.5 mg/Kg 50 2

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

Method Blank (1)

QC Batch: 94026

QC Batch:

94026

Date Analyzed:

2012-08-17

Analyzed By: MT

Prep Batch:

79710

QC Preparation:

2012-08-17

Prepared By:

MDLParameter Flag Cert Result Units RLGRO mg/Kg < 0.359

						Spike	Percent	Recovery
Surrogate	Flag	Cert	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Report Date: August 20, 2012 NM-2011

Work Order: 12081302 Texaco Skelley

Page Number: 6 of 10 Monument, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch:

93943

Date Analyzed:

2012-08-16

Analyzed By: CW

Prep Batch: 79640

QC Preparation: 2012-08-15

Prepared By: CW

			LCS			$_{ m Spike}$	Matrix		Rec.
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO		2	278	mg/Kg	1	250	<14.5	111	70 - 130

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO		2	299	mg/Kg	1	250	<14.5	120	70 - 130	7	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	119	126	mg/Kg	1	100	119	126	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:

94026

Date Analyzed:

2012-08-17

Analyzed By: MT

Prep Batch: 79710

QC Preparation: 2012-08-17

Prepared By: MT

			LCS			Spike	Matrix		Rec.
Param	F	$^{\mathrm{C}}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	17.4	mg/Kg	1	20.0	< 0.359	87	68.9 - 120

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

			LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO		1	17.4	mg/Kg	1	20.0	< 0.359	87	68.9 - 120	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2.03	2.00	mg/Kg	1	2.00	102	100	70 - 130
4-Bromofluorobenzene (4-BFB)	1.94	1.91	${ m mg/Kg}$	1	2.00	97	96	70 - 130

Report Date: August 20, 2012

NM-2011

Work Order: 12081302

Texaco Skelley

Page Number: 7 of 10 Monument, NM

Matrix Spike (MS-1)

Spiked Sample: 306548

QC Batch: 93943 Date Analyzed:

2012-08-16

Analyzed By: CW

Prep Batch: 79640

QC Preparation: 2012-08-15

Prepared By: CW

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	С	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$
DRO		2	295	mg/Kg	1	250	<14.5	118	70 - 130

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

				MSD			Spike	Matrix		Rec.		RPD
Param		F	С	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	Qr,Qs	Qr,Qs	2	718	mg/Kg	1	250	<14.5	287	70 - 130	84	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	$_{ m Units}$	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Tricosane	126	153	mg/Kg	1	100	126	153	70 - 130

Matrix Spike (MS-1)

Spiked Sample: 306506

QC Batch:

94026

Date Analyzed:

2012-08-17

Analyzed By: MT

Prep Batch: 79710

QC Preparation: 2012-08-17

Prepared By: MT

			MS			Spike	Matrix		Rec.
Param	\mathbf{F}	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO		1	23.4	mg/Kg	1	20.0	4.92	92	68.9 - 120

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

			MSD			Spike	Matrix		Rec.		RPD
Param	F	$^{\rm C}$	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
GRO		1	21.7	mg/Kg	1	20.0	4.92	84	68.9 - 120	8	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.69	1.66	mg/Kg	1	2	84	83	70 - 130
4-Bromofluorobenzene (4-BFB)	2.23	2.13	$_{ m mg/Kg}$	1	2	112	106	70 - 130

Report Date: August 20, 2012

NM-2011

Work Order: 12081302 Texaco Skelley Page Number: 8 of 10 Monument, NM

Calibration Standards

QC Batch: 93943

Date Analyzed: 2012-08-16

Analyzed By: CW

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		2	mg/Kg	250	297	119	80 - 120	2012-08-16

Standard (CCV-2)

QC Batch: 93943

Date Analyzed: 2012-08-16

Analyzed By: CW

				CCVs	CCVs	CCVs	Percent	_
				True	Found	$\operatorname{Percent}$	Recovery	$_{ m Date}$
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		2	mg/Kg	250	248	99	80 - 120	2012-08-16

Standard (CCV-3)

QC Batch: 93943

Date Analyzed: 2012-08-16

Analyzed By: CW

				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		2	mg/Kg	250	270	108	80 - 120	2012-08-16

Standard (CCV-1)

QC Batch: 94026

Date Analyzed: 2012-08-17

Analyzed By: MT

,				CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	${ m mg/Kg}$	1.00	0.872	87	80 - 120	2012-08-17

Report Date: August 20, 2012

NM-2011

Work Order: 12081302 Texaco Skelley

Page Number: 9 of 10 Monument, NM

Standard (CCV-2)

QC Batch: 94026

Date Analyzed: 2012-08-17

Analyzed By: MT

				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param	Flag	Cert	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		1	mg/Kg	1.00	0.884	88	80 - 120	2012-08-17

Report Date: August 20, 2012 Work Order: 12081302 Page Number: 10 of 10 NM-2011 Texaco Skelley Monument, NM

Appendix

Report Definitions

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

Laboratory Certifications

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

Standard Flags

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

Attachments

The scanned attachments will follow this page.

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

LAB Order ID#	12081	302

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 Carroliton, Texas 75006 Tet (972) 242-7750

Company Name: Phone #:							ANALYSIS REQUEST																															
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Curtis & Curtis Seed 4500 N. Prince Clovis, NM 89101 Phone: 575-762-4759

Basin Environmental 2 Acre BLM #2 Orilled Rats 2-1 Acre Bass @ 1822 Bulk Pounds Each Job:

Lot# M->900

Item -	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Sand Dropseed Not Stated	Texas	12.20%	07.00%	83.00%	90.00%	07/10	04.00
Sand Bluestem Goldstriker	Nebraska	17.16%	96,00%	00.00%	96.00%	03/10	06.00
Little Biuestem Pastura	Texas	31 32%	57.00%	23.00%	80.00%	07/10	10.01
Coreopsis	Oregon	14.26%	77.00%	00,00%	77.00%	09/10	04.00

Other Crop: 00.61% There are 2 Bags For This Mix Total Bulk Pounds: 36.42 Wesd Seed: 00.17% This Bag Weighs 18.22 Bulk Pounds Use this bag for 1 acre











