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PRELIMINARY SITE INVESTIGATION REPORT and REMEDIATION PLAN

PLAINS MARKETING, L.P. (231735) Vacuum Sour 4-Inch Trap Lea County, New Mexico Plains SRS # 2007-233 UNIT J (NW/SE), Section 33, Township 17 South, Range 35 East Latitude 32°, 47', 17.3" North, Longitude 103°, 27', 33.9" West NMOCD File Number: 1RP-1501

Prepared For:



Plains Marketing, L.P. 333 Clay Street Suite 1600 Houston, Texas 77002

Prepared By: Basin Environmental Service Technologies, L

03 October 2007

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Ken Dutton Basin Environmental Service Technologies, LLC

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INTRODUCTION

Basin Environmental Service Technologies, LLC (Basin), responded to a crude oil release for Plains Marketing, L.P. (Plains), located at the idled Vacuum Sour 4-Inch Trap on 20 July 2007. The idled Vacuum Sour 4-Inch Trap crude oil release was contained by Plains operations personnel by cold cutting and capping the receiver trap line. Basin initiated excavation of the impacted soil which was stockpiled adjacent to the excavation on a 6-ml poly-liner. The idled Vacuum Sour 4-Inch Trap is located on land owned by the State of New Mexico.

This site is located in Unit J (NW¼/SE¼) Section 33, Township 17 South, Range 33 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The site latitude is 32°, 47, 17.3 North and site longitude is 103°, 27, 33.9 West. The site is characterized by a pipeline right-of-way in a pasture utilized for cattle grazing with numerous crude oil and natural gas producing facilities in the vicinity. The initial visible surface stained area includes the release point and flow path area covering an area approximately 80 feet long by 20 feet wide. A total of 30 barrels of crude oil were estimated to have been released from the crude oil receiver trap and 0 barrels were recovered.

An Emergency One-Call was initiated 20 July 2007 and all responding companies either cleared or marked their respective lines. Subsequent renewals of the one-call have been accomplished as required.

Ms. Pat Richards, New Mexico Oil Conservation Division (NMOCD), Hobbs, New Mexico District 1, was verbally notified of the release on 20 July 2007. A C-141 form, dated 26 July 2007 was completed by Plains and submitted to the NMOCD, Hobbs, New Mexico Office (see Appendix C, NMOCD C-141). A request for a Right-of-Entry permit was submitted and subsequently approved by the New Mexico State Land Office (SLO), Santa Fe Office to perform remediation and restoration activities on-site (see Appendix C, SLO ROE-1570, 05 September 2007).

SUMMARY OF FIELD ACTIVITIES

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On 20 July 2007, Basin mobilized to the idled Vacuum Sour 4-Inch Trap responding to a crude oil release for Plains. Plains operations personnel contained the crude oil release by cold cutting and capping the receiver trap line. A pipeline blind was installed at the tie-in valve to ensure there would be no further seepage into the idled Vacuum Sour 4-Inch Trap line. Upon arrival at the release site, Basin initiated excavation of the release point and flow path area with the impacted soil stockpiled on a 6-mil poly liner adjacent to the excavation for future remedial action. The final dimensions of the excavated area are approximately 140 feet long by 50 feet wide and approximately 15 feet below ground surface (bgs) (See Figure 2, Excavation Site Map). Approximately 3800 cubic yards of impacted soil has been stockpiled on-site commensurate remediation activities. On 17 September 2007, five (5) confirmation soil samples were collected from the floor and walls of the excavation ranging in depth from approximately 5 to 15 feet bgs.

On 17 September 2007, one (1) soil boring was installed to evaluate the vertical extent of crude oil impact. The soil boring was installed on the excavation floor adjacent to the release point at approximately fifteen (15) feet bgs and soil samples were collected at five (5) feet intervals. The soil boring was installed to a true subsurface depth of approximately 65 feet bgs.

NEW MEXICO OIL CONSERVATION DIVISION (NMOCD) SOIL CLASSIFICATION

A search of the New Mexico State Engineers database revealed the depth to groundwater ranges from a minimum of 50 feet bgs to 90 feet bgs with an average of 63 beet bgs for that section, township and range. During the Installation of Soil Boring 1 (SB-1) to a true subsurface depth of approximately 65 feet bgs, groundwater was not encountered. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of >19, which sets the remediation levels at:

Benzene: 10 ppm

TOTAL BTEX: 50 ppm

TPH: 100 ppm

DISTRIBUTION OF HYDROCARBONS IN THE UNSATURATED ZONE

The final dimensions of the excavation which includes the release point and flow path area are approximately 140 feet long by 50 feet wide and approximately 15 feet bgs. Approximately 3800 cubic yards of impacted soil has been stockpiled on-site commensurate with remediation activities conducted.

On 17 September 2007, five (5) confirmation soil samples were collected from the floor and walls of the excavation ranging in depth from approximately 5 to 15 feet bgs. Soil samples were analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX were not detected above laboratory method detection limits for the north wall, south wall, west wall and east wall soil samples and the excavation floor soil sample reported BTEX concentrations below NMOCD regulatory standards. Laboratory results indicated that constituent concentrations of TPH-GRO/DRO were not detected above laboratory method detection limits for the north wall, west wall and east wall soil samples and the excavation floor soil sample reported by aboratory method detection limits for the north wall, west wall and east wall soil samples and the excavation floor soil sample reported TPH-GRO/DRO were not detected above laboratory method detection floor soil sample reported TPH-GRO/DRO concentrations above NMOCD regulatory standards at 4673 mg/kg.

On 17 September 2007, one (1) soil boring was installed to evaluate the vertical extent of crude oil impact. The soil boring was installed on the excavation floor adjacent to the release point at approximately fifteen (15) feet bgs. Soil samples were collected at five (5) feet intervals and field screened with a Photoionization Detector (PID). The soil boring was installed to a true subsurface depth of approximately 65 feet bgs with no evidence of groundwater being exhibited. Soil samples collected at depths of 10, 20, 30, 35, 40, 45 and 50 feet below the base of the excavation were submitted for analysis. Laboratory results indicated that constituent concentrations of BTEX were reported below NMOCD regulatory standards for the 10, 20 and 30 feet bgs soil samples and were not detected above laboratory method detection limits for the 35, 40, 45 and 50 feet bgs soil samples. Laboratory results indicated that constituent concentrations of TPH-GRO/DRO were reported above NMOCD regulatory standards for the 10, 20, 30 and 35 feet soil samples at 4097 mg/kg, 7512 mg/kg and 4350 mg/kg and 267 mg/kg, respectively. Laboratory results indicated that constituent concentrations of TPH-GRO/DRO were not detected above laboratory method detection limits for the 40, 45 and 50 feet bgs soil samples. Based on the results of the laboratory data, soil impacts appear to be limited to a subsurface depth of less than 55 feet.

RECOMMENDATIONS FOR REMEDIATION

Approximately 3800 cubic yards of impacted soil and caliche rock have been excavated and stockpiled on-site resulting from the emergency response and remediation activities. Approximately 65 to 75% of the excavated material consists of caliche rock. Due to the extremely high content of caliche rock and limited vertical subsurface crude oil impact, Plains proposes to mechanically screen the impacted stockpile material to separate the caliche rock and soil. Upon completion of the screening activities, the caliche rock will be utilized as partial backfill in accordance with standard NMOCD approved practices.

Due to the limited vertical crude oil impact derived from analytical results commensurate with excavation and drilling activities, Plains recommends than an impermeable barrier consisting of a 20-mil poly liner be permanently installed at the base of the excavation to inhibit vertical migration of contaminants in soil left in place below the cap (see Figure 5, Installation Diagram of 20-mil Poly Liner). The barrier will extend to a minimum of three (3) feet beyond the edges of soil impacted above NMOCD remedial thresholds. A 6-inch layer of fine sand will be installed beneath and above the 20-mil poly liner to prevent degrading the integrity of the poly liner. Installation of the 20-mil poly liner at a depth of approximately 15 feet bgs will protect the barrier from erosion and human intrusion for a term sufficient to allow natural attenuation of contaminates in the soil.

Once the installation of the 20-mil poly liner is completed, backfilling of the excavation will be initiated with the mechanically screened caliche rock. Soil samples will be collected from the mechanically screened soil at a rate of one sample per 500 cubic yards to verify constituent concentrations of BTEX and TPH-GRO/DRO are below

NMOCD thresholds of 500 mg/kg prior to the screened soil being utilized as backfill. If laboratory results report that a mechanically screened 500 cubic yard segment exceeds 500 mg/kg TPH-GRO/DRO concentrations, that 500 cubic yard segment will be transported to Lea Station Land Farm (LSLF) and clean backfill material will be transported to the site to be utilized as backfill material. Once backfilling has been completed, the backfilled excavation will be contoured to the original grade surrounding the site.

An approved right-of-entry permit was requested and received from the SLO, dated 05 September 2007. Reseeding activities will be accomplished as stipulated in the proposed SLO Restoration Plan, dated 03 October 2007.

Upon completion of backfilling the excavation, Basin on behalf of Plains, will submit a closure request for NMOCD approval. Basin on behalf of Plains, request approval from NMOCD, Hobbs District I, to implement these proposed final remediation and site closure activities based on the remediation activities conducted at the Vacuum Sour 4-Inch Trap crude oil release site.

QA/QC PROCEDURES

Soil Sampling

Soil samples were delivered to Trace Analysis, Inc., in Midland, Texas for BTEX, TPH-GRO/DRO analyses using the methods described below. Soil samples were analyzed for BTEX, TPH-GRO/DRO within fourteen days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO

Decontamination Of Equipment

Cleaning of the sampling equipment will be the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment will be cleaned with Liqui-Nox[®] detergent and rinsed with distilled water.

Laboratory Protocol

The laboratory will be responsible for proper QA/QC procedures after signing the chain-of-custody form. These procedures will be either transmitted with the laboratory reports or are on file at the laboratory.

LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this Preliminary Investigation Report and Remediation/Closure Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC, has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC, 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. Basin Environmental Service Technologies, LLC, has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC, 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 Marketing, L.P. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and Plains Marketing, L.P.

DISTRIBUTION

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TABLE 1

SOIL CHEMISTRY RESULTS

PLAINS MARKETING, L.P. VACUUM SOUR 4-INCH TRAP LEA COUNTY, NEW MEXICO SRS: 2007-233

SAMPLE	SAMPLE	SAMPLE	SOIL	METHOD: EPA SW 846-8021B, 5030				METHOD: 8015M		TOTAL
LOCATION	DEPTH	DATE	STATUS	BENZENE	TOLUENE	ETHYL-	XYLENE	GRO	DRO	ТРН
	(Below			-		BENZENE				
	normal									
	surface									
	grade)									
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SB-1 10'	15' bgs	09/17/07	In-Situ	<0.050	5.04	10.3	17.2	587	3510	4097
SB-1 20'	35' bgs	09/17/07	In-Situ	0.415	6.44	13.6	22.3	692	6820	7512
SB-1 30'	45' bgs	09/17/07	In-Situ	<0.050	2.20	6.21	11.1	510	3840	4350
SB-1 35'	50' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	16.2	251	267
SB-1 40'	55' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
SB-1 45'	60' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
SB-1 50'	65' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
						a start		angeren.		
N/W 9'	9' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
S/W 9'	9' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
W/W 9'	9' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
E/W 9'	9' bgs	09/17/07	In-Situ	<0.010	<0.010	<0.010	<0.010	<1	<50	<50
Excv Flr 15'	15' bgs	09/17/07	In-Situ	0.484	4.79	5.66	21.7	603	4070	4,673
S/P	N/A	09/17/07	Stockpile	0.338	4.23	6.42	29.1	503	778	1281
NMOCD Criteria				10	T	OTAL BTE	(50			100





























New Mexico Office of the State Engineer POD Reports and Downloads									
Township: 175 Rar	nge: 35E Sections: 33	3							
NAD27 X: Y	Zone:	Search Radius:							
County: Ba	asin:	Number: Suffix:							
Owner Name: (First)	(Last) (Last)	O Non-Domestic O Domestic							
POD / Surface Data Re	oort Avg Depth to Water	Report Water Column Report							
CI	ear Form iWATERS Me	nu Help							
AVERAGE DEPTH OF W Bsn Tws Rng Sec Zone L 17S 35E 33	ATER REPORT 10/05/200 X Y Wells 6	07 (Depth Water in Feet) Min Max Avg 50 90 63							

Record Count: 6



 6701 Aberdeen Avenue, Suite 9
 Lubrock Texas /9424

 203 East Sunset Road, Suite F
 El Poso, Texas 79922

 5002 Basin Street Suite A1
 Midland Texas 79703

 6015 Harns Parkway, Suite 110
 Et Worth Texas 76102

Lubcock Texas 79424 R00+378+1298 El Puso, Texas 79922 688+588+3443 Midland Texas 79703 Et Worth Texas 76102 E-Mail, Tab/@traceanalysis.com

800+378+1298 806+794+1296 888+588+3442 915+535+3443 432+669+6301 817+201+5560

296 FAX 808 • 794 • 1298 443 FAX 915 • 585 • 4944 301 FAX 432 • 689 • 6313 760

Analytical and Quality Control Report

Ken Dutton Basin Environmental Service Tech LLC P.O. Box 301 Lovington, NM, 88260

Report Date: September 25, 2007

Work Order: 7091819

Project Location:Lea County, NMProject Name:VACUUM SOUR 4 INCH TRAPProject Number:SRS: 2007-233

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
136737	SB-1 10'	soil	2007-09-17	10:16	2007-09-18
136738	SB-1 20'	soil	2007-09-17	10:23	2007-09-18
136739	SB-1 30'	soil	2007-09-17	10:27	2007-09-18
136740	SB-1 35'	soil	2007-09-17	10:31	2007-09-18
136741	SB-1 40'	soil	2007-09-17	1():41	2007-09-18
136742	SB-1 45'	soil	2007-09-17	11:17	2007-09-18
136743	SB-1 50'	soil	2007-09-17	11:28	2007-09-18
136744	N/W 9'	soil	2007-09-17	12:05	2007-09-18
136745	S/W 9'	soil	2007-09-17	12:20	2007-09-18
136746	W/W 9'	soil	2007-09-17	12:50	2007-09-18
136747	E/W 9'	soil	2007-09-17	13:15	2007-09-18
136748	Excv Fir 15'	soil	2007-09-17	13:40	2007-09-18
136749	S/P	soil	2007-09-17	13:55	2007-09-18

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

Michael abel

Dr. Blair Leftwich, Director

Standard Flags

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

Sample: 136737 - SB-1 10'

Analytical Report

Analysis:	BTEX		Analytical Method: S 8021B				5 5035		
QC Batch:	41283		Date Analy	zed: 2	007-09-19		Analyze	d By:	
Prep Batch:	35640		Sample Pre	paration: 2	007-09-19		Prepare	d By:	
			R	Ĺ					
Parameter	Flag		Resul	t	Units		Dilution		\mathbf{RL}
Benzene			< 0.050	0	mg/Kg		5	(0.0100
Toluene			5.0^{-1}	4	mg/Kg		5	(0.0100
Ethylbenzen	e		10.	3	mg/Kg		5	(0.0100
Xylene			17.	2	mg/Kg		5		0.0100
						Spike	Percent	Reco	overy
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Lir	nits
Trifluorotolu	ene (TFT)		3.07	mg/Kg	5	5.00	61	39.6	- 116
4-Bromofluor	robenzene (4-BFB)		6.40	mg/Kg	5	5.00	128	47.3 -	144.2
Sample: 13	6737 - SB-1 10'								
Analysis:	Chloride (IC)		Analyt	ical Method:	E 300.0		Prep 1	Method:	N/A
QC Batch:	41432		Date A	nalyzed:	2007-09-24		Analy	zed By:	$\dot{\mathbf{ER}}$
Prep Batch:	35802		Sample	e Preparation	n: 2007-09-24		Prepa	red By:	\mathbf{ER}
			RL						
Parameter	Flag		Result		Units		Dilution		\mathbf{RL}
Chloride			9.62		mg/Kg		5		1.00
Sample: 13	6737 - SB-1 10'								
Analysis:	TPH DRO		Analytica	al Method:	Mod. 8015B		Prep 2	Method:	N/A
OC Batch	41288		Date An:	lyzed	2007-09-20		Analy	zed Bv	

QU Datch:	41288		Date Analyz	z_0	07-09-20	Anai	yzed by:
Prep Batch:	35674		Sample Prep	paration: 20	07-09-20	Prep	ared By:
			\mathbf{RL}				
Parameter	Fla	g	Result		Units	Dilution	\mathbf{RL}
DRO			3510	1	ng/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	e 1	825	mg/Kg	1	150	550	17.3 - 169.6

Sample: 136737 - SB-1 10'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	41290	Date Analyzed:	2007-09-19	Analyzed By:	
Prep Batch:	35640	Sample Preparation:	2007-09-19	Prepared By:	

¹High surrogate recovery due to peak interference.

Parameter I	Flag		RL Result		Units		Dilution	\mathbf{RL}
GRO			587		mg/Kg		5	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			3.40	mg/Kg	5	5.00	68	50.2 - 89.3
4-Bromofluorobenzene (4-B	FB)		5.88	mg/Kg	5	5.00	118	50.8 - 131.6

Sample: 136738 - SB-1 20'

Analysis: QC Batch: Prep Batch:	BTEX 41283 35640		Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-19 2007-09-19	Prep Method Analyzed By: Prepared By:		ethod: S 5035 d By: d By:
			\mathbf{RL}					
Parameter	Flag		Result		Units		Dilution	RL
Benzene			0.415		mg/Kg		5	0.0100
Toluene			6.44		mg/Kg		5	0.0100
Ethylbenzene			13.6		mg/Kg		5	0.0100
Xylene			22.3		mg/Kg		5	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		2.97	mg/Kg	5	5.00	59	39.6 - 116
4-Bromofluor	obenzene (4-BFB)	2	7.40	mg/Kg	5	5.00	148	47.3 - 144.2

Sample: 136738 - SB-1 20'

Analysis:	TPH DRO		Analytical M	lethod: Mo	d. 8015B	Prep	Method: N/A
QC Batch:	41343		Date Analyz	ed: 200	7-09-21	Analy	zed By:
Prep Batch:	35724		Sample Prep	aration: 200	7-09-21	Prepa	ared By:
			\mathbf{RL}		•		
Parameter	Fla	ıg	Result		Units	Dilution	\mathbf{RL}
DRO			6820	m	g/Kg	5	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e 3	706	mg/Kg	5	150	471	17.3 - 169.6

Sample: 136738 - SB-1 20'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	41290	Date Analyzed:	2007-09-19	Analyzed By:	
Prep Batch:	35640	Sample Preparation:	2()()7-()9-19	Prepared By:	
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
GRO		692	mg/Kg	5	1.00

 2 High surrogate recovery due to peak interference. 3 High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3.42	mg/Kg	5	5.00	68	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)	4	7.71	mg/Kg	5	5.00	154	50.8 - 131.6

Sample: 136739 - SB-1 30'

Analysis: QC Batch: Prep Batch:	BTEX 41283 35640			Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-19 2007-09-19	Prep Me Analyzed Prepared		ethod: S 5035 d By: 1 By:	
				RI	J					
Parameter		Flag		Resul	t	Units		Dilution	\mathbf{RL}	
Benzene				< 0.050)	mg/Kg		5	0.0100	_
Toluene				2.20)	mg/Kg		5	0.0100	
Ethylbenzene				6.2	L	mg/Kg		5	0.0100	
Xylene				11.	L	mg/Kg		5	0.0100	_
							Spike	Percent	Recovery	
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolue	ne (TFT)			3.01	mg/Kg	5	5.00	60	39.6 - 116	-
4-Bromofluor	obenzene (4-Bl	FB)		5.59	mg/Kg	5	5.00	112	47.3 - 144.2	

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Sample: 136739 - SB-1 30'

Analysis:TPH DROQC Batch:41288Prep Batch:35674		Analytical Method: Date Analyzed: Sample Preparation:		Aod. 8015B 007-09-20 007-09-20	Prep Anal Prep	Method: N/A yzed By: ared By:	
Parameter	,	Flue	RL Bosult		Unite	Dilution	RI
DRO		riag	<u>3840</u>		mg/Kg	<u>1</u>	50.0
Surrogate	Flag	Result	Units	Dilutio	Spike n Amount	Percent Recovery	Recovery Limits
n-Triacontane	5	724	mg/Kg	1	150	483	17.3 - 169.6

Sample: 136739 - SB-1 30'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	41290	Date Analyzed:	2007-09-19	Analyzed By:	
Prep Batch:	3564()	Sample Preparation:	2007-09-19	Prepared By:	
		RL			
Parameter	Flag	Result	Units	Dilution	\mathbf{RL}
GRO		510	mg/Kg	5	1.00

⁴High surrogate recovery due to peak interference. ⁵High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		3.80	mg/Kg	5	5.00	76	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		4.20	mg/Kg	5	5.00	84	50.8 - 131.6

Sample: 136740 - SB-1 35'

Analysis: QC Batch: Prep Batch:	BTEX 41283 35640		Analytical 1 Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-19 2007-09-19		Prep Method: Analyzed By: Prepared By:		35
			RJ	L					
Parameter	Flag	5	Resul	t	Units		Dilution	R	L
Benzene			< 0.010	0	mg/Kg		1	0.010	00
Toluene			< 0.010	0	mg/Kg		1	0.010	00
Ethylbenzene	!		< 0.010	0	mg/Kg		1	0.010	<u> </u>
Xylene			< 0.010	0	mg/Kg		1	0.010)0
						Spike	Percent	Recovery	7
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolue	ene (TFT)		0.642	mg/Kg	1	1.00	64	39.6 - 11	6
4-Bromofluor	obenzene (4-BFB)		0.775	mg/Kg	1	1.00	78	47.3 - 144	.2

Sample: 136740 - SB-1 35'

Analysis:TPH DROQC Batch:41288Prep Batch:35674			Analytical Method: Date Analyzed: Sample Preparation:		lod. 8015B 007-09-20 007-09-20	Prep Anal Prep	Method: N/A yzed By: ared By:
			\mathbf{RL}				
Parameter	\mathbf{F}	ag	Result		Units	Dilution	\mathbf{RL}
DRO			251		mg/Kg	1	50.0
a ,	101		T T • 4	D 11	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	3	176	mg/Kg	1	150	117	17.3 - 169.6

Sample: 136740 - SB-1 35'

Analysis:TPH GROQC Batch:41290Prep Batch:35640			Analytical Method: Date Analyzed: Sample Preparation:			Prep Method: S 503 Analyzed By: Prepared By:		
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		Units		Dilution	\mathbf{RL}
GRO	·····		16.2		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)	0	0.694	mg/Kg	1	1.00	69	50.2 - 89.3
								continued

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	50.8 - 131.6

Sample: 136741 - SB-1 40'

Analysis: QC Batch: Prep Batch:	BTEX 41283 35640		Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-19 2007-09-19		Prep Me Analyze Prepare	ethod: S 5035 d By: d By:	5
			RI	J					
Parameter	Flag		Resul	t	Units		Dilution	RL	۔ د
Benzene			< 0.010	0	mg/Kg		1	0.0100	0
Toluene			< 0.010	0	mg/Kg		1	0.0100	0
Ethylbenzene	!		< 0.010	0	mg/Kg		1	0.0100	0
Xylene			< 0.010	0	mg/Kg		1	0.0100	0
						Spike	Percent	Recovery	
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolue	ene (TFT)		0.652	mg/Kg	1	1.00	65	39.6 - 116	-
4-Bromofluor	obenzene (4-BFB)		0.778	mg/Kg	1	1.00	78	47.3 - 144.2	2

Sample: 136741 - SB-1 40'

Analysis:TPH DROQC Batch:41288Prep Batch:35674		Analytical Method: Date Analyzed: Sample Preparation:		1. 8015B 7-09-20 7-00-20	Prep Analy Bron	Method: N/A yzed By:	
r rep batch:	55074		BL.	aranon: 200	(-()9-2()	гтера	area by:
Parameter	Fla	ıg	Result	ا	Units	Dilution	\mathbf{RL}
DRO			<50.0	m	g/Kg	1	50.0
Commente	Di	Durult	TTuttu		Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	135	mg/Kg	1	150	90	17.3 - 169.6

Sample: 136741 - SB-1 40'

Analysis: QC Batch: Prep Batch:	TPH GRO 41290 35640		Analytica Date Ana Sample Pi	l Method: lyzed: reparation:	S 8015B 2007-09-19 2007-09-19	15B Pre -09-19 Ana -09-19 Pre		ethod: S 5035 ed By: ed By:
			\mathbf{RL}					
Parameter	\mathbf{Fl}	ag	Result		Units		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.763	mg/Kg	1	1.00	76	50.2 - 89.3
								continued

	Percent	Recovery					
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	50.8 - 131.6

Sample: 136742 - SB-1 45'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712			Analytical l Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Methe Analyzed E Prepared E	
				RJ	L.				
Parameter		Flag		\mathbf{Resul}	t.	Units		Dilution	\mathbf{R} .L
Benzene				< 0.010	0	mg/Kg		1	0.0100
Toluene				< 0.010	0	mg/Kg		1	0.0100
Ethylbenzene	;			< 0.010	0	mg/Kg		1	0.0100
Xylene				< 0.010	0	mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			0.620	mg/Kg	1	1.00	62	39.6 - 116
4-Bromofluor	obenzene (4-Bl	FB)		0.716	mg/Kg	1	1.00	72	47.3 - 144.2

Sample: 136742 - SB-1 45'

Analysis: QC Batch: Prep Batch:	TPH DRO 41288 35674		Analytical M Date Analyz Sample Prep	fethod:Nwed:2paration:2	fod. 8015B 007-09-20 007-09-20	Prep Anal Prep	Method: N/A yzed By: ared By:
			\mathbf{RL}				
Parameter	F	lag	Result		Units	Dilution	$\mathbf{R}\mathbf{L}$
DRO					mg/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	n Amount	Recovery	Limits
n-Triacontan	9	140	mg/Kg	1	150	93	17.3 - 169.6

Sample: 136742 - SB-1 45'

Analysis:TPH GROQC Batch:41330Prep Batch:35712			Analytical Method: Date Analyzed: Sample Preparation:				Prep M Analyze Prepare	ethod: S 5035 ed By: ed By:
			RL					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.746	mg/Kg	1	1.00	75	50.2 - 89.3
								continued

	Spike	Percent	Recovery				
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	1	1.00	103	50.8 - 131.6

Sample: 136743 - SB-1 50'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712		Analytical Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Method: Analyzed By: Prepared By:	
			RI	L.				
Parameter	Flag		Resul	t	Units		Dilution	\mathbf{RL}
Benzene	· · · · ·		< 0.010	0	mg/Kg		1	0.0100
Toluene			< 0.010	0	mg/Kg		1	0.0100
Ethylbenzene	;		< 0.010	0	mg/Kg		1	0.0100
Xylene			< 0.010	0	mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		0.591	mg/Kg	1	1.00	59	39.6 - 116
4-Bromofluor	obenzene (4-BFB)		0.714	mg/Kg	1	1.00	71	47.3 - 144.2

Sample: 136743 - SB-1 50'

Analysis:TPH DROQC Batch:41288Prep Batch:35674			Analytical Method: Date Analyzed: Sample Preparation:		Mod. 8015B 2007-09-20 2007-09-20	F / F	Prep Method: Analyzed By: Prepared By:	
			$\mathbf{R}\mathbf{L}$					
Parameter	Fla	ъg	Result		Units	Dilution		\mathbf{RL}
DRO		· · · · · · · · · · · · · · · · · · ·			mg/Kg	1		50.0
Surrogate	Flag	Result	Units	Dilutio	Spik n Amou	e Percent int Recovery	Reco v Lim	very nits
n-Triacontane	9	140	mg/Kg	1	150	93	17.3 -	169.6

Sample: 136743 - SB-1 50'

Analysis: QC Batch: Prep Batch:	TPH GRO 41330 35712		Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2007-09-20 2007-09-20	Prep M Analyze Prepare		ethod: S 5035 ed By: ed By:
			\mathbf{RL}					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg	1 1.(
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.693	mg/Kg	1	1.00	69	50.2 - 89.3
								continued

Report Date: September 25, 2007 SRS: 2007-233

sample continued ...

Sumpte consistence					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	50.8 - 131.6

Sample: 136744 - N/W 9'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712			Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Meth Analyzed Prepared)35
				RJ	J					
Parameter	arameter Flag		Result		Units		Dilution]	RL	
Benzene				< 0.0100)	mg/Kg		1	0.01	100
Toluene				<0.0100)	mg/Kg		1	0.01	100
Ethylbenzene				<0.0100)	mg/Kg		1	0.01	L O O
Xylene				< 0.0100)	mg/Kg		1	0.01	100
							Spike	Percent	Recover	ſy
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits	\$
Trifluorotolue	ene (TFT)			0.562	mg/Kg	1	1.00	56	39.6 - 11	$\overline{16}$
4-Bromofluorobenzene (4-BFB)			0.720	mg/Kg	1	1.00	72	47.3 - 14	4.2	

Sample: 136744 - N/W 9'

Analysis:	TPH DRO		Analytical N	lethod: Ma	od. 8015B	Prep	Method: N/A
QC Batch:	41245		Date Analyz	ed: 200)7-()9-19	Anal	yzed By:
Prep Batch:	35642		Sample Prep	paration: 200)7-09-19	Prepa	ared By:
			\mathbf{RL}				
Parameter Flag		ıg	\mathbf{Result}		Units	Dilution	\mathbf{RL}
DRO				n	ng/Kg	1	50.0
					\mathbf{Spike}	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	137	mg/Kg	1	150	91	17.3 - 169.6

Sample: 136744 - N/W 9'

Analysis: TPH GRO		Analytica	l Method:	S 8015B		Prep M	ethod: S 5035		
QC Batch:	41330		Date Ana	lyzed:	2007-09-20	20 Analyz		ed By:	
Prep Batch:	35712		Sample P	reparation:	2007-09-20	Prepared By:			
			\mathbf{RL}						
Parameter	Fla	g	Result		Units		Dilution	$\mathbf{R}\mathbf{L}$	
GRO			<1.00		mg/Kg	1.00			
						Spike	Percent	Recovery	
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolu	ene (TFT)		0.680	mg/Kg	1	1.00	68	50.2 - 89.3	
								continued	

 $sample \ continued \ \ldots$

					Spike	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	50.8 - 131.6

Sample: 136745 - S/W 9'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712		Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Method: Analyzed By: Prepared By:	
			RJ	L				
Parameter	Flag	Ś	Resul	t	Units		Dilution	\mathbf{RL}
Benzene			< 0.010	0	mg/Kg		1	0.0100
Toluene			< 0.010	0	mg/Kg		1	0.0100
Ethylbenzene			< 0.010	0	mg/Kg		1	0.0100
Xylene			< 0.010	0	mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		0.596	mg/Kg	1	1.00	60	39.6 - 116
4-Bromofluor	obenzene (4-BFB)		0.718	mg/Kg	1	1.00	72	47.3 - 144.2

Sample: 136745 - S/W 9'

Analysis: QC Batch: Prep Batch:	alysis: TPH DRO C Batch: 41288 ep Batch: 35674		Analytical M Date Analyz Sample Prep	Method: Me wed: 20 paration: 20	od. 8015B 07-09-20 07-09-20	Prep Anal: Prep	Method: N/A yzed By: ared By:
			\mathbf{RL}				
Parameter	H	Flag	Result		Units	Dilution	$\mathbf{R}\mathbf{L}$
DRO			<50.0	r	ng/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	132	mg/Kg]	150	88	17.3 - 169.6

Sample: 136745 - S/W 9'

Analysis:	ysis: TPH GRO		Analytical Method:		S 8015B		Prep Method: S 5035			
QC Batch:	41330		Date Ana	lyzed:	2007-09-20	Analyzed By:				
Prep Batch:	35712		Sample P	reparation:	2007-09-20	Prepare		ed By:		
			RL							
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}		
GRO			<1.00		mg/Kg		1	1.00		
						Spike	Percent	Recovery		
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits		
Trifluorotolu	ene (TFT)		0.750	mg/Kg	1	1.00	75	50.2 - 89.3		
								continued		

					Spike	Percent	Recovery
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	50.8 - 131.6

Sample: 136746 - W/W 9'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712		Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Method: Analyzed By: Prepared By:	
			RJ	- -				
Parameter	Flag		Resul	t	Units		Dilution	RL
Benzene			< 0.010	0	mg/Kg		1	0.0100
Toluene			< 0.010	0	mg/Kg		1	0.0100
Ethylbenzene	1		< 0.010	0	mg/Kg		1	0.0100
Xylene			< 0.010	0	mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		0.618	mg/Kg	1	1.00	62	39.6 - 116
4-Bromofluor	obenzene (4-BFB)		0.726	mg/Kg	1	1.00	73	47.3 - 144.2

Sample: 136746 - W/W 9'

Analysis: TPH DRO QC Batch: 41288 Prep Batch: 35674		Analytica Date Ana Sample Pi	l Method: Mc lyzed: 200 reparation: 200	od. 8015B)7-09-2())7-09-20	Prep Ana Prep) Method: N/A lyzed By: pared By:	
			\mathbf{RL}				
Parameter		Flag	Result		Units	Dilution	$\mathbf{R}\mathbf{L}$
DRO			<50.0	n	ng/Kg	1	50.0
Ct.	DI	Desult	TL.'.	Dilution	Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	8	124	mg/Kg	1	150	83	17.3 - 169.6

Sample: 136746 - W/W 9'

Analysis: QC Batch: Prep Batch:	TPH GRO 41330 35712		Analytical Method:S 8015BPrep MethodDate Analyzed:2007-09-20Analyzed By:Sample Preparation:2007-09-20Prepared By:		Prep Ma Analyze Prepare		ethod: S 5035 ed By: ed By:	
			\mathbf{RL}					
Parameter	Flag		Result		\mathbf{Units}		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.762	mg/Kg	1	1.00	76	50.2 - 89.3
								continued

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	50.8 - 131.6

Sample: 136747 - E/W 9'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712			Analytical l Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Method: Analyzed By: Prepared By:	
				RJ	J				
Parameter		Flag		Resul	t	Units		Dilution	RL
Benzene				< 0.010	0	mg/Kg		1	0.0100
Toluene				< 0.010	0	mg/Kg		1	0.0100
Ethylbenzene				< 0.010	0	mg/Kg		1	0.0100
Xylene				< 0.010	0	mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			0.626	mg/Kg	1	1.00	63	39.6 - 116
4-Bromofluor	obenzene (4-B	FB)		0.731	mg/Kg	1	1.00	73	47.3 - 144.2

Sample: 136747 - E/W 9'

Analysis: QC Batch: Prep Batch:	nalysis: TPH DRO C Batch: 41288 rep Batch: 35674		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 8015B 2007-09-20 2007-09-20		Prep Anal Prep	Prep Method: Analyzed By: Prepared By:	
Parameter	F	lag	RL Result		Units		Dilution		RL
DRO			<50.0		mg/Kg		1		50.0
Surrogate	Flag	Result	Units	Diluti	Sj on An	pike 101111t	Percent Recovery	Reco Lin	overy uits
n-Triacontane	9	137	mg/Kg	1	1	50	91	17.3 -	169.6

Sample: 136747 - E/W 9'

Analysis: QC Batch: Prep Batch:	TPH GRO 41330 35712		Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2007-09-20 2007-09-20	15B Prep -09-20 Analy -09-20 Prep		lethod: S 5035 ed By: ed By:
			\mathbf{RL}					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg	· · · · · · · · · · · · · · · · · · ·	1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.785	mg/Kg	1	1.00	78	50.2 - 89.3
								continued

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	50.8 - 131.6

Sample: 136748 - Excv Fir 15'

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712			Analytical M Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Me Analyze Preparec	ethod: S 5035 d By: d By:
				RL			_		DI
Parameter		Flag		\mathbf{Result}		Units]	Dilution	<u> </u>
Benzene				0.484		mg/Kg		5	0.0100
Toluene				4.79		mg/Kg		5	0.0100
Ethylbenzene	!			5.66		mg/Kg		5	0.0100
Xylene				21.7		mg/Kg		5	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			2.68	mg/Kg	5	5.00	54	39.6 - 116
4-Bromofluor	obenzene (4-B	FB)		5.58	mg/Kg	5	5.00	112	47.3 - 144.2

Sample: 136748 - Excv Fir 15'

Analysis: QC Batch: Prep Batch:	TPH DRO 41288 35674		Analytical M Date Analyz Sample Prep	fethod:Med:20aration:20	od. 8015B 007-09-20 007-09-20	Prep Anal <u>:</u> Prep	Method: N/A yzed By: ared By:
			\mathbf{RL}				
Parameter	F	lag	Result		Units	Dilution	\mathbf{RL}
DRO			4070		mg/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	8 6	1020	mg/Kg	1	150	680	17.3 - 169.6

Sample: 136748 - Excv Fir 15'

Analysis: QC Batch: Prep Batch:	TPH GRO 41330 35712	Analytical Method: Date Analyzed: Sample Preparation:	S 8015B 2007-09-20 2007-09-20	Prep Method: Analyzed By: Prepared By:	S 5035
Parameter	Flag	RL Besult	Units	Dilution	RL
GRO	I M45	603	mg/Kg	5	1.00

⁶High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.91	mg/Kg	5	5.00	58	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		6.21	mg/Kg	5	5.00	124	50.8 - 131.6

Sample: 136749 - S/P

Analysis: QC Batch: Prep Batch:	BTEX 41329 35712		Analytical M Date Analys Sample Prej	Method: zed: paration:	S 8021B 2007-09-20 2007-09-20		Prep Mé Analyze Prepare	ethod: S 5035 d By: d By:
Description	121		RL		T Incide a		Dilution	זמ
Parameter	Flag		Result		Units		Dilution	<u>n.L</u>
Benzene			0.338		mg/Kg		2	0.0100
Toluene			4.23		mg/Kg		2	0.0100
Ethylbenzene			6.42		mg/Kg		2	0.0100
Xylene	7		29.1		mg/Kg		2	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	· Recovery	Limits
Trifluorotolue	ne (TFT)		0.941	mg/Kg	2	2.00	47	39.6 - 116
4-Bromofluor	obenzene (4-BFB)	8	4.14	mg/Kg	2	2.00	207	47.3 - 144.2

Sample: 136749 - S/P

ſ

Analysis: QC Batch: Prep Batch:	TPH DRO 41288 35674		Analytical M Date Analyz Sample Prep	lethod:Yed:2aration:2	Aod. 8015B 2007-09-20 2007-09-20	Prej Ana Prej) Method: N/A lyzed By: pared By:
Parameter	Fla	ıg	RL Result		Units	Dilution	RL
DRO			778		mg/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilutio	Spike n Amoun	Percent t Recovery	Recovery Limits
n-Triacontan	9	194	mg/Kg	1	150	129	17.3 - 169.6

Sample: 136749 - S/P

Analysis: QC Batch: Prep Batch:	TPH GR() 41330 35712	Analytical Method: Date Analyzed: Sample Preparation:	S 8015B 2007-09-20 2007-09-20	Prep Method: Analyzed By: Prepared By:	S 5035
Parameter	Flag	RL Besult	Units	Dilution	BI.
GRO	1	503	mg/Kg	2	1.00

⁷Estimated concentration value greater than standard range. ⁸High surrogate recovery due to peak interference.

S	Dia a	Degult	Thite	Dilution	Spike	Percent	Recovery
Triffuorotoluono (TET)	Flag	1 30	mg/Kg	ງ	<u>2.00</u>	70	50.2 - 89.3
A Bromofluoroben/opo (4 BFB)	9	1.59	mg/Kg	2	2.00	635	50.8 - 131.6
		12.1	mg/ reg	2	2.00	000	00.0 101.0
Method Blank (1) QC B	atch: 41245						
QC Batch: 41245 Prep Batch: 35642		Date A QC Pre	nalyzed: eparation:	2007-09-19 2007-09-19)	x	Analyzed By: Prepared By:
			MDI	L			
Parameter	Flag	.	Resul	t	Ur	nits	
DRO		<u> </u>	<13.4	4	mg	/Kg	50
Surrogate Flag	Result	Units	Dilt	ution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	84.2	mg/Kg		1	150	56	32.9 - 156.1
QC Batch: 41283 Prep Batch: 35640 Parameter Benzene Toluene	Flag	Date A QC Pre	nalyzed: eparation: M Res <0.00 <0.00	2007-09-19 2007-09-19 DL sult 110 150	U mt	nits g/Kg g/Kg	Analyzed By: Prepared By: RL 0.01 0.01
Ethylbenzene Xulono			<0.00	160 410	me	g/Kg r/Ka	0.01
Summer to		Douult	Unito	Dilution	Spike	Percent	Recovery
Trifuorotoluono (TET)	Flag	0.674	ma/Ka			67	<u>58.2 - 121.3</u>
4-Bromofluorobenvene (4-BFB)		0.074	mg/Kg	1	1.00	70	53 1 - 111 6
Method Blank (1) QC B	atch: 41288						
QC Batch: 41288		Date A	nalyzed:	2007-09-20	I		Analyzed By:
Prep Batch: 35674		QC Pre	eparation:	2007-09-20	I		Prepared By:
Purameter	Flag		MDI	۔ ب	TT-	nite	זס
	TINK			<u> </u>	UI	/Ka	<u></u>
			×10.	1	mg	/ ***6	
Surrogate Flag	Result	Units	Dilt	ution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	116	mg/Kg		1	150	77	32.9 - 156.1

⁹High surrogate recovery due to peak interference.

Method Blank (1)	QC Batch: 41290						
QC Batch: 41290		Date A	nalyzed:	2007-09-19		I	Analyzed By:
Prep Batch: 35640		QC Pr	eparation:	2007-09-19		H	Prepared By:
			MD	L			
Parameter	Flag		Resu	lt	Un	its	\mathbf{RL}
GR()			<0.73	39	mg/	Kg	1
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	<u>v</u>	1.01	mg/Kg	1	1.00	101	67.8 - 103
4-Bromofluorobenzene (4	-BFB)	0.924	mg/Kg	1	1.00	92	55.4 - 111.8
Prep Batch: 35712 Parameter	Flag	QC Pr	eparation: M Re	2007-09-20 IDL sult	Ur	I	Prepared By: RL
Benzene			< 0.00	110	mg	/Kg	0.01
Toluene			< 0.00	150	mg	/Kg	0.01
Ethylbenzene			<0.00	160	mg	/Kg	0.01
Xylene			<0.00	410	mg	/Kg	0.01
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	0	0.628	mg/Kg	1	1.00	63	58.2 - 121.3
4-Bromofluorobenzene (4	-BFB)	0.656	mg/Kg	1	1.00	66	53.1 - 111.6

Method Blank (1) QC Batch: 41330

QC Batch: 41330 Prop Patch: 25712		Date A	nalyzed:	2007-09-20	Analyzed By Demographic Demographics			
г тер вакси:	50712		QC Pr	eparanon:	2007-09-20		PI	repared by:
				MDL	I.			
Parameter Flag		Flag		Result	i	Units		\mathbf{RL}
GRO		· · ·		< 0.739		mg/	Kg	1
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.00	mg/Kg	1	1.00	100	67.8 - 103
4-Bromofluor	obenzene (4-BFB)		0.918	mg/Kg	1	1.00	92	55.4 - 111.8

Method Blank (1) QC Batch: 41343

QC Batch:	41343	Date Analyzed:	2007-09-21	Analyzed By:
Prep Batch:	35724	QC Preparation:	2007-09-21	Prepared By:

Parameter Flag Result Units Ith. DRO 22.4 mg/Kg 500 Spike Percent Recovery Limits Surrogate Flag Result Units Dilution Amount Recovery Limits n-Triacontane 99.2 mg/Kg 1 150 66 32.9-156.1 Method Blank (1) QC Batch: 41432 Date Analyzed: 2007-09-24 Analyzed By: ER Prepared By: ER Parameter Plag Result Units RL Chloride 1 Laboratory Control Spike (LCS-1) QC Preparation: 2007-09-19 Analyzed By: Prepared By: Prepared By: Prep Batch: 35642 QC Preparation: 2007-09-19 Analyzed By: Prepared By: Param Result Units Dil. Amount Res. Limits DRO 255 mg/Kg 1 250 <13.4 102 49.1 - 142.3 Param Result Units Dil. Amount Res. Limits Limits DRO 255 mg/Kg 1 250 <13.4 102	_		_		М	DL						
DR0 22.4 mg/kg bit Surrogate Flag Result Units Dilution Arnount Recovery Limits Recovery nTriacontane 99.2 mg/kg 1 150 66 32.9 - 156.1 Method Blank (1) QC Batch: 41432 QC Proparation: 2007-09-24 Analyzed By: ER Prep Batch: 35802 QC Proparation: 2007-09-24 Prepared By: ER Parameter Flag Result Units RL Choride 1 1 Laboratory Control Spike (LCS-1) QC Preparation: 2007-09-19 Analyzed By: Prep Batch: 35642 Prepared By: Prep Batch: 35642 Prepared By: Prep Batch: 35642 Prepared By: Prep Batch: 35642 Rec. Limit Param Result Units Dil Amount Result Rec. Limit Param Result Units Dil Amount Rec. Limit PPD Param Result Units Dil Amount Rec. Limit PD Param Result Units Dil Amount Rec. Limit Param Result Units Dil Amount Rec. Limit DRO 240 mg/Kg	Parameter	F	lag		Res			Unit	S		<u></u>	
SurrogateFlagResultUnitsDilutionSpike AmountPercent RecoveryRecovery LimitsTriacontane99.2mg/Kg11506632.9156.1Method Blank (1)QC Batch: 41432QC Batch: 2007-09-24Analyzed: 2007-09-24Analyzed By: ERPrep Batch:35802QC Preparation:2007-09-24Prepared By: ERParameterFlagResultUnitsRLChloride<01.40mg/Kg1Laboratory Control Spike (LCS-1)QC Preparation:2007-09-19Analyzed By:QC Batch:41245Date Analyzed:2007-09-19Analyzed By:Prep Batch:35642QC Preparation:2007-09-19Analyzed By:ParamResultUnitsDil.AmountResultRec.DRO255mg/Kg1250<13.410249.1-142.3ParamResultUnitsDil.AmountResultRec.LimitsDRO249mg/Kg1250<13.410249.1-142.32ParamResultUnitsDil.AmountResultRec.LimitDRO249mg/Kg1150576549-133.2ParamResultUnitsDil.AmountRec.LimitDRO249mg/Kg1150576549-133.2ParamResultUnitsDil.AmountRec.Limit <tr< th=""><th>DRO</th><th></th><th></th><th></th><th>2</th><th>2.4</th><th></th><th>mg/1</th><th>(g</th><th></th><th>50</th></tr<>	DRO				2	2.4		mg/1	(g		50	
SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsn-Triacontane99.2mg/Kg11506632.9 - 156.1Method Blank (1)QC Batch: 41432QC Batch: 41432QC Batch: 41432Analyzed: 2007-09-24Analyzed By: ERPrep Batch:35802QC Proparation: 2007-09-24Prepared By: ERParameterPlagResultUnitsRLChloride<0.140mg/Kg1Laboratory Control Spike (LCS-1)QC Batch:41245Date Analyzed:2007-09-19Analyzed By:Prep Batch:35642QC Preparation:2007-09-19Analyzed By:ParamResultUnitsDil.ArnountResultRes.DRO255mg/Kg1250<13.410249.1 - 142.3ParamResultUnitsDil.ArnountResultRes.Res.DRO249mg/Kg1250<13.410249.1 - 142.3220ParamResultUnitsDil.AnountResultRes.Res.RPDLimitDRO249mg/Kg1250<13.410049.1 - 142.3220ParamResultUnitsDil.AnountRes.Limit.RPDLimitDRO249mg/Kg1150576549 - 133.2DRO249mg/Kg1150576549 - 133.2<							Spike	2	Percent	Re	covery	
Trace10g10g10g11g11g11g11g11g11gmr. Tracontane99.2mg/Kg11506632.9 - 156.1Method Blank (1)QC Batch: 41432QC Preparation: 2007-09-24Analyzed By: ERPrep Batch:35802QC Preparation: 2007-09-24Prepared By: ERParameterFlagResultUnitsRLChloride<0.140mg/Kg1Laboratory Control Spike (LCS-1)QC Batch: 41245Date Analyzed: 2007-09-19Analyzed By: Prepared By: Prepared By: Prep Batch: 35642QC Batch:41245Date Analyzed: 2007-09-19Analyzed By: Prepared By: Prepared By: Prep Batch: 35642QC Preparation: 2007-09-19DRO255mg/Kg1250<13.410249.1 - 142.3Percent recovery is based on the spike result.RPDSpikeMatrixRec.RPDDRO249mg/Kg1250<13.410249.1 - 142.3220Percent recovery is based on the spike result.RPDSpikeMatrixRec.Rec.RPDDRO249mg/Kg1250<13.410249.1 - 142.3220Percent recovery is based on the spike result.RPDshased on the spike and spike duplicate result.RPDLCSLCSDSpikeMatrixRec.LimitUnitsDilAmountResultCSLOSD65SurrogateResultResultUnitsDilAm	Surrogate	Flag F	lesult	Units	Г	ilution	Amou	, nt	Recoverv	L	imits	
Induction Dots Indy/Ng 1 100 00 000 100 Method Blank (1) QC Batch: 41432 QC Batch: 41432 QC Preparation: 2007-09-24 Analyzed By: ER Prep Batch: 35802 QC Preparation: 2007-09-24 Prepared By: ER Parameter Flag Result Units RL Chloride <0.140 mg/Kg 1 Laboratory Control Spike (LCS-1) QC Preparation: 2007-09-19 Analyzed By: Prep Batch: 35642 QC Preparation: 2007-09-19 QC Batch: 41245 Date Analyzed: 2007-09-19 Analyzed By: Prepared By: Prepared By: Prep Batch: 35642 QC Preparation: 2007-09-19 Param Result Units Dil. Amount Result Rec. Limit DRO 255 mg/Kg 1 250 <134 102 49.1 - 142.3 Param Result Units Dil. Amount Result. Rec. RPD DRO 249 mg/Kg 1 250 <13.4 102 49.1 - 142.3 2 20 Param Result Units Dil. Amount	n-Triacontane	riag 1	00.2	ma/Ka		1	150		66	32.9	- 156 1	
Method Blank (1) QC Batch: 41432 Date Analyzed: 2007-09-24 Analyzed By: ER Prep Batch: 35802 QC Preparation: 2007-09-24 Prepared By: ER Parameter Flag MDL Prepared By: ER Laboratory Control Spike (LCS-1) MDL mg/Kg 1 QC Batch: 41245 Date Analyzed: 2007-09-19 Analyzed By: Prep Batch: 35642 QC Preparation: 2007-09-19 Analyzed By: Param Result Units Dil. Amount Result Result Res. BO 255 mg/Kg 1 250 40.1 142.3 2 20 Param LCS Spike Matrix Rec. Limit RPD Limit BO 255 mg/Kg 1 250 <13.4 102 49.1 142.3 2 20 Percent recovery is based on the spike result. NPD Spike Matrix Rec. Limit RPD Limit RPD Limit PD Limit 2 2 2 2 2				116/116		L .	100			02.0		
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	110p Damin. 00002			QC 110p		2001 00			110	500 (A) D)		
ParameterFlagResultUnitsRL mg/KgChloride<0.140					М	DL						
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Laboratory Control Spike (LCS-1)QC Batch:41245Date Analyzed:2007-09-19Analyzed By:Prep Batch:35642QC Preparation:2007-09-19Prepared By:ParamResultUnitsDil.AmountResultRec.DRO255mg/Kg1250<13.4	Chloride		.,		<0.	140		mg/I	۲g		1	
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Prep Batch: 35642Data:: 41243Data:: 41243QC Preparation: 2007-09-19Analyzed: 57Prepared By:QC Preparation: 2007-09-19Prepared By:Prepared By:QC Preparation: 2007-09-19Prepared By:Prepared By:Prepared By:QC Preparation: 2007-09-19Prepared By:Prepared By:Pre	OC Batch: 41245			Date A	nalwart	2007.	00.10		,	Auglwood	Bw.	
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LCSSpike MatrixMatrix ResultRec. LimitDRO255 mg/Kg 1250<13.4	1 10p Daton. 00042			QUIR	fuer contra	1. 2001-	00-10		1	Toparou	Dy.	
ParamLCSSpikeMatrixRec.Param255mg/Kg1250<13.4												
ParamResultUnitsDil.AmountResultRec.LimitDRO255 mg/Kg 1250<13.4			LCS	5			Spike	Matri	x	I	Rec.	
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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.LCSLCSDSpike MatrixMatrix Rec.Rec.RPD LimitDRO249mg/Kg1250<13.4	DRO		255	mg	g/Kg	1	250	<13.4	. 102	49.1	- 142.3	
LCSDSpike ResultMatrix ResultRec. ResultRPD LimitDRO249mg/Kg1250<13.4	Percent recovery is ba	used on the sp	oike result.	RPD is b	ased on t	the spike	and spike d	uplicate re	esult.			
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ParamResultUnitsDil.AmountResultRec.LimitRPDLimitDR()249mg/Kg1250<13.4	D		LCSD	* * • .	D.1	Spike	Matrix	D	Rec.	D D D	RPD	
DRO249mg/Kg1250<13.410049.1 - 142.3220Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.LCSLCSDSpikeLCSLCSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.u-Triacontane86.097.4mg/Kg1150576549 - 133.2Laboratory Control Spike (LCS-1)QC Batch:41283Date Analyzed:2007-09-19Analyzed By:Prep Batch:35640QC Preparation:2007-09-19Prepared By:Prep Batch:35640QC Preparation:2007-09-19Prepared By:Date0.908mg/Kg11.00<0.00110	Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.LCSLCSDSpikeLCSLCSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.Limitn-Triacontane86.097.4mg/Kg1150576549 - 133.2Laboratory Control Spike (LCS-1)QC Batch:41283Date Analyzed:2007-09-19Analyzed By:Prep Batch:35640QC Preparation:2007-09-19Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountResultLimitBenzene0.908mg/Kg11.00<0.00110	DRO		249	mg/Kg	1	250	<13.4	100 4	9.1 - 142.3	2	20	
LCS NurrogateLCS ResultLCSD ResultLCSD ResultLCSD Rec.LCSD Rec.Rec.LCSD Rec.Rec.In-Triacontane86.097.4mg/Kg1150576549 - 133.2Laboratory Control Spike (LCS-1)QC Batch:41283Date Analyzed:2007-09-19Analyzed By: Prep Batch:Prep Batch:35640QC Preparation:2007-09-19Prepared By:LCSSpike MatrixMatrix Rec.ParamResultUnitsDil.Amount ResultResultRec.Date analyzed:2007-09-192007-09-19Prepared By:Prep Batch:356409776.31.00Outling0.908mg/Kg11.00<0.00110	Percent recovery is ba	used on the sp	oike result.	RPD is b	ased on (the spike	and spike d	uplicate re	esult.			
SpikeBCSDRec.SurrogateResultResultUnitsDil.AmountRec.Rec.Limitn-Triacontane 86.0 97.4 mg/Kg1 150 57 65 $49 - 133.2$ Laboratory Control Spike (LCS-1)QC Batch: 41283 Date Analyzed: $2007-09-19$ Analyzed By:Prep Batch: 35640 QC Preparation: $2007-09-19$ Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.Benzene 0.908 mg/Kg1 1.00 <0.00110 91 $71.2 - 119$ Toluene 0.972 mg/Kg1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg1 3.00 <0.00410 96 $78.8 - 113.9$		ICS	I CSD				Cuiles	TCS	T COD		Dee	
SuffigureAusintOntsDiff.AnothinRef.n-Triacontane 86.0 97.4mg/Kg1150Freen-Triacontane 86.0 97.4mg/Kg1150FreeLaboratory Control Spike (LCS-1)QC Batch: 41283 Date Analyzed:2007-09-19Analyzed By:Prep Batch: 35640 QC Preparation: $2007-09-19$ Analyzed By:Prepared By:Date Analyzed: $2007-09-19$ Analyzed By:Prepared By:Prepared By:DilAmountResultResultUnitsDilAmountBeseltUnitsDilAnalyzed By:Prepared By:Date Analyzed:2007-09-19Prepared By:Date MatrixResultResultNumber Colspan="6">Analyzed By:Date MatrixResultNumber Colspan="6">Analyzed By:Date MatrixResultDate Matrix <th cols<="" td=""><td>Surrogata</td><td>Bogult</td><td>Bosult</td><td>. II.</td><td>ita</td><td>Dil</td><td>Amount</td><td>DOS</td><td>LCSD Rea</td><td></td><td>nec.</td></th>	<td>Surrogata</td> <td>Bogult</td> <td>Bosult</td> <td>. II.</td> <td>ita</td> <td>Dil</td> <td>Amount</td> <td>DOS</td> <td>LCSD Rea</td> <td></td> <td>nec.</td>	Surrogata	Bogult	Bosult	. II.	ita	Dil	Amount	DOS	LCSD Rea		nec.
International e 37.4 $100/57$ 57 65 $49 - 133.2$ Laboratory Control Spike (LCS-1)Date Analyzed: $2007-09-19$ Analyzed By:Prep Batch: 35640 QC Preparation: $2007-09-19$ Prepared By:ParamResultUnitsDil.AmountResultRec.Benzene 0.908 mg/Kg 1 1.00 <0.00110 91 $71.2 - 119$ Toluene 0.972 mg/Kg 1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg 1 1.00 <0.00160 95 $77.6 - 114$ Kylene 2.89 mg/Kg 1 3.00 <0.00410 96 $78.8 - 113.9$	n Triacontano		07.4	, UI	/K a	<u>D</u> II. 1	150			40	199 9	
Laboratory Control Spike (LCS-1)QC Batch:41283Date Analyzed: $2007-09-19$ Analyzed By:Prep Batch:35640QC Preparation: $2007-09-19$ Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.Benzene0.908mg/Kg1 1.00 <0.00110 91 $71.2 - 119$ Toluene0.972mg/Kg1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene0.951mg/Kg1 1.00 <0.00160 95 $77.6 - 114$ Xylene2.89mg/Kg1 3.00 <0.00410 96 $78.8 - 113.9$			91.4	ing,	/ng	<u>т</u>	100		00	49	- 155.2	
Laboratory Control Spike (LCS-1)QC Batch:41283Date Analyzed:2007-09-19Analyzed By:Prep Batch:35640QC Preparation:2007-09-19Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.Benzene0.908mg/Kg1 1.00 <0.00110												
QC Batch:41283Date Analyzed: $2007-09-19$ Analyzed By:Prep Batch: 35640 QC Preparation: $2007-09-19$ Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountBenzene 0.908 mg/Kg1 1.00 <0.00110 91 Toluene 0.972 mg/Kg1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg1 3.00 <0.00410 96 $78.8 - 113.9$	Laboratory Contro	l Spike (LC	S-1)									
QC Batch:41283Date Analyzed:2007-09-19Analyzed By:Prep Batch: 35640 QC Preparation: $2007-09-19$ Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountBenzene 0.908 mg/Kg1 1.00 <0.00110 91 Toluene 0.972 mg/Kg1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg1 3.00 <0.00410 96 $78.8 - 113.9$	0.0.0											
Prep Batch:35640QC Preparation: $2007-09-19$ Prepared By:LCSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.Benzene0.908mg/Kg11.00<0.00110	QC Batch: 41283			Date A:	nalyzed:	2007-0	09-19			Analyzed	By:	
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LCSSpikeMatrixRec.ParamResultUnitsDil.AmountResultRec.LimitBenzene 0.908 mg/Kg1 1.00 <0.00110 91 $71.2 - 119$ Toluene 0.972 mg/Kg1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg1 3.00 <0.00410 96 $78.8 - 113.9$												
ParamResultUnitsDil.AmountResultRec.LimitBenzene 0.908 mg/Kg1 1.00 <0.00110 91 $71.2 - 119$ Toluene 0.972 mg/Kg1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg1 3.00 <0.00410 96 $78.8 - 113.9$			LCS				Spike	Matrix		Ŧ	Rec.	
Benzene 0.908 mg/Kg 1 1.00 <0.00110 91 $71.2 - 119$ Toluene 0.972 mg/Kg 1 1.00 <0.00150 97 $76.3 - 116.5$ Ethylbenzene 0.951 mg/Kg 1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg 1 3.00 <0.00410 96 $78.8 - 113.9$	Param		Resul	t Un	its	Dil.	Amount	Result	Rec.	T.	imit	
Toluene 0.972 mg/Kg 1 1.00 <0.00150 97 76.3 - 116.5 Ethylbenzene 0.951 mg/Kg 1 1.00 <0.00160	Benzene		0.908	3 mg/	′Kg	1	1.00	< 0.0011	0 91	71.2	2 - 119	
Ethylbenzene 0.951 mg/Kg 1 1.00 <0.00160 95 $77.6 - 114$ Xylene 2.89 mg/Kg 1 3.00 <0.00410 96 $78.8 - 113.9$ Percent recovery is based on the spike result.BPD is based on the spike and spike duplicate result	Toluene		0.972	e me	′Kg	1	1.00	< 0.0015	0 97	76.3	- 116.5	
Xylene 2.89 mg/Kg 1 3.00 <0.00410 96 78.8 - 113.9 Percent recovery is based on the spike result. BPD is based on the spike and spike duplicate result	Ethylbenzene		0.951	. mg/	′Kg	1	1.00	< 0.0016	0 95	77.6	5 - 114	
Percent recovery is based on the spike result. BPD is based on the spike and spike duplicate result	Xylene		2.89	mg/	′Kg	1	3.00	< 0.0041	0 96	78.8	- 113.9	
A VANDARY AND ATTACK AND	Percent recovery is ba	sed on the sp	ike result	BPD is he	ased on t	the snike	and snike d	unlicato r	eul+			

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D]	LCSD	T T 1 /	5.1	Spike	М	latrix	n]	Rec.	DDD	RPD
Param	L1	tesult	Units	Dil.	Amount	R	esult	Rec.		annt	RPD	
Benzene		0.865	mg/Kg	1	1.00	<0	.00110	86	71.	2 - 119	5	20
Toluene		0.952	mg/Kg	1	1.00	<0	.00160	95	(0.3	- 110.0	2	20
Ethylbenzene		0.911	mg/Kg	1	1.00	<0	.00100	91	11.	1120	4	20
Aylene		2.(1	mg/Kg	L	3.00	<0	.00410	92	18.8	- 113.9	4	
Percent recovery is based of	on the spik	e result.	RPD is	based of	on the spik	e and	spike d	uplicat	e result	t.		
		LCS	LC	$^{\mathrm{SD}}$			\mathbf{Spi}	ke	LCS	LCSD	ł	Rec.
Surrogate		Resul	lt Res	sult	Units	Dil.	Ame	unt	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)		0.605	5 0.6	600	mg/Kg	1	1.()()	60	60	56.1	- 107.8
4-Bromofluorobenzene (4-E	BFB)	0.640) 0.6	43	mg/Kg	1	1.()0	64	64	56.2	- 118.8
Laboratory Control Spi	ike (LCS-	-1)					_					
QC Batch: 41288 Prep Batch: 35674			Date . QC Pi	Analyz reparat	ed: 2007 tion: 2007	'-09-20 '-09-20)			A P	nalyzed repared	By: By:
		LCS	2			c	niko	Ma	triv		т	Rae
Param		Resu	, 1+ ·	Inits	Dil	Δ1	nount	Re	sult	Rec	T.	imit
DBO		270	1.1.0 Tr	onia,	1		250	<1	34	108	491	- 142.3
Brand in brand				10/10							10.1	112.0
Percent recovery is based of	on the spik	e resuit.	RPD IS	oased o	on the spik	e and	spike a	upncat	e result	6.		
		LCSD			Spike	\mathcal{M}	[atrix		R	lec.		RPD
Param]	Result	Units	Dil.	Amoun	t R	esult	Rec.	Li	imit	RPD	Limit
DRO		278	mg/Kg	1	250	<	<13.4	111	49.1	- 142.3	3	20
Percent recovery is based of	on the spik	e result.	RPD is	based o	on the spik	e and	spike d	uplicat	e result	t.		
	LCS	LCSD				,	Snike	L	20	LCSD		Roc
Surrogate	Besult	Result	. т	Inits	Dil	A	mount	B	ec	Bec	1	linit
n-Triacontane	92.7	85.2	, c	σ/Κσ	1	**	150	6	2	57	49	- 133 2
Laboratory Control Spi QC Batch: 41290 Prep Batch: 35640	ke (LCS-	1)	Date A QC Pr	Analyz reparat	ed: 2007 ion: 2007	-09-19 -09-19) }			A P	nalyzed repared	By: By:
		\mathbf{LC}	S				Spike	М	atrix			Rec.
Param		Rest	ılt	Units	Dil.	A	mount	R	esult	Rec.	I	Limit
GRO		8.08	8 r	ng/Kg	1		10.0	<	0.739	81	56	- 105.2
Percent recovery is based o	n the spik	e result.	RPD is	based o	on the spik	e and	spike d	uplicate	e result			-
		LCSD			Snike	ŗ	Matrix		म	Rec.		BPD
Param		Result	Units	Dil.	. Amour	ıt İ	Result	Rec	L	imit	RPD	Limit
GRO		8.15	mg/Kg	1	10.0	<	< 0.739	82		105.2	1	20
Percent recovery is based o	n the spik	e result.	RPD is	based c	on the spik	e and	spike d	uplicate	e result	i.		
		T.CC	TC	SD			C:	ho	ICS	I CED	T	00
Surrogate		Besul	t Res	ult	Unite	Dil		unt	Bec	Rec	n Ti	irnit
Triffuorotoluene (TFT)		0.958	<u> </u>	59	mg/Kg	1	1.0	0	96	96	61.1	- 148.1
· /			-									

continued ...

control spikes continued ...

	\mathbf{LCS}	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	\mathbf{Result}	Units	Dil.	\mathbf{Amount}	Rec.	Rec.	Limit
4-Bromofluorobenzene (4-BFB)	0.958	0.960	mg/Kg	1	1.00	96	96	67.2 - 119.2

Laboratory Control Spike (LCS-1)

QC Batch:	41329	Date Analyzed:	2007-09-20	Analyzed By:
Prep Batch:	35712	QC Preparation:	2007-09-20	Prepared By:

	LCS			Spike	Matrix		Rec.
Param	\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit
Benzene	0.873	mg/Kg	1	1.00	< 0.00110	87	71.2 - 119
Toluene	0.938	mg/Kg	1	1.00	< 0.00150	94	76.3 - 116.5
Ethylbenzene	0.921	mg/Kg	1	1.00	< 0.00160	92	77.6 - 114
Xylene	2.82	mg/Kg	1	3.00	< 0.00410	94	78.8 - 113.9

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{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit	RPD	Limit
Benzene	0.874	mg/Kg	1	1.00	< 0.00110	87	71.2 - 119	0	20
Toluene	0.917	mg/Kg	1	1.00	< 0.00150	92	76.3 - 116.5	2	20
Ethylbenzene	0.895	mg/Kg	1	1.00	< 0.00160	90	77.6 - 114	3	20
Xylene	2.76	mg/Kg	1	3.00	< 0.00410	92	78.8 - 113.9	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.	Limit
Trifluorotoluene (TFT)	0.577	0.571	mg/Kg	1	1.00	58	57	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	0.609	0.606	mg/Kg	1	1.00	61	61	56.2 - 118.8

Laboratory Control Spike (LCS-1)

QC Batch:	41330	Date Analyzed:	2007-09-20	Analyzed By:
Prep Batch:	35712	QC Preparation:	2007-09-20	Prepared By:

	LCS			Spike	Matrix		Rec.
Param	\mathbf{Result}	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
GRO	8.09	mg/Kg	1	10.0	< 0.739	81	56 - 105.2

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

	LCSD			Spike	Matrix		Rec.		\mathbf{RPD}
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	8.34	mg/Kg	1	10.0	< 0.739	83	56 - 105.2	3	20

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

Surrogate	LCS Result	$f LCSD \ Result$	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.961	0.960	mg/Kg	1	1.00	96	96	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.938	0.940	mg/Kg	1	1.00	94	94	67.2 - 119.2

Laboratory Control Spike (LCS-1)

LCSSpike ResultMatrix ManuntParam167mg/Kg1250<13.4Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.ResultUnitsDil.MatrixRecParamResultUnitsDil.AmountResultRec.LimDRO170mg/Kg1250<13.46849.1 - 1Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.LCSLCSLCSDSpikeLCSISurrogateResultResultUnitsDil.AmountRec.n-Triacontane146139mg/Kg115097Laboratory Control Spike (LCS-1)QC Batch:41432Date Analyzed:2007-09-24Prep Batch:35802QC Preparation:2007-09-24ParamResultUnitsDil.AmountResultChloride12.0mg/Kg112.5<0.140Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.LCSSpikeMatrixResultParamResultUnitsDil.AmountResultUnitsDil.AmountResultChloride12.4mg/Kg112.5<0.140Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.Chloride12.4mg/Kg112.5<	Rec. 67 49 t RPD 42.3 2 CSD Rec. 93 4 Analyzed I Prepared I	Rec. Limit 1 - 142.3 RPD Limit 20 Rec. Limit 49 - 133.2 By: ER By: ER By: ER By: ER Limit
ParamResultUnitsDil.AmountResultDRO167mg/Kg1250<13.4Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.ParamResultUnitsDil.AmountResultDRO170mg/Kg1250<13.468ParamResultUnitsDil.AmountResultRec.LimDRO170mg/Kg1250<13.46849.1 - 1Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.LCSLCSLCSDSpikeLCS1SurrogateResultResultUnitsDil.AmountRec.n-Triacontane146139mg/Kg115097Laboratory Control Spike (LCS-1)QC Batch:41432Date Analyzed:2007-09-24Prep Batch:35802QC Preparation:2007-09-24ParamResultUnitsDil.AmountResultChloride12.0mg/Kg112.5<0.140Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.LCSSpikeMatrixReParamResultUnitsDil.AmountChloride12.0mg/Kg112.5<0.140Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.Chl	Rec. 67 49 t RPD 42.3 2 JCSD Rec. 93 4 Analyzed I Prepared I	Limit Limit 1.1 - 142.3 RPD Limit 20 Rec. Limit 49 - 133.2 By: ER By: ER By: ER By: ER Limit
DR()167mg/Kg1250<13.4	67 49 t RPD 42.3 2 JCSD Rec. 93 4 Analyzed I Prepared I	RPD Limit 20 Rec. Limit 49 - 133.2 By: ER By: ER By: ER Rec. Limit
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.LCSDSpikeMatrixRecParamResultUnitsDil.AmountResultRec.DRO170mg/Kg1250<13.46849.1 - 1Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.LCSLCSDSpikeLCS1SurrogateResultResultUnitsDil.AmountResultResultUnitsDil.AmountRec.n-Triacontane146139mg/Kg115097Laboratory Control Spike (LCS-1)QC Batch:41432Date Analyzed:2007-09-24Prep Batch:35802QC Preparation:2007-09-24ParamResultUnitsDil.AmountResultChloride12.0mg/Kg112.5<0.140Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.ResultUnitsDil.AmountResultUnitsDil.AmountResultResultChloride12.4mg/Kg112.5<0.1409990 -Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate result.LinChloride12.4mg/Kg112.5<0.1409990 -Percent recovery is based on the spike result.RPD is based on the spike and spike duplicate	t RPD 42.3 2 JCSD Rec. 93 4 Analyzed I Prepared I	RPD Limit 20 Rec. Limit 49 - 133.2 By: ER By: ER By: ER Rec. Limit
LCSDSpike ResultMatrix ResultRec ResultDRO170mg/Kg1250<13.4	t RPD 42.3 2 JCSD Rec. 93 4 Analyzed I Prepared I	RPD Limit 20 Rec. Limit 49 - 133.2 By: ER By: ER By: ER By: ER Limit
Deside Spike Matrix Her Param Result Units Dil. Amount Result Rec. Lim DRO 170 mg/Kg 1 250 <13.4	t RPD 42.3 2 JCSD Rec. 93 4 Analyzed I Prepared I	RFD Limit 20 Rec. Limit 49 - 133.2 By: ER By: ER By: ER By: ER Rec. Limit
Internet Intere Intere Intere Inter	Analyzed I Prepared I	Rec. Limit 49 - 133.2 By: ER By: ER Rec. Limit
Adv result Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCS LCS Spike Matrix Result LCS Spike Matrix QC Batch: 41432 Date Analyzed: 2007-09-24 Date Analyzed: 2007-09-19 Date Ana	Analyzed I Prepared I	Rec. Limit 49 - 133.2 By: ER. By: ER. By: ER. Rec. Limit
LCS LCSD Spike LCS Spike Matrix Result Laboratory Control Spike (LCS-1) QC Batch: 41432 Date Analyzed: 2007-09-24 QC Preparation: 2007-09-24 Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Result Units Dil. Amount Result Chloride 12.0 mg/Kg 1 12.5 <0.140	Analyzed I Prepared I	Rec. Limit 49 - 133.2 By: ER By: ER By: ER Rec. Limit
LCS LCS Spike Matrix Rec. n-Triacontane 146 139 mg/Kg 1 150 97 Laboratory Control Spike (LCS-1) QC Batch: 41432 Date Analyzed: 2007-09-24 Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Matrix Result Chloride 1 12.5 <0.140 Param Result Units Dil. Amount Result Result Natrix Re Param Result Units Dil. Amount Result	Analyzed I Prepared I	kec. Limit 49 - 133.2 By: ER By: ER Rec. Limit
Surrogate Result Result Onts Dif. Annount Res. n-Triacontane 146 139 mg/Kg 1 150 97 Laboratory Control Spike (LCS-1) QC Batch: 41432 Date Analyzed: 2007-09-24 Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Param Result Units Dil. Amount Result Chloride 12.0 mg/Kg 1 12.5 <0.140	Analyzed I Prepared I	Hinit 49 - 133.2 By: ER. By: ER. Rec. Limit
In First Param 100 100 100 01 Laboratory Control Spike (LCS-1) QC Batch: 41432 Date Analyzed: 2007-09-24 Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Param Result Units Dil. Amount Result Chloride 12.0 mg/Kg 1 12.5 <0.140	Analyzed I Prepared I	By: ER By: ER Rec. Limit
Laboratory Control Spike (LCS-1) QC Batch: 41432 Date Analyzed: 2007-09-24 Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Param Result Units Dil. Amount Result Chloride 12.0 mg/Kg 1 12.5 <0.140 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCSD Spike Matrix Re Param Result Units Dil. Amount Result Lin Chloride 12.4 mg/Kg 1 12.5 <0.140 99 90 - Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. Lin Chloride 12.4 mg/Kg 1 12.5 <0.140 99 90 - Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. Matrix Spike (MS-1) Spiked Sample: 136744 QC Batch: 41245 Date Analyzed: 2007-09-19 Date Analyzed: 2007-09-19 <th>Analyzed I Prepared I</th> <th>By: ER. 3y: ER. Rec. Limit</th>	Analyzed I Prepared I	By: ER. 3y: ER. Rec. Limit
QC Batch: 41432 Date Analyzed: 2007-09-24 Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Param Result Units Dil. Amount Result Chloride 12.0 mg/Kg 1 12.5 <0.140	Analyzed 1 Prepared I	By: ER. By: ER. Rec. Limit
Prep Batch: 35802 QC Preparation: 2007-09-24 LCS Spike Matrix Param Result Units Dil. Amount Result Chloride 12.0 mg/Kg 1 12.5 <0.140	Prepared I	By: ER Rec. Limit
LCSSpikeMatrixParamResultUnitsDil.AmountResultChloride12.0mg/Kg112.5<0.140		Rec. Limit
LCSSpikeMatrixParamResultUnitsDil.AmountResultChloride12.0mg/Kg112.5<0.140		Rec. Limit
ParamResultUnitsDil.AmountResultChloride12.0mg/Kg112.5<0.140		Limit
Chloride 12.0 mg/Kg 1 12.5 <0.140 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCSD Spike Matrix Re Param Result Units Dil. Amount Result Rec. Lin Chloride 12.4 mg/Kg 1 12.5 <0.140	Rec.	
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. LCSD Spike Matrix Re Param Result Units Dil. Amount Result Rec. Lin Chloride 12.4 mg/Kg 1 12.5 <0.140	96	90 - 110
LCSD Spike Matrix Re Param Result Units Dil. Amount Result Rec. Lin Chloride 12.4 mg/Kg 1 12.5 <0.140		
Param Result Units Dil. Amount Result Rec. Lin Chloride 12.4 mg/Kg 1 12.5 <0.140	C.	RPD
Chloride 12.4 mg/Kg 1 12.5 <0.140 99 90 - Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. Matrix Spike (MS-1) Spiked Sample: 136744 QC Batch: 41245 Date Analyzed: 2007-09-19 Pure Patche 25642	it RPD	Limit
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result. Matrix Spike (MS-1) Spiked Sample: 136744 QC Batch: 41245 Date Analyzed: 2007-09-19 Pure Brtach: 25642 OC Bargersting, 2007 00 12	110 3	20
Matrix Spike (MS-1)Spiked Sample: 136744QC Batch:41245Date Analyzed: 2007-09-19Dare Bratch:25642OC Bergenetics: 2007 00 12		
QC Batch: 41245 Date Analyzed: 2007-09-19		
QC Batch: 41245 Date Analyzed: 2007-09-19 Date Analyzed: 2007-00-10	4 1	
ETED DATED: ADDAZ ETEC THE PRODUCTION: 2007-00-10	Analyze Propure	ed By:
	Trepare	м Dy.
MS Spike Matrix		R.ec.
Param Result Units Dil. Amount Result	Rec.	Limit
DRO 358 mg/Kg 1 250 <13.4	149 00	.2 - 201.4
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.	143 30.	
MSD Spike Matrix Rec	143 <u>3()</u> .	
Param Result Units Dil. Amount Result Rec. Limi	143 30.	RPD
DR() 352 mg/Kg 1 250 <13.4 141 30.2 - 2	145 30.	f RPD

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	134	137	mg/Kg	1	150	89	91	10 - 194

Matrix Spike (MS-1) Spiked Sample: 136741

QC Batch:	41283	Date Analyzed:	2007-09-19	Analyzed By:
Prep Batch:	35640	QC Preparation:	2007-09-19	Prepared By:

	MS			Spike	Matrix		Rec.	
Param	\mathbf{Result}	Units	Dil.	Amount	Result	Rec.	Limit	
Benzene	1.04	mg/Kg	1	1.00	< 0.00110	104	65.7 - 119.1	
Toluene	1.15	mg/Kg	1	1.00	< 0.00150	115	47.7 - 153.8	
Ethylbenzene	1.15	mg/Kg	1	1.00	< 0.00160	115	73.5 - 126.3	
Xylene	3.50	mg/Kg	1	3.00	< 0.00410	117	73.6 - 125.9	

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

	MSD			$\mathbf{S}\mathbf{p}\mathbf{i}\mathbf{k}\mathbf{e}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	0.948	mg/Kg	1	1.00	< 0.00110	95	65.7 - 119.1	9	20
Toluene	1.01	mg/Kg	1	1.00	< 0.00150	101	47.7 - 153.8	13	20
Ethylbenzene	1.02	mg/Kg	1	1.00	< 0.00160	102	73.5 - 126.3	12	20
Xylene	3.07	mg/Kg	1	3.00	< 0.00410	102	73.6 - 125.9	13	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	\mathbf{Result}	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	0.571	0.621	mg/Kg	1	1	57	62	51 - 109.6
4-Bromofluorobenzene (4-BFB)	0.699	0.710	mg/Kg	1	1	70	71	60.3 - 124.3

Matrix Spike (MS-1) Spiked Sample: 136747

QC Batch: 41288 Prep Batch: 35674		D Q	ate Analyzed C Preparatio	l: 2007 on: 2007	7-09-20 7-09-20	A Pi	Analyzed By: Prepared By:		
		MS			Spike	Matrix		Rec.	
Param		Result	\mathbf{Units}	Dil.	Amount	Result	Rec.	Limit	
DRO		376	mg/Kg	1	250	<13.4	150	30.2 - 201.4	

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	${f RPD}$
DRO		356	mg/Kg	1	250	<13.4	142	30.2 - 201.4	6	20
Percent recovery is t	pased on the sp	ike result.	RPD is	based o	n the spike a	and spike o	luplicat	e result.		
	MS	MSI	D			Spike	!	MS MS	D	Rec.
Surrogate	Result	Resu	ılt	Units	Dil.	Amou	ıt,	Rec. Re	с.	Limit
n-Triacontane	145	143	3 n	ng/Kg	1	150		97 98	5	10 - 194

Matrix Spike (MS-1) Spiked Sample: 136741

QC Batch:	41290	Date Analyzed:	2007-09-19	Analyzed By:
Prep Batch:	35640	QC Preparation:	2007-09-19	Prepared By:

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit
GRO	8.45	mg/Kg	1	10.0	<0.739	84	10 - 102.2

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	\mathbf{RPD}	Limit
GRO	9.14	mg/Kg	1	10.0	< 0.739	91	10 - 102.2	8	20

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

Surrogate	${f MS} {f Result}$	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.683	0.721	mg/Kg	1	1	68	72	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	1.06	1.05	$\mathrm{mg/Kg}$	1	1	106	105	58 - 162.6

Matrix Spike (MS-1) Spiked Sample: 136746

QC Batch: Prep Batch:	41329 35712		Date Analyzed: QC Preparation:	2007-09-20 2007-09-20		Analyzed By: Prepared By:
		MS		Spike	Matrix	Rec.

	1110			opine,	TATEOUT IV		TRAN
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Benzene	1.05	mg/Kg	1	1.00	< 0.00110	105	65.7 - 119.1
Toluene	1.13	mg/Kg	1	1.00	< 0.00150	113	47.7 - 153.8
Ethylbenzene	1.14	mg/Kg	1	1.00	< 0.00160	114	73.5 - 126.3
Xylene	3.52	mg/Kg	1	3.00	< 0.00410	117	73.6 - 125.9

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.	\mathbf{Limit}	RPD	Limit
Benzene	0.918	mg/Kg	1	1.00	< 0.00110	92	65.7 - 119.1	13	20
Toluene	1.01	mg/Kg	1	1.00	< 0.00150	101	47.7 - 153.8	11	20
Ethylbenzene	1.04	mg/Kg	1	1.00	< 0.00160	104	73.5 - 126.3	9	20
Xylene	3.19	mg/Kg	1	3.00	< 0.00410	106	73.6 - 125.9	10	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	\mathbf{Result}	\mathbf{Result}	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.518	0.533	mg/Kg	1	1	52	53	51 - 109.6
4-Bromofluorobenzene (4-BFB)	0.650	0.660	mg/Kg	1	1	65	66	60.3 - 124.3

Matrix Spike (MS-1) Spiked Sample: 136746

QC Batch:	41330	Date Analyzed:	2007-09-20	Analyzed By:
Prep Batch:	35712	QC Preparation:	2007-09-20	Prepared By:

		MS	5			Spike	Ма	atrix			Rec.
Param		Resu	ılt 1	Units	Dil.	Amount	Re	esult	Rec.		Limit
GRO		8.17	7 п	ıg/Kg	1	10.0	<().739	82	10) - 102.2
Percent recovery is based or	n the spik	æ result.	RPD is l	based or	n the spike	and spike d	uplicate	e result.			
		MSD			Spike	Matrix		Re	ec.		\mathbf{RPD}
Param		Result	Units	Dil.	Amount	Result	Rec.	Lir	nit	RPD	Limit
GRO		8.50	mg/Kg	1	10.0	< 0.739	85	10 -	102.2	4	20
Percent recovery is based or	1 the spik	æ result.	RPD is l	oased or	n the spike	and spike d	uplicate	e result.			
		MS	MS	SD		Sp	oike	MS	MSD)	Rec.
Surrogate		Resu	lt Res	sult	Units	Dil. Am	ount	Rec.	Rec.		Limit
Trifluorotoluene (TFT)		0.66	9 0.6	579	mg/Kg	1	1	67	68	47.	.2 - 84.2
4-Bromofluorobenzene (4-B	FB)	1.02	. 1.0	03	mg/Kg	1	1	102	103	58	- 162.6
Matrix Spike (MS-1) QC Batch: 41343 Prep Batch: 35724	Spiked S	ample: 12	37014 Date A QC Pr	Analyzec eparatio	d: 2007-0 on: 2007-0)9-21)9-21			A P	nalyzed repared	l By: l By:
		MS	8			Spike	Ma	trix			Rec.
Param		Resi	ilt 1	Units	Dil.	Amount	Res	sult	Rec.	I	Limit
DRO	10	73	5 n	ng/Kg	1	250	68	39	18		2 - 201.4
Percent recovery is based or	ı the spik	æ r e sult.	RPD is l	based or	n the spike	and spike d	uplicate	e result.			
		MSD			\mathbf{S} pike	Matrix		Re	ec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Lir	nit	RPD	Limit
DRO	11	691	mg/Kg	1	250	689	1	30.2 -	201.4	6	20
Percent recovery is based or	n the spik	æ result.	RPD is l	oased or	n the spike	and spike d	uplicate	e result.			
	MS	MSE)			Spike		MS	MSI)	Rec.
Surrogate	Result	Resul	lt, 1	Units	Dil.	Amount	t.	Rec.	Rec.		Limit
n-Triacontane	202	249	n	ng/Kg	1	150		135	166		10 - 194
Matrix Spike (MS-1) QC Batch: 41432 Prep Batch: 35802	Spiked S	ample: 13	6328 Date An QC Prep	alyzed: paration	2007-09 1: 2007-09	-24 -24			Anal Prep	yzed By ared By	y: ER. y: ER.
		MS	1			Spike	Ma	atrix			Rec.
Param		Resu	lt 1	Units	Dil.	Amount	R.e	esult	Rec.		Limit
Chloride		104	n n	1g/Kg	5	62.5	35	.896	109	75	.6 - 117
Percent recovery is based or	1 the spik	e result.	RPD is b	oased or	n the spike	and spike d	uplicate	e result.			
		MSD			Spike	Matrix		R	ec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Liı	mit	RPD	Limit
Chloride	12	111	mg/Kg	5	62.5	35.896	120	75.6	- 117	6	20

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

¹⁰Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

¹¹Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ¹²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (ICV-1)

QC Batch:	41245		-09-19	Analyzed By:			
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	260	104	85 - 115	2007-09-19

Standard (CCV-1)

QC Batch:	41245		Date A	nalyzed: 2007-	A	Analyzed By:	
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	261	104	85 - 115	2007-09-19

Standard (ICV-1)

QC Batch: 41	1283		Date Analyzed: 2007-09-19						
			ICVs	ICVs	ICVs	Percent	Data		
			True	Found	Percent	Recovery	Date		
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed		
Benzene		mg/Kg	0.100	0.0853	85	85 - 115	2007-09-19		
Toluene		mg/Kg	0.100	0.0913	91	85 - 115	2007-09-19		
Ethylbenzene		mg/Kg	0.100	0.0873	87	85 - 115	2007-09-19		
Xylene		mg/Kg	0.300	0.268	89	85 - 115	2007-09-19		

Standard (CCV-1)

QC Batch: 41283			Date Analy	Analyzed By:			
Param	Flag	Unite	CCVs True	CCVs Found	CCVs Percent Becovery	Percent Recovery	Date
Renzene	I'IAg	me/Ke	0.100	0.0891		85 - 115	2007-09-19
Toluene		mg/Kg	0.100	0.0920	92	85 - 115	2007-09-19
Ethylbenzene		mg/Kg	0.100	0.0883	88	85 - 115	2007-09-19
Xylene		mg/Kg	0.300	0.264	88	85 - 115	2007-09-19

QC Batch:	41288		А	Analyzed By:			
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	280	112	85 - 115	2007-09-20

Standard (CCV-1)

QC Batch:	41288		Date A	nalyzed: 2007-	09-20		Analyzed By:	
			CCVs	CCVs	CCVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
DRO		mg/Kg	250	282	113	85 - 115	2007-09-20	

Standard (CCV-2)

QC Batch:	41288		Date A	A	Analyzed By:		
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	281	112	85 - 115	2007-09-20

Standard (ICV-1)

QC Batch:	41290		Date A	nalyzed: 2007-	I	Analyzed By:				
			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date			
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed			
GRO		mg/Kg	1.00	0.997	100	85 - 115	2007-09-19			

Standard (CCV-1)

QC Batch:	41290		Date A	1	Analyzed By:		
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	\mathbf{Date}
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.06	106	85 - 115	2007-09-19

Standard (ICV-1)

QC Batch: 413	29		Date Analy	zed: 2007-09	-20	1	Analyzed By:
			ICVs True	ICVs Found	ICVs	$\begin{array}{c} \operatorname{Percent} \\ \operatorname{Recovery} \end{array}$	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.102	102	85 - 115	2007-09-20
Toluene		mg/Kg	0.100	0.110	110	85 - 115	2007-09-20
Ethylbenzene		mg/Kg	0.100	0.110	110	85 - 115	2007-09-20
Xylene		mg/Kg	0.300	0.345	115	85 - 115	2007-09-20

Standard (CCV-1)

QC Batch: 41329

Date Analyzed: 2007-09-20

Analyzed By:

		,	CCVs	\mathbf{CCVs}	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene	-	mg/Kg	0.100	0.0908	91	85 - 115	2007-09-20
Toluene		mg/Kg	0.100	0.0988	99	85 - 115	2007-09-20
Ethylbenzene		mg/Kg	0.100	0.0942	94	85 - 115	2007-09-20
Xylene		mg/Kg	0.300	0.289	96	85 - 115	2007-09-20

Standard (ICV-1)

QC Batch:	41330		Date A	nalyzed: 2007-	-09-20	A	analyzed By:
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.11	111	85 - 115	2007-09-20

Standard (CCV-1)

QC Batch:	41330		Date A	nalyzed: 2007-	-09-20	A	nalyzed By:
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.03	103	85 - 115	2007-09-20

Standard (ICV-1)

QC Batch:	41343		Date A	nalyzed: 2007	A	analyzed By:	
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	230	92	85 - 115	2007-09-21

Standard (CCV-1)

QC Batch:	41343		Date A	nalyzed: 2007-	I	Analyzed By:	
			CCVs	CCVs	CCVs	Percent	D
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	239	96	85 - 115	2007-09-21

Standard (ICV-1)

QC Batch: 41432

Date Analyzed: 2007-09-24

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2007-09-24
Standard (CCV-1)						
QC Batch:	41432		Date Anal	yzed: 2007-09)-24	Anal	yzed By: ER
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	12.5	12.1	97	90 - 110	2007-09-24

TRACE ANALYSIS, INC.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

5002 Basin Street, Suite A1 Midland, Texas 79703

Phone: 432-689-6301 Fax: 432-689-6313

	Project Manager:	Ken Dutton	·····		PAGE 01	OF 02										I	Proj	ect	Nam	9: <u>V</u> /	ACU	UM	so	UR	4" T	RA	<u>P</u>			<u> </u>
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	City/State/Zip:	Lovington, NM 88260									_								PO	#: <u>IN</u>	voi	CE T	O PL		<u>s m</u> /	ARKI	ETIN	G		
	Telephone No:	(505) 441-2124				Fax No:	(5	05)	396-	142	9					Rep	ort	For	nat:	X	Sta	anda	rd	I	Πт	RRF	,		NPD	ES
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TRACE ANALYSIS, INC.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

5002 Basin Street, Suite A1 Midland, Texas 79703 Phone: 432-689-6301 Fax: 432-689-6313

	Project Manager: Ken Dutton PAGE 02 OF 02													Pr	ojec	t Na	me:	VA	CUL	JM	so	UR	<u>4" T</u>	RA	<u>P</u>									
1	Company Name	Basin Environm	ental Serv	/ice Te	chnolo	igies, LLC														P	ojec	:t #:_	SR	<u>S:</u> :	200	7-2	33							
1	Company Address:	P. O. Box 301																	1	Proj	ect i	.oc:	Lea	Col	inty	, NM	1						_	
	City/State/Zip:	Lovington, NM 8	8260												_						P	D #:	INV	OIC	Е ТС) PL	AIN	S <u>M</u> A		ETIN	G			
	Telephone No:	(505) 441-2124					Fax No:		(50	5) 3!	96- 1	429	_					R	epor	t Fa	rma	t	X	Star	ndan	đ		П т	RRP	•		NPD	E\$	
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State of New Mexico Commissioner of Public Lands

PATRICK H. LYONS COMMISSIONER

> 310 OLD SANTA FE TRAIL P.O. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE Phone (505) 827-5760 Fax (505) 827-5766 www.nmstatelands.org

RECEIVED SEP 1 1 MD

September 5, 2007

Plains Pipeline, LP 333 clay Street, Suite 1600 Houston, TX 77210-4648

Attn: Camille Reynolds

Re: Right-of-Entry Permit No. ROE-1570

Dear Ms. Reynolds,

Enclosed is an approved copy of the captioned right-of-entry permit. If any corrections are necessary, please let us know and we will retype or amend this permit as necessary.

Also enclosed is a Right of Entry for remediation. We are in need of more information. Fill out the sections only with the checks marks next to them.

If you have any questions, please feel free to contact this office at the address above or for myself, Melissa Armijo at (505) 827-5710.

Sincerely, Maine

Melissa Armijo, Management Analyst Right of Way Section Surface Resources Management Division

-State Land Office Beneficiaries -

Carrie Tingley Hospital • Chantable Penal & Reform • Common Schools • Eastern NM University • Rio Grande Improvement • Miners' Hospital of NM •NM Boys School • NM Highlands University • NM Institute of Mining & Technology • New Mexico Mibitary Institute •NM School for the Deal • NM School for the Visually Handicapped • NM State Hospital • New Mexico State University • Northern NM Community College • Penitentiary of New Mexico • Public Buildings at Capital • State Park Commission • University of New Mexico • UNM Soline Lands • Water Reservoirs • Western New Mexico University

2007-233 Vacuum Sour 4"

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NEW MEXICO STATE LAND OFFICE Patrick H. Lyons, Commissioner of Public Lands New Mexico State Land Office Building P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT CONTRACT NO. ROE-1570

1. RIGHT OF ENTRY PERMIT

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This permit is issued under the authority of NMSA 1978, Section 19-1-2. In consideration of and subject to the terms, covenants, conditions, agreements, obligations and reservations contained in the permit and all other existing rights and regulations, the Commissioner of Public Lands, New Mexico State Land Office, State of New Mexico, hereinafter called "COMMISSIONER," grants to Plains Pipeline, LP State of , whose address is 333 Clay Street, Suite 1600, Incorporation (if applicable). Houston, TX 77210-4648 , hereinafter called "PERMITTEE," permission to enter upon the specific tract(s) of State Trust Land described in this permit only for the term, and only for the permitted use, described in this permit.

A. 1 ENM AND LAND DESCRIPTION Right of entry is granted for a term of <u>180 days</u>, commencing July 30, 2007 and rending January 30, 2008 to the following State Trust Lands. Section <u>33</u>, Township <u>17 South</u>, Range <u>35 East</u> Lea County

3. APPLICATION and PROCESSING FEE

\$ 530.00 (Five Hundred and Thirty Dollars)

4. PERMITTED USE, PERSONNEL, EQUIPMENT AND MATERIALS

Permitted use is for the purpose of: Environmental site investigation. If necessary, subsurface delineation of contaminants will be performed in order to determine extent of contaminants in soil and possible impact to groundwater. Investigation activities may include: soil borings, placement of trenches, and monitor wells. If monitor wells are placed upon the subject property, Permittee will file an Application for Water Development Easement for the placement of the monitor wells as soon as possible. Additional activities/that may be conducted include soil excavation, shredding, and/or hauling. To minimize disturbance, shredding is only allowed in existing disturbed areas. No landfarming or landspread allowed.

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The granting of this permit does not allow access across private lands.

5. IMPROVEMENTS

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No improvements shall be placed on the premises without the prior written consent of the Commissioner.

6. RESERVATIONS

Commissioner reserves the right to execute leases, rights of way, easements, permits, exchange agreements, sale agreements, permits and other lawful rights on or across the land covered by this permit, including but not limited to any such rights for mining purposes and for the extraction of oil, gas, salt, geothermal resources, and other mineral deposits there from and the right to go upon, explore for, mine, remove and sell same.

7. COMPLIANCE WITH LAWS

Permittee shall at its own expense comply fully with and be subject to all applicable regulations, rules, ordinances, and requirements of law or of the Commissioner, including but not limited to the regulations of the State Land Office; Chapter 19 NMSA governing Ì State Trust Lands; federal and state environmental laws and regulations; and the New Mexico Cultural Properties Act, NMSA 1978 Sections 18-6-1 through 18-6-23. IF3s illegal for any person or his agent to appropriate, excavate, injure, or destroy any historic, or prehistoric ruin or monument, or any object of historical, archaeological, architectural, or scientific value situated on lands owned or controlled by the State Land Office without a valid permit issued by the Cultural Properties Review Committee and approved by the N.M. Commissioner of Public Lands.

8. HOLD HARMLESS AND IMDEMNIFICATION

Permittee shall save, hold harmless, indemnify and defend Commissioner, the State Land official and individual capacities, of and from any and all liability, claims, losses, Office, the State of New Mexico, and any of their officers, employees or agents, in their damages, costs, and fees arising out of or alleged to arise out of, or directly or indirectly connegted with, the operations of Permittee under this permit on or off State Trust Lands or afising out of the presence on State Trust Lands of any equipment, material, agent, invited, Contractor or subcontractor of Permittee. This Hold Harmless and Indemnification clause covers any claim, including any brought in any court or before any administrative agency, of any loss or alleged loss, and any damages or alleged damages asserted with respect to any violation or alleged violation of any state, federal or local law or regulation, including but not limited to any environmental law or regulation, any cultural properties law (including the New Mexico Cultural Properties Act, cited above) or regulation, and any alleged damage to the property, rights or interests of any State Land Office lessee, right-of-way holder, or other permittee.

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9. AMENDMENT

This permit shall not be altered, changed, or anzended except by an instrument in writing executed by Commissioner and Permittee.

10. WITHDRAWAL

Commissioner reserves the right to withdraw any or all of the land authorized for use under this permit. If applicable, Permittee shall vacate the acreage specified within 30 days after receipt of written notification of withdrawal from the Commissioner.

11. CANCELLATION

The violation by Permittee of any of the terms, conditions, or covenants of this permit or the nonpayment by Permittee of the fees due under this permit shall at the option of the Commissioner be considered a default and shall cause the cancellation of this permit 30 days after Permittee has been sent written notice of such.

12. PRESERVE AND PROTECT

The Permittee agrees to preserve and protect the natural environmental conditions of the land encompassed in this permit, and to take those reclamation or corrective actions that are accepted soil and water conservation practices and that are deemed necessary by the Commissioner to protect the land from pollution, erosion, or other environmental degradation. The Permittee further agrees not to injure the property of, or interfere with the operations or rights of, any State Land Office lessee, right-of-way holder, easement holder or other permittee who has rights to use the State Trust Land subject to this permit.

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13. RECLAMATION, REMOVAL OF EQUIPMENT, MATERIALS AND WASTE

The Permittee agrees to reclaim those areas that may be damaged by activities conducted thereon. :0

c.c The Permittee agrees to remove from the State Trust Lands, no later than the end of the term of this permit, all equipment, and materials it has placed or brought upon the land and to clean up and remove from the land any trash, waste, effluent, or other products used or brought upon the land in connection with this permit.

14. SPECIAL INSTRUCTIONS AND/OR RESTRICTIONS

H. No off road traffic allowed.
 J. No wood collection or tree cutting allowed.
 J. Disturbing, dislodging, damaging, defacing, destroying or removing historical farchaeological, paleontological or cultural sites or artifacts is prohibited.

5. This permit does not grant a right to enter State Trust Lands to which there is no public access.

6. Any uses or activities not within the scope of this permit are not allowed unless prior written approval from the Commissioner of Public Lands is granted.

7. OTHER:

WITNESS the hands and seals of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

Espanne, Plains Pipeline Telephone: 713-646-4625 PERMITTEE

	ACKNOWLEDGMEN	2007 RIIG 21 STATE L. SANTZ
STATE OF TEXA	ς ,	
COUNTY OF <u>Har</u>	<u>(,`S)</u>	NOTARY PUBLIC State of Texas 5 Correct Exp. 01-23-2008
The foregoing instrument <u>August</u> , 20 <u>07</u>	was acknowledged befor 	re me this <u>17th</u> day of
My Commission Expires: <u>1-</u>	23-08 <u>B</u> Notai	<u>na Diako</u> RY PUBLIC
Patrick H Z COMMISSIONER OF PUBLIC	CLANDS DAT	E: 8/29/07

Camille J Reynolds

From: Sent: To: Subject: Rebecca E Esparza Monday, August 06, 2007 10:32 AM Camille J Reynolds Vacuum Sour 4" Trap ROE

This ROE was received from NMSLO today - effective 7/30/07 to 1/30/08. As soon as it is signed, paid, and sent to the State I will send you a copy.

Rebecca E. Esparza Environmental & Regulatory Compliance Specialist Plains All American

Ph. 713.646.4625 Fax 713.646.4310 Cell 713.302.8486

Vacuum Sour 41 Trap 2007-

State of New Mexico **Energy Minerals and Natural Resources**

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

Form C-141 Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

	OPERATOR	x Initial Report	Final Report
Name of Company Plains Pipeline	Contact Camille Reynolds		
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 505-441-0965		
Facility Name Vacuum Sour 4 Inch Trap	Facility Type 4"Steel Pipeline		

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Shirtoco	1 NUMPT	NI 1 1	
	1 7 99 1101	NLV -	
Surface	OWLEI	SLO	

Mineral Owner

Lease No.

		_		LOCA	TION OF REI	LEASE	_	
Unit Letter J	Section 33	Township 17S	Range 35E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea

Latitude 32° 47' 17.3" Longitude 103° 27' 33.9"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 30 barrels	Volume Recovered 0 barrels				
Source of Release 4" Steel Pipeline	Date and Hour of Occurrence	Date and Hour of Discovery				
	07/20/2007 @ 13:00 07/20/2007 @ 13:30					
Was Immediate Notice Given?	If YES, To Whom?					
X Yes 🗌 No 🗌 Not Required	Pat Richards	\$2223 4 28 26 26				
By Whom? Camille Reynolds	Date and Hour 07/20/2007 @ 15:	45 0 20				
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	itercourse of Rolling				
🗌 Yes 🛛 No		18				
If a Watercourse was Impacted, Describe Fully.*		P Receiver 2				
		19 Active of				
		12 CO				
Describe Cause of Problem and Remedial Action Taken: Tie in valve on t	he Phillips Central 8 inch line malfur	nctioned allowing of 40 flow back into the				
idled 4 inch receiver trap. Internal corrosion on the idled 4 inch line result	ed in the crude oil release. The line w	vas cut and capped. Line idled, therefore,				
pressure and volume is not applicable.						
Describe Area Affected and Cleanup Action Taken.* The initial visual im	pacted area was approximately 80 fee	et long by 20 feet wide. The impacted soil				
is being stockpilled on site on a 6-mil poly liner.						
I harshy cartify that the information given about is true and complete to the		1.1				
regulations all operators are required to report and/or file certain release n	te best of my knowledge and underst	and that pursuant to NMOCD rules and				
public health or the environment. The acceptance of a C-141 report by the	NMOCD marked as "Final Percett"	does not relieve the ensention of lishility				
should their operations have failed to adequately investigate and remediat	Contamination that nose a threat to	does not relieve the operator of hability				
or the environment. In addition, NMOCD acceptance of a C-141 report d	oes not relieve the operator of respon	sibility for compliance with any other				
federal, state, or local laws and/or regulations.	ses not tenere ine operator of respon	stority for compliance with any other				
	OIL CONSERV					
	OIL CONSER	VATION DIVISION				
Signature amille tremolus						
	Approved by District Supervisor					
Printed Name: Camille Reynolds	approved by Disulet Supervisor.					
Title: Remediation Coordinator	Approval Date:	Expiration Date:				
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:	Attached []				
Date: 07/26/2007 Phone:505-441-0965						

* Attach Additional Sheets If Necessary

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	Plair	ns Oil	Spill Report	Form	(SRS	Data c	ollect	tion)	
	Souther	n & Sout	hwestern Division	s Enviror	nmental 8	Regulate	ory Com	pliance	
Company:	1 PlAins	> Pipel	in (002)	· · · · · ·				angen in the state of the state	Stree were the set of the
Division Southwest	ern Pipeline	District	Permian Pipeline Nor	County	Lea		State 200	New Mexico	·
								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Regulatory Jurisdict	ion	Inter/Intra	TK/PL		X Non-	regulated g	athering	TRRC	DOT/OPS
Facility or pipeline n	ame:	vacuun sou	r 4 inch trap		Pipeline S	egment:	vacuum so	ur Trach	The state of the second
Date discovered:(mm/	td/yyyy)	l	7/20/2007		Location	SL Code:		/4/65	and the second frantischer the state
	1				Sector Patrick		-00)	r	12 20 mm
Discovered By:	air patrol (I	=ric)			Time Disc	overed: (00	:00) 0)		13.30 pm
Reported To:	Virgil A. Gi	DDS			Time Don	nted: (00.0			13:40 pm
Reported by:	IVIIGII A. GI	DOS		Date and	Time Penor	ded to EUR			13:45 pm
Person making kept		Virgit A. Git	005	Valt and.	ane nepu			l	10.40 pm
Catfl on Decimes	Minutes	Seconds		lat/Lon:	Decimal D	earees	· · · · · · · · · · · · · · · · · · ·	THE SECTION	NT CONSTRUCTOR
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east of buckeye nm a	bout 5 miles	and south al	bout .75 of a mile.						
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					The sector stars the				
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				1 / Ph		1999-12-1-1 (P. 10-1-1-1)			
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Internal Corrosio	n	Sp. San Sugar	Operator Error		5 m		ancy		
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			<u>, , , , , , , , , , , , , , , , , , , </u>						
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Name of Third Party	(Company)	or Individua	al): All			_		Explain Bel	ow If needed:
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Revised 3/7/2007

* Attach

State of New Mexico **Energy Minerals and Natural Resources**

tion Division OH C

Form C-141 Revised October 10, 2003

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

000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 220 S. St. Francis Dr., Santa Fe, NM 87505 Release Notifica						St. Franc	is Dr.			District w	Office i th Rule	in accordance e 116 on back
1220 S. St. Fran	cis Dr., Santa	a Fc, NM 87505		Sa	inta Fe	, NM 875	05			ana an		Side of Ionin
			Rele	ase Notific	eation	and Co	orrective A	ction			_	
				. <u></u>		OPER/	TOR	X	Initia	l Report		Final Report
Name of Co	ompany Pla	ains Pipeline		11 (99260		Contact Car	nille Reynolds	<u> </u>				
Address 31	12 W. US	HWY 82, LOV	h Tran	NM 88200		Facility Tyr	NO. 303-441-09	0) ine		······		
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r				LOCA	TION	OF RE	LEASE	T				
Unit Letter J	Section 33	Township 17S	Range 35E	Feet from the	North/	South Line	Feet from the	East/West	Line	County Lea		
L	4	Latitud	e_32° 47	" 17.3"	·····	Longitude	<u>103° 27' 33.9</u>	, , , , , , , , , , , , , , , , ,				
				NAT	URE	OF REL	EASE					
Type of Rele	ase Crude (Dil				Volume of	Release 30 barre	els Vo	olume R	ecovered 0	barrel	s
Source of Re	lease 4" Ste	el Pipeline				Date and H 07/20/200	Iour of Occurrenc 7 @ 13:00	ce Da 07	ate and //20/200	Hour of Di: 7 @ 13:30	scovery	,
Was Immediate Notice Given? X Yes No Not Required						If YES, To Pat Richar	Whom? ds			222	24.25	26-
By Whom? Camille Reynolds						Date and Hour 07/20/2007 @ 15:45						
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse						
If a Watercon	urse was Im	pacted, Deser	ibe Fully.*	•		.i			12	- Reg	Vile	
									516	ly: C	55	64 5 f
											.0	
Describe Con	top of Drohl	om and Dama	dial A stin	- Talana Tin in a	.1 A					2 Sy into	Rock	And the second second
idled 4 inch i	receiver trap	o. Internal corr	osion on t	he idled 4 inch li	ne result	ed in the cruc	le oil release. The	e line was cu	it and ci	apped. Lin	e idled,	therefore,
Describe Are	a Affected	and Cleanup /	Action Tak	en.* The initial v	visual im	pacted area v	vas approximately	y 80 feet lon	g by 20	fect wide.	The ir	npacted soil
is being stock	cpiled on si	te on a 6-mil p	oly liner.									-
I hereby certi	fy that the	information gi	ven above	is true and comp	lete to the	ne best of my	knowledge and u	inderstand th	hat purs	uant to NM	lOCD r	ules and
regulations a	or the envi	are required to	o report ar	of a C-141 repr	release no	• NMOCD m	nd perform correct arked as "Final R	ctive actions enort* does	for rele	eve the ope	may er	ndanger fliahility
should their o	operations h	ave failed to a	dequately	investigate and r	emediate	c contaminati	on that pose a thr	reat to groun	d water	, surface w	ater, hu	man health
or the environ	nment. In a	ddition, NMC	CD accep	tance of a C-141	report d	oes not reliev	e the operator of	responsibilit	ty for co	ompliance	with any	y other
lederal, state,	or local la	ws and/or regi	uations.		T			CTD37A7				
	1			onne		<u>OIL CONSERVATION DIVISION</u>						
Signature	am	UU 1	724	nolle								
Printed Name	e: Camille F	Ceynolds				Approved by	District Supervis	ior:				
Title: Remed	iation Coor	dinator				Approval Da	le:	Expi	iration	Date:		
E-mail Addre	ess: cjreyno	lds@paalp.com	n			Conditions of	Approval:			Attachar		:
Date: 07/26/2	2007			Phone:505-441-4	0965					Autochic	· •	
Attach Addi	tional She	ets If Necess	ary								·····	

State of New Mexico Energy Minerals and Natural Resources

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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

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			Rel	ease Notific	atio	n and \overline{C}	orrective A	ction					
						OPER	TOR		x Initi	al Report	🗌 Fina	al Repo	
Name of Co	ompany Pla	ains Pipeline				Contact Car	nille Reynolds						
Address 31	12 W. US	Hwy 82, Loy	vington, 1	NM 88260		Telephone No. 505-441-0965							
Facility Nat	ne Vacuun	n Sour 4 Inc	h Trap			Facility Typ	e 4"Steel Pipeli	ne					
Surface Ow	mer SLO			Mineral O	wner	•	· · · · · · · · · · · · · · · · · · ·		Lease M	No.			
				LOCA	TIO	N OF RE	LEASE						
Unit Letter J	Section 33	Township 17S	Range 35E	Feet from the	North	/South Line	Feet from the	East/W	est Line	County Lea			
	1	Latitud	e_32° 47	7' 17.3"		_ Longitude	103° 27' 33.9'	···			<u> </u>		
				NAT	URE	OF REL	EASE						
Type of Rele	ase Crude C	Dil		· · · · · · · · · · · · · · · · · · ·		Volume of	Release 30 barrel	s	Volume F	Recovered 0	barrels		
Source of Re	lease 4" Ste	el Pipeline			Date and H	our of Occurrence	e	Date and	Hour of Dis	covery	_		
Was Immedia	ate Notice C	Jiven? X	Yes 🗌	No 🗌 Not Rec	quired	If YES, To Pat Richard	Whom? is	L.	011201200			,	
By Whom? (Camille Rey	nolds				Date and H	our 07/20/2007 (@ 15:45			2324252	625	
Was a Watercourse Reached?						If YES, Vo	lume Impacting th	he Water	course.	102120	A	50	
idled 4 inch r pressure and Describe Arc is being stock	volume is n a Affected a cpiled on site	em and Reme . Internal corr <u>ot applicable.</u> and Cleanup A e on a 6-mil p	hal Action osion on t action Tak oly liner.	n Taken: The in val the idled 4 inch line cen.* The initial vis	ve on t e result sual im	the Phillips Contend in the crud	entral 8 inch line n e oil release. The as approximately	nalfuncti line was 80 feet l	oned allo cut and c ong by 20	wing on to 1 apped. Line feet wide.	The impacto	o the fore,	
I hereby certi regulations al public health should their o or the enviror federal, state, Signature	fy that the in I operators a or the envir operations ha iment. In ac or local law	nformation gi are required to onment. The ave failed to a ddition, NMO vs and/or regu	ven above o report an acceptance dequately CD accep lations.	e is true and comple ad/or file certain re e of a C-141 repor investigate and res tance of a C-141 re NOLOS	ete to the lease not t by the mediate eport de	he best of my otifications ar e NMOCD m e contaminati oes not reliev	knowledge and ur d perform correct urked as "Final Re on that pose a thre the operator of re OIL CONS	nderstand tive actio port" do eat to gro esponsib SERVA	I that purs ns for rele es not reli und water ility for co ATION	uant to NM cases which eve the oper surface wa ompliance w DIVISIC	OCD rules ar may endang rator of liabil tter, human h vith any othe	nd er lity nealth r	
Printed Name	: Camille R	eynolds	<i>v v</i>			Approved by	District Superviso		Jah	mson-			
fitle: Remedi	ation Coord	linator			4	Approval Date	: 7.26.0	7 Ел	piration l	Date: 4 .	28.07		
E-mail Addres	ss: cjreynolo	ds@paalp.con)		•	Conditions of	Approval:			Attached			
Date: 07/26/20	007			Phone:505-441-09	65	Submit	FINAL C.A						
ttach Addit	ional Sheet	ts If Necessa	ry			W ATTA	alments	84			+	1	
										RPT	+)50)	