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

Energy Minerals and Natural Resources 1829 30 31

Oil Conservation Division
1220 South St. Francis Dr. N State of New Mexico

Santa Fe, NM 87505

1594 Form C-141 Revised October 10, 2003

077

X Initial Report

Revised October Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form JUL 2007. Received

PPAC Ø721455996

Final Report

Release	Notification	and	Corrective	Action
		O	PERATOR	, (

	Name of Company Chevron Midcontinent LP Contact Larry Ridenour 12, 101 Cl.									
		423 Loving					No. 505-396-44	14 X 1	02	
Facility Na	me Loving	gton San And	dres Unit	#25		Facility Typ	e Injection Tr	unkline	Э	
Surface Ow	mer City	of Lovington		Mineral C	Owner	State of NM	1		Lease N	No. B1505
				LOC	CATI	ON OF R	ELEASE			
Unit Letter	Section	Township	Range	Feet from the			Feet from the			County
0	36	16S	36E	660	South	Line	1980	East I	Line	Lea
		Latit	nde N 32	deg 52 min 23	45 sec	Longitu	de_W 103 deg 1	2 min	96-18 sec	03782
		Dutte	100_1132	, dog 52 mm 25			FRELEASE			
Type of Rele							Release 20 BW		Volume F	Recovered .5 bbl fluids.
Source of Re	elease inje	ection trunk li	ne			Date and F 07/24/07	Four of Occurrence	e	Date and 07/26/07	Hour of Discovery
Was Immedi	ate Notice (Given?				If YES, To	The same of the sa		01120101	7.00 au
			Yes [No Not Re	equired					
By Whom?						Date and I				
Was a Water	course Read		V _a - N	l NI-		If YES, Vo	olume Impacting t	he Wate	ercourse.	
			Yes 🗵							
If a Watercon	urse was Im	pacted, Descr	ibe Fully.	k						
couple of day 2" high press excavation of	d on trunk less probably trunk fiberglass for contamina	ine in field. I before it was ass line had a s	LSAU #25 discovered small crack 7/26/07 a	given as location d. Upon discovery c in it due to what fternoon. Wet so	y line v	vas shut in and s to be improp	the small amount per installation of	t of wat	er that was Emergen	k and had been leaking for a standing was picked up. acy one call was done and wer to an environmental
Chlorides 3	5,300									
		and Cleanup A			m truck	. Affected are	ea is approximatel	y 50' di	iameter circ	cle.
regulations al public health should their o	Il operators or the envir operations h nment. In a	are required to ronment. The ave failed to a ddition, NMC	o report ar acceptance adequately OCD accep	nd/or file certain re te of a C-141 repo investigate and re	elease of ort by the emedia	notifications and ne NMOCD m te contaminati	nd perform correct arked as "Final Ro on that pose a thre	tive acti eport" d eat to gr	ions for rele loes not reli round water	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Signature:	Tay	D F.	id			Approved by	OIL CONS BUULE E District Supervise	NA	ATION	DIVISION
							7 91 -5	, 1	Jour	0.21.07
Title: Operati	ons Repres	entative			-	Approval Dat	e: 7.31.07		Expiration	Date: 8.81.07
E-mail Addre		ur@chevron.c		06 4414 W 100	-	Conditions of	A .		-61	Attached
Date: 7/27/2	007		Phone: 3	96-4414 X 102		i lotte C.	HI W Doan	WELPT	ME DES	and a

		SIT	TE INFORMA	TION	
Report Type:		REQUEST			RP #1504
General Site Info	ormation:				
Site:		Lovington Sa	an Andres Unit #2	25	
Company:		Chevron US	4		
Well Location:		Section 36,T	16S,R36E		
Unit Letter:		Unit O			
API		3002503782			
Lease Number:		B1505			
County:		Lea		1777	
Spill GPS:		32.87259 10	03.30660		
Surface Owner:		City of Loving	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAME		
Mineral Owner:		State of New			
Directions:				f 10 and 0D 7	70 (Stiles DD) Oc North on 40 for 4 Comit
DII GUIUIIS.					78 (Stiles RD). Go North on 18 for 1.6 miles,
		furn left on lease	road go aprox 0.9 mile	es turn right (s	south) location on right (east) side of Road.
			`		
			THE LOW		
Release Data:					在 有限的 (1965年)
Date Released:		7/24/2007			\
Type Release:		produced wat	er		
Source of Contan	nination:	injection trunk			
Fluid Released:		20 BW			
Fluids Recovered	1.	0.5			
, idido i idoovorod		0.0			
Official Commun	nication:				
					T
Name:	Steve Gwin		P. Mariana		Ike Tavarez
Company:	Chevron USA				Tetra Tech
Address:	15 Smith Road	d	The second second		1910 N. Big Spring
P.O. Box				William Park	
City:	Midland Texas	79705	A TABLE AND DE LOS AND DE	STORE TO STORE THE	Midland, Texas
Phone number:					
- Priorie riuriber:	(432) 687-757	NAME AND ADDRESS OF THE OWNER, WHEN PERSON ADDRESS OF THE OWNER, WHEN PERSON AND ADDRESS OF THE OWNER, WHEN			(432) 682- 4559
Fax:	(866) 569-595				
Email:	gwst@chevro	on.com			ike.tavarez@tetratech.com
Ranking Criteria					
Depth to Groundw	rater:		Ranking Score		Site Data
<50 ft			20		
50-99 ft			10		
>100 ft.			0		4
WellHead Protection	on.		Banking Coons		O'the Part
Water Source <1,0		200 ft	Ranking Score		Site Data
Water Source <1,0			0		None
valer Source >1,0	oo ii., Fiivale >i	LUU II.	U		
Surface Body of W	/ater:		Ranking Score		Site Data
<200 ft.			20		None
200 ft - 1,000 ft.			10		None
>1,000 ft.			0		140/16
	152				
Total	Ranking Sco	re:	10		
rota	g ood		ble Soil RRAL (m	a/ka)	5.
		Benzene	Total BTEX	TPH	



RECEIVED
August 2, 2010
JAN 1 8 2011

HOBBSUCD

Mr. Larry Johnson Environmental Engineer Specialist Oil Conservation Division- District I 1625 N. French Drive Hobbs, New Mexico 88240

RE: Closure Request for the Spill at the Lovington San Andres Unit #25 Well, Unit Letter O, Section 36 Township 16 South, Range 36 East, Lea County, New Mexico, Operated by Chevron USA, API 3002503782 RP #1504

Dear Mr. Johnson:

Tetra Tech was contacted by Chevron USA (Chevron) to collect samples (assess) the excavated area from an injection trunk line leak at the Lovington San Andres Unit #25 Well, located in Unit Letter O, Section 36, Township 16 South, Range 36 East, Lea County, New Mexico. The site coordinates are N 32.87259°, W 103.30660°. The Site location is shown on Figures 1 and 2.

Background

As reported in the C-141 (Initial), the spill was discovered on July 24, 2007. The spill occurred at a 2" high pressure fiberglass line, which had a small cracked from an improper installation of the pipe. A total of 20 barrels of produced water were released and 0.5 barrels were recovered. On July 26, 2007, Chevron excavated the impacted soils and transported the soils to proper disposal. The spill area was excavated to a depth of approximately 3.0' to 4.0' below surface. The impacted area measured approximately 50' diameter in the pasture east of the lease road. The initial C-141 is shown in Appendix A.



Groundwater and Regulatory

The Site is located in Section 36, Township 16 South, Range 36 East. There are numerous water wells in the vicinity of this site. Both the USGS database and the State of New Mexico Well Reports show water wells throughout Township 16 South, Range 37 East. The average depth to water is shown in Appendix A. Based upon the well information acquired, the depth to groundwater at the site was determined to be greater than 50' below surface.

A risk-based evaluation was performed for the Site in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based on the regional groundwater data, the proposed RRAL for TPH is 1,000 mg/kg.

Site Inspection and Sampling

On July 15, 2010, Tetra Tech personnel inspected the excavated spill area. A total of five (5) auger holes were installed in the bottom of the excavation and sidewall samples were collected from the excavation. During the installation of the auger holes, deeper samples were not collected due to the dense formation at the bottom. Soil samples were submitted to Trace Analysis for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix B. The sampling results are summarized in Table 1.

Referring to Table 1, all of the samples were below the RRAL for TPH and BTEX. The chloride concentrations were all below reporting limit (<200 mg/kg) on the bottom of the excavation. All sidewall samples were below the reporting limit, except for SW-7, which showed a chloride concentration of 484 mg/kg.

Closure Request /Soil Capping

Based on the results, Chevron requests closure of site. As an added precautionary measure, prior to backfilling the excavation, Chevron proposes to cap the excavated area with a 20 mil liner. The cap will be installed



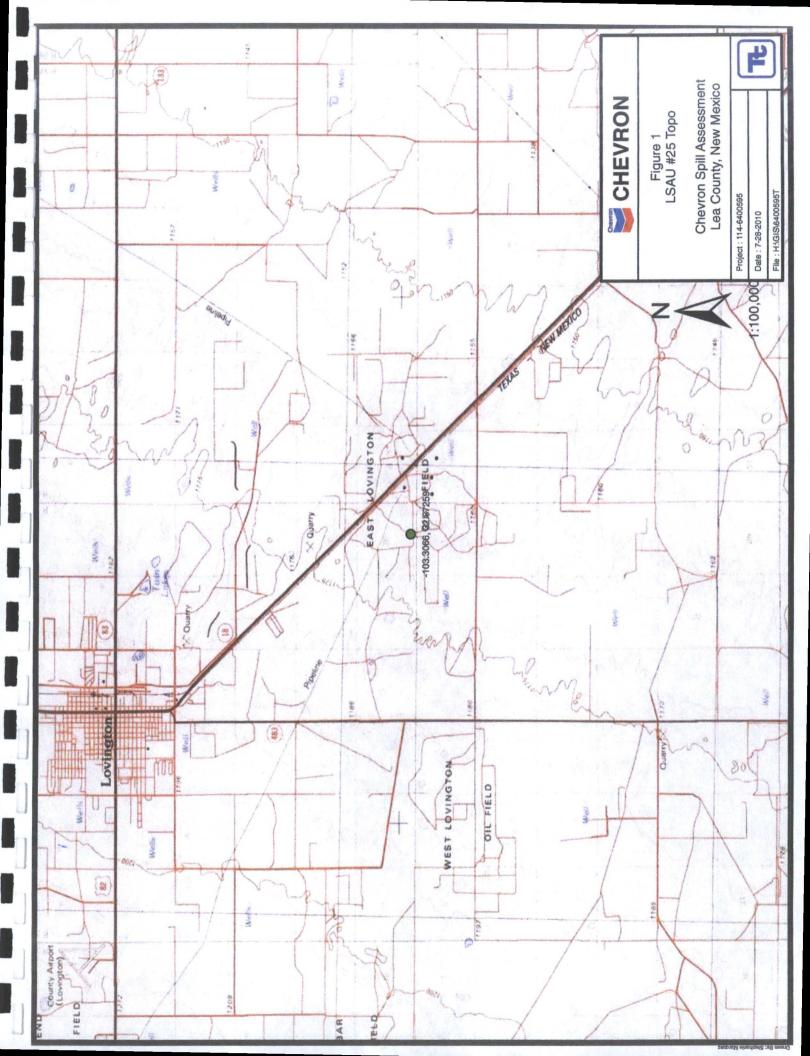
approximately 4.0' below surface and backfilled with clean soil. If approved, Chevron will submit a final C-141 after the cap and backfilling is completed at the site.

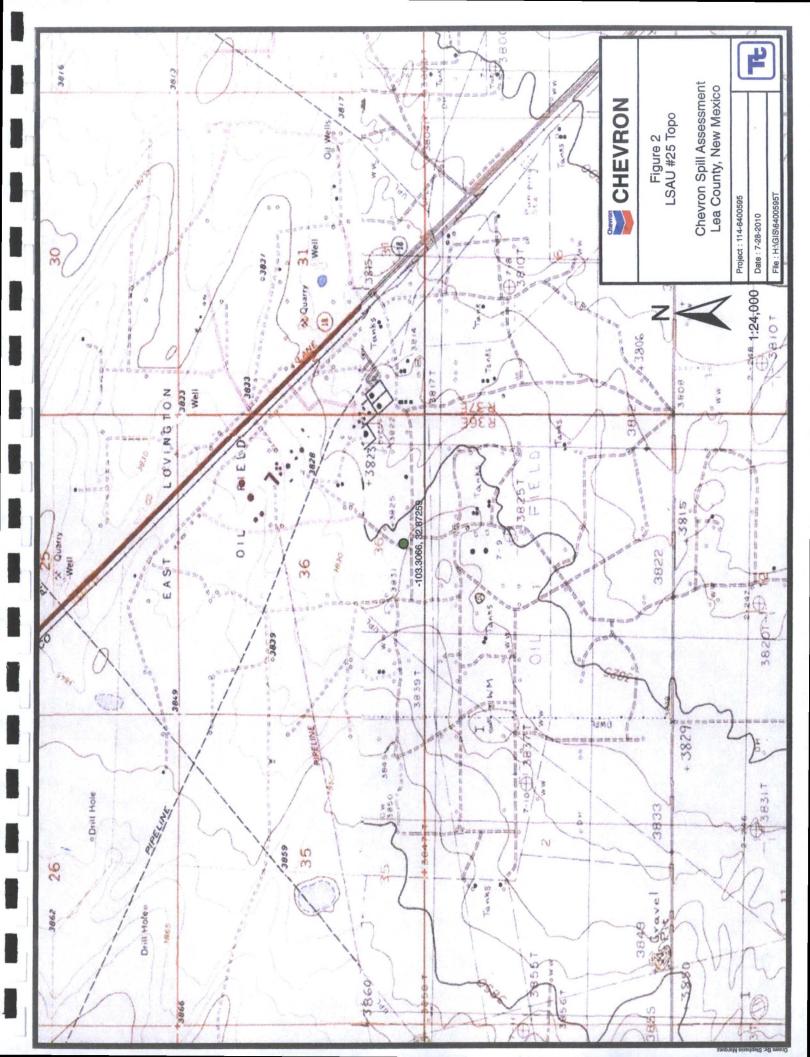
If you require any additional information or have any questions or comments, please call.

Tetra Tech

Ike Tavarez, P.G. Project Manager

cc: Chevron USA - Steve Gwinn





Chevron Spill Assessment Lea County, New Mexico CHEVRON Figure 3 LSAU #25 Project : 114-6400595 Date: 7-28-2010 Edge of Excavation NOT TO SCALE SW3 SW2 SW4 SW5 75 SW6 SW1 SW7 85 Auger Hole Sample SW Side Wall Sample Explanation Spill Area

Table 1
Chevron USA
LSAU #25
LEA COUNTY, NEW MEXICO

Sample	Sample	Sample	Sample	Soil	Status	TP	TPH (mg/kg)	g) (b	Benzene	Toluene	Ethlybenzene	Xviene	Chloride
OI	Date	Depth (ft)	Location	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-1	7/15/2010	0-1,	bottom	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
AH-2	7/15/2010	0-1,	bottom	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
AH-3	7/15/2010	0-1,	bottom	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
	7/15/2010	1-1.5	bottom	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
AH-4	7/15/2010	0-1,	bottom	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
AH-5	7/15/2010	0-0.5	bottom	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
SW1	7/15/2010	'	sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	213
SW2	7/15/2010		sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<400
SW3	7/15/2010		sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
SW4	7/15/2010	'	sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<400
SW5	7/15/2010	'	sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
SW6	7/15/2010	,	sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<200
SW7	7/15/2010	ſ	sidewall	×		<2.0	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	484

SW - sidewall samples

Water Well Data Average Depth to Groundwater (ft) Chevron USA Lovington San Andres Unit #25

	16 9	outh	36	East	
6	5	4	3	2	1
7	8	9 Lovi	10 ngton	11	12
18 54	17	16	15	14	13
19	20	21 70	22 63	23 70	24 55
	70		63	61	
30 8	2 29	28	27	26 63	25 68
					52
31 7	4 32 6	5 33	34	35 41	3 Site 65 70

	16 S	outh	37	East	
6	5	4	3	2	1
7 66	8	9	10	11	12
18	17	16	15	14	13
19 55	20 44	21 50	22	23	24
30 52	29 44	28 34	27 73	26	25 70
31 72 55	32 38	33 60	34 60	35	36

	16 Sc	outh	38	East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	17 Sc	outh	36	East	
6 50	5	4 65	3	2 60	1 83
			60	69	74
7	8	9	10	11	12 44
			43		46
18	17	16	15	14 48	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

		17 S	out	h	3	7 East	
6	75	5 57	4	40	3 60	2	1
		50			55	67	51
7	65	8	9	42	1070	11	12
		50 68			64		
18		17	16		15	14	13
19		20	21		22	23	24
			L				
30		29	28		27	26	25
31		32	33		34	35	36

	17 S	outh	38	East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

- 88 New Mexico State Engineers Well Reports
- 105 USGS Well Reports
- 90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
- 34 NMOCD Groundwater Data

Report Date: July 20, 2010 Work Order: 10071915 Page Number: 1 of 3

Summary Report

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX 79705

Report Date: July 20, 2010

Work Order: 10071915

Project Location: Lea County, NM Project Name: LSAU #25 Project Number: 114-6400595

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
237996	SW1	soil	2010-07-15	00:00	2010-07-19
237997	SW2	soil	2010-07-15	00:00	2010-07-19
237998	SW3	soil	2010-07-15	00:00	2010-07-19
237999	SW4	soil	2010-07-15	00:00	2010-07-19
238000	SW5	soil	2010-07-15	00:00	2010-07-19
238001	SW6	soil	2010-07-15	00:00	2010-07-19
238002	SW7	soil	2010-07-15	00:00	2010-07-19
238003	AH-1 0-1'	soil	2010-07-15	00:00	2010-07-19
238004	AH-2 0-1'	soil	2010-07-15	00:00	2010-07-19
238005	AH-3 0-1'	soil	2010-07-15	00:00	2010-07-19
238006	AH-3 1-1.5'	soil	2010-07-15	00:00	2010-07-19
238007	AH-4 0-1'	soil	2010-07-15	00:00	2010-07-19
238008	AH-5 0-6 in.	soil	2010-07-15	00:00	2010-07-19

]	BTEX		TPH DRO - NEW	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
237996 - SW1	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
237997 - SW2	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
237998 - SW3	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
237999 - SW4	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238000 - SW5	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238001 - SW6	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238002 - SW7	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238003 - AH-1 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238004 - AH-2 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238005 - AH-3 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238006 - AH-3 1-1.5'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00
238007 - AH-4 0-1'	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 50.0	< 2.00

continued ...

Report Date: July 20, 2010 Work Order: 10071915 Page Number: 2 of 3 \dots continued BTEX TPH DRO - NEW TPH GRO Benzene Toluene Ethylbenzene Xylene DRO GRO Sample - Field Code (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) (mg/Kg) 238008 - AH-5 0-6 in. < 0.0200 < 0.0200 < 0.0200 < 0.0200 < 2.00 < 50.0Sample: 237996 - SW1 Param Flag Result Units RLChloride 213 4.00 mg/Kg Sample: 237997 - SW2 Flag Param Units RLResult Chloride <400 mg/Kg 4.00 Sample: 237998 - SW3 Flag RLParam Result Units Chloride 4.00 < 200 mg/Kg Sample: 237999 - SW4 Param RL Flag Result Units Chloride <200 4.00 mg/Kg Sample: 238000 - SW5 Flag Result Units RLParam 4.00 Chloride < 400 mg/Kg Sample: 238001 - SW6 Param Flag Result Units RL< 200 mg/Kg 4.00 Chloride

Sample: 238002 - SW7

 $continued \dots$

Report Date: July 20, 2010		Work Order: 10071915	Pa	Page Number: 3 of 3	
sample 238002 con	tinued				
Param	Flag	Result	Units	RL	
Param	Flag	Result	Units	RL	
Chloride		484	mg/Kg	4.00	
Sample: 238003	- AH-1 0-1'				
Param	Flag	Result	Units	RL	
Chloride		<200	mg/Kg	4.00	
Sample: 238004 -	- AH-2 0-1'				
Param	Flag	Result	Units	RL	
Chloride		<200	mg/Kg	4.00	
Sample: 238005 -	- AH-3 0-1'				
Param	Flag	Result	Units	RL	
Chloride		<200	mg/Kg	4.00	
Sample: 238006 -	- AH-3 1-1.5'				
Param	Flag	Result	Units	RL	
Chloride		<200	mg/Kg	4.00	
Sample: 238007 -	· AH-4 0-1'				
Param	Flag	Result	Units	RL	
Chloride		<200	mg/Kg	4.00	
Sample: 238008 -	AH-5 0-6 in.				
Param	Flag	Result	Units	RL	
Chloride		<200	mg/Kg	4.00	



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

5002 Basin Street, Suite A1 6015 Harris Parkway, Suite 110 El Paso, Texas 79922

888 • 588 • 3443

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Midland, Texas 79703

Ft. Worth, Texas 76132

817 • 201 • 5260

F-Mail lab@traceanalysis.com

Certifications

WBENC: 237019 HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA

WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX

LELAP-02003 Kansas E-10317 El Paso:

T104704221-08-TX

LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX, 79705

Report Date: July 20, 2010

Work Order:

10071915

Project Location: Lea County, NM Project Name: LSAU #25 Project Number: 114-6400595

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
237996	SW1	soil	2010-07-15	00:00	2010-07-19
237997	SW2	soil	2010-07-15	00:00	2010-07-19
237998	SW3	soil	2010-07-15	00:00	2010-07-19
237999	SW4	soil	2010-07-15	00:00	2010-07-19
238000	SW5	soil	2010-07-15	00:00	2010-07-19
238001	SW6	soil	2010-07-15	00:00	2010-07-19
238002	SW7	soil	2010-07-15	00:00	2010-07-19
238003	AH-1 0-1'	soil	2010-07-15	00:00	2010-07-19
238004	AH-2 0-1'	soil	2010-07-15	00:00	2010-07-19
238005	AH-3 0-1'	soil	2010-07-15	00:00	2010-07-19

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
238006	AH-3 1-1.5'	soil	2010-07-15	00:00	2010-07-19
238007	AH-4 0-1'	soil	2010-07-15	00:00	2010-07-19
238008	AH-5 0-6 in.	soil	2010-07-15	00:00	2010-07-19

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 30 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

Standard Flags

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

Case Narrative

Samples for project LSAU #25 were received by TraceAnalysis, Inc. on 2010-07-19 and assigned to work order 10071915. Samples for work order 10071915 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	61608	2010-07-19 at 16:00	71883	2010-07-19 at 15:44
Chloride (Titration)	SM 4500-Cl B	61617	2010-07-20 at 08:49	71893	2010-07-20 at 11:54
Chloride (Titration)	SM 4500-Cl B	61618	2010-07-20 at 08:51	71894	2010-07-20 at 11:55
TPH DRO - NEW	S 8015 D	61591	2010-07-19 at 14:30	71872	2010-07-19 at 14:30
TPH GRO	S 8015 D	61608	2010-07-19 at 16:00	71884	2010-07-19 at 16:29

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 10071915 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.

114-6400595

Work Order: 10071915 LSAU #25

Page Number: 4 of 30 Lea County, NM

Analytical Report

Sample: 237996 - SW1

Laboratory:

Midland

Analysis: QC Batch:

Prep Batch: 61608

BTEX 71883

Analytical Method: S 8021B Date Analyzed: 2010-07-19 2010-07-19 Sample Preparation:

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.43	mg/Kg	1	2.00	72	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.44	mg/Kg	1	2.00	72	38.4 - 157

Sample: 237996 - SW1

Laboratory:

Midland

Analysis:

Chloride (Titration)

QC Batch: 71893 Prep Batch: 61617

Analytical Method:

SM 4500-Cl B 2010-07-20

Prep Method: N/AAnalyzed By: AR

Date Analyzed: Sample Preparation: 2010-07-20

Prepared By: AR

RLParameter Flag Result Units Dilution RL Chloride 4.00 213 mg/Kg 50

Sample: 237996 - SW1

Laboratory:

Midland

Analysis:

TPH DRO - NEW

QC Batch: 71872 Prep Batch: 61591

Analytical Method: S 8015 D Date Analyzed:

2010-07-19

Prep Method: N/A Analyzed By: kg

Prepared By:

RL

2010-07-19

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

Sample Preparation:

114 - 6400595

Work Order: 10071915 LSAU #25 Page Number: 5 of 30 Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike	Percent	Recovery Limits
	Flag			Dilucion	Amount	Recovery	
n-Tricosane		93.5	mg/Kg	1	100	94	70 - 130

Sample: 237996 - SW1

Laboratory: Midland

Analysis: TPH GRO QC Batch: 71884 Prep Batch: 61608 Analytical Method: S 8015 D Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.64	mg/Kg	1	2.00	82	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.57	mg/Kg	1	2.00	78	42 - 159

Sample: 237997 - SW2

Laboratory: Midland

Analysis: BTEX QC Batch: 71883 Prep Batch: 61608 Analytical Method: S 8021B
Date Analyzed: 2010-07-19
Sample Preparation: 2010-07-19

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

RLParameter Flag Result Units Dilution RLBenzene < 0.0200 mg/Kg 0.0200 Toluene mg/Kg 1 < 0.02000.0200 Ethylbenzene < 0.0200 mg/Kg 1 0.0200Xylene < 0.0200 mg/Kg 1 0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.62	mg/Kg	1	2.00	81	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	38.4 - 157

114-6400595

Work Order: 10071915

LSAU #25

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Lea County, NM

Sample: 237997 - SW2

Laboratory:

Midland

Analysis: QC Batch: Chloride (Titration)

71893 Prep Batch: 61617 Analytical Method: Date Analyzed:

SM 4500-Cl B

2010-07-20

Prep Method: N/A Analyzed By:

AR

Sample Preparation:

2010-07-20

Prepared By: AR

RL

Parameter Chloride

Flag

Result <400

Units mg/Kg Dilution 100 RL

4.00

Sample: 237997 - SW2

Laboratory:

Midland

Analysis:

TPH DRO - NEW

QC Batch: 71872 Analytical Method:

S 8015 D 2010-07-19

Prep Method: N/AAnalyzed By: kg

Prep Batch:

61591

Date Analyzed: Sample Preparation: 2010-07-19

Prepared By: kg

RL

Parameter Flag DRO

Result < 50.0

Units mg/Kg Dilution

RL50.0

Flag

Recovery

Spike Surrogate Result Units Dilution Amount n-Tricosane 87.7 mg/Kg 100 1

Percent Recovery 88

Limits 70 - 130

Sample: 237997 - SW2

Laboratory:

Midland

Analysis: QC Batch: TPH GRO 71884

Analytical Method: Date Analyzed:

Flag

S 8015 D

2010-07-19

Prep Method: S 5035 Analyzed By:

Prep Batch:

61608

Sample Preparation:

2010-07-19

AG Prepared By: AG

RL

Parameter

Result < 2.00 Units

Dilution

Flag

GRO

mg/Kg

2.00

2.00

RL

Surrogate

Result Units

1

Percent Spike

Recovery

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

1.86 1.76

mg/Kg mg/Kg Dilution Amount 2.00 1

Recovery 93 88

Limits 48.5 - 152 42 - 159

114-6400595

Work Order: 10071915

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Lea County, NM

AG

Sample: 237998 - SW3

Laboratory: Midland

Analysis: BTEX QC Batch: 71883 Prep Batch: 61608

Analytical Method: S 8021B Date Analyzed:

2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035 Analyzed By: AG

Prepared By:

RL

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.13	mg/Kg	1	2.00	106	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.14	mg/Kg	1	2.00	107	38.4 - 157

Sample: 237998 - SW3

Laboratory: Midland

Prep Batch: 61617

Analysis: Chloride (Titration) QC Batch: 71893

Analytical Method: SM 4500-Cl B Date Analyzed: 2010-07-20 Sample Preparation: 2010-07-20

Prep Method: N/AAnalyzed By: AR AR Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 237998 - SW3

Laboratory: Midland

Prep Batch: 61591

TPH DRO - NEW Analysis: QC Batch: 71872

Analytical Method: S 8015 D Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: N/A Analyzed By: kg Prepared By: kg

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		88.9	mg/Kg	1	100	89	70 - 130

114-6400595

Work Order: 10071915

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Lea County, NM

Sample: 237998 - SW3

Laboratory:

Midland

Analysis: QC Batch:

Prep Batch: 61608

TPH GRO 71884

Analytical Method:

S 8015 D

2010-07-19

Prep Method: S 5035

Analyzed By: AG

Date Analyzed: Sample Preparation:

2010-07-19

Prepared By: AG

RL

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.41	mg/Kg	1	2.00	120	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.31	mg/Kg	1	2.00	116	42 - 159

Sample: 237999 - SW4

Laboratory: Midland

Analysis: QC Batch:

Prep Batch: 61608

BTEX 71883

Analytical Method: Date Analyzed:

S 8021B

2010-07-19

Prep Method: S 5035

Analyzed By: Prepared By:

AG AG

RL

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

Sample Preparation: 2010-07-19

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.44	mg/Kg	1	2.00	72	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	38.4 - 157

Sample: 237999 - SW4

Laboratory:

Midland

Chloride (Titration) Analysis:

Analytical Method:

SM 4500-Cl B

Prep Method: N/A Analyzed By: AR

QC Batch: 71893 Prep Batch: 61617

Date Analyzed: Sample Preparation:

2010-07-20 2010-07-20

Prepared By: AR

Parameter	Flag	Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

114-6400595

Work Order: 10071915

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Lea County, NM

Sample: 237999 - SW4

Laboratory: Analysis:

Midland

TPH DRO - NEW

QC Batch: Prep Batch: 61591

71872

Analytical Method: Date Analyzed:

S 8015 D

2010-07-19

2010-07-19

Prep Method: Analyzed By:

kg Prepared By: kg

Sample Preparation:

RL

Parameter Flag

Result Units mg/Kg Dilution RL

DRO < 50.0

Percent Recovery

Surrogate Flag n-Tricosane

Units Dilution mg/Kg 1

Spike Amount Recovery 100 89

Limits 70 - 130

N/A

50.0

Sample: 237999 - SW4

Laboratory:

Midland

Analysis: QC Batch: TPH GRO 71884

Analytical Method: Date Analyzed: Prep Batch: 61608

Result

89.3

S 8015 D

2010-07-19

Prep Method: S 5035

Analyzed By: AG

Sample Preparation:

2010-07-19

Prepared By: AG

RL

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.64	mg/Kg	1	2.00	82	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.58	mg/Kg	1	2.00	79	42 - 159

Sample: 238000 - SW5

Laboratory: Midland

Analysis: BTEX QC Batch: 71883

Analytical Method:

S 8021B

2010-07-19

Prep Method: S 5035

Date Analyzed: Prep Batch: 61608 Sample Preparation:

2010-07-19

AG Analyzed By: Prepared By: AG

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

114-6400595

Work Order: 10071915

LSAU #25

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Lea County, NM

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.24	mg/Kg	1	2.00	62	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.24	mg/Kg	1	2.00	62	38.4 - 157

Sample: 238000 - SW5

Laboratory:

Midland

Analysis:

Chloride (Titration)

QC Batch:

71893

Analytical Method: Date Analyzed:

SM 4500-Cl B

2010-07-20

Prep Method: N/A

Analyzed By: AR

Prep Batch: 61617

Sample Preparation:

2010-07-20

Prepared By:

AR

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		<400	mg/Kg	100	4.00

Sample: 238000 - SW5

Laboratory: Midland

Analysis:

TPH DRO - NEW

QC Batch:

71872

Prep Batch: 61591

Analytical Method: Date Analyzed:

S 8015 D

2010-07-19 2010-07-19 Prep Method: N/A

Analyzed By: kg

Prepared By: kg

RL

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

Sample Preparation:

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery
n-Tricosane		89.8	mg/Kg	1	100	90	70 - 130

Sample: 238000 - SW5

Laboratory:

Midland

Analysis: QC Batch:

TPH GRO

71884 Prep Batch: 61608 Analytical Method:

S 8015 D 2010-07-19 Prep Method: S 5035

Analyzed By: AG

AG

Date Analyzed: Sample Preparation: 2010-07-19 Prepared By:

RL

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

114-6400595

Work Order: 10071915

LSAU #25

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.42	mg/Kg	1	2.00	71	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	1	2.00	68	42 - 159

Sample: 238001 - SW6

Laboratory: Midland

Analysis: BTEX 71883 QC Batch: Prep Batch: 61608

Analytical Method:

S 8021B Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035

Analyzed By: AG Prepared By: AG

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

Spike Percent Recovery Surrogate Flag Result Units Dilution Limits Amount Recovery Trifluorotoluene (TFT) 1.23 52.8 - 137 mg/Kg 1 2.00 62 4-Bromofluorobenzene (4-BFB) 1.25 mg/Kg 1 2.00 62 38.4 - 157

Sample: 238001 - SW6

Laboratory: Midland

Analysis: Chloride (Titration) QC Batch: 71893 Prep Batch: 61617

Analytical Method: Date Analyzed:

SM 4500-Cl B 2010-07-20

2010-07-20

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

RL RL Parameter Flag Result Units Dilution 4.00 Chloride < 200 mg/Kg 50

Sample Preparation:

Sample: 238001 - SW6

Laboratory: Midland

Analysis: TPH DRO - NEW QC Batch: 71872 Prep Batch: 61591

Analytical Method: S 8015 D 2010-07-19 Date Analyzed: Sample Preparation: 2010-07-19

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

Report Date: July 20, 2010 114-6400595

Work Order: 10071915 LSAU #25 Page Number: 12 of 30 Lea County, NM

			RL				
Parameter	F	lag	Result	Un	its	Dilution	RL
DRO			< 50.0	mg/l	Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		89.8	mg/Kg	1	100	90	70 - 130

Sample: 238001 - SW6

Laboratory: Midland

Analysis: TPH GRO QC Batch: 71884 Prep Batch: 61608 Analytical Method: S 8015 D Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19

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

		RL				
Parameter	Flag	Result	Units	Ι	Dilution	RL
GRO		< 2.00	mg/Kg		1	2.00
				Cnileo	Dorgont	Posovory

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.40	mg/Kg	1	2.00	70	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	2.00	67	42 - 159

Sample: 238002 - SW7

Laboratory: Midland

Analysis: BTEX QC Batch: 71883 Prep Batch: 61608 Analytical Method: S 8021B
Date Analyzed: 2010-07-19
Sample Preparation: 2010-07-19

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.40	mg/Kg	1	2.00	70	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.44	mg/Kg	1	2.00	72	38.4 - 157

114-6400595

Work Order: 10071915

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Lea County, NM

Sample: 238002 - SW7

Laboratory:

Midland

Analysis: QC Batch: Chloride (Titration)

Flag

Analytical Method: Date Analyzed:

SM 4500-Cl B

Prep Method: Analyzed By:

N/AAR

Prep Batch:

71893 61617

Sample Preparation: 2010-07-20

2010-07-20

Prepared By: AR

RL

Parameter Chloride

Result 484

Units mg/Kg Dilution

50

RL

4.00

Sample: 238002 - SW7

Laboratory:

Midland

Analysis:

TPH DRO - NEW

71872

Analytical Method:

S 8015 D 2010-07-19 Prep Method:

N/A Analyzed By: kg

QC Batch: Prep Batch:

61591

Date Analyzed: Sample Preparation:

2010-07-19

Prepared By: kg

RL

Parameter Flag Result < 50.0

Units

Dilution

RL

DRO

mg/Kg

50.0 Recovery

Surrogate n-Tricosane

Result Flag 91.8

Units Dilution mg/Kg 1

Spike

Amount

100

Percent Recovery 92

Limits 70 - 130

Sample: 238002 - SW7

Laboratory:

Midland

Analysis: QC Batch: TPH GRO 71884

Analytical Method: Date Analyzed:

S 8015 D 2010-07-19 Prep Method: S 5035 AG Analyzed By:

Prep Batch:

61608

Sample Preparation:

2010-07-19

Prepared By:

Percent

81

78

RL

Result

Units

Dilution

Parameter

< 2.00

GRO

mg/Kg

RL2.00

Recovery

Surrogate

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

Flag

Flag

Result Units 1.62 mg/Kg mg/Kg 1.56

Dilution 1

1

Spike Amount 2.00

2.00

Recovery Limits 48.5 - 152 42 - 159

114-6400595

Work Order: 10071915

LSAU #25

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Lea County, NM

Sample: 238003 - AH-1 0-1'

Laboratory:

Midland

Analysis: QC Batch: Prep Batch:

BTEX 71883 61608

Analytical Method: Date Analyzed:

S 8021B

2010-07-19

Sample Preparation: 2010-07-19 Prep Method: S 5035 AG

Analyzed By: Prepared By: AG

RI

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		2.30	mg/Kg	1	2.00	115	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.28	mg/Kg	1	2.00	114	38.4 - 157

Sample: 238003 - AH-1 0-1'

Laboratory:

Midland

Analysis:

Chloride (Titration)

QC Batch: 71894

Prep Batch: 61618

Analytical Method: Date Analyzed:

SM 4500-Cl B

2010-07-20 Sample Preparation: 2010-07-20 Prep Method: N/A

AR Analyzed By: Prepared By: AR

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 238003 - AH-1 0-1'

Laboratory: Midland

Analysis:

TPH DRO - NEW

QC Batch: 71872 Prep Batch: 61591

Analytical Method: Date Analyzed:

S 8015 D

2010-07-19 Sample Preparation: 2010-07-19 Prep Method: N/A

Analyzed By: kg Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.4	mg/Kg	1	100	91	70 - 130

114-6400595

Work Order: 10071915

LSAU #25

Page Number: 15 of 30 Lea County, NM

Sample: 238003 - AH-1 0-1'

Laboratory: Analysis:

Midland TPH GRO

Analytical Method: 71884 Date Analyzed:

S 8015 D

2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035

Analyzed By: AGPrepared By: AG

QC Batch: Prep Batch: 61608

RL

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.60	mg/Kg	1	2.00	130	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.44	mg/Kg	1	2.00	122	42 - 159

Sample: 238004 - AH-2 0-1'

Laboratory:

Midland

Analysis: BTEX QC Batch: 71883 Prep Batch: 61608

Analytical Method:

Date Analyzed:

S 8021B 2010-07-19 Prep Method: S 5035 Analyzed By:

AG Prepared By: AG

RI

		161			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0200	mg/Kg	1	0.0200
Toluene		< 0.0200	mg/Kg	1	0.0200
Ethylbenzene		< 0.0200	mg/Kg	1	0.0200
Xylene		< 0.0200	mg/Kg	1	0.0200

Sample Preparation: 2010-07-19

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.47	mg/Kg	1	2.00	74	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.53	mg/Kg	1	2.00	76	38.4 - 157

Sample: 238004 - AH-2 0-1'

Laboratory: Midland

Prep Batch: 61618

QC Batch:

Chloride (Titration) Analysis: 71894

Analytical Method: Date Analyzed:

SM 4500-Cl B 2010-07-20

2010-07-20

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

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample Preparation:

114-6400595

Work Order: 10071915

LSAU #25

Page Number: 16 of 30 Lea County, NM

Sample: 238004 - AH-2 0-1'

Laboratory:

Midland

Analysis:

TPH DRO - NEW

QC Batch: Prep Batch:

71872 61591

Analytical Method:

S 8015 D

Date Analyzed:

2010-07-19

Prep Method: N/AAnalyzed By:

kg

RL

Parameter

2010-07-19

Prepared By:

Flag Result Units Dilution RLDRO < 50.0 50.0 mg/Kg

Sample Preparation:

Spike Percent Recovery Result Units Surrogate Flag Dilution Amount Recovery Limits n-Tricosane 93.5 mg/Kg 1 100 94 70 - 130

Sample: 238004 - AH-2 0-1'

Laboratory:

Prep Batch:

Midland

61608

Analysis: QC Batch: 71884

TPH GRO Analytical Method: Date Analyzed:

S 8015 D

2010-07-19 2010-07-19 Prep Method: S 5035

AG Analyzed By: Prepared By: AG

RL

Sample Preparation:

Result Parameter Flag Units Dilution RLGRO < 2.00 2.00 mg/Kg 1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.68	mg/Kg	1	2.00	84	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	42 - 159

Sample: 238005 - AH-3 0-1'

Laboratory: Midland

Analysis:

QC Batch:

BTEX 71883 61608 Prep Batch:

Analytical Method: Date Analyzed:

S 8021B 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035 Analyzed By: AG

Prepared By: AG

		1011			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0200	mg/Kg	1	0.0200
Toluene		< 0.0200	mg/Kg	1	0.0200
Ethylbenzene		< 0.0200	mg/Kg	1	0.0200
Xylene		< 0.0200	mg/Kg	1	0.0200

114-6400595

Work Order: 10071915

LSAU #25

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Lea County, NM

				×	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.69	mg/Kg	1	2.00	84	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	38.4 - 157

Sample: 238005 - AH-3 0-1'

Laboratory:

Midland

Analysis:

Chloride (Titration)

QC Batch: Prep Batch: 61618

71894

Analytical Method: Date Analyzed:

Sample Preparation:

SM 4500-Cl B

2010-07-20 2010-07-20

Analyzed By: AR

Prep Method: N/A AR

Dilution

50

Prepared By:

RL

Parameter Flag Result Chloride <200 Units

RL4.00

Sample: 238005 - AH-3 0-1'

Laboratory:

Midland

Analysis:

TPH DRO - NEW

QC Batch:

Prep Batch: 61591

71872

Analytical Method:

Date Analyzed:

S 8015 D

mg/Kg

2010-07-19 2010-07-19

N/A Prep Method:

Analyzed By: kg

Prepared By: kg

RL

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

Sample Preparation:

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		96.3	mg/Kg	1	100	96	70 - 130

Sample: 238005 - AH-3 0-1'

Laboratory:

Midland

Analysis: QC Batch:

Prep Batch: 61608

TPH GRO

71884

Analytical Method: Date Analyzed:

Sample Preparation:

S 8015 D

2010-07-19 2010-07-19

Prep Method: S 5035

AG

Analyzed By: Prepared By:

AG

RL

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

114-6400595

Work Order: 10071915

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Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	42 - 159

Sample: 238006 - AH-3 1-1.5'

Laboratory: Midland

Analysis: BTEX QC Batch: 71883 Prep Batch: 61608

Analytical Method: Date Analyzed:

S 8021B 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035

Analyzed By: AG Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.61	mg/Kg	1	2.00	80	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	38.4 - 157

Sample: 238006 - AH-3 1-1.5'

Laboratory: Midland

Analysis: Chloride (Titration) QC Batch: 71894 Prep Batch: 61618

Analytical Method: Date Analyzed:

<200

SM 4500-Cl B 2010-07-20

Units

mg/Kg

Prep Method: N/A Analyzed By: AR

Flag Result Parameter

Sample Preparation: 2010-07-20 RL

Prepared By: AR

RL

4.00

Dilution

50

Sample: 238006 - AH-3 1-1.5'

Laboratory: Midland

Chloride

TPH DRO - NEW Analysis: QC Batch: 71872 Prep Batch: 61591

Analytical Method: S 8015 D Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19

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

114-6400595

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Parameter				Units		Dilution	RL
DRO			Kg	1	50.0		
_	_				Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		93.5	mg/Kg	1	100	94	70 - 130

Sample: 238006 - AH-3 1-1.5'

Laboratory: Midland

TPH GRO

Analysis: QC Batch:

71884 Prep Batch: 61608 Analytical Method:

Date Analyzed:

S 8015 D 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035

Analyzed By: AGPrepared By: AG

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	42 - 159

Sample: 238007 - AH-4 0-1'

Laboratory:

Midland

Analysis: 71883 QC Batch:

Prep Batch: 61608

BTEX

Analytical Method: S 8021B Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035 Analyzed By: AG Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.13	mg/Kg	1	2.00	56	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.16	mg/Kg	1	2.00	58	38.4 - 157

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Prep Method:

Lea County, NM

Sample: 238007 - AH-4 0-1'

Laboratory:

Midland

Analysis: QC Batch: Chloride (Titration)

71894 Prep Batch: 61618 Analytical Method: Date Analyzed:

Sample Preparation:

SM 4500-Cl B 2010-07-20

2010-07-20

Analyzed By: Prepared By:

RL

Parameter Chloride

Flag

Result <200

Units mg/Kg Dilution 50 RL

4.00

N/A

AR

AR

Sample: 238007 - AH-4 0-1'

Laboratory:

Midland

Analysis: QC Batch: TPH DRO - NEW

71872 61591

Analytical Method: Date Analyzed:

S 8015 D 2010-07-19 Prep Method: N/A Analyzed By: kg

Prep Batch:

Sample Preparation:

2010-07-19

Prepared By: kg

RL

Parameter Flag DRO

Result < 50.0

Units mg/Kg Dilution 1

RL50.0

Recovery

Limits

70 - 130

				01	-0	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery
n-Tricosane		94.7	mg/Kg	1	100	95

Sample: 238007 - AH-4 0-1'

Laboratory:

Midland

Analysis:

TPH GRO

QC Batch: 71884 Prep Batch: 61608 Analytical Method: Date Analyzed:

S 8015 D

2010-07-19 Sample Preparation: 2010-07-19 Prep Method: S 5035

AG Analyzed By: Prepared By: AG

RL

Parameter Result Units Dilution RLFlag < 2.00 2.00 GRO mg/Kg

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.28	mg/Kg	1	2.00	64	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.26	mg/Kg	1	2.00	63	42 - 159

114-6400595

Work Order: 10071915

LSAU #25

Page Number: 21 of 30 Lea County, NM

Sample: 238008 - AH-5 0-6 in.

Laboratory: Midland

Analysis: BTEX QC Batch: 71883 Prep Batch: 61608

Analytical Method: Date Analyzed:

S 8021B 2010-07-19 Sample Preparation: 2010-07-19

Prep Method: S 5035 Analyzed By: AG

AG

Prepared By:

RI

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.58	mg/Kg	1	2.00	79	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	38.4 - 157

Sample: 238008 - AH-5 0-6 in.

Laboratory: Midland

Analysis: QC Batch:

Chloride (Titration)

71894 Prep Batch: 61618 Analytical Method: Date Analyzed:

Sample Preparation:

SM 4500-Cl B 2010-07-20 2010-07-20

Prep Method: N/A Analyzed By: AR

Prepared By: AR

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 238008 - AH-5 0-6 in.

Laboratory: Midland

Analysis: TPH DRO - NEW QC Batch: 71872 Prep Batch: 61591

Analytical Method:

S 8015 D Date Analyzed: 2010-07-19 Sample Preparation: 2010-07-19 Prep Method: N/A Analyzed By: kg

kg

Prepared By:

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

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Tricosane		97.4	mg/Kg	1	100	97	70 - 130

114-6400595

Work Order: 10071915

LSAU #25

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Lea County, NM

Sample: 238008 - AH-5 0-6 in.

Laboratory:

Midland

Analysis: QC Batch:

Prep Batch: 61608

TPH GRO 71884

Analytical Method:

Sample Preparation:

S 8015 D

Date Analyzed:

2010-07-19 2010-07-19 Prep Method: S 5035

Analyzed By: AG Prepared By: AG

RL

Parameter Result Flag Dilution RLUnits GRO < 2.00 2.00 mg/Kg 1

Comments	T21	D 1	TT **	D:1 .:	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.80	mg/Kg	1	2.00	90	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	42 - 159

Method Blank (1)

QC Batch: 71872

QC Batch: 71872 Prep Batch: 61591

Date Analyzed: 2010-07-19 QC Preparation: 2010-07-19 Analyzed By: kg

Prepared By:

MDL

Parameter Flag Result Units RLDRO <14.5 mg/Kg 50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.3	mg/Kg	1	100	91	70 - 130

Method Blank (1)

QC Batch: 71883

QC Batch: Prep Batch: 61608

71883

Date Analyzed:

2010-07-19 QC Preparation: 2010-07-19 Analyzed By: AG Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.26	mg/Kg	1	2.00	113	66.6 - 122
4-Bromofluorobenzene (4-BFB)		2.26	mg/Kg	1	2.00	113	55.4 - 132

114-6400595

Work Order: 10071915

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Method Blank (1)

QC Batch: 71884

QC Batch: Prep Batch:

71884 61608 Date Analyzed: QC Preparation: 2010-07-19

2010-07-19

Analyzed By: AGPrepared By: AG

MDL

Parameter Flag GRO

Result < 1.65

Units mg/Kg RL2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.61	mg/Kg	1	2.00	130	67.6 - 150
4-Bromofluorobenzene (4-BFB)		2.46	mg/Kg	1	2.00	123	52.4 - 130

Method Blank (1)

QC Batch: 71893

QC Batch: 71893 Prep Batch: 61617

Date Analyzed:

2010-07-20

Analyzed By: AR

Prepared By: AR

MDL

Parameter Flag Result Units RLChloride < 2.18 mg/Kg 4

QC Preparation: 2010-07-20

Method Blank (1)

QC Batch: 71894

QC Batch: Prep Batch: 61618

71894

Date Analyzed:

2010-07-20 QC Preparation: 2010-07-20 Analyzed By: AR

Prepared By: AR

MDL

Units RLParameter Flag Result Chloride < 2.18 mg/Kg

Laboratory Control Spike (LCS-1)

QC Batch:

71872 Prep Batch: 61591

Date Analyzed:

QC Preparation:

2010-07-19

2010-07-19

Analyzed By: kg

Prepared By: kg

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	215	mg/Kg	1	250	<14.5	86	57.4 - 133.4

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

114-6400595

Work Order: 10071915

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Lea County, NM

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	226	mg/Kg	1	250	<14.5	90	57.4 - 133.4	5	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Tricosane	92.0	94.5	mg/Kg	1	100	92	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:

Param

Benzene

Toluene

71883

Date Analyzed:

Units

mg/Kg

mg/Kg

2010-07-19

Dil.

1

1

Spike

Amount

2.00

2.00

Analyzed By: AG Prepared By: AG

Prep Batch: 61608 QC Preparation: 2010-07-19

LCS

Result

2.06

2.09

Matrix Rec. Result Limit Rec. < 0.0150 103 81.9 - 108 81.9 - 107 < 0.00950 104

78.4 - 107

79.1 - 107

2.06 Ethylbenzene mg/Kg 1 2.00 < 0.0106 103 6.23 Xylene mg/Kg 1 6.00 < 0.00930 104 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	2.00	mg/Kg	1	2.00	< 0.0150	100	81.9 - 108	3	20
Toluene	2.02	mg/Kg	1	2.00	< 0.00950	101	81.9 - 107	3	20
Ethylbenzene	1.99	mg/Kg	1	2.00	< 0.0106	100	78.4 - 107	3	20
Xylene	6.02	mg/Kg	1	6.00	< 0.00930	100	79.1 - 107	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.27	2.06	mg/Kg	1	2.00	114	103	70.2 - 114
4-Bromofluorobenzene (4-BFB)	2.32	2.06	mg/Kg	1	2.00	116	103	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch:

71884

Prep Batch: 61608

Date Analyzed:

2010-07-19

QC Preparation: 2010-07-19 Analyzed By: AG

Prepared By: AG

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	15.8	mg/Kg	1	20.0	< 1.65	79	69.9 - 95.4

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

114-6400595

Work Order: 10071915

LSAU #25

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	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	16.2	mg/Kg	1	20.0	< 1.65	81	69.9 - 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.	Limit
Trifluorotoluene (TFT)	2.52	2.59	mg/Kg	1	2.00	126	130	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.39	2.51	mg/Kg	1	2.00	120	126	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch:

71893 Prep Batch: 61617

Date Analyzed: QC Preparation:

2010-07-20 2010-07-20 Analyzed By: AR Prepared By: AR

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride	97.9	mg/Kg	1	100	< 2.18	98	85 - 115

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 61618

71894

Date Analyzed: QC Preparation:

2010-07-20 2010-07-20 Analyzed By: AR Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.9	mg/Kg	1	100	<2.18	98	85 - 115

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115	3	20

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

Matrix Spike (MS-1) Spiked Sample: 238016

QC Batch: 71872 Prep Batch: 61591

Date Analyzed: 2010-07-19 QC Preparation: 2010-07-19

Analyzed By: kg Prepared By: kg

114-6400595

Work Order: 10071915

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Lea County, NM

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	224	mg/Kg	1	250	<14.5	90	35.2 - 167.1

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	232	mg/Kg	1	250	<14.5	93	35.2 - 167.1	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
n-Tricosane	98.9	97.9	mg/Kg	1	100	99	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 238005

QC Batch: 71883 Prep Batch: 61608

Date Analyzed:

2010-07-19 QC Preparation: 2010-07-19 Analyzed By: AG

Prepared By:

Param	$rac{ ext{MS}}{ ext{Result}}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.04	mg/Kg	1	2.00	< 0.0150	102	80.5 - 112
Toluene	2.10	mg/Kg	1	2.00	< 0.00950	105	82.4 - 113
Ethylbenzene	2.16	mg/Kg	1	2.00	< 0.0106	108	83.9 - 114
Xylene	6.49	mg/Kg	1	6.00	< 0.00930	108	84 - 114

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene		2.21	mg/Kg	1	2.00	< 0.0150	110	80.5 - 112	8	20
Toluene	1	2.27	mg/Kg	1	2.00	< 0.00950	114	82.4 - 113	8	20
Ethylbenzene	2	2.35	mg/Kg	1	2.00	< 0.0106	118	83.9 - 114	8	20
Xylene	3	7.08	mg/Kg	1	6.00	< 0.00930	118	84 - 114	9	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.22	1.67	mg/Kg	1	2	61	84	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.28	1.74	mg/Kg	1	2	64	87	35.5 - 129

¹MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

²MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly. ³MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occurred properly.

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Spiked Sample: 238016 Matrix Spike (MS-1)

QC Batch:

71884 Prep Batch: 61608

Date Analyzed:

2010-07-19

QC Preparation: 2010-07-19

Analyzed By: AG Prepared By: AG

MS Spike Matrix Rec. Result Param Units Dil. Amount Result Rec. Limit GRO 15.3 61.8 - 114 mg/Kg 1 20.0 < 1.65 76

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

MSD RPD Spike Matrix Rec. Result Units Dil. RPD Param Amount Result Rec. Limit Limit GRO 16.1 mg/Kg 20.0 < 1.65 80 61.8 - 114 5 20 1

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

MS **MSD** Spike MS **MSD** Rec. Limit Surrogate Result Result Units Dil. Rec. Rec. Amount Trifluorotoluene (TFT) 50 - 162 1.79 1.91 mg/Kg 1 2 90 96 4-Bromofluorobenzene (4-BFB) 1.81 1.92 mg/Kg 1 2 90 96 50 - 162

Matrix Spike (MS-1) Spiked Sample: 238002

QC Batch:

71893 Prep Batch: 61617 Date Analyzed:

QC Preparation:

2010-07-20 2010-07-20

Analyzed By: AR Prepared By: AR

MS Spike Matrix Rec. Param Result Units Dil. Result Limit Amount Rec. 10800 Chloride mg/Kg 100 10000 484 103 85 - 115

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

RPD MSD Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit RPD Limit 11100 20 Chloride mg/Kg 100 10000 484 106 85 - 115 3

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

Matrix Spike (MS-1) Spiked Sample: 238013

QC Batch: 71894 Prep Batch: 61618

Date Analyzed: 2010-07-20

QC Preparation: 2010-07-20

Analyzed By: AR Prepared By: AR

MS Rec. Spike Matrix Result Result Limit Param Units Dil. Amount Rec. Chloride 10000 mg/Kg 100 10000 <218 100 85 - 115

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

114-6400595

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Lea County, NM

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	10400	mg/Kg	100	10000	<218	104	85 - 115	4	20

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

Standard (CCV-1)

QC Batch: 71872

Date Analyzed: 2010-07-19

Analyzed By: kg

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	205	82	80 - 120	2010-07-19

Standard (CCV-2)

QC Batch: 71872

Date Analyzed: 2010-07-19

Analyzed By: kg

			$rac{ ext{CCVs}}{ ext{True}}$	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	248	99	80 - 120	2010-07-19

Standard (CCV-3)

QC Batch: 71872

Date Analyzed: 2010-07-19

Analyzed By: kg

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	253	101	80 - 120	2010-07-19

Standard (CCV-1)

QC Batch: 71883

Date Analyzed: 2010-07-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0946	95	80 - 120	2010-07-19
Toluene		mg/Kg	0.100	0.0975	98	80 - 120	2010-07-19
Ethylbenzene		mg/Kg	0.100	0.0978	98	80 - 120	2010-07-19
Xylene		mg/Kg	0.300	0.298	99	80 - 120	2010-07-19

114-6400595

Work Order: 10071915

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Standard (CCV-2)

QC Batch: 71883

Date Analyzed: 2010-07-19

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.102	102	80 - 120	2010-07-19
Toluene		mg/Kg	0.100	0.103	103	80 - 120	2010-07-19
Ethylbenzene		mg/Kg	0.100	0.102	102	80 - 120	2010-07-19
Xylene		mg/Kg	0.300	0.307	102	80 - 120	2010-07-19

Standard (CCV-3)

QC Batch: 71883

Date Analyzed: 2010-07-19

Analyzed By: AG

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0997	100	80 - 120	2010-07-19
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2010-07-19
Ethylbenzene		mg/Kg	0.100	0.0992	99	80 - 120	2010-07-19
Xylene		mg/Kg	0.300	0.300	100	80 - 120	2010-07-19

Standard (CCV-1)

QC Batch: 71884

Date Analyzed: 2010-07-19

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	Data
Param	Flag	Units	True Conc.	Found Conc.	Percent Recovery	Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.10	110	80 - 120	2010-07-19

Standard (CCV-2)

QC Batch: 71884

Date Analyzed: 2010-07-19

Analyzed By: AG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.993	99	80 - 120	2010-07-19

Standard (CCV-3)

QC Batch: 71884

Date Analyzed: 2010-07-19

Analyzed By: AG

114 - 6400595

Work Order: 10071915

LSAU #25

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Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.980	98	80 - 120	2010-07-19

Standard (ICV-1)

QC Batch: 71893

Date Analyzed: 2010-07-20

Analyzed By: AR

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-07-20

Standard (CCV-1)

QC Batch: 71893

Date Analyzed: 2010-07-20

Analyzed By: AR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride	12/1/8	mg/Kg	100	99.1	99	85 - 115	2010-07-20

Standard (ICV-1)

QC Batch: 71894

Date Analyzed: 2010-07-20

Analyzed By: AR

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	98.9	99	85 - 115	2010-07-20

Standard (CCV-1)

QC Batch: 71894

Date Analyzed: 2010-07-20

Analyzed By: AR

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-07-20

Authorized: Major Aniona/Cations, pH, TDS e. Les & Mid la 11 of letter Tech - Project Manager retains Pink copy - Accounting receives Gold copy. AIRBILL #: PLM (Asbestos) OTHER (Circle or Specify Method No.) (niA) sted sriqiA ANALYSIS REQUEST × PAGE: PCB's 8080/608 Taverre GC.MS Semi. Vol. 8270/625 SAMPLE SHIPPED BY: (Circle) FEDEX BUS GC'W2 AOI' 8540/8560/654 SAMPLED BY: (Print & Initial HAND DELIVERED TCLP Semi Volatiles The Metals Ag As Ba Cd Vr Pd Hg Se Is Ag As Ba Cd Cr Pb Hg Se DOM BIOB Hall TX1005 × BTEX 8021 PRESERVATIVE HONE METHOD **Custody Record** 5 ~ × × ICE HINO3 HCF FILTERED (Y/N) TIME NUMBER OF CONTAINERS (432) 682-4559 • Fax (432) 682-3946 RECEIVED BY: (Signature RECEIVED BY: (Signature) SAMPLE IDENTIFICATION *PETRATECH* o 910 N. Big Spring St. Midland, Texas 79705 I've Tavarez Request of Chain 1-0 1-0 5W 4 5005 SW 6 DATE 5W3 527 5W2 3 Order #1, 10071915 SITE MANAGER: 25 AH-2 # ZIP: PROJECT NAME: Time: Date: PHONE × X BARD × × × COMP 5 S S S XIRTAM S S V S V SAMPLE CONDITION WHEN RECEIVED: TIME المكر Analysis 14-640059 RELINQUISMED BY: (Signature) 0108 RECEIVING LABORATORY: DATE ADDRESS! A. d. land 7/15 PROJECT NO.: CLIENT NAME: S°C 23000 400 933-996 LAB I.D. NUMBER 500 COD 80 999 TO B 00 CONTACT

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