

# SITE CLOSURE REQUEST AND RESPONSE TO LETTER OF VIOLATION

**GEM 8705 JV-P No. 004 BATTERY** UNIT N, SECTION 2, TOWNSHIP 20 SOUTH, RANGE 33 EAST WEST OF HOBBS LEA COUNTY, NEW MEXICO

> Inspection # iLWH0720051100 RP #1476



Prepared for:

BTA Oil Producers 104 S. Pecos Midland, Texas 79701

Prepared by:

NOVA Safety and Environmental 2057 Commerce Drive Midland, Texas 79703

October 2007

Curt D. Stanley

Project Manager

oll i

Todd K. Choban, P.G. Vice President, Technical Services



State of New Mexico Energy Minerals and Natural Resources

> 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

Release Notification and Corrective Action												
				(	OPE	RATOR		Initia	al Report		Amended	Final Report
Name of Company BTA Oil Producers						Contact:	Joseph	A. (Sl	cip) Baca	(-	6	
Address:	104	S. Pecos, Mi	dland, T2	X 79701		Telephone 1	No. 432-62	28-375	3			
Facility Nan	ne	GEM 8	705 JV-P	No. #4 Battery		Facility Typ	e: Tank B	Battery				
Surface Own	ner:	tate of New	Mexico	Mineral O	wner	State of	New Mexico		Lease 1	No. V	/-2199	
				LOCA	TIO	N OF RE	LEASE					
Unit Letter N	Section 2	Township 20S	Range 33E	Feet from the 660	Nort	h/South Line South	Feet from the 2310	East/	West Line West	County Lea		
			Latitude	32 degrees, 35	<u>, 45.3</u>	3 <u>3"</u> Longitud	e 103 degrees, 3	<u>38' 10.</u>	<u>78"</u>			
				NAT	URE	E OF REL	EASE		1			
Type of Relea	ise:	Oil / Produ	iced Water	•		Volume of	Release: 20 BB	L	Volume I	Recovered	0 BBL	
Source of Rel	ease:	Swedge / Tar	ik Leak			Date and H 11/10/26	lour of Occurrence	e	Date and $11/10/200$	Hour of $D$	Discovery	r
Was Immedia	te Notice (	Tiven?				If YES. To	Whom?		11/19/200	00 10.30	nours CS	1
in us mineuro		Y	'es 🛛 N	lo 🔲 Not Requi	ired	Larry Joh	nson, Hobbs Distr	rict Off	īce			
By Whom?	Pam Insk	eep				Date and H	lour 11/20/2006	2:00 h	ours CST	23242	25-	
Was a Watero	ourse Reac	ched?				If YES, Volume Impacting the Watercourse?						
			Yes 🛛	No					(SV	R.	120	$\langle \rangle$
If a Watercou NA	rse was Im	pacted, Descr	ibe Fully.*						1778	DET 2001	i bi	30
Describe Cau The release w released. The	se of Proble as the resu swedge wa	em and Reme It of internal c as plugged and and Cleanup <i>A</i>	dial Action corrosion o l the tank	n Taken.* f a 4"x3" swedge was emptied. en.*	on the	back side of T	Fank #2 which rest	ulted in	antestimat	ed 20 BBI	LS of Oik	Water being
The depth to Impacted soil been submitte	groundwate was excave ed detailing	er required soi ated stockpile additional ren	l clean up d, blended nediation	levels not to excer , sampled and wit activities.	ed 1,0 h NM	00 mg/Kg TPH OCD approval	I, 10 mg/Kg benze was used to backt	ene and fill the	total BTE2 excavation.	X not to ex A Site Cl	cceed 50 n losure Req	ng/Kg. uest has
I hereby certi- regulations al public health should their o or the environ federal, state,	fy that the i l operators or the envir perations h iment. In a or local law	information gi are required to ronment. The ave failed to a ddition, NMC ws and/or regu	ven above o report ar acceptanc adequately OCD accep ilations.	is true and compl d/or file certain re e of a C-141 repo investigate and re tance of a C-141 r	ete to elease rt by t emedia report	the best of my notifications a he NMOCD m ate contamination does not reliev	knowledge and un nd perform correct arked as "Final Re on that pose a thre e the operator of r	ndersta tive act eport" o eat to g respons	nd that purs ions for rel loes not rel round wate ibility for c	suant to N eases which ieve the op r, surface compliance	MOCD ru ch may en perator of water, hun e with any	les and danger liability nan health other
Signature: Maph Borg						OIL CONS	SERV C	ATION	DIVIS	ION		
Printed Name Joseph A. (Skip) Baca Approved by Environmental Engineer. Discrete Control Contro						?						
Title:		vironmental C	Coordinato	<u>.</u>		Approval Dat	e: 12.12.0	٦	Expiration	Date:		
E-mail Addre	ss: sba	aca@btaoil.co	m Dhanai	(12) 602 275	2	Conditions of	Approval:			Attache	ed 🔲	
Attach Addit	ional Shee	ets If Necess	Phone: arv	(432) 082-3/5	3							

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# **TABLE OF CONTENTS**

1.0	INTRODUCTION AND SITE BACKGROUND	.1
2.0	NMOCD SITE CLASSIFICATION	.1
3.0	SUMMARY OF FIELD ACTIVITIES	. 1
4.0	SITE CLOSURE REQUEST	. 3
5.0	RESPONSE TO LETTER OF VIOLATION	.3
6.0	LIMITATIONS	.4
7.0	DISTRIBUTION	. 5

### FIGURES

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Figure 1:	Site Location Map
Figure 2:	Site and Sample Locations Map

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## TABLES

 Table 1:
 Confirmation Soil Sample Analytical Results

### APPENDICES

Appendix A:	Laboratory Reports
Appendix B:	Letter of Violation
Appendix C:	Initial, Final and Amended Final Release Notification and Corrective Action (Form C-141)

### **1.0 INTRODUCTION AND SITE BACKGROUND**

On behalf of BTA Oil Producers (BTA), NOVA Safety and Environmental (NOVA) has prepared this Site Closure Request and Response to Letter of Violation for the site known as GEM 8705 JV-P No. 004 Battery. The GEM 8705 JV-P No. 004 Tank Battery is an active oil and gas tank battery operated by BTA Oil Producers. The release site is located in the Unit N, Section 2, Township 20 South, Range 33 East, Lea County, New Mexico and the site is located on property is owned by The State of New Mexico. A site location map is provided as Figure 1.

On July 19, 2007, BTA was issued a Letter of Violation by the New Mexico Oil Conservation (NMOCD), during a periodic inspection. The inspector, Mr. Buddy Hill cited BTA with a violation for a previous crude oil spill, which had not been remediated to NMOCD specifications. The crude oil spill observed by Mr. Hill appears to be associated with a release which occurred on November 19, 2006. Mr. Hill also cited BTA with a violation for a drip pan located beneath a salt water disposal transfer pump, which had overflowed due to recent heavy rains in the area. Mr. Hill further observed the perimeter battery fencing was in need of repair and observed that there was evidence indicating livestock had been inside the perimeter fence. The Letter of Violation is provided as Appendix B. A site map illustrating sample collection locations and other site details is provided as Figure 2. The Initial, Final and an Amended Final Release Notification and Corrective Action (Form C-141) are provided as Appendix C.

### 2.0 NMOCD SITE CLASSIFICATION

Groundwater at this site is encountered at a depth of approximately one hundred feet below ground surface (bgs). This depth to groundwater results in a score of 10 being assigned to this site based on the NMOCD ranking criteria. The distance to the nearest water source exceeds 1,000 feet, resulting in 0 points being assigned to the site on this ranking criterion. There is no surface water body located with 1,000 feet of the site, resulting in 0 points being assigned on this ranking criterion.

The NMOCD's *Guidelines for Remediation of Leaks, Spills and Releases* (NMOCD, 1993), indicates the GEM 8705 JV-P No. 004 Battery site has a ranking score of 10 points. The soil cleanup levels for a site with a ranking of 10 requires benzene concentrations below 10 mg/Kg, total benzene, toluene, ethylbenzene and xylene (BTEX) concentrations below 50 mg/Kg and total petroleum hydrocarbons gasoline range organics / diesel range organics (TPH-GRO/DRO) concentrations below 1,000 mg/Kg.

### 3.0 SUMMARY OF FIELD ACTIVITIES

On August 21 through 29, 2007, a backhoe and hand labor was utilized to excavate hydrocarbon impacted soil observed inside the secondary containment berm at the GEM 8705 JV-P No. 004 Battery. The impacted soil was stockpiled outside the battery containment on the caliche pad pending laboratory analysis.

On August 24, 2007, soil samples were collected from the excavation floor to evaluate total petroleum hydrocarbon (TPH) concentrations on the excavation floor adjacent to the oil and

produced water storage tanks. The six soil samples were collected utilizing standard industry sampling protocol and were submitted to TraceAnalysis, Inc. of Lubbock, Texas for determination of TPH concentrations using EPA method SW 846-8015b. A Site and Sample Location Map is provided as Figure 2.

The analytical results indicated the concentrations of TPH ranged from below the laboratory method detection limit (MDL) of 50 mg/Kg in soil samples W-1@2', E-1@2', NW-1@2' and SW-1@2' to 7,766 mg/Kg in soil sample NE-1 @ 2'. The soil sample exhibiting the highest concentration of Gasoline Range Organics (GRO) was analyzed for constituents of benzene, toluene, ethylbenzene and xylene (BTEX) using EPA method SW 846-8021b. Soil sample SE-1@2' exhibited a GRO concentration of 345 mg/Kg and was submitted for determination of BTEX concentrations. The analytical results indicated benzene concentrations were below the MDL of 0.05 mg/Kg and concentrations of total BTEX were 0.677 mg/Kg. Based on the analytical results of the soil samples collected on August 24, 2007, two areas (NE-1 and SE-1) requiring additional excavation were identified. Confirmation Soil Sample Analytical Results are summarized in Table 1 and laboratory reports are provided in Appendix A.

On August 29, 2007, a backhoe was utilized to remove additional impacted soil from the floor of the excavation surrounding sample points NE-1 and SE-1. The excavated soil was added to the previously stockpiled soil on the caliche pad. Following the excavation activities, additional soil samples were collected from the newly excavated areas. The soil samples, NE-2 and SE-2 were analyzed for concentrations of TPH. The analytical results indicated the TPH concentrations of soil samples NE-2 and SE-2 were below the MDL of 50 mg/Kg. A soil sample was collected from the floor of the excavation located west of the battery circulation pump (W. of Circ. Pump) and the shallow excavation east of the heater treaters (E of HT). The analytical results for TPH concentrations indicated both soil samples were below the MDL of 50 mg/Kg.

A soil sample was collected on August 29, 2007, from the soil stockpile and submitted to the laboratory to evaluate the TPH concentration of the stockpile and its final disposition. The analytical results indicated the TPH concentration of the stockpile soil sample (SP-1) was 1,009 mg/Kg. Based on the analytical results of the initial stockpile soil sample (SP-1) the stockpile soil was re-blended and re-sampled (SP-E and SP-W) on September 14, 2004. The re-blended stockpile samples were submitted to the laboratory for determination of TPH concentrations using EPA method SW 846-8015b. The analytical results indicated the TPH concentration of soil stockpile sample SP-E was 569 mg/Kg and the TPH concentration of sample SP-W was 419 mg/Kg. Soil stockpile sample SP-W was submitted for determination of BTEX constituents using EPA method SW 846-8021b. The analytical results indicated all of the constituent concentrations of BTEX were below the MDL of 0.02 mg/Kg.

On September 20, 2007, based on laboratory analytical confirmation results below the NMOCD regulatory standard, NOVA on behalf of BTA, requested permission to backfill the GEM 8705 JV-P No. 004 Battery excavation with blended soil stockpiled onsite. On September 20, 2007, the NMOCD – Hobbs District office approved the backfilling of the excavation with the blended soil.

On September 26-27, 2007, the excavation was backfilled with blended soil and contoured. The release site is an active tank battery and no re-vegetation is planned at this time.

### 4.0 SITE CLOSURE REQUEST

The analytical results of final confirmation excavation floor soil samples indicate benzene, total BTEX and TPH concentrations are below the required NMOCD regulatory levels of 10 mg/Kg, 50 mg/Kg and 1,000 mg/Kg, respectively.

Based on the analytical results of confirmation soil samples, NOVA recommends that BTA provide the NMOCD Hobbs district office a copy of this Site Closure Request and Response to Letter of Violation Request and request the NMOCD approve site closure of the GEM 8705 JV-P No. 004 Battery.

### 5.0 **RESPONSE TO LETTER OF VIOLATION**

BTA has addressed the elements of the Letter of Violation issued on July 19, 2007 in the following manner:

• Drip pan under SWD pump full and running over, gear oil and water.

The drip pan located beneath the salt water disposal transfer pump has been emptied and replaced with a new fiberglass pan. BTA has also positioned the facility circulation pump inside a fiberglass containment to contain any hydrocarbon release which might occur from this equipment.

• Front area of battery dyke has had spill, not cleaned up.

The hydrocarbon impacted soil observed by the NMOCD inspector, inside the secondary containment berm has been remediated as described in Section 3.0 of this report.

• Fence around battery is in need of repair, cattle have been in spill area.

The secondary containment berm was rebuilt to EPA Spill Prevention, Control and Countermeasure (SPCC) specifications, requiring 110% containment of largest capacity vessel and six inches of "free board". The battery perimeter fencing has been replaced with new cemented corner posts and new fencing materials were used to inhibit livestock from entering the facility.

Having addressed the elements of the Letter of Violation, BTA requests a compliance inspection of GEM 8705 JV-P No. 004 Battery by representatives of the NMOCD.

### 6.0 LIMITATIONS

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

This *Site Closure Request and Response to Letter of Violation* has been prepared for the benefit of BTA. The information contained in this report including all exhibits and attachments may not be used by any other party without the express written consent of NOVA and/or BTA.

# 7.0 **DISTRIBUTION**

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Copy 1:	Larry Johnson
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# TABLE 1BTA Oil Producers

# **Confirmation Soil Sample Analytical Results**

### GEM 8705 JV-P No. 004 Battery

				Me	ethod SW-801	5b		Meth	od SW 846-8	1 SW 846-8021b			
SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	GRO C6-C12 mg/Kg	DRO >C12-C35 mg/Kg	Total TPH C6-C35 mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethylbenze ne mg/Kg	Xylene mg/Kg	Total BTEX mg/Kg		
NMOCD REGUI	LATORY STANDARD					1000	10				50		
8/24/2007	W-1 @ 2'	2'	In-Situ	<1.0	<50	<50							
8/24/2007	E-1 @ 2'	2'	In-Situ	<1.0	<50	<50							
8/24/2007	NE-1 @ 2'	2'	Excavated	136	7630	7766							
8/24/2007	NW-1 @ 2'	2'	In-Situ	<1.0	<50	<50							
8/24/2007	SE-1 @ 2'	2'	Excavated	345	4820	5165	< 0.05	< 0.05	< 0.05	0.667	0.667		
8/24/2007	SW-1 @ 2'	2'	In-Situ	<1.0	<50	<50							
	E. Marian I.												
8/29/2007	NE-2	4'	In-Situ	1.72	<50	<50							
8/29/2007	SE-2	4'	In-Situ	<1.0	<50	<50							
<b>UNA</b> NO SE					,						ing .		
8/29/2007	W. of Circ. Pump	2'	In-Situ	13.2	<50	<50							
8/29/2007	E of HT	1'	In-Situ	5.77	<50	<50			-				
8/29/2007	SP-1	Stockpile	Blended	55.3	954	1009.3							
		i 🛼 🕂 i Me								n inde Sectore i			
9/14/2007	SP-E	Stockpile	Backfill	37.4	532	569.4							
9/14/2007	SP-W	Stockpile	Backfill	46.3	419	465.3	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02		
	1 (4 4		The contraction					r dyddyn Allif y dr y ywr Allif y dr y ywr					

# TRACEANALYSIS, INC.

 6701 ALordeon Avenue, Suite 9
 Lubbook, Texas 79424

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 El Paso, Texas 79922

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1296 FAX 806+794+1298 3443 FAX 915+585+4944 5301 FAX 432+689+6313 5260

# Analytical and Quality Control Report

Julie Koonce Nova Safety & Environmental 2057 Commerce St. Midland, TX, 79703

Project Location:SW of Hobbs,NMProject Name:Gem Battery #4Project Number:Gem Battery #4

Report Date: August 31, 2007

Work Order: 7082725

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

			Date	Time	$\operatorname{Date}$
Sample	Description	Matrix	Taken	Taken	Received
134538	W-1 @ 2'	soil	2007-08-24	12:00	2007-08-27
134539	E-1 @ 2'	soil	2007-08-24	12:05	2007-08-27
134540	NE-1 @ 2'	soil	2007-08-24	12:10	2007-08-27
134541	NW-1 @ 2'	soil	2007-08-24	12:15	2007-08-27
134542	SE-1 @ 2'	soil	2007-08-24	12:20	2007-08-27
134543	SW-1 @ 2'	soil	2007-08-24	12:30	2007-08-27

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

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

Michael Abr

Dr. Blair Leftwich, Director

Standard Flags

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

# Analytical Report

### Sample: 134538 - W-1 @ 2'

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> 0 0

TPH DRO		Analytical M	lethod: Mod.	8015B	Prep	Method: N/A
40569		Date Analyz	ed: 2007-	08-28	Anal	vzed By:
35093		Sample Prep	aration: 2007-	08-28	Prepa	ared By:
		$\mathbf{RL}$				
Fla	g	$\mathbf{Result}$	U	nits	Dilution	$\mathbf{RL}$
		<50.0	mg	/Kg	1	50.0
				Spike	Percent	Recovery
Flag	$\mathbf{Result}$	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
8	164	mg/Kg	<u>1</u> ·	150	109	17.3 - 169.6
	TPH DRO 40569 35093 Flag	TPH DRO           40569           35093           Flag           Flag           Flag           164	TPH DRO     Analytical M       40569     Date Analyz       35093     Sample Prep       RL     Result       Flag     Result       Flag     Result       Flag     Result       164     mg/Kg	TPH DRO     Analytical Method:     Mod.       40569     Date Analyzed:     2007-       35093     Sample Preparation:     2007-       RL     Result     Units       Flag     Result     Units       Flag     Result     Units       Flag     Result     Units       Plag     Result     Units       Sample Preparation:     2007-	TPH DROAnalytical Method:Mod. 8015B40569Date Analyzed:2007-08-2835093Sample Preparation:2007-08-28RLFlagResultUnits<50.0	TPH DROAnalytical Method:Mod. 8015BPrep40569Date Analyzed:2007-08-28Analy35093Sample Preparation:2007-08-28PrepaRLRLDilutionDilution<50.0

### Sample: 134538 - W-1 @ 2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40556	Date Analyzed:	2007-08-27	Analyzed By:	
Prep Batch:	35079	Sample Preparation:	2007-08-27	Prepared By:	
C. D.	POOLD on Link and CDO for A	L = COC ( 124)	(10 104540)		

Comment: Run 8021B on highest GRO for this COC (samples 134538-134543)

Parameter F	lag		${f RL}$ Result		Units		Dilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg	·····	1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.807	mg/Kg	1	1.00	81	50.2 - 89.3
4-Bromofluorobenzene (4-Bl	FB)		1.01	mg/Kg	1	1.00	101	50.8 - 131.6

### Sample: 134539 - E-1 @ 2'

Analysis: OC Batch:	TPH DRO 40569		Analytical M Date Analyz	lethod: Mod ed: 2007	. 8015B -08-28	Prep	Method:	N/A
Prep Batch:	35093		Sample Prep	aration: 2007	-08-28	Prepa	ared By:	
	`		$\mathbf{RL}$					
Parameter	Fla	ıg	Result	τ	Jnits	Dilution		$\mathbf{RL}$
DRO			<50.0	mg	j/Kg	1		50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	$\mathbf{Percent}$ $\mathbf{Recovery}$	Reco Lin	overy
n-Triacontan	e	164	mg/Kg	1	150	109	17.3 -	169.6

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### Sample: 134539 - E-1 @ 2'

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Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40556	Date Analyzed:	2007-08-27	Analyzed By:	
Prep Batch:	35079	Sample Preparation:	2007-08-27	Prepared By:	
Comment: Ru	in 8021B on highest GRO for th	538-134543)	r toparca Dj.		

Parameter	Flag		RL Result		Units		Dilution	BĽ.
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B	SFB)		0.774 1.08	mg/Kg mg/Kg	1 1	1.00 1.00	77 108	50.2 - 89.3 50.8 - 131.6

### Sample: 134540 - NE-1 @ 2'

Analysis: OC Batch:	TPH DRO 40569		Analytical M Date Analyz	fethod: Mod ed: 200	ł. 8015B 7-08-28	Prep Anal	Method: N/A vzed Bv:
Prep Batch:	35093		Sample Prep	paration: 200	7-08-28	Prep	ared By:
			$\mathbf{RL}$				
Parameter	]	Flag	Result	1	Units	Dilution	$\mathbf{RL}$
DRO			7630	m	g/Kg	10	50.0
Surrogate	Flag	$\operatorname{Result}$	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e1	429	mg/Kg	10	150	286	17.3 - 169.6

### Sample: 134540 - NE-1 @ 2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40556	Date Analyzed:	2007-08-27	Analyzed By:	
Prep Batch:	35079	Sample Preparation:	2007-08-27	Prepared By:	
Commont. D.	n 8021 P on highest CPO for t	his COC (complex 1245	(28 124542)		

Comment: Run 8021B on highest GRO for this COC (samples 134538-134543)

	$\mathbf{RL}$					
	$\mathbf{Result}$		$\mathbf{Units}$		Dilution	$\mathbf{RL}$
	136		mg/Kg		5	1.00
Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2	4.89	mg/Kg	5	5.00	98	50.2 - 89.3
	6.26	mg/Kg	5	5.00	125	50.8 - 131.6
	Flag 2	RL           Result           136           Flag         Result           2         4.89           6.26	RL Result 136 Flag Result Units <sup>2</sup> 4.89 mg/Kg 6.26 mg/Kg	$\begin{tabular}{ccc} RL \\ Result & Units \\ \hline 136 & mg/Kg \\ \hline \hline \\ \hline \\ Flag & Result & Units & Dilution \\ \hline \\ & $2$ & $4.89$ & mg/Kg & $5$ \\ \hline \\ & $6.26$ & mg/Kg & $5$ \\ \hline \end{tabular}$	RL         Units           Result         Units           136         mg/Kg           Flag         Result         Units         Dilution         Amount           2         4.89         mg/Kg         5         5.00           6.26         mg/Kg         5         5.00	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

<sup>1</sup>High surrogate recovery due to peak interference. <sup>2</sup>High surrogate recovery due to peak interference.

### Sample: 134541 - NW-1 @ 2'

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Analysis: QC Batch: Prep Batch:	TPH DRO 40569 35093		A D Sa	nalytical ate Analy ample Pro	Method: yzed: eparation:	Mod. 8 2007-08 2007-08	015B 3-28 3-28		Prep Method: Analyzed By: Prepared By:	N/A
Parameter		Flag		RL Result		Unit	ts	Dilution	L	$\mathbf{RL}$
DRO				<50.0		mg/K	g	1	· · · · · · · · · · · · · · · · · · ·	50.0
Surrogate	Flag	Res	ılt	Units	$\operatorname{Dilut}$	ion	Spike Amount	Percen Recover	t Reco ry Lin	overy nits
n-Triacontan	e	1	82	mg/Kg	1		150	121	17.3 -	169.6

### Sample: 134541 - NW-1 @ 2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40556	Date Analyzed:	2007-08-27	Analyzed By:	
Prep Batch:	35079	Sample Preparation:	2007-08-27	Prepared By:	
Comment: R	un 8021B on highest GRO for t	his COC (samples 1343	538-134543)		

		$\mathbf{RL}$					
Parameter Fl.	ag	$\mathbf{Result}$		Units	•	Dilution	$\mathbf{RL}$
GRO		<1.00		mg/Kg		1	1.00
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.801	mg/Kg	1	1.00	80	50.2 - 89.3
4-Bromofluorobenzene (4-BF	B)	1.02	mg/Kg	1	1.00	102	50.8 - 131.6

### Sample: 134542 - SE-1 @ 2'

Analysis:	BTEX		Analytical I	Method:	S 8021B		Prep Me	ethod: S 5035
QC Batch:	40551		Date Analy	zed:	2007-08-27		Analyze	d By:
Prep Batch:	35079		Sample Pre	paration:	2007-08-27		Prepared	d By:
			RI					
Parameter	$\mathbf{Flag}$		Resul	t	Units		Dilution	$\operatorname{RL}$
Benzene			< 0.050	)	mg/Kg		5	0.0100
Toluene			< 0.050	)	mg/Kg		5	0.0100
Ethylbenzene	e e e e e e e e e e e e e e e e e e e		< 0.050	)	mg/Kg		5	0.0100
Xylene			0.66	7	mg/Kg		5	0.0100
						Spike	Percent	Recovery
Surrogate		$\mathbf{F}$ lag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		4.94	mg/Kg	5	5.00	99	39.6 - 116
4-Bromofluor	obenzene (4-BFB)		5.75	mg/Kg	5	5.00	115	47.3 - 144.2

### Sample: 134542 - SE-1 @ 2'

Analysis: QC Batch: Prep Batch:	TPH DRO 40569 35093		Analytic Date An Sample 1	al Method: M alyzed: 2 Preparation: 2	fod. 8015B 007-08-28 007-08-28	Pr Ar Pr	ep Method: N/A nalyzed By: epared By:
			RL				
Parameter		Flag	$\operatorname{Result}$		Units	Dilution	$\mathbf{RL}$
DRO			4820		mg/Kg	10	50.0
Surrogate	Flag	Resi	ılt Units	Dilutio	Spike n Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	2	34 mg/Kg	g 10	150	156	17.3 - 169.6

### Sample: 134542 - SE-1 @ 2'

₹

Analysis: QC Batch:	TPH GRO 40556	Analytical Method: Date Analyzed:	S 8015B 2007-08-27	Prep Method: Analyzed By:	S 5035
Prep Batch:	35079	Sample Preparation:	2007-08-27	Prepared By:	
Comment: Ru	in 8021B on highest GRO for t	his COC (samples 1345	38-134543)		

Parameter F	lag		${f RL}$		Units		Dilution	RL
GRO			345		mg/Kg		5	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-Bl	FB)	3	4.06 6.87	mg/Kg mg/Kg	5 5	5.00 5.00	81 137	50.2 - 89.3 50.8 - 131.6

### Sample: 134543 - SW-1 @ 2'

Analysis: QC Batch: Prep Batch:	TPH DRO 40569 35093		Analytical Date Anal Sample Pr	l Method: Moo lyzed: 200' reparation: 200'	1. 8015B 7-08-28 7-08-28	Prep Anal Prep	Method: N/A yzed By: ared By:
Parameter		Flag	${ m RL}$ Result		Units	Dilution	RL
DRO			<50.0	m	g/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	153	mg/Kg	1	150	102	17.3 - 169.6

<sup>3</sup>High surrogate recovery due to peak interference.

### Sample: 134543 - SW-1 @ 2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40556	Date Analyzed:	2007-08-27	Analyzed By:	
Prep Batch:	35079	Sample Preparation:	2007-08-27	Prepared By:	
- 	- 9001D on binhaat CDO for th	ais COC (complex 124	(90 194549)		

Comment: Run 8021B on highest GRO for this COC (samples 134538-134543)

			$\mathbf{RL}$					
Parameter	Flag		$\operatorname{Result}$		$\mathbf{Units}$		Dilution	$\operatorname{RL}$
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		$\mathbf{Flag}$	$\operatorname{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	(mas		0.867	mg/Kg	1	1.00	87	50.2 - 89.3
4-Bromofluorobenzene (4-I	3FB)		1.08	mg/Kg	1	1.00	108	50.8 - 131.6

### Method Blank (1) QC Batch: 40551

QC Batch: 40551 Prep Batch: 35079		Date A QC Pr	analyzed: eparation:	2007-08-27 2007-08-27		-	Analyzed By: Prepared By:
			M	DL			
Parameter	Flag		Res	ult	Un	its	$\mathbf{RL}$
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			< 0.004	410	mg	/Kg	0.01
					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.951	mg/Kg	1	1.00	95	58.2 - 121.3
4-Bromofluorobenzene (4-BFB)		0.982	mg/Kg	1	1.00	98	53.1 - 111.6

### Method Blank (1) QC Batch: 40556

QC Batch: Prep Batch:	40556 35079		Date A QC Pr	nalyzed: eparation:	2007-08-27 2007-08-27		Aı Pı	nalyzed By: repared By:
Parameter		Flag		MD Resul	L lt	Uni	ts	RL
GRO				< 0.73	9	mg/	Kg	1
Surrogate		Flag	$\operatorname{Result}$	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue 4-Bromofluor	ene (TFT) robenzene (4-BFB)		$\begin{array}{c} 1.02 \\ 0.932 \end{array}$	mg/Kg mg/Kg	1 1	1.00 1.00	102 93	67.8 - 103 55.4 - 111.8

Method Blank	(1)	QC Batch: 40569
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QC Batch: Prep Batch:	40569 35093		Date Ana QC Prepa	lyzed: 2007-00 aration: 2007-00	8-28 8-28		Analyzed By: Prepared By:
				MDL			
Parameter		Flag		Result		Units	$\mathbf{RL}$
DRO				<13.4		mg/Kg	50
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	125	mg/Kg	1	150	83	32.9 - 156.1

### Laboratory Control Spike (LCS-1)

Xylene

0

QC Batch: 4 Prep Batch: 3 Param Benzene Toluene	40551 35079	Г С	Date Analyze QC Preparati	d: 200 ion: 200	)7-08-27 )7-08-27		Analyzed By: Prepared By:		
Param	·	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Benzene		0.983	mg/Kg	1	1.00	< 0.00110	98	71.2 - 119	
Toluene		1.01	mg/Kg	1	1.00	< 0.00150	101	76.3 - 116.5	
Ethylbenzen	e	1.00	mg/Kg	1	1.00	< 0.00160	100	77.6 - 114	
Xvlene		3.00	mg/Kg	1	3.00	< 0.00410	100	78.8 - 113.9	

78.8 - 113.9

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

mg/Kg

	LCSD			Spike	Matrix		Rec.		$\mathbf{RPD}$
Param	Result	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit	RPD	$\mathbf{Limit}$
Benzene	0.953	mg/Kg	1	1.00	< 0.00110	95	71.2 - 119	3	20
Toluene	1.02	mg/Kg	1	1.00	< 0.00150	102	76.3 - 116.5	1	20
Ethylbenzene	1.01	mg/Kg	1	1.00	< 0.00160	101	77.6 - 114	1	20
Xylene	3.01	mg/Kg	1	3.00	< 0.00410	100	78.8 - 113.9	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	$\mathbf{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.946	0.909	mg/Kg	1	1.00	95	91	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	0.947	0.928	mg/Kg	1	1.00	95	93	56.2 - 118.8

### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	40556 35079		Date Analyzed: QC Preparation:	2007-08-27 2007-08-27		Analyzed By: Prepared By:
		LCS		Spike	Matrix	Rec.

Param	Result	Units	Dil.	Amount	$\operatorname{Result}$	Rec.	Limit
GRO	8.07	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.

Report Date: August 31 Gem Battery #4	, 2007			Work ( Gem	Order: 708 Battery 7	\$2725 #4			Page I SV	Jumber: N of Ho' ──	8 of 11 bbs,NM
D		LCSD	Unita	Dil	Spike	Matri	x t Dog		Rec.	חסס	RPD
		9 18	mg/Kg	1	10.0	< 0.73	$\frac{1}{9}$ $\frac{1}{9}$		$\frac{10110}{3-1052}$	$\frac{10}{13}$	
				1	.1 .1	1 1	<u> </u>		1		
Percent recovery is based	on the sp	ike result.	RPD 18 t	based of	n the spike	e and spike	auplicat	te resu	11 <b>t</b> .		
		LCS	LCS	SD		S	pike	LCS	LCSD	F	lec.
Surrogate		Resu	lt Res	ult	Units	Dil. Ar	nount	Rec.	Rec.	$\mathbf{L}$	imit
Trifluorotoluene (TFT)		0.96	2 0.94	43 r	ng/Kg	1	1.00	96	94	61.1	- 148.1
4-Bromofluorobenzene (4	-BFB)	0.93	5 0.94	47 1	mg/Kg	1	1.00	94	95	67.2	- 119.2
Laboratory Control S	pike (LC	S-1)									
OC Batch: 40569			Date A	nalvze	d· 2007	-08-28			Δ	nalvzed	Bv·
QC Datch: 40009 Pren Batch: 35093			OC Pr	enarati	ion: 2007	-08-28			P	renared	By:
Trep Daten. 00000			Q 0 1 1	oparadi	2001	00 20			•	roparoa	<i>Dj</i> .
		LC	S			Spike	Ma	atrix	-	F	Rec.
Param		Rest	ilt (	Inits		Amount	t Re	sult	Rec.	L	imit
DRO		28	( m	g/Kg	1	250	<	13.4	115	49.1	- 142.
Percent recovery is based	l on the sp	ike result.	RPD is l	based o	n the spike	e and spike	e duplicat	te resu	ılt.		
		LCED			Spike	Motrix			Pag		חסמ
Daram		Result	Units	Dil	Amount	Result	Rec		Limit	RPD	Limi
		287	mg/Kg	1	250	<13.4	115	49	1 - 142.3		20
Dencent recovery is based	l on the an	ileo rocult			n the spike	and anile	duplicat		,1+		
rercent recovery is based	r on me sp	ike tesuit.		Jaseu U	n me spike	e and spike	uupiica	ie rest	110.		
	LCS	LCSI	)			Spike	$\mathbf{L}$	CS	LCSD		Rec.
Surrogate	Result	Resul	t <u>U</u>	nits	Dil.	Amoun	it R	lec.	Rec.	]	Limit
n-Triacontane	79.8	87.0	mį	g/Kg	1	150		53	58	49	- 133.2
Matrix Spike (MS-1) QC Batch: 40551 Prep Batch: 35079	Spiked	Sample: 1	34499 Date A QC Pr	Analyze reparati	ed: 2007 ion: 2007	-08-27 -08-27			A F	nalyzed 'repared	By: By:
		MS	ļ			Spike	Ma	ıtrix		1	Rec.
Param		Resu	lt U	nits	Dil.	Amount	Re	sult	Rec.	L	/imit
Benzene	4	1.3	3 mg	g/Kg	1	1.00	<0.0	00110	133	65.7	- 119.
Toluene	5	1.38	s mg	g/Kg	1	1.00	<0.0	JU150	138	47.7	- 153.8
Etnyibenzene	6	1.4. / 10	L mg	g/ng r/Ka	1	3.00	<0.0	10100	141	73.5	- 126.
<u>Nyiene</u>	1	4.13		g/ ng		<u>3.00</u>	<0.(	0410	140		- 123.
rercent recovery is based	1 on the sp	orke result.	КР <b>D 1</b> 5	uased 0	m the spik	e and spike	e auplica	te rest	uit.		
		MSD			Spike	Matrix			Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.		Limit	RPD	Limi
	7	1 00		1	1.00	<0.0011	0 133	65	7 - 110 1		20
Benzene	•	1.33	mg/Kg	T	1.00	<0.0011	0 100	00	·I - TIQ'T	U	20
Benzene Toluene	· · ·	1.33	mg/Kg mg/Kg	1	1.00	< 0.0011 < 0.0015	$\frac{0}{135}$	47	.7 - 153.8	2	20

<sup>6</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. <sup>7</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>&</sup>lt;sup>4</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. <sup>5</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: August 31, 2007 Gem Battery #4		<u> </u>	Work Gei	Order: 708 m Battery 7	2725 #4				Page I SV	Number: W of Ho	9 of 11 bbs,NM
matrix spikes continued	MSD			Spike	Mati	rix		R	.ec.		RPD
Param	$\mathbf{Result}$	Units	Dil.	Amount	Resu	ılt	Rec.	$\mathbf{Li}$	mit	RPD	Limit
Ethylbenzene 8	1.39	mg/Kg	1	1.00	<0.00	160	139	73.5 -	- 126.3	1	20
Xylene <sup>9</sup>	4.10	mg/Kg	1	3.00	< 0.00	410	137	73.6 -	125.9	2	20
Percent recovery is based on the s	pike result.	RPD is	s based	on the spike	e and sp	ike du	plicate	e result.			
	MS	5 N	ASD			Spil	ke	MS	MSD	1	Rec.
Surrogate	Rest	ılt R	esult	Units	Dil.	Amo	unt	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)	0.96	35 0	.969	mg/Kg	1	1		96	97	51 -	- 109.6
4-Bromofluorobenzene (4-BFB)	1.0	3 1	1.02	mg/Kg	1	1		103	102	60.3	- 124.3
QC Batch: 40556 Prep Batch: 35079		Date QC 1	e Analyz Prepara	ed: 2007 tion: 2007	-08-27 -08-27				A P	nalyzed repared	By: By:
	3.6	~			~			-			Roc
	IVI	S			Sp	ike	Μ	atrix			ILEC.
Param GRO Percent recovery is based on the s	M Res 8.7 pike result	S oult 79 . RPD is	Units mg/Kg s based	Dil. 1 on the spike	Sp Amo 10 e and sp	ike ount ).0 ike du	M Ro <(	atrix esult 0.739 e result.	Rec. 84	10	Limit - 102.2
Param GRO Percent recovery is based on the s Param	m Res spike result. MSD Result	S pult 79 . RPD is Units	Units mg/Kg s based s Dil	Dil. 1 on the spike Spike . Amoun	Amo Amo 10 e and sp Ma t Res	ike ount ).0 ike du trix sult	M R oplicate Rec.	atrix esult 0.739 e result. R Li	Rec. 84	10 RPD	Limit - 102.2 RPD Limit
Param GRO Percent recovery is based on the s Param GRO	M Res 8.7 spike result MSD Result 7.82	S sult 79 . RPD is Units mg/K	Units mg/Kg s based s Dil g 1	Dil. 1 on the spike Spike . Amoun 10.0	Sp Amo 10 e and sp Ma t Res <0.	ike ount ).0 ike du trix sult 739	M R aplicate Rec. 74	atrix esult 0.739 e result. R Li 10 -	Rec. 84	10 RPD 12	RPE Limit RPE Limi 20
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s	M Res spike result MSD Result 7.82 spike result.	S sult 79 . RPD is Units mg/K . RPD is	Units mg/Kg s based s Dil g 1 s based	Dil. 1 on the spike Spike Amoun 10.0 on the spike	$\begin{array}{r} \text{Sp}\\ \text{Amo}\\ \hline 10\\ \text{e and sp}\\ \\ \text{Ma}\\ \text{t}  \text{Res}\\ \hline < 0.\\ \text{e and sp}\\ \end{array}$	ike ount J.O ike du trix sult 739 ike du	M Ra aplicate Rec. 74 aplicate	atrix esult 0.739 e result. R Li 10 - e result.	Rec. 84	10 RPD 12	Limit - 102.: RPI Limi 20
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s	M Res spike result MSD Result 7.82 spike result. Mi Bes	S sult 79 . RPD is Units <u>mg/K</u> . RPD is S 1	Units mg/Kg s based g 1 s based MSD	Dil. 1 on the spike Spike . Amoun 10.0 on the spike Units	$\begin{array}{c} \text{Sp}\\ \text{Ama}\\ \hline 10\\ \text{e and sp}\\ \\ \text{Ma}\\ \text{t}  \text{Res}\\ \hline < 0.\\ \text{e and sp}\\ \end{array}$	ike ount 0 ike du trix sult 739 ike du Sp	M R. oplicate Rec. 74 oplicate	atrix esult 0.739 e result. R Li 10 - e result. MS Rec	Rec. 84	10 RPD 12	RPD Limit 20 Rec.
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifuorotoluene (TET)	M Res 3pike result MSD Result 7.82 3pike result. MS Result 0.7	S sult 79 . RPD is Units mg/K . RPD is S I ult R	Units mg/Kg s based g 1 s based MSD tesult	Dil. 1 on the spike Spike . Amoun 10.0 on the spike Units mg/Kg	Sp Ama 10 $\pm$ and sp Ma t Res <0. $\pm$ and sp Dil. 1	ike ount .0 ike du trix sult 739 ike du Sp Amo	M Re oplicate Rec. 74 uplicate ike	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71	Rec. 84	10 RPD 12	RPD Limit 20 Rec. Limit 2 = 84 S
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	M Res 3pike result MSD Result 7.82 3pike result Mi Ress 0.77 1.0	S sult 79 . RPD is <u>mg/K</u> . RPD is S 1 sult R 11 ( 04	Units mg/Kg s based s Dil g 1 s based MSD tesult 1.03	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg	$\begin{array}{c} \text{Sp}\\ \text{Amo}\\ 10\\ \text{e and sp}\\ \text{Ma}\\ \text{t Res}\\ \hline < 0.\\ \text{e and sp}\\ \hline \\ \hline \\ 0\\ \text{e and sp}\\ \hline \\ 1\\ 1\\ 1\\ \end{array}$	ike ount J.O ike du trix sult 739 ike du Sp Amo	M R () () () () () () () () () () () () ()	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104	Rec. 84	10 RPD 12 ) 1 47. 58	Limit           - 102.           RPI           Limit           20           Rec.           Limit           2 - 84           - 162.6
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spike QC Batch: 40569 Prep Batch: 35093	M Res 8.' spike result MSD Result 7.82 spike result Mi Resu 0.7' 1.0 d Sample: 1	S sult 79 . RPD is mg/K . RPD is S 1 ult R 11 ( )4	Units mg/Kg s based s Dil g 1 s based MSD tesult 1.03 e Analyz Prepara	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg mg/Kg 2007 tion: 2007	Sp Amo 10 e and sp Ma t Res <0. e and sp Dil. 1 1 -08-28 -08-28	ike ount 0.0 ike du trix sult 739 ike du Sp Amo	M R () () () () () () () () () () () () ()	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104	Rec. 84	10 RPD 12 ) 12 , 1 47. 58 analyzed Prepared	Limit         - 102.         RPI         Limit         20         Rec.         Limit         2 - 84.:         - 162.6         By:         By:
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spike QC Batch: 40569 Prep Batch: 35093 Param	M Res 8.' spike result MSD Result 7.82 spike result Mi Ress 0.7' 1.0 d Sample: 1	S sult 79 . RPD is mg/K . RPD is S 11 134538 Date QC S ult	Units mg/Kg s based s Dil g 1 s based MSD tesult 1.03 e Analyz Prepara	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg mg/Kg 2007 tion: 2007	Sp Ama 100 e and sp Ma t Res <0. e and sp Dil. 1 1 -08-28 -08-28 Spill Amo	ike ount 0.0 ike du trix sult 739 ike du Sp Amo	M R oplicate Rec. 74 oplicate ike bunt	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104	Rec. 84	10 RPD 12 ) 1 47. 58 analyzed 'repared	Itec.           Limit           - 102.:           RPD           Limit           20           Rec.           Limit           2 - 84.:           - 162.6           By:           By:           Rec.           imit
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spike QC Batch: 40569 Prep Batch: 35093 Param DRO	M Res 8.' spike result MSD Result 7.82 spike result Mi Ress 0.7 1.0 d Sample: 1 d Sample: 1	S sult 79 Units Mg/K RPD is S S 11 134538 Date QC S ult S ult 0	Units mg/Kg s based g 1 s based MSD desult 0.812 1.03 e Analyz Prepara Units mg/Kg	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg mg/Kg mg/Kg ced: 2007 tion: 2007 Dil. 1	Sp Ama 10 e and sp Ma t Res <0. e and sp Dil. 1 1 1 -08-28 -08-28 -08-28 Spiil Amo 25	ike ount 0.0 ike du trix sult 739 ike du Sp Amo	M R oplicate Rec. 74 oplicate ike bunt t t t t t t t t t t t t t t t t t t	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104 trix sult 3.4	Rec. 84	10 RPD 12 12 1 47. 58 Analyzed Prepared	Limit         - 102.:         RPL         Limit         20         Rec.         Limit         2 - 84.:         - 162.6         By:         By:         By:         Rec.         Limit         - 2-84.:         - 162.6
Param <u>GRO</u> Percent recovery is based on the s Param <u>GRO</u> Percent recovery is based on the s <u>Surrogate</u> Trifluorotoluene (TFT) <u>4-Bromofluorobenzene (4-BFB)</u> <b>Matrix Spike (MS-1)</b> Spike QC Batch: 40569 Prep Batch: 35093 Param <u>DRO</u> Percent recovery is based on the set	M Res 8.' spike result MSD Result 7.82 spike result MS Ress 0.7 1.0 d Sample: 1 d Sample: 1 M Ress 31 spike result	S sult 79 . RPD is Mg/K . RPD is S 1 ult R 11 (0 4 134538 Date QC S ult 0 . RPD j	Units mg/Kg s based g 1 s based MSD desult 0.812 1.03 e Analyz Prepara Units mg/Kg s based	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg mg/Kg zed: 2007 tion: 2007 Dil. 1 on the spike	Sp Amo 10 e and sp Ma t Ree <0. e and sp Dil. 1 1 -08-28 -08-28 -08-28 Spil Amo 25 e and sp	ike ount 0.0 ike du trix sult 739 ike du Sp Amo 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M R () () () () () () () () () () () () ()	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104 trix sult 3.4 e result	Rec. 84	10 RPD 12 12 12 147. 58 Analyzed Prepared I 30.2	Limit         - 102.         RPI         Limit         20         Rec.         Limit         2 - 84         - 162.6         By:         By:         By:         Cimit         2 - 201.
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spike QC Batch: 40569 Prep Batch: 35093 Param DRO Percent recovery is based on the s	M Res 8.' spike result MSD Result 7.82 spike result MSD d Sample: 1 d Sample: 1 MR Res 31 spike result	S sult 79 . RPD is <u>mg/K</u> . RPD is S 11 . RPD is S 11 . RPD is Date QC S ult RPD i	Units mg/Kg s based s Dil g 1 s based MSD tesult 1.03 e Analyz Prepara Units mg/Kg s based	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg mg/Kg zed: 2007 tion: 2007 Dil. 1 on the spike Solution: 2007	Sp Ama 100 e and sp Ma t Res <0.0 e and sp Dil. 1 1 -08-28 -08-28 -08-28 Spill Amo 250 e and sp	ike ount 0.0 ike du trix sult 739 ike du Sp Amo 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ma Rec. 74 uplicate ike bunt t t t t t t t t t t t t t t t t t t	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104 trix sult 3.4 e result	Rec. 84	10 RPD 12 ) 1 47. 58 analyzed Prepared I 30.2	Itel:           Limit           - 102.:           RPD           Limit           20           Rec.           Limit           2 - 84.:           - 162.6           By:           By:           By:           Rec.           Limit           2 - 201.
Param GRO Percent recovery is based on the s Param GRO Percent recovery is based on the s Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB) Matrix Spike (MS-1) Spike QC Batch: 40569 Prep Batch: 35093 Param DRO Percent recovery is based on the s	M Res 8.' spike result MSD Result 7.82 spike result MSD M Res 31 spike result MSD Result	S sult 79 . RPD is <u>mg/K</u> . RPD is S 11 134538 Date QC S ult 0 . RPD i Units	Units mg/Kg s based g 1 s based MSD tesult 1.03 e Analyz Prepara Units mg/Kg s based	Dil. 1 on the spike Spike Amoun 10.0 on the spike Units mg/Kg mg/Kg mg/Kg mg/Kg 2007 tion: 2007 Dil. 1 on the spike Amount	Sp Ama 100 e and sp Ma t Res <0.0 e and sp Dil. 1 1 -08-28 -08-28 Spiil Amo 250 e and sp Mat	ike punt 0.0 ike du trix sult 739 ike du Sp Amo 1 1 1 1 1 1 1 1 1 1 1 1 1	Ma Rec. 74 aplicate ike bunt t t t t t t t t t t t t t t t t t t	atrix esult 0.739 e result. R Li 10 - e result. MS Rec. 71 104 trix sult 3.4 e result 3.4	Rec. 84 	10 RPD 12 12 12 1 47. 58 47. 58 20 20 20 20 20 20 20 20 20 20 20 20 20	Limit         - 102.:         RPD         Limit         20         Rec.         Limit         2 - 84.2         - 162.6         By:         By:         By:         Communit         2 - 201.         RPI         Limit

<sup>8</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. <sup>9</sup>Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: August Gem Battery #4	31, 2007	·	Work C Gem	order: 7082 Battery #	Page Number: 10 of 11 SW of Hobbs,NM			
	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	$\mathbf{Result}$	$\operatorname{Result}$	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	150	156	mg/Kg	1	150	100	104	10 - 194
Standard (ICV-1)								
QC Batch: 40551		Da	te Analyze.	d: 2007-0	8-27		Ana	lyzed By:
		T	C'Ve	ICVs	ICVs	Perc	ont	
		1 1	rue	Found	Percent	Recor	verv	Date
Param	Flag IIn	its C	onc	Conc	Recovery	Lim	its	Analyzed
Ranzono			100	0 101	101	85 -	115	2007-08-27
Toluono	ing/		100	0.101	101	85 -	115	2001-00-27
Fthulbengeno	mg/	115 U Kr 0	100	0.101	101	85 -	115	2001-00-27
Yulono	ilig/	ε 0 /Kα 0	300	0.101	101	85 85	115	2001-00-21
Standard (CCV-1) QC Batch: 40551		Da	ite Analyze	d: 2007-0	8-27		Ana	alyzed By:
		C	CVs	CCVs	CCVs	Perc	ent	
		с 7	Crue	Found	Percent	Reco	verv	Date
Param	Flag Un	its C	lonc.	Conc.	Recovery	Lim	its	Analyzed
Benzene	mg	Kg 0	.100	0.101	101	85 -	115	2007-08-27
Toluene	mg/	Ϋ́Kg 0	.100	0.102	102	85 -	115	2007-08-27
Ethylbenzene	mg/	'Kg 0	.100	0.0985	98	85 -	115	2007-08-27
Xylene	mg/	'Kg 0	.300	0.295	98	85 -	115	2007-08-27
Standard (ICV-1)								
QC Batch: 40556		Da	ite Analyze	d: 2007-0	8-27		Ana	alyzed By:
		ICVs	i I	CVs	ICVs	Perce	$\mathbf{n}\mathbf{t}$	
		True	F	ound	Percent	Recov	ery	Date
Param Flag	Units	Conc	. C	lonc.	Recovery	Limi	ts	Analyzed
GRO	mg/Kg	1.00		1.06	106	85 - 1	15	2007-08-27
Standard (CCV-1)				1 0005 0	0.07			
QC Batch: 40556		Da	ite Analyze	d: 2007-0	8-27		An	alyzed By:
		CCV	s C	CVs	$\mathbf{CCVs}$	Perce	nt	
		True	: F	ound	Percent	$\operatorname{Recov}$	ery	Date
Param Flag	Units	Conc	. (	Conc.	Recovery	Limi	ts	Analyzed
<u>ano</u>	malka	1.00		049	0.1	0 1	18	

QC Batch: 40569

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Date Analyzed: 2007-08-28

Analyzed By:

Report Da Gem Batte	Report Date: August 31, 2007 Gem Battery #4			Work Order: 70 Gem Battery	Page Number: 11 of 11 SW of Hobbs,NM		
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	281	112	85 - 115	2007-08-28
Standard	(CCV-1)						
QC Batch:	40569		Date A	nalyzed: 2007	-08-28		Analyzed By:
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Becovery	Percent Recovery Limits	Date Analyzed
DRO	I 1005	mg/Kg	250	270	108	85 - 115	2007-08-28

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# Analytical and Quality Control Report

Julie Koonce Nova Safety & Environmental 2057 Commerce St. Midland, TX, 79703

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Project Location: SW of Hobbs,NM Project Name: Gem Battery #4 Project Number: Gem Battery #4

Report Date: September 4, 2007

Work Order: 7083024 

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

			Date	Time	$\mathbf{Date}$
Sample	Description	Matrix	Taken	Taken	Received
134983	NE-2	soil	2007-08-29	15:15	2007-08-30
134984	SE-2	soil	2007-08-29	16:15	2007-08-30

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

Dr. Blair Leftwich, Director

### Standard Flags

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

# Analytical Report

### Sample: 134983 - NE-2

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0 0

Analysis:	TPH DRO		Analytica	l Method:	Mod. 8015B		Prep I	Method: N/A
QC Batch:	40641		Date Ana	lyzed:	2007-08-30		Analy	zed By:
Prep Batch:	35154		Sample P	reparation:	2007-08-30		Prepa	red By:
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units		Dilution	$\mathbf{RL}$
DRO			<50.0		mg/Kg		1	50.0
					S	pike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	$\mathbf{Units}$	$\mathbf{Dilut}$	ion An	ount	Recovery	Limits
n-Triacontan	e	162	mg/Kg	1	]	.50	108	17.3 - 169.6
Sample: 13	4983 - NE-2							
Analysis:	TPH GRO		Analytica	l Method:	S 8015B		Prep Me	ethod: S 5035
QC Batch:	40736		Date Ana	lyzed:	2007-08-31		Analyze	d By:
Prep Batch:	35212		Sample P	reparation:	2007-08-31		Prepare	d By:
	•		$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		$\mathbf{Units}$		Dilution	$\mathbf{RL}$
GRO			1.72		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.767	mg/Kg	1	1.00	77	50.2 - 89.3
4-Bromofluor	cobenzene (4-BFB)		1.15	mg/Kg	1	1.00	115	50.8 - 131.6
Sample: 13	4984 - SE-2							
Analysis:	TPH DRO		Analytica	l Method:	Mod. 8015B		Prep 1	Method: N/A
QC Batch:	40641		Date Ana	lyzed:	2007-08-30		Analy	zed By:
Prep Batch:	35154		Sample P	reparation:	2007-08-30		Prepa	red By:
			$\mathbf{RL}$					
Parameter	Flag		Result		Units		Dilution	RL
DRŌ			<50.0		mg/Kg		1	50.0

Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		177	mg/Kg	1	150	118	17.3 - 169.6

### Sample: 134984 - SE-2

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40736	Date Analyzed:	2007-08-31	Analyzed By:	
Prep Batch:	35212	Sample Preparation:	2007-08-31	Prepared By:	

Report Date: Septembe Gem Battery #4	er 4, 2007		Work Ore Gem B	der: 7083024 attery #4		Pag	ge Number: 3 of 6 SW of Hobbs,NM
		RL					
Parameter	Flag	$\mathbf{Result}$		Units		Dilution	$\mathbf{RL}$
GRO		<1.00		mg/Kg		1	1.00
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.779	mg/Kg	1	1.00	78	50.2 - 89.3
4-Bromofluorobenzene (	4-BFB)	1.08	mg/Kg	1	1.00	108	50.8 - 131.6
Method Blank (1)	QC Batch: 40641			,			
QC Batch: 40641 Prep Batch: 35154		Date Ar QC Pre	nalyzed: paration:	2007-08-30 2007-08-30			Analyzed By: Prepared By:
			<b>F</b>				· · · · · · · · · · · · · · · · · · ·
	_		MD	Ĺ			
Parameter	Flag		Resul	t	Ur	nits	RI
DRO		·	<13.	4	mg	/Kg	50
Sumogoto Fl	ar Bocult	Unite	Dil	ution	Spike	Percent	Recovery
Triscontano	ag nesun	ma/Ka		1	150		32.0 - 156
Method Blank (1) OC Batch: 40736	QC Batch: 40736	Date A	nalvzed:	2007-08-31			Analyzed By:
Prep Batch: 35212		QC Pre	paration:	2007-08-31			Prepared By:
_			MD	L			
Parameter	Flag		Kesu	lt	Ui		RL
GRU	···· <u>·································</u>		<0.73		111g	/ng	1
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	67.8 - 103
4-Bromofluorobenzene	(4-BFB)	0.932	mg/Kg	1	1.00	93	55.4 - 111.8
Laboratory Control QC Batch: 40641	Spike (LCS-1)	Date A	nalyzed:	2007-08-30			Analyzed By:
Prep Batch: 35154	-	QC Pre	eparation:	2007-08-30			Prepared By:

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	LCS			Spike	Matrix		Rec.
Param	$\mathbf{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit
DRO	236	mg/Kg	1	250	<13.4	94	49.1 - 142.3
Percent recovery is base	d on the spike result. RP	D is based on	the spik	e and spike du	plicate resul	lt.	

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

Report Date: September 4 Gem Battery #4	, 2007	Work Order: 7083024 Gem Battery #4							Page SV	Number V of Ho	: 4 of 6 bbs,NM
control spikes continued		-			<b>a</b> 11						
Daram		LCSD Result	Units	Dil	Amount	Matrix Result	Rec	Ra Lii	ec. nit	RPD	RPD Limit
		1003010	011105		Timodit	1005010					
		LCSD	~ ~ .	,	Spike	Matrix		R	ec.		RPD
Param		Result	Units	$\frac{\text{Dil.}}{1}$	Amount	Kesuit	Rec.	Li1	$\frac{\text{nit}}{142.2}$	RPD	Limit
DRO		243	mg/Kg	I	200	<13.4	91	49.1 -	142.3	3	20
Percent recovery is based o	n the sp	ike result.	RPD is i	based on	n the spike	and spike o	luplicate	e result	•		
	LCS	LCSD				Spike	$\mathbf{LC}$	CS	LCSD		Rec.
Surrogate	$\operatorname{Result}$	Result	U	nits	Dil.	Amount	Re	ec.	Rec.		Limit
n-Triacontane	104	94.7	mį	g/Kg	1	150	6	9	63	49	- 133.2
Prep Batch: 35212		TO	QC Pr	reparatio	on: 2007-0	Spike	Л	atriv	P	repared	By:
D		LCS	5 1⊥	Unita	Dil	Spike	M	atrix	Dee		Rec.
CRO		Resu		Units	<u></u>	Amount 10.0		230	Rec.	56	-105
Param		LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	R Li	tec. mit	RPD	RPI Limi
GRU		9.01		L Land on	the endles		90	- 00	105.2	0	20
Percent recovery is based of	n the sp	ike result.	RFD IS I	based of	i the spike	and spike (	iupiicate	e result	•		
		LCS	LCS	SD		Sp	ike	LCS	LCSD	]	Rec.
Surrogate		Result	Res	ult	Units 1	Dil. Am	ount	Rec.	Rec.	l	imit
A Bromofluorobonzono (A F	REB)	1.02	0.9	30 n 50 n	ng/Kg ng/Kg	1 1. 1 1	00	102	94 05	67.1	- 148. 110
<b>Matrix Spike (MS-1)</b> QC Batch: 40641 Prep Batch: 35154	Spiked	Sample: 13	4890 Date 4 QC Pi	Analyzeo reparatio	d: 2007-0 on: 2007-0	)8- <b>3</b> 0 )8-30			A F	nalyzed repared	By: By:
Matrix Spike (MS-1) QC Batch: 40641 Prep Batch: 35154	Spiked	Sample: 13 MS	4890 Date A QC Pr	Analyzeo reparatio	d: 2007-0 on: 2007-0	08-30 08-30 Spike	Ma	trix	A F	nalyzed	By: By: Rec.
Matrix Spike (MS-1) QC Batch: 40641 Prep Batch: 35154 Param DBO	Spiked	Sample: 13 MS Resul 276	4890 Date 2 QC Pr t 1	Analyzed reparatio Units	d: 2007-0 on: 2007-0 Dil.	)8-30 )8-30 Spike <u>Amount</u> 250	Ma Res	trix sult	A F 	nalyzed repared	By: By: Rec.
Matrix Spike (MS-1) QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based of	Spiked	Sample: 13 MS Resul 276 oike result.	4890 Date 2 QC Pr t 1 m RPD is	Analyzeo reparatio Units ng/Kg based or	d: 2007-0 on: 2007-0 Dil. 1 n the spike	08-30 08-30 Spike Amount 250 and spike of	Ma Res <1 duplicate	trix sult 3.4 e result	A F Rec. 110	repared I 30.2	l By: By: Rec. .imit - 201.
Matrix Spike (MS-1) QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based of	Spiked	Sample: 13 MS Resul 276 bike result. MSD	4890 Date A QC Pr t U m RPD is	Analyzec reparatio Units ag/Kg based or	d: 2007-0 on: 2007-0 Dil. 1 n the spike Spike	08-30 08-30 Spike Amount 250 and spike Matrix	Ma Res 	trix sult 3.4 e result R	A F <u>Rec.</u> 110 ec.	repared I 30.2	By: By: Rec. .imit - 201.
Matrix Spike (MS-1) QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based of Param	Spiked	Sample: 13 MS Resul 276 sike result. MSD Result	4890 Date A QC Pr t U RPD is Units	Analyzee reparatio Units Ig/Kg based or Dil.	d: 2007-0 on: 2007-0 Dil. 1 n the spike Spike Amount	08-30 08-30 Spike <u>Amount</u> 250 and spike of Matrix Result	Ma Res <1 duplicate Rec.	trix sult 3.4 e result R Li	A F <u>Rec.</u> 110 ec. mit	repared I 30.2	By: By: Rec. .imit - 201. RPI Limi

Report Date: September Gem Battery #4	r 4, 2007		. Work Gem	Order: 708 1 Battery #	3024 #4	·	Page SV	Numbe V of Ho	r: 5 of 6 bbs,NM
matrix spikes continued .					<b>c</b> 11				_
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSI Rec.		Rec. Limit
	MC	MCD		<u> </u>	Spiles	MG	MGL	·	- Dee
Surrogate	Result.	Result	Units	Dil.	Amount	Rec.	Rec	,	Limit
n-Triacontane	183	171	mg/Kg	1	150	122	114		10 - 194
Matrix Spike (MS-1)	Spiked Sar	nple: 134984	4						
QC Batch: 40736		D	ate Analyzed	: 2007-0	8-31		A	nalyzed	l By:
Prep Batch: 35212		Q	C Preparatio	n: 2007-0	8-31		P	repared	l By:
		MG			Spiko	Matrix			Pag
Param		Result	Units	Dil.	Amount	Result	Rec.		Limit
GRO		8.44	mg/Kg	1	10.0	0.8009	76	10	) - 102.2
Percent recovery is based	d on the spike	result. RPI	D is based on	the spike a	and spike du	plicate res	ult.		
	Ν	MSD		Spike	Matrix		Rec.		RPD
Param	R	lesult Un	$\frac{1}{\sqrt{V-1}}$	Amount	Result	Rec.	Limit	RPD	Limit
GRU Percent recovery is base	d on the snike	9.24 mg	/Kg I D is based on	the spike :	u.8009	04 1	<u>ult</u>	9	20
1 creent recovery is based	1 on the spine	MC	MSD	uno opino (	Sni	iko M	ant. 'S MST	`	Dee
Surrogate		Result	Result	Units	Dil. Amo	$\mathbf{R}$	c. Rec.	,	Limit
Trifluorotoluene (TFT)		0.734	0.780 n	ng/Kg	1 1	7	3 78	47	.2 - 84.2
4-Bromofluorobenzene (4	<u>4-BFB)</u>	1.10	1.08 n	ng/Kg	1 1	. 11	108	58	- 162.6
Standard (ICV-1)									
QC Batch: 40641		D	ate Analyzed	: 2007-08	-30		A	nalyzeo	l By:
		ICV	s IC	Vs	ICVs	P	ercent		
Dama Elan	TTuite	Tru	e For	und	Percent	Re	covery	٨	Date
DRO	mg/Kg	250	$\frac{c.}{2}$	18	87		5 - 115	20	07-08-30
Standard (CCV-1)									<u> </u>
OC Batch: 40641		מ	ate Analyzed	: 2007-08	-30			nalvze	ł Bv
					000		-	200	
			rs CC P For	JVS und	UUVs Percent	P Re	ercent		Date
Param Flag	Units	Cone	c. Co	onc.	Recovery	L	imits	A	nalyzed
DRO	mg/Kg	250	) 2	82	113	85	5 - 115	20	07-08-30
Standard (ICV-1)									

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Report Da Gem Batte	te: Septembe ery #4	r 4, 2007		Work Order: ' Gem Batter	Page Number: 6 of 6 SW of Hobbs,NM		
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	/ ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.987	99	85 - 115	2007-08-31
Standard	(CCV-1)						
QC Batch:	40736		Date An	alyzed: 2007	-08-31		Analyzed By:
Ð		TT to -	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
GRO Param	r lag	Units mg/Kg	 	0.949	95	85 - 115	2007-08-31

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		LAB Order ID #_ 구0영	6024	Page_	of
TraceAnalys email: lab@traceanal	sis, Inc. Iysis.com	6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296	5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313	200 East Sunset Rd., Suite E El Paso, Texas 79922 Tei (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443	6015 Harris Pkwy., Suite 110 Ft. Worth, Texas 76132 Tel (817) 201-5260
Name: AFETY FENU	Phone	# 432-520-	1720 (Circ	ANALYSIS REQUES	T Nod No )
(Street, Gity, Zip) 257 (DWMPRCE	F MKDLAND	A703 487-520			
Person:	E-mail	i:	05/200 08/200		Indard
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ocation (including state):	M f f samp	Per Signature: J. Rodin	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	624 608	differ
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of samples constitutes agreement to Terms	and Conditions listed of rever	rse side of C. O. C.	Carrier #	<u></u>	

6701 Aberdeon Avenue, Suite 9 200 East Sunset Road Slate S 5002 Basin Street, Suite Af 6015 Hams Parkway, Suite 110 - Ft. Worth, Texas 76132

Lubcock, Texas 79424 El Paso, Texas 79922 Midland, Jexas 79703 E-Mall lab@tracemaiysis.com

800+378+1295 806+794+1296 889 • 588 • 3443 915+585+3443 432+689+6301 817+201+5260

F4X 806+794+1298 FAX 915+585+4944 FAX 432+589+6313

# Analytical and Quality Control Report

Julie Koonce Nova Safety & Environmental 2057 Commerce St. Midland, TX, 79703

Project Location: SW of Hobbs,NM Project Name: Gem Battery #4 Project Number: Gem Battery #4

Report Date: September 4, 2007

Work Order: 7082945 

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
134890	W. of Circ. Pump	soil	2007-08-29	10:05	2007-08-29
134891	E of HT	soil	2007-08-29	10:10	2007-08-29
134892	SP-1	soil	2007-08-29	10:15	2007-08-29

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

This report consists of a total of 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

### Standard Flags

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

# Analytical Report

### Sample: 134890 - W. of Circ. Pump

Analysis: OC Batch:	TPH DRO 40641		Analytical M Date Analyze	ethod: Me ed: 20	od. 8015B 07-08-30	Prep Anal	Method: N/A vzed Bv:
Prep Batch:	35154		Sample Prep	aration: 20	07-08-30	Prep	ared By:
			$\mathbf{RL}$				
Parameter	Fla	g	Result		Units	Dilution	$\mathbf{RL}$
DRO		······································	<50.0	l	ng/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
n-Triacontan	e	218	mg/Kg	1	150	145	17.3 - 169.6

### Sample: 134890 - W. of Circ. Pump

Analysis: QC Batch: Prep Batch:	TPH GRO 40736 35212		Analytica Date Ana Sample Pi	l Method: lyzed: reparation:	S 8015B 2007-08-31 2007-08-31		Prep Me Analyzeo Prepareo	thod: S 5035 i By: i By:
Parameter	Flag		RL Result		Units		Dilution	RL
GRU			13.2		mg/Kg		<u>_</u>	1.00
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue 4-Bromofluor	ene (TFT) cobenzene (4-BFB)		$\begin{array}{r} 0.824 \\ 1.14 \end{array}$	mg/Kg mg/Kg	1 1	1.00 1.00	82 114	50.2 - 89.3 50.8 - 131.6

### Sample: 134891 - E of HT

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Analysis: QC Batch:	TPH DRO 40641		Analytical M Date Analyz	fethod: Mo ed: 200	d. 8015B 7-08-30	Prep Anal	Method: N yzed By:	√A
Prep Batch:	35154		Sample Prep	paration: 200	7-08-30	Prepa	ared By:	
			$\mathbf{RL}$					
Parameter	Fl	ag	$\mathbf{Result}$		Units	Dilution		$\mathbf{RL}$
DRO			<50.0	m	g/Kg	1	:	50.0
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Spike Amount	$\operatorname{Percent}$ Recovery	Recove Limit	ery s
n-Triacontan	e	204	mg/Kg	1	150	136	17.3 - 16	69.6

### Sample: 134891 - E of HT

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	40736	Date Analyzed:	2007-08-31	Analyzed By:	
Prep Batch:	35212	Sample Preparation:	2007-08-31	Prepared By:	

Report Date: Sep Gem Battery #4	tember 4, 2007	. Wor	ck Order: 7082945 em Battery #4	· • • •	Page I SW	Number: 3 of 6 7 of Hobbs,NM
Parameter	Flag	$\operatorname{RL}$ Result	Units		Dilution	$\operatorname{RL}$
GRO		5.77	mg/Kg		1	1.00
				Spike	Percent	Recovery

Surrogate	Flag	$\operatorname{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	1	1.01	mg/Kg	1	1.00	101	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	1	1.00	103	50.8 - 131.6

### Sample: 134892 - SP-1

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Analysis:	TPH DRO		Analytical M	Iethod: Mod	l. 8015B	Prep	Method: N/A	
QC Batch:	40641		Date Analyz	ea: 2007	(-08-30	Analy	yzed By:	
Prep Batch:	35154		Sample Prep	aration: 2007	7-08-30	Prepa	ared By:	
			$\mathbf{RL}$					
Parameter	Fla	ag	$\mathbf{Result}$	τ	Units	Dilution	$\operatorname{RL}$	ı
DRO			954	mg	g/Kg	1	50.0	<u> </u>
					Spike	Percent	Recovery	
Surrogate	Flag	$\mathbf{Result}$	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits	
n-Triacontan	e 2	520	mg/Kg	1	150	347	17.3 - 169.6	;

### Sample: 134892 - SP-1

Analysis: QC Batch: Prep Batch:	TPH GRO 40736 35212		Analytical Date Anal Sample Pr	Method: yzed: reparation:	S 8015B 2007-08-31 2007-08-31		Prep Me Analyzed Prepared	thod: S 5035 l By: l By:
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units		Dilution	$\mathbf{RL}$
GRO			55.3		mg/Kg		2	1.00
						Spike	Percent	Recovery
Surrogate		$\mathbf{Flag}$	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.70	mg/Kg	2	2.00	85	50.2 - 89.3
4-Bromofluor	robenzene (4-BFB)		2.25	mg/Kg	2	2.00	112	50.8 - 131.6

### Method Blank (1) QC Batch: 40641

QC Batch: Prep Batch:	40641 35154		Date Analyzed: QC Preparation:	2007-08-30 2007-08-30	-	Analyzed By: Prepared By:
			MDI	L		
Parameter		Flag	Resul	t	Units	$\operatorname{RL}$
DRO			<13.	4	mg/Kg	50

<sup>1</sup> High surrogate recovery due to peak interference. <sup>2</sup> High surrogate recovery due to peak interference.

Report Date: September 4, Gem Battery #4	2007		Work O Gem	order: 708 Battery 7	82945 #4		Page SV	Number: V of Hobl	4 of 6 os,NM
Surrogate Flag	Result	Unit	s Di	ilution	Spik Amou	e int	Percent Recovery	Reco Lin	overy nits
n-Triacontane	64.2	mg/I	ζg	1	150	)	43	32.9 -	156.1
								_	
Method Blank (1)	C Batch: 407	36				s.			
QC Batch: 40736		Date	Analyzed:	2007-0	8-31		А	nalyzed H	By:
Prep Batch: 35212		QC	Preparation	: 2007-0	8-31		P	repared E	By:
Parameter	Flag		Ml Res	DL ult		Uni	ts		$\mathbf{RL}$
GRO			<0.7	739		mg/	Kg		1
Surrogata	Flag	Bosult	Units	Dil	ution	Spike	Percent	Reco	overy
Trifluorotoluene (TFT)	Tiag	1.02	mg/Kg		1	1.00	102	67.8	- 103
4-Bromofluorobenzene (4-B	FB)	0.932	mg/Kg	5	1	1.00	93	55.4 -	111.8
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154	ke (LCS-1)	Date QC	e Analyzed: Preparation	2007-0 : 2007-0	18-30 18-30		A P	nalyzed H repared H	Зу: Зу:
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154	ke (LCS-1)	Date QC LCS	Analyzed: Preparation	2007-0 : 2007-0	98-30 98-30 Spike	Matri	A P x	nalyzed H Prepared H Re	By: By: ec.
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154 Param	ke (LCS-1)	Date QC LCS Result	e Analyzed: Preparation Units mg/Kg	2007-0 : 2007-0 Dil.	8-30 8-30 Spike Amount 250	Matri Resul	A P x t Rec. 4 94	nalyzed H Prepared F Re Lir	3y: 3y: ec. nit
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154 Param DRO Parcent recovery is based of	ke (LCS-1)	Date QC LCS Result 236	e Analyzed: Preparation Units mg/Kg	2007-0 : 2007-0 Dil. 1	8-30 8-30 Spike Amount 250 and spike of	Matri Resul <13.	A P t Rec. 4 94	nalyzed H Prepared H Re Lir 49.1 -	3y: 3y: ec. <u>nit</u> 142.3
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based o	ke (LCS-1)	Date QC LCS Result 236 Jult. RPD i	e Analyzed: Preparation Units mg/Kg s based on t	2007-0 : 2007-0 Dil. 1 .he spike a	8-30 18-30 Spike <u>Amount</u> 250 and spike of	Matri Resul <13. duplicate r	A P t Rec. 4 94 result.	nalyzed I Prepared F Re Lir 49.1 -	3y: 3y: ec. nit 142.3
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based o Param	ke (LCS-1) n the spike res LCS Resu	Date QC LCS Result 236 sult. RPD i D	e Analyzed: Preparation Units mg/Kg s based on t	2007-0 : 2007-0 Dil. 1 .he spike a Spike Amount	8-30 8-30 Spike <u>Amount</u> 250 and spike of Matrix Result	Matri Resul <13. duplicate r Rec.	A P It Rec. 4 94 result. Rec. Limit	nalyzed H Prepared H Re Lir 49.1 -	By: By: nit 142.3 RPD Limit
Laboratory Control Spi QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based o Param DRO	ke (LCS-1) n the spike res LCS Resu 243	Date QC LCS Result 236 sult. RPD i D lt Units mg/K	e Analyzed: Preparation Units mg/Kg s based on t based on t	2007-0 : 2007-0 Dil. 1 .he spike a Spike Amount 250	8-30 8-30 Spike <u>Amount</u> 250 and spike of Matrix <u>Result</u> <13.4	Matri Resul <13. duplicate r Rec. 97	A P t <u>Rec.</u> 4 94 result. <u>Rec.</u> Limit 49.1 - 142.3	nalyzed H Prepared F Lir 49.1 - RPD 3	By: By: mit 142.3 RPD Limit 20
Laboratory Control Spil         QC Batch:       40641         Prep Batch:       35154         Param       DRO         Percent recovery is based of the percent recovery	ke (LCS-1) n the spike res LCS Resu 243 n the spike res	Date QC LCS Result 236 sult. RPD i D lt Units mg/K sult. RPD i	e Analyzed: Preparation Units mg/Kg s based on t bil. g 1 s based on t	2007-0 : 2007-0 Dil. 1 .he spike a Spike Amount 250 .he spike	8-30 8-30 Spike <u>Amount</u> 250 and spike of Matrix Result <13.4 and spike of	Matri Resul <13. duplicate r Rec. 97 duplicate r	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result.	nalyzed H Prepared H Re Lir 49.1 - RPD 3	By: By: nit 142.3 RPD Limit 20
Laboratory Control Spil QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based o Param DRO Percent recovery is based o	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L	Date QC LCS Result 236 Jult. RPD i D lt Units Mg/K sult. RPD i CSD	e Analyzed: Preparation Units mg/Kg s based on t g 1 s based on t	2007-0 : 2007-0 Dil. 1 :he spike a Spike Amount 250 :he spike	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike of Spike	Matri Resul duplicate r Rec. 97 duplicate r LCS	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. tcSD	nalyzed I Prepared F Lir 49.1 - RPD 3	By: By: ec. nit 142.3 RPD Limit 20
Laboratory Control Spil         QC Batch:       40641         Prep Batch:       35154         Param	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R	Date QC LCS Result 236 sult. RPD i D lt Units mg/K sult. RPD i CSD esult	e Analyzed: Preparation Units mg/Kg s based on t <u>g 1</u> s based on t Units	2007-0 : 2007-0 Dil. 1 :he spike a Spike Amount 250 :he spike Dil.	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike Spike Amount	Matri Resul duplicate r 97 duplicate r LCS Rec.	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. cesult. LCSD Rec.	nalyzed H Prepared H Re Lir 49.1 - RPD 3 F Li	By: By: Mit 142.3 RPD Limit 20 Rec. imit
Laboratory Control Spit QC Batch: 40641 Prep Batch: 35154 Param DRO Percent recovery is based o Param DRO Percent recovery is based o Surrogate n-Triacontane	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R 104	Date QC LCS Result 236 sult. RPD i D lt Units mg/K sult. RPD i CSD esult 94.7	e Analyzed: Preparation Units mg/Kg s based on t g 1 s based on t Units mg/Kg	2007-0 : 2007-0 Dil. 1 he spike : Spike Amount 250 the spike Dil. 1	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike of Spike Amount 150	Matri Resul <13. duplicate r Rec. 97 duplicate r LCS Rec. 69	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. 5 LCSD Rec. 63	nalyzed H Prepared H Re Lir 49.1 - RPD 3 F Li 49 -	By: By: nit 142.3 RPD Limit 20 Rec. imit 133.2
Laboratory Control Spil         QC Batch:       40641         Prep Batch:       35154         Param       DRO         Percent recovery is based of the percent recovery recovery is based of the percent recovery is based of the percent recovery is based of the percent recovery	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R 104 ke (LCS-1)	Date QC LCS Result 236 sult. RPD i D llt Units mg/K sult. RPD i CSD .esult 94.7	e Analyzed: Preparation Units mg/Kg s based on t bil. g 1 s based on t Units mg/Kg	2007-0 : 2007-0 Dil. 1 :he spike a Spike Amount 250 :he spike Dil. 1	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike Spike Amount 150	Matri Resul <13. duplicate r 97 duplicate r LCS Rec 69	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. 5 LCSD . Rec. 63	nalyzed H Prepared H Re Lir 49.1 - RPD 3 F Li 49 -	By: By: Mit 142.3 RPD Limit 20 Rec. imit 133.2
Laboratory Control Spit         QC Batch:       40641         Prep Batch:       35154         Param       DRO         Percent recovery is based of the percent recovery	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R 104 ke (LCS-1)	Date QC LCS Result 236 sult. RPD i D lt Units mg/K sult. RPD i CSD esult 94.7	e Analyzed: Preparation Units mg/Kg s based on t g 1 s based on t Units mg/Kg	2007-0 : 2007-0 Dil. 1 :he spike : Spike Amount 250 :he spike Dil. 1	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike of Spike Amount 150 08-31	Matri Resul <13. duplicate r 97 duplicate r LCS Rec 69	A F x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. CSD Rec. 63	Analyzed H Prepared F Re Lir 49.1 - RPD 3 F Li 49 -	By: By: nit 142.3 RPD Limit 20 Rec. imit 133.2 By:
Laboratory Control Spin         QC Batch:       40641         Prep Batch:       35154         Param       DRO         Percent recovery is based of the percent recovery recovery is based of the percent recovery is based of the percent recovery is based of the percent recovery rec	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R 104 ke (LCS-1)	Date QC LCS Result 236 sult. RPD i D lt Units mg/K sult. RPD i CSD esult 94.7 Date QC	e Analyzed: Preparation Units mg/Kg s based on t g 1 s based on t Units mg/Kg e Analyzed: Preparation	2007-0 : 2007-0 Dil. 1 :he spike : Spike Amount 250 :he spike Dil. 1 2007-0 : 2007-0	8-30 8-30 Spike <u>Amount</u> 250 and spike of Matrix Result <13.4 and spike of Spike <u>Amount</u> 150 08-31 08-31	Matri Resul <13. duplicate r Rec. 97 duplicate r LCS Rec 69	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. CSD Rec. 63	Analyzed H Prepared H Re Lir 49.1 - RPD 3 F Li 49 - Analyzed H Prepared H	By: 3y: ec. nit 142.3 RPD Limit 20 Rec. imit 133.2 By: By:
Laboratory Control Spit         QC Batch:       40641         Prep Batch:       35154         Param       DRO         Percent recovery is based of the percent p	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R 104 ke (LCS-1)	Date QC LCS Result 236 sult. RPD i D lt Units mg/K sult. RPD i CSD esult 94.7 Date QC	e Analyzed: Preparation Units mg/Kg s based on t g 1 s based on t Units mg/Kg e Analyzed: Preparation	2007-0 : 2007-0 Dil. 1 :he spike a Spike Amount 250 :he spike Dil. 1 : 2007-0 : 2007-0	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike of Spike Amount 150 08-31 08-31 Spike	Matri Resul duplicate r Rec. 97 duplicate n LCS Rec 69	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. CSD Rec. 63 A F rix	Analyzed H Prepared H Re Lir 49.1 - RPD 3 F Li 49 - Analyzed J Prepared H	By: By: 142.3 RPD Limit 20 Rec. imit 133.2 By: By: By: By:
Laboratory Control Spit         QC Batch:       40641         Prep Batch:       35154         Param       DRO         Percent recovery is based of the percent recovery rec	ke (LCS-1) n the spike res LCS Resu 243 n the spike res LCS L Result R 104 ke (LCS-1)	Date QC LCS Result 236 Jult. RPD i D lt Units mg/K sult. RPD i CSD esult 94.7 Date QC LCS Result	e Analyzed: Preparation Units mg/Kg s based on t g 1 s based on t Units mg/Kg e Analyzed: Preparation Units	2007-0 : 2007-0 Dil. 1 Spike Amount 250 Che spike Dil. 1 2007-0 :: 2007-0 Dil.	8-30 8-30 Spike Amount 250 and spike of Matrix Result <13.4 and spike of Spike Amount 150 08-31 08-31 Spike	Matri Resul duplicate r duplicate r LCS Rec 69	A P x t Rec. 4 94 result. Rec. Limit 49.1 - 142.3 result. CSD Rec. 63 A F rix ult Rec.	Analyzed I Prepared F Lir 49.1 - RPD 3 F Li 49 - Analyzed I Prepared I F Li	By: ac. nit 142.3 RPD Limit 20 Rec. imit 133.2 By: By: By: By: By: By: By: By:

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Report Date: September 4, 2007 Gem Battery #4			Work Ge	m Battery	82945 #4				ST	W of Ho	bbs,NM
	LCSD	<b>T7</b> •:	DU	Spike	Mat	trix	P	ŀ	Rec.	000	RPD
'aram	Result	Units	$\frac{Dil.}{1}$	Amount	$rac{res}{<0}$	5ult 720	$\frac{\text{Rec.}}{00}$	L 56	$\frac{105}{105}$	<u>RPD</u>	Limit
iro	9.01	mg/Kg	1	10.0	<u>&lt;</u> 0.	.139	90	- 00	105.2	0	20
'ercent recovery is based on the sp	ike result.	RPD is	based o	n the spike	and sp	ike du	plicate	e result			
	LCS	$\mathbf{LC}$	SD			Spike	e	LCS	LCSD		Rec
urrogate	Resul	t Res	ult	Units	Dil.	Amou	nt	Rec.	Rec.	Ī	Limit
Trifluorotoluene (TFT)	1.02	0.9	36	ng/Kg	1	1.00	)	102	94	61.1	- 148.1
-Bromofluorobenzene (4-BFB)	0.946	0.9	50 1	mg/Kg	1	1.00	)	95	95	67.2	2 - 119.2
· · · · · · · · · · · · · · · · · · ·	······								<u> </u>		-
Matrix Spike (MS-1) Spiked	Sample: 13	4890									
C Batch: 40641		Date .	Analyze	d: 2007-	08-30				A	nalyzed	l By:
Prep Batch: 35154		QC P	reparati	on: 2007-	08-30				P	repared	l By:
•		-	-							-	·
	MS				Spil	re-	Mai	triv			Rec
Daram	Resu	lt 1	Units	Dil.	Amo	unt	Ree	ult	Rec.	T	Limit.
)BO	276	n	ng/Kg	1	250	)	<1	3.4	110	30.2	2 - 201.4
Organt recovery is based on the se	ika rocult		hand o	n the enilse	and en	iko du	nlicat	rocul			
ercent recovery is based on the sp	ike result.	1(1 1) 15	Dased U	ii uie spike	and sp	ure au	picate	e resur			
	MSD			$\mathbf{Spike}$	Mati	rix		R	lec.		RPD
Param	MSD Result	Units	Dil.	Spike Amount	Matı Resu	rix ilt [	Rec.	R Li	tec. mit	RPD	RPD Limit
Param DRO	MSD Result 244	Units mg/Kg	Dil.	Spike Amount 250	Matı Resu <13	rix ult 1 .4	Rec. 98	R Li 30.2	tec. mit - 201.4	RPD 12	RPD Limit 20
Param DRO Percent recovery is based on the sp	MSD Result 244 ike result.	Units mg/Kg RPD is	Dil. 1 based o	Spike Amount 250 n the spike	Matu Resu <13 and sp	rıx ult	Rec. 98 plicate	R Li 30.2 e result	tec. mit - 201.4	RPD 12	RPD Limit 20
Param DRO Percent recovery is based on the sp	MSD Result 244 ike result.	Units mg/Kg RPD is	Dil. 1 based o	Spike Amount 250 n the spike	Matu Resu <13 and sp	rix ult .4 ike du	Rec. 98 plicate	R Li 30.2 e result	tec. mit - 201.4	RPD 12	RPD Limit 20
Param DRO Percent recovery is based on the sp MS	MSD Result 244 ike result. MSD	Units mg/Kg RPD is	Dil. 1 based o	Spike Amount 250 n the spike	Matr Resu <13 and sp	rix 1lt 1.4 ike du pike	Rec. 98 plicate	R Li 30.2 e result MS	tec. mit - 201.4 :. MSI	RPD 12	RPD Limit 20 Rec.
Param DRO Percent recovery is based on the sp MS furrogate Result	MSD Result 244 ike result. MSD Resul	Units mg/Kg RPD is t	Dil. 1 based o Units	Spike Amount 250 n the spike Dil.	Matr Resu <13 and sp S An	rix 1lt 3.4 ike du pike nount	Rec. 98 plicate	R Li 30.2 e result MS Rec.	tec. mit - 201.4 :. MSI Rec	RPD 12	RPD Limit 20 Rec. Limit
Param DRO Percent recovery is based on the sp MS Surrogate Result 1-Triacontane 183	MSD Result 244 ike result. MSD Resul 171	Units mg/Kg RPD is t	Dil. 1 based o Units ng/Kg	Spike Amount 250 n the spike Dil. 1	Mata Resu <13 and sp S An	rix 1lt ike du pike nount 150	Rec. 98 plicate	R Li 30.2 e result MS Rec. 122	tec. mit - 201.4 :. MSI Rec 114	RPD 12	RPD Limit 20 Rec. Limit 10 - 194
Param DRO Percent recovery is based on the sp MS Surrogate Result n-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212	MSD Result 244 ike result. MSD Resul 171 Sample: 13	Units mg/Kg RPD is t 4984 Date QC P	Dil. 1 based o Units ng/Kg Analyze reparat	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007-	Mata Resu <13 and sp S An 08-31 08-31	rıx 11t 3.4 ike du pike nount 150	Rec. 98 plicate	R Li 30.2 e result MS Rec. 122	ec. mit - 201.4 :. MSI Rec 114	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d By:
Param DRO Percent recovery is based on the sp MS Surrogate Result 1-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212	MSD Result 244 ike result. MSD Resul 171 Sample: 13	Units mg/Kg RPD is t t 4984 QC P	Dil. 1 based o Units ng/Kg Analyze reparat	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007-	Mata Resu <13 and sp S An 08-31 08-31 Sp	rıx ılt ike du pike nount 150	Rec. 98 plicate	R Li 30.2 e result MS Rec. 122	ec. mit - 201.4 :. MSI Rec 114	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d By: d By: Rec.
Param DRO Percent recovery is based on the sp MS Surrogate Result 1-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param	MSD Result 244 ike result. MSD Resul 171 Sample: 13 MS Resu	Units mg/Kg RPD is t 44984 Date QC P	Dil. 1 based o <u>Units</u> ng/Kg Analyze reparat Units	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil.	Mata Resu <13 and sp S An 08-31 08-31 Sp Amo	rıx 11t .4 ike du pike nount 150 ike ount	Rec. 98 plicate	R Li 30.2 e result MS Rec. 122	ec. mit - 201.4 :. MSI Rec 114	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d By: d By: d By: d By: d By:
Param DRO Percent recovery is based on the sp MS Surrogate Result n-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO	MSD Result 244 ike result. MSD Resul 171 Sample: 13 MS Resu 8.4	Units mg/Kg RPD is t 4984 Date QC P	Dil. 1 based o Units ng/Kg Analyze reparat Units mg/Kg	Spike           Amount           250           n the spike           Dil.           1           ed:         2007-           ion:         2007-           Dil.         1	Mata Resu <13 and sp S An 08-31 08-31 08-31 Sp Amo 10	ike du ike du pike nount 150 ike ount 0.0	Rec. 98 plicate M R 0.	R Li 30.2 e result MS Rec. 122 atrix esult 8009	ec. mit - 201.4 :. MSI Rec 114 F Rec. 76	RPD 12	RPD           Limit           20           Rec.           Limit           10 - 194           H By:           H By:           Limit           O - 102.2
Param DRO Percent recovery is based on the sp MS Surrogate Result 1-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp	MSD Result 244 ike result. MSD Resul 171 Sample: 13 MS Resu 8.4 ike result.	Units mg/Kg RPD is t 4984 Date QC P dlt 4 n RPD is	Dil. 1 based o Units mg/Kg Analyze reparat Units mg/Kg based o	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 m the spike	Mata Resu <13 and sp S An 08-31 08-31 08-31 sp Ama 10 2 and sp	ike ount 150 ike du 150 ike ount 0.0	Rec. 98 plicate M R 0. uplicat	R Li 30.2 e result MS Rec. 122 atrix esult 8009 e result	ec. mit - 201.4 :. MSI Rec 114 A F Rec. 76 t.	RPD 12	RPD           Limit           20           Rec.           Limit           10 - 194           H By:           H By:           Limit           O - 102.2
Param DRO Percent recovery is based on the sp MS Surrogate Result h-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp	MSD Result 244 ike result. MSD Resul 171 Sample: 13 MS Resu 8.4 ike result. MSD	Units mg/Kg RPD is t 4984 Date QC P dlt 4 RPD is	Dil. 1 based of Units ng/Kg Analyze reparat Units mg/Kg based of	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 m the spike Spike	Mata Resu <13 and sp S An 08-31 08-31 08-31 Sp Amo 10 e and sp Ma	ike du ike du pike nount 150 ike ount 0.0 ike du	Rec. 98 plicate M R 0. uplicate	R Li 30.2 e result MS Rec. 122 atrix esult 8009 e result	ec. mit - 201.4 :. MSI Rec 114 P Rec. 76 t. Rec.	RPD 12	RPD           Limit           20           Rec.           Limit           10 - 194           d By:           d By:           d By:           0 - 102.2           RPD
Param DRO Percent recovery is based on the sp MS Surrogate Result n-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp Param	MSD Result 244 ike result. MSD Resul 171 Sample: 13 MSD Result	Units mg/Kg RPD is t 4984 Date QC P dlt A RPD is Units	Dil. 1 based of Units ng/Kg Analyze reparat Units mg/Kg based of Dil.	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 m the spike Spike Amoun	Mata Resu <13 and sp S An 08-31 08-31 08-31 Sp Amo 10 e and sp Ma t Res	ike du ike du pike nount 150 ike ount 0.0 ike du trix sult	Rec. 98 plicate M R 0. uplicate Rec.	R Li 30.2 e result MS Rec. 122 122 e result 8009 e result	ec. mit - 201.4 :. MSI Rec 114 P F Rec.	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d B
Param DRO Percent recovery is based on the sp MS Surrogate Result h-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp Param GRO	MSD Result 244 ike result. MSD Resul 171 Sample: 13 MSD Result 9.24	Units mg/Kg RPD is t 4984 Date QC P dilt A n RPD is Units mg/Kg	Dil. 1 based o Units ng/Kg Analyze reparat Units mg/Kg based o Dil. 1	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 m the spike Amoun 10.0	Mata Resu <13 and sp S An 08-31 08-31 08-31 08-31 c and sp Amo 10 c and sp Ma t Resu	ike du ike du pike nount 150 ike du 0.0 vike du trix sult 009	Rec. 98 plicate M R 0. plicate Rec. 84	R Li 30.2 e result MS Rec. 122 122 2 e result 8009 e result 1 L	ec. mit - 201.4 :. MSI Rec 114 # Rec. imit - 102.2	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d Dy: d By: d Rec. d By: d D d d d By: d By: d D d d d d d d d d d d d d d d d d d d
Param DRO Percent recovery is based on the sp MS Surrogate Result h-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp Param GRO Percent recovery is based on the sp	MSD Result 244 ike result. MSD Result 3.44 ike result. MSD Result 9.24 ike result.	Units mg/Kg RPD is t 4984 Date QC P dlt A RPD is Units mg/Kg RPD is	Dil. 1 based o Units mg/Kg Analyze reparat Units mg/Kg based o Dil. 1 based o	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- ion: 2007- Dil. 1 on the spike Amoun 10.0 on the spike	Mata Resu <13 and sp S An 08-31 08-3	ike du ike du pike nount 150 ike ount 0.0 vike du trix sult 009 vike du	Rec. 98 plicate M R 0. plicate Rec. 84 plicate	R Li 30.2 e result MS Rec. 122 122 e result 8009 e result 10 c result	ec. mit - 201.4 :. MSI Rec 114 A F Rec. imit - 102.2 t.	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d B
Param DRO Percent recovery is based on the sp MS Surrogate Result h-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp Param GRO Percent recovery is based on the sp	MSD Result 244 ike result. MSD Result 171 Sample: 13 MSD Result 9.24 ike result. MSD Result 9.24	Units mg/Kg RPD is t 4984 Date QC P dilt A n RPD is mg/Kg RPD is M	Dil. 1 based o Units ng/Kg Analyze reparat Units mg/Kg based o Dil. 1 based o	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 on the spike Amoun 10.0 on the spike	Mata Resu <13 and sp S An 08-31 08-3	ike du ike du pike nount 150 ike du trix sult 009 ike du Spi	Rec. 98 plicate M R 0. plicate Rec. 84 plicate	R Li 30.2 e result MS Rec. 122 122 2 e result 8009 e result 1 L 10 e result MS	ec. mit - 201.4 :. MSI Rec 114 A F Rec. 76 t. Rec. .imit - 102.2 t. MSI	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d B
Param DRO Percent recovery is based on the sp MS Surrogate Result h-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp Param GRO Percent recovery is based on the sp Surrogate	MSD Result 244 ike result. MSD Result 171 Sample: 13 MS Resu 8.4 ike result. MSD Result 9.24 ike result. MS Result	Units mg/Kg RPD is t 4984 Date QC P dut RPD is mg/Kg RPD is Mlt Re	Dil. 1 based o Units mg/Kg Analyze reparat Units mg/Kg based o Dil. 1 based o	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 on the spike Amoun 10.0 on the spike Units	Mata Resu (<13) and sp S An 08-31 08-31 08-31 08-31 10 e and sp Ma t Res 0.8 e and sp Dil.	ike du ike du pike nount 150 ike du ike du trix sult 009 ike du Spi	Rec. 98 plicate M R 0. plicate Rec. 84 plicate	R Li 30.2 e result MS Rec. 122 122 e result 8009 e result 10 c result MS Rec.	ec. mit - 201.4 - 201.4  MSI Rec. 114 - 114 - 114 - 114 - 114  Rec. 	RPD 12	RPD Limit 20 Rec. Limit 10 - 194 d By: d B
Param DRO Percent recovery is based on the sp MS Surrogate Result h-Triacontane 183 Matrix Spike (MS-1) Spiked QC Batch: 40736 Prep Batch: 35212 Param GRO Percent recovery is based on the sp Param GRO Percent recovery is based on the sp Surrogate Trifluorotoluene (TFT)	MSD Result 244 ike result. MSD Result 171 Sample: 13 MSD Result 9.24 ike result. MSD Result 9.24 ike result. MSD Result 9.24	Units mg/Kg RPD is t 4984 Date QC P dilt 4 n RPD is mg/Kg RPD is Mlt Re 4 0.	Dil. 1 based o Units mg/Kg Analyze reparat Units mg/Kg based o Dil. 1 based o SD esult 780	Spike Amount 250 n the spike Dil. 1 ed: 2007- ion: 2007- Dil. 1 on the spike Amoun 10.0 on the spike Units mg/Kg	Mata Resu <13 and sp S An 08-31 08-31 08-31 08-31 08-31 08-31 08-31 08-31 08-31 08-31 10 2 and sp Ama 10 2 and sp Ama 10 2 and sp 10 2 an 2 an 2 an 2 an 2 an 2 an 2 an 2 an	ike du ike du pike nount 150 ike du trix sult 009 ike du Spi Amc 1	Rec. 98 plicate M R 0. plicate Rec. 84 plicate ike punt	R Li 30.2 e result MS Rec. 122 atrix esult 8009 e result I 10 e result MS Rec. 73	ec. mit - 201.4 - 201.4  MSI Rec. 114 - 114 - 114 - 114 - 114  Rec. 	RPD 12 ) (Analyzed Prepared 1( RPD 9	RPD           Limit           20           Rec.           Limit           10 - 194           I By:           By:           By:           I By:           I By:           I By:           Rec.           Limit           0 - 102.2           RPD           Limit           20           Rec.           Limit           20

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Report Dat Gem Batte	eport Date: September 4, 2007 em Battery #4			Work Order: ' Gem Batter	Pa	age Number: 6 of 6 SW of Hobbs,NM	
Standard	(ICV-1)						
QC Batch:	40641		Date A	nalyzed: 2007-	-08-30		Analyzed By:
Deserve		TI-:+o	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
DRO	r lag	mg/Kg	250	218	87	85 - 115	2007-08-30
Standard	(CCV-1)						
QC Batch:	40641		Date A	nalyzed: 2007	-08-30		Analyzed By:
Param	Flag	Linits	CCVs True Conc	CCVs Found Conc	- CCVs Percent Becovery	Percent Recovery Limits	Date Analyzed
DRO	I lag	mg/Kg	250	282	113	85 - 115	2007-08-30
Standard	(ICV-1)						
QC Batch:	40736		Date A	nalyzed: 2007	-08-31		Analyzed By:
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.987	99	85 - 115	2007-08-31
Standard	(CCV-1)						
QC Batch:	40736		Date A	nalyzed: 2007		Analyzed By:	
Param	Flag	Units	CCVs True Conc	CCVs Found Conc	CCVs Percent Becovery	Percent Recovery	Date
GRO	* 100B	mg/Kg	1.00	0.949	95	85 - 115	2007-08-31

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 Z60

# Analytical and Quality Control Report

Julie Koonce Nova Safety & Environmental 2057 Commerce St. Midland, TX, 79703

Project Location:SW of Hobbs,NMProject Name:Gem Battery #4Project Number:Gem Battery #4

Report Date: September 19, 2007

Work Order: 7091437

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
136532	SP-E	soil	2007-09-14	12:40	2007-09-14
136533	SP-W	soil	2007-09-14	12:50	2007-09-14

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

Dr. Blair Leftwich, Director

### Standard Flags

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

# Analytical Report

### Sample: 136532 - SP-E

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TPH DRO		Analytical M	lethod: Mod.	8015B	Prep	Method: N/A
41192		Date Analyze	ed: 2007-	09-18	Anal	yzed By:
35587		Sample Prep	aration: 2007-	09-18	Prepa	ared By:
		$\mathbf{RL}$				
Fla	g	Result	U	nits	Dilution	$\operatorname{RL}$
		532	mg,	/Kg	1	50.0
				Spike	Percent	Recovery
Flag	$\operatorname{Result}$	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
Э	196	mg/Kg	1	150	131	17.3 - 169.6
	TPH DRO 41192 35587 Flag	TPH DRO 41192 35587 Flag Flag Result e 196	TPH DRO     Analytical M       41192     Date Analyz       35587     Sample Prep       RL     Result       Flag     Result       532     532	TPH DROAnalytical Method:Mod.41192Date Analyzed:2007-35587Sample Preparation:2007-RLRLU532mg/FlagResultU532mg/FlagResultDilutione196mg/Kg1	TPH DROAnalytical Method:Mod. 8015B41192Date Analyzed:2007-09-1835587Sample Preparation:2007-09-18RLFlagResultUnits532mg/KgFlagResultUnitsFlagResultUnits96mg/Kg1150	TPH DROAnalytical Method:Mod. 8015BPrep41192Date Analyzed:2007-09-18Analy35587Sample Preparation:2007-09-18PrepRLRLDilution532Mg/Kg1SpikePercentFlagResultUnitsDilutionSpikePercentFlagResultUnitsDilutionAmountRecoveryRecoveryRecoverye196mg/Kg1150131

### Sample: 136532 - SP-E

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method: S	5 5035
QC Batch:	41237	Date Analyzed:	2007-09-18	Analyzed By:	
Prep Batch:	35553	Sample Preparation:	2007-09-17	Prepared By:	
Commente D	un 2001 D on high out CDO				

Comment: Run 8021B on highest GRO

Parameter F	`lag		$\operatorname{RL}$ Result		Units		Dilution	RL
GRO			37.4		mg/Kg		2	1.00
						Spike	Percent	Recovery
Surrogate		$\mathbf{Flag}$	$\mathbf{Result}$	$\mathbf{Units}$	Dilution	$\operatorname{Amount}$	Recovery	Limits
Trifluorotoluene (TFT)		1	1.82	mg/Kg	2	2.00	91	50.2 - 89.3
4-Bromofluorobenzene (4-B)	FB)		1.85	mg/Kg	2	2.00	92	50.8 - 131.6

### Sample: 136533 - SP-W

Analysis: QC Batch: Prep Batch:	BTEX 41232 35553			Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2007-09-18 2007-09-17	Prep Meth Analyzed 1 Prepared I		ethod: S 5035 d By: d By:
				RI	J				
Parameter		Flag		Resul	t	Units		Dilution	$\mathbf{RL}$
Benzene				< 0.0200	0	mg/Kg		2	0.0100
Toluene				< 0.0200	D	mg/Kg		<b>2</b>	0.0100
Ethylbenzene	•			< 0.0200	0	mg/Kg		2	0.0100
Xylene			· .	< 0.020	0	mg/Kg		2	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			1.31	mg/Kg	2	2.00	66	39.6 - 116
4-Bromofluor	obenzene (4-BI	FB)		1.54	mg/Kg	2	2.00	77	47.3 - 144.2

<sup>1</sup>High surrogate recovery due to peak interference.

Gem Battery #4	te: September 19, 2007 ery #4			Work Or Gem E	der: 7091437 Battery #4	7	Page Number: 3 of 8 SW of Hobbs,NM		
Sample: 136533 -	SP-W								
Analysis: TPH	DRO		Analytica	l Method:	Mod. 801.	5B	Prep	Method: N/A	
OC Batch: $41192$			Date Ana	lvzed:	2007-09-1	8	Anal	vzed By:	
Prep Batch: 35587	,		Sample P	reparation:	2007-09-1	8	Prep	ared By:	
			$\mathbf{RL}$						
Parameter	Flag	5	Result		Units		Dilution	$\mathbf{RL}$	
DRO			419		mg/Kg		1	50.0	
						Spike	Percent	Recovery	
Surrogate	Flag	Result	Units	Dilı	ition	Amount	Recovery	Limits	
n-Triacontane		147	mg/Kg		1	150	98	17.3 - 169.6	
Sample: 136533 - Analysis: TPH QC Batch: 4123' Prep Batch: 3555; Comment: Run 80;	• <b>SP-W</b> GRO 7 3 21B on high	lest GRO	Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2007-09-1 2007-09-1	8 7	Prep M Analyz Prepar	fethod: S 5035 ed By: ed By:	
	_								
			$\mathbf{RL}$						
Parameter	Flag	5	Result		Units		Dilution	RL	
GRO			46.3		mg/Kg		2	1.00	
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotoluene (T	FT)		1.71	mg/Kg	2	2.00	86	50.2 - 89.3	
4-Bromofluorobenz	ene (4-BFB	)	1.86	mg/Kg	2	2.00	93	50.8 - 131.6	
Method Blank (1 QC Batch: 4119 Prep Batch: 3558	1) QC 2 7	Batch: 41192	Date A QC Pro	nalyzed: eparation: MD1	2007-09-18 2007-09-18			Analyzed By: Prepared By:	
Parameter		Flag		Resul	t	U	nits	RL	
DRO				<13.	4	mg	ç/Kg	50	
Surrogate	Flag	Result	Units	Dil	ution	Spike Amount	Percent Recoverv	Recovery Limits	
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QC Batch:	41232	Date Analyzed:	2007-09-18	Analyzed By:
Prep Batch:	35553	QC Preparation:	2007-09-17	Prepared By:

Report Date: September 19, 2007 Gem Battery #4			Work Ord Gem Ba	er: 7091437 attery #4	Page Number: 4 of 8 SW of Hobbs,NM			
			ME	DL				
Parameter	Flag		Resu	1lt	Un	its	RL	
Benzene			<0.00110			mg/Kg		
Toluene			< 0.001	50	mg	/Kg	0.01	
Ethylbenzene			< 0.001	60	mg	/Kg	0.01	
Xylene		<0.00410			mg/Kg			
					Spike	Percent	Recovery	
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)		0.633	mg/Kg	1	1.00	63	58.2 - 121.3	
4-Bromofluorobenzene (4-BFB)		0.683	mg/Kg	1	1.00	68	53.1 - 111.6	

Method Blank (1)	QC Batch: 4	41237
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QC Batch: 41237 Prep Batch: 35553	Date A QC Pr	.nalyzed: eparation:	2007-09-18 2007-09-17	Analyzed By: Prepared By:			
Parameter	Flag		MD Resu	L lt	Uni	its	$\mathbf{RL}$
GRO			<0.73	9	mg/	1	
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)		$0.996 \\ 0.938$	mg/Kg mg/Kg	1 1	1.00 1.00	100 94	67.8 - 103 55.4 - 111.8

### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	41192 35587		Date Analyzed: QC Preparation:	2007-09-18 2007-09-18		Analyzed By: Prepared By:
		LCS		Spike	Matrix	Rec.

	LUS			Spike	Maurix		nec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$
DRO	298	mg/Kg	1	250	<13.4	119	49.1 - 142.3

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$	RPD	$\operatorname{Limit}$
DRO	343	mg/Kg	1	250	<13.4	137	49.1 - 142.3	14	20

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

Surrogate	$\begin{array}{c} \mathbf{LCS} \\ \mathbf{Result} \end{array}$	$\begin{array}{c} { m LCSD} \\ { m Result} \end{array}$	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	121	114	mg/Kg	1	150	81	76	49 - 133.2

### Laboratory Control Spike (LCS-1)

QC Batch:	41232	Date Analyzed:	2007-09-18	Analyzed By:
Prep Batch:	35553	QC Preparation:	2007-09-17	Prepared By:

Param	$\begin{array}{c} \mathrm{LCS} \\ \mathrm{Result} \end{array}$	Units	Dil.	Spike Amount	${f Matrix}\ {f Result}$	Rec.	Rec. Limit
Benzene	0.852	mg/Kg	1	1.00	< 0.00110	85	71.2 - 119
Toluene	0.909	mg/Kg	1	1.00	< 0.00150	91	76.3 - 116.5
Ethylbenzene	0.885	mg/Kg	1	1.00	< 0.00160	88	77.6 - 114
Xylene	2.72	mg/Kg	1	3.00	< 0.00410	91	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.	$\mathbf{Amount}$	$\mathbf{Result}$	Rec.	Limit	RPD	$\mathbf{Limit}$
Benzene	0.861	mg/Kg	1	1.00	< 0.00110	86	71.2 - 119	1	20
Toluene	0.888	mg/Kg	1	1.00	< 0.00150	89	76.3 - 116.5	<b>2</b>	20
Ethylbenzene	0.881	mg/Kg	1	1.00	< 0.00160	88	77.6 - 114	0	20
Xylene .	2.69	mg/Kg	1	3.00	< 0.00410	<b>9</b> 0	78.8 - 113.9	1	<b>20</b>

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	$\mathbf{Result}$	$\mathbf{Result}$	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.570	0.569	mg/Kg	1	1.00	57	57	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	0.638	0.623	mg/Kg	1	1.00	64	62	56.2 - 118.8

### Laboratory Control Spike (LCS-1)

QC Batch:	41237	Date Analyzed:	2007-09-18		Analyzed By:
Prep Batch:	35553	QC Preparation:	2007-09-17	~	Prepared By:

_	LCS			Spike	Matrix	_	Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	7.96	mg/Kg	1	10.0	< 0.739	80	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.		RPD
Param	$\operatorname{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit	RPD	$\mathbf{Limit}$
GRO	8.15	mg/Kg	1	10.0	<0.739	82	56 - 105.2	2	20
Percent recovery is based on the	spike result.	RPD is b	ased on	the spike a	nd spike d	uplicate	result.		

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.943	0.964	mg/Kg	1	1.00	94	96	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.929	0.952	mg/Kg	1	1.00	93	95	67.2 - 119.2

### Matrix Spike (MS-1) Spiked Sample: 136427

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QC Batch: Prep Batch:	41192 35587	D Q	ate Analyzed C Preparatio	l: 2007 on: 2007	7-09-18 7-09-18		A: Pi	nalyzed By: repared By:
Param		${ m MS} { m Result}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		302	mg/Kg	1	250	<13.4	121	30.2 - 201.4

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

Gem Battery #4					em Battery	7 #4			Š	N of Ho	obb
Param		MSD Result	Units	Dil.	Spike Amount	${ m Matrix} { m Result}$	Rec.	R Li	lec. imit	RPD	] I
DRO		304	mg/K	g 1	250	<13.4	122	30.2	- 201.4	1	
Percent recovery is based or	n the spil	ke result.	RPD i	s based o	on the spike	and spike	duplica	te result	 t.		
						· F					
	MS	MS	D	<b></b>	<b>D</b> u	Spike	Э,	MS	MSE	)	R
Surrogate	Result	Rest	11t	Units		Amou	nt	Rec.	Rec.		
n-Triacontane	113	11.	3	mg/Kg	<u>1</u>	190		75			10
Matrix Spike (MS-1)	Spiked S	ample: 1	.36260								
OC Batch: 41232			Date	e Analyz	ed: 2007-	-09-18			А	nalvzed	1 B
Prep Batch: 35553			D C	Preparat	tion: 2007-	-09-17			 P	repared	B
			4						-	- op all oo	
		1.40	1			Collec	٦r	4			<b>п</b> -
Danama		Pogy	) ,1+	Unita	Б	Amount	IVI a	UTIX	Pag	т	nee ri
Bongono			7 1	$\frac{01103}{ma/Ka}$	1	1.00		$\frac{5010}{10110}$	<u> </u>	65.7	7
Toluene		1 0	2 1	ng/Kg	1	1.00	<0.0	0110	102	47 2	7 _ '
Ethylbenzene		1.04	4 1	ng/Kg	1	1.00	<0.0	0160	104	73.5	 5 -
Xvlene		3.19	9 1	ng/Kg	ĩ	3.00	<0.0	00410	106	73.6	, , -
Param		MSD Bosult	Tinita	Dil	Spike A mount	Matrix Bogult	Bog	F	Rec.	חפס	]
Param		0.876	mg/Kg	<u>DII.</u>	1 00	<u>result</u>	nec.	65 7		<u></u>	
Hongono								<b>D D 1</b> (		5	
Benzene Toluene		0.870	mg/Kg	• 1	1.00	<0.00110	00 96	05.1 47 7	- 119.1	5 6	
Benzene Toluene Ethylbenzene		0.961	mg/Kg mg/Kg		1.00 1.00 1.00	<0.00110 <0.00150 <0.00160	96 96	47.7 73.5	- 119.1 - 153.8 - 126.3	5 6 8	
Benzene Toluene Ethylbenzene Xylene		0.961 0.962 2.96	mg/Kg mg/Kg mg/Kg	1	1.00 1.00 3.00	<0.00110 <0.00150 <0.00160 <0.00410	96 96 99	47.7 73.5 73.6	- 119.1 - 153.8 - 126.3 - 125.9	5 6 8 8	
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o	n the spi	0.961 0.962 2.96 ke result	mg/Kg mg/Kg mg/Kg	1 1 1 1	1.00 $1.00$ $1.00$ $3.00$ on the spike	<0.00110 <0.00150 <0.00160 <0.00410	96 96 99 duplica	47.7 47.7 73.5 73.6	- 119.1 - 153.8 - 126.3 - 125.9	5 6 8 8	
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o	n the spi	0.961 0.962 2.96 ke result	mg/Kg mg/Kg mg/Kg . RPD i	s based	1.00 1.00 3.00 on the spike	< 0.00110 < 0.00150 < 0.00160 < 0.00410 e and spike	96 96 99 duplica	47.7 47.7 73.5 73.6 te result	- 119.1 - 153.8 - 126.3 - 125.9 t.	5 6 8 8	
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o	n the spi	0.961 0.962 2.96 ke result	mg/Kg mg/Kg mg/Kg . RPD i	s based	1.00 1.00 3.00 on the spike	<0.00110 <0.00150 <0.00160 <0.00410 e and spike	96 96 99 duplica pike	47.7 73.5 73.6 te result MS	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD	5 6 8 8	Re
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate	n the spi	0.961 0.962 2.96 ke result Ms Resu	mg/Kg mg/Kg mg/Kg . RPD i S l ult F	s based MSD tesult	1.00 1.00 3.00 on the spike	<0.00110 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar	96 96 99 duplica pike nount	47.7 73.5 73.6 te result MS Rec.	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec.	5 6 8 8	Rec
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Triffuorotoluene (TFT)	n the spi	0.961 0.962 2.96 ke result Ms Ress 0.59	mg/Kg mg/Kg mg/Kg . RPD i S 1 ult F 95 (	1 1 1 s based MSD tesult	1.00 1.00 1.00 3.00 on the spike Units mg/Kg	<0.00110 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1	96 96 99 duplica pike nount	63.7 47.7 73.5 73.6 te result MS <u>Rec.</u> 60	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64	5 6 8 8 1 51	Re Lin
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Triffuorotoluene (TFT) 4-Bromofluorobenzene (4-B	n the spi BFB)	0.961 0.962 2.96 ke result Rest 0.55 0.76	mg/Kg mg/Kg mg/Kg . RPD i S 1 ult F 95 ( 00 (	1 1 1 1 1 1 5 1 5 1 5 1 5 1 5 1 5 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5	1.00 1.00 3.00 on the spike Units mg/Kg mg/Kg	<0.001150 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1	96 96 99 duplica pike nount 1 1	63.7 47.7 73.5 73.6 te result MS <u>Rec.</u> 60 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70	5 6 8 8 1 51 60.3	Ree Lirr - 1 3 -
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1)	n the spil BFB) Spiked S	0.961 0.962 2.96 ke result MS Ress 0.59 0.70 Sample: 1	mg/Kg mg/Kg mg/Kg . RPD i S 1 ult F 95 ( 00 ( 136260	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.00 1.00 3.00 on the spike <u>Units</u> <u>mg/Kg</u> <u>mg/Kg</u>	<0.00110 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1	96 96 99 duplica pike nount 1 1	65.7 47.7 73.5 73.6 te result MS Rec. 60 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70	5 6 8 8 51 60.3	Rec Lim - 1 3 -
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553	n the spi BFB) Spiked S	0.961 0.962 2.96 ke result M: 0.59 0.70 Sample: 1	mg/Kg mg/Kg mg/Kg . RPD i S 1 ult F 95 ( 00 ( 136260 Late QC	1 1 1 s based MSD tesult 0.635 0.695	1.00 1.00 1.00 3.00 on the spike <u>Units</u> mg/Kg mg/Kg ed: 2007 tion: 2007	<0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1 -09-18 -09-17	96 96 99 duplica pike nount 1 1	65.7 47.7 73.5 73.6 te result MS <u>Rec.</u> 60 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70	5 6 8 8 1 51 60.3	Ree Lin - 1 3 -
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553	n the spi BFB) Spiked S	0.961 0.962 2.96 ke result M: 0.59 0.70 Sample: 1	mg/Kg mg/Kg mg/Kg . RPD i S 1 ult F 95 ( 00 ( 136260 Late QC	1 1 1 s based MSD tesult 0.635 0.695 e Analyz Prepara	1.00 1.00 1.00 3.00 on the spike <u>Units</u> mg/Kg mg/Kg ed: 2007 tion: 2007	<0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1 -09-18 -09-17	96 96 99 duplica pike nount 1 1	65.7 47.7 73.5 73.6 te result MS <u>Rec.</u> 60 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70	5 6 8 8 1 51 60.3	Ree Lim - 1 3 -
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553	n the spi BFB) Spiked S	0.961 0.962 2.96 ke result <u>Ress</u> 0.55 0.70 Sample: 1	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 136260 136260 136260 Date QC	s based MSD tesult 0.635 0.695 Prepara	1.00 1.00 1.00 3.00 on the spike Units mg/Kg mg/Kg mg/Kg ed: 2007 tion: 2007	<0.001150 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1 -09-18 -09-18 -09-17 Spike	96 96 99 duplica pike nount 1 1	65.7 47.7 73.5 73.6 te result MS Rec. 60 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70 A F	5 6 8 8 1 51 60.3	Ree Lim - 1 3 - d B d B d B
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553 Param	n the spi BFB) Spiked S	0.961 0.962 2.96 ke result <u>Ms</u> 0.55 0.76 Sample: 1 Ma Res	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 136260 136260 Date QC IS Sult	I I S 1 S based MSD tesult 0.635 0.695 Prepara Units	1.00 1.00 1.00 3.00 on the spike <u>Units</u> mg/Kg mg/Kg mg/Kg ded: 2007 tion: 2007 Dil.	<0.00110 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1 1 -09-18 -09-18 -09-17 Spike Amoun	96 96 99 duplica pike nount 1 1 1	65.7 47.7 73.5 73.6 te result MS Rec. 60 70 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70 A F	5 6 8 8 1 51 60.3	Red Lim - 1 3 - d B d B d B Lin
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553 Param GRO	n the spil BFB) Spiked S	0.961 0.962 2.96 ke result MS 0.55 0.76 Sample: 1 MR Res 8.1	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 136260 136260 Date QC US Sult 21	I I I S based MSD tesult 0.635 0.695 Prepara Units mg/Kg	1.00 1.00 1.00 3.00 on the spike <u>Units</u> mg/Kg mg/Kg ed: 2007 tion: 2007 Dil. 1	<0.001150 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1 -09-18 -09-17 Spike Amoun 10.0	1	65.7 47.7 73.5 73.6 te result 60 70 60 70	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70 A F Rec. 82	5 6 8 8 1 51 60.: 20.: 20.: 20.: 20.: 20.: 20.: 20.: 2	Re Lim - 1 3 - d B d B d B d B d B d B d B d B d B d B
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Triffuorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553 Param GRO Percent recovery is based o	n the spi BFB) Spiked S	0.961 0.962 2.96 ke result MS Rest 0.59 0.70 Sample: 1 M Rest 8.1 ke result	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 136260 136260 136260 Data QC 136260 Data QC 136260 Lata QC	I I I S based MSD tesult 0.635 0.695 Prepara Units mg/Kg s based	1.00 1.00 1.00 3.00 on the spike Units mg/Kg mg/Kg ded: 2007 tion: 2007 Dil. 1 on the spike	<0.001150 <0.00150 <0.00160 <0.00410 e and spike S Dil. Ar 1 1 1 -09-18 -09-18 -09-17 Spike Amoun 10.0 e and spike	96 96 99 duplica pike nount 1 1 1 t I	65.7 47.7 73.5 73.6 te result MS Rec. 60 70 70 70 Matrix Result (0.739 te result	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70 A F Rec. 82 t.	5 6 8 8 1 51 60.3 2 repared 2 repared	Ree Lim - 1 3 - d B d B d B d B d B d B d B d B d B d B
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Triffuorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553 Param GRO Percent recovery is based o	n the spit	0.961 0.962 2.96 ke result <u>Ms</u> 0.55 0.76 Sample: 1 Ms ke result MSD	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg solution (136260) Date Sult Sult Sult Sult Sult Sult Sult Sult	I I I S based MSD tesult 0.635 0.695 Prepara Units mg/Kg s based	1.00 1.00 1.00 3.00 on the spike Units mg/Kg mg/Kg ded: 2007 tion: 2007 Dil. 1 on the spike Spike	<0.001150 <0.00150 <0.00160 <0.00410 and spike Spike -09-18 -09-17 Spike Amouni 10.0 and spike Matrix	96 96 99 duplica pike nount 1 1 1 t I duplica	65.7 47.7 73.5 73.6 te result MS Rec. 60 70 70 70 8 8 8 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 8 9 1 9 1	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70 A F Rec. 82 t. Rec.	5 6 8 8 1 51 60.3 2 repared	$\frac{\text{Ree}}{\text{Lim}}$
Benzene Toluene Ethylbenzene Xylene Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Matrix Spike (MS-1) QC Batch: 41237 Prep Batch: 35553 Param GRO Percent recovery is based o Param	n the spi BFB) Spiked S n the spi	0.961 0.962 2.96 ke result <u>Ms</u> 0.55 0.76 Sample: 1 Sample: 1 MsD Result	mg/Kg mg/Kg mg/Kg mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg Mg/Kg	I I I S based MSD Cesult D.635 D.695 Prepara Units mg/Kg S based s Dil	1.00 1.00 1.00 3.00 on the spike <u>Units</u> mg/Kg mg/Kg mg/Kg ded: 2007 tion: 2007 Dil. 1 on the spike Spike . Amoun	<0.001150 <0.00150 <0.00160 <0.00410 and spike S Dil. Ar 1 1 -09-18 -09-17 Spike Amount 10.0 and spike Matrix t Result	96 96 99 duplica pike nount 1 1 1 kt I duplica Rec	65.7 47.7 73.5 73.6 te result MS Rec. 60 70 70 4 Aatrix Result (0.739 te result (0.739 te result	- 119.1 - 153.8 - 126.3 - 125.9 t. MSD Rec. 64 70 A F Rec. 82 t. Rec. imit	5 6 8 8 1 51 60.3 Prepared	Rec Lim - 1 3 - d B d B d B d B d B d D -

Report Date: September 19, 2007 Gem Battery #4				Work Order: 7 Gem Batter		Page Number: 7 of 8 SW of Hobbs,NM		
		I	MS MSD		Spi	ke MS	MSD	Rec.
Surrogate		Re	esult Result	Units	Dil. Amo	unt Rec.	Rec.	Limit
Frifluorotol	uene (TFT)	0.	723 0.732	mg/Kg	1 1	72	73	47.2 - 84.2
I-Bromoflu	orobenzene (4-	BFB) 1	.04 1.05	mg/Kg	1 1	104	105	58 - 162.6
Standard	(ICV-1)							
QC Batch:	41192		Date Ana	lyzed: 2007-	09-18		Ana	alyzed By:
			ICVs	ICVs	ICVs	Percent	t	_
			True	Found	Percent	Recover	У	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits		Analyzed
DRO		mg/Kg	250	242	97	85 - 118	5	2007-09-18
Standard	(CCV-1)							
QC Batch:	41192		Date Ana	lyzed: 2007-	09-18		An	alyzed By:
			CCVs	CCVs	CCVs	Percent	t	
			True	Found	Percent	Recover	v	Date
		<b>T</b> T <b>•</b> ,	Cono	Cone	Recovery	Limita	5	Analyzed
Param	Flag	Units	Conc.	Conc.	recovery	Linnus		
Param DRO	Flag	Units mg/Kg	250	231	92	85 - 11	5	2007-09-18
Param DRO Standard QC Batch:	Flag (ICV-1) 41232	Units mg/Kg	250 Date Ana	231 lyzed: 2007-	92 09-18	85 - 11	5 An:	2007-09-18 alyzed By:
Param DRO Standard QC Batch:	Flag (ICV-1) 41232	Units mg/Kg	250 Date Ana ICVs	231 lyzed: 2007- ICVs	92 09-18 ICVs	85 - 11	5 An:	2007-09-18 alyzed By:
Param DRO Standard QC Batch:	Flag (ICV-1) 41232	Units mg/Kg	Date Ana ICVs True	231 lyzed: 2007- ICVs Found	92 09-18 ICVs Percent	Percer Recove	5An:	2007-09-1; alyzed By: Date
Param DRO Standard QC Batch: Param	Flag (ICV-1) 41232 Flag	Units mg/Kg g Units	Date Ana ICVs True Conc.	231 lyzed: 2007- ICVs Found Conc.	92 09-18 ICVs Percent Recovery	Percer Recove	5 An: ot ery s	2007-09-1 alyzed By: Date Analyzed
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Param DRO Standard QC Batch: Param Benzene Toluene	Flag (ICV-1) 41232 Flag	Units mg/Kg g Units mg/Kg mg/Kg	Date Ana ICVs True Conc. 0.100 0.100	231 231 Ivzed: 2007- ICVs Found Conc. 0.0869 0.0903	92 09-18 ICVs Percent Recovery 87 90	Percer Recove / Limit 85 - 11	5 Ana at ery s 15	2007-09-1; 2007-09-1; alyzed By: Date Analyzed 2007-09-1; 2007-09-1;
Param DRO Standard QC Batch: Param Benzene Toluene Ethylbenze	Flag (ICV-1) 41232 Flag ene	Units mg/Kg g Units mg/Kg mg/Kg mg/Kg	Date Ana ICVs True Conc. 0.100 0.100 0.100	231 231 Ivzed: 2007- ICVs Found Conc. 0.0869 0.0903 0.0882 0.268	92 09-18 ICVs Percent Recovery 87 90 88	Percer Recove / Limit 85 - 11 85 - 1 85 - 1 85 - 1	5 An: rry 5 15 15	2007-09-1; 2007-09-1; alyzed By: Date Analyzed 2007-09-1; 2007-09-1; 2007-09-1;
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Param DRO Standard QC Batch: Param Benzene Toluene Ethylbenze Xylene Standard QC Batch: Param Benzene Toluene Ethylbenze	Flag (ICV-1) 41232 Flag ene (CCV-1) 41232 Flag	y Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	Conc.           250           Date Ana           ICVs           True           Conc.           0.100           0.100           0.100           0.100           0.300	231 231 IVzed: 2007- ICVs Found Conc. 0.0869 0.0903 0.0882 0.268 IVzed: 2007- CCVs Found Conc. 0.0918 0.0991 0.0962	92 92 09-18 ICVs Percent Recovery 87 90 88 89 09-18 CCVs Percent Recovery 92 99 92 92 92 92 92 92 92 92	Percer Recove / Limit 85 - 11 85 - 11 85 - 1 85 - 1 85 - 1 85 - 1 Recove y Limit 85 - 1 85 - 1 85 - 1 85 - 1 85 - 1 85 - 1 85 - 1	5 An. rry s 15 15 15 15 15 15 15 15 15	2007-09-1 alyzed By: Date Analyzed 2007-09-1 2007-09-1 2007-09-1 2007-09-1 2007-09-1 alyzed By: Date Analyzed 2007-09-1 2007-09-1 2007-09-1 2007-09-1

QC Batch: 41237

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Date Analyzed: 2007-09-18

Analyzed By:

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Report Da Gem Batte	te: Septembe ry #4	r 19, 2007		Work Order: Gem Batte	7091437 ry #4	Pa	age Number: 8 of 8 SW of Hobbs,NM
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.964	96	85 - 115	2007-09-18
Standard	(CCV-1)						
QC Batch:	41237		Date A	nalyzed: 2007	-09-18		Analyzed By:
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.991	99	85 - 115	2007-09-18

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		LAE	3 Order ID #	700	9143	37		Page_	of	
TraceAnal	ysis, Inc.	6701 L	Aberdeen Avenue, Sui ubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (806) 278 1298	te 9 5	002 Basin Stre Midland, Tex Tel (432) 68 Fax (432) 68	et, Suite A1 as 79703 9-6301 39-6313	200 East Suns El Paso, Te Tel (915) Fax (915) 1 (888) 5	et Rd., Suite E xas 79922 585-3443 585-4944 88-3443	6015 Harris Pkwy Ft. Worth, Texa Tel (817) 201	, Suite 110 <b>as 76132</b> I-5260
Mane: SAFEY'EN	WERMENT	Phone #: 482-	520-77	20			ANALYSIS	REQUEST	r nod No )	
Algess: (Stree), City, Zip) Algess: (Stree), City, Zip) Algest Person: Algest Person: Alge	MIDLAME CO HU NMAT NMAT NO NO NO NO NO NO NO NO NO NO	Fax #: Find 43 E-mail: Coorder ON Project Name: Sampler Signatule: PRESERVAT METHOD UP DATE: Date:	Z-SZO-T	TIME BUJAR (ED) (SAUR (ED) (SAUR)	00210210021024         00210210021024         00210210021024         00210210021024         0021021025         0021021021021024         0021021021021021021021021021021021021021	K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K     K <thk< th="">     K     K     K     K<td>TCLP Semi Volatiles</td><td>Pesticides 8082 / 608 Pesticides 8082 / 608 Pesticides 8081 A / 608 Pesticides</td><td></td><td>C Turn Around Time If different from standard Hold</td></thk<>	TCLP Semi Volatiles	Pesticides 8082 / 608 Pesticides 8082 / 608 Pesticides 8081 A / 608 Pesticides		C Turn Around Time If different from standard Hold
inquished by: Date: Time:	Received at Laborat	TDA: 9/14/0-	Time: 7 1/012		lemp <u>3.</u> og-In-Reviev	) , Az	Chec	k If Special Rep Are Needed	porting	
bmittal of samples constitutes agreement to Te	rms and Conditions liste	on reverse side of C. O.	С.		Carrier #	any	du			



BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary

# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

Mark E. Fesmire, P.E. Director Oil Conservation Division

Field Inspection Program "Preserving the Integrity of Our Environment"

24-Jul-07

BTA OIL PRODUCERS 104 S PECOS MIDLAND TX 79701

**LETTER OF VIOLATION - Inspection** 

Dear Operator:

The following inspection(s) indicate that the well, equipment, location or operational status of the well(s) failed to meet standards of the New Mexico Oil Conservation Division as described in the detail section below. To comply with standards imposed by Rules and Regulations of the Division, corrective action must be taken immediately and the situation brought into compliance. The detail section indicates preliminary findings and/or probable nature of the violation. This determination is based on an inspection of your well or facility by an inspector employed by the Oil Conservation Division on the date(s) indicated.

Please notify the proper district office of the Division, in writing, of the date corrective actions are scheduled to be made so that arrangements can be made to reinspect the well and/or facility.

			INSPECTION	<b>DETAIL</b>	SECTION	~	
LYNCH 82 Inspection Date	12 JV-P No.00 Type Inspection	1	Inspector	Violation?	J-24-20S-34E *Significant Non-Compliance?	30-025-28743-00- Corrective Action Due By:	00 Inspection No.
07/19/2007	Routine/Peric Violations	dic	Buddy Hill	Yes	No	10/22/2007	iLWH0720047003
Comments	Absent Well Ider on Inspection:	NO SIGN @ TAP VENTING EXEN LETTER ON NO	NK BATTERYNE MPTIONNO HOM BATTERY SIGN	EDS A SIG	N PLACED AT BAT	TERYCHECK FOR WATER TANK,,,FI	a GAS RST
GEM 8705 . , Inspection Date	JV-P No.004 Type Inspection	l	Inspector	Violation?	N-2-20S-33E *Significant Non-Compliance?	30-025-31209-00- Corrective Action Due By:	-00 Inspection No.
07/19/2007	7/19/2007 Routine/Periodic Violations Surface Leaks/Spills		Buddy Hill	Yes	No	10/22/2007	iLWH0720051100
Comments (	on Inspection:	CHECK AREA F FULL AND RUN DYKE HAS HAE CONTAMINATE	OR GAS VENTIN INING OVER, GEA D SPILL, NOT CLE ED SOIL REMOVE	G EXEMPT AR OIL AN EANED UP EDFENCE	ION,,OK ! DRIP PAI D WATERFRONT / NEEDS PAN EMPT AROUND BATTERY	N UNDER SWD PUI AREA OF BATTERY IED, AND Y IS IN NEED OF RI	MP ( EPAIR,

XC

Oil Conservation Division \* 1625 N. French Drive \* Hobbs, New Mexico 88240 Phone: 505-393-6161 \* Fax: 505-393-0720 \* http://www.emnrd.state.nm.us District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 R10 Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141 Revised March 17, 1999

side of form

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

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

Name of Cor Address Facility Nam	npany	BTA Oil Prod	lucers			OPERA'	TOR		nitial Report	🗌 Final R	
Name of Cor Address Facility Nam	npany	BTA Oil Proc	lucers								
Address Facility Nam	i	LUAN Doood	> 11 11	1 517 50501	Contact Pam Inskeep						
Surface Own	•	$\frac{104}{Gam}$ 8705 F	Midlan / P Bat	d, 1X /9/01		Telephone No. (432) 682-3753					
Surface Own						active ryp					
Surface Owli	er S	State		Mineral	Owner	State		Leas	se No. V-21	99	
				LOC	ATION	OF RE	LEASE			<u> </u>	
Unit LetterSectionTownshipRangeFeet from theNorC0220S33E660Nor					North/ North	South Line	Feet from the 2310	East/West Lin West	ne County Lea	WIR	
				NAT	TURE	OF REL	EASE		-		
Type of Relea	se	Minor				Volume of	Release 20 bbls	Volun	ie Recoveredù	20 bbls	
Source of Rele	ase	Swedge/T	ank Leal	ζ		Date and H	Iour of Occurrence	e Date a	nd Hour of Dis	scovery []	
Was Immediat	e Notice C	Given?				If YES. To	Whom	10:30	am CD1, 11/19	2/2000	
As soon as r	otified in	the office 🛛	Yes [	] No 🔲 Not R	lequired	Larry John	son, Hobbs Distri	ct Office			
By Whom?		Pam Inske	ер			Date and H	Iour 2:00 pm C	DT, 11/20/2006	í	*	
Was a Waterco	ourse Reac	ched?	Vec 🔽	l No		If YES, Vo	olume Impacting th	he Watercourse	5678970	1173	
			<u> </u>			L			) ) 	· [3]	
If a Watercour:	se was Imp	pacted, Descrit	e Fully.	•				/~~	D. al		
N/A	۱.								1,990	516	
								lõ		171	
Describe Caus	e of Proble	em and Remedi	al Action	n Taken.*	·······			- 18	A Contraction	<b>Ý</b>	
When maki	ng his rou	nds, the pumpe	r discove	ered a leak at the	battery.	The bottom of	of the 4"x3" swedy	e on the back	knk #2 corre	ded and develor	
a leak and an e	stimated 2	20 bbls of store	d oil/wat	er mix leaked out	t onto the	soil at the ba	attery on the south	side of the tar	K. ALLEZ	proximately 1/2 bl	
stayed inside th	ne dike. A	In estimated 1/2	bbl affec	ted the pasture la	and just of	utside the dil	te at the leak locat	ion. All of the	release is unre	coverable.	
The swedge	was plug	ged. The tank	was emp	tied. The swedge	e will be i	eplaced.					
Mr. Kennet product that wa	h Smith, th as released	he grazing lesso I outside the dil	e (GT-2 ke.	922), was notifie	d and can	ne by the loc	ation. He was not	greatly concer	ned with the sn	nall amount of	
Clean up wi battery.	ll begin th	ne morning of 1	1/21/200	6. We plan to ei	ther haul	off and disp	ose of the affected	soil at an appr	oved site or use	the soil on the	
Describe Area	Affected a	and Cleanup Ac	tion Tak	en.*				,			
See abc	we explana	ation									
regulations all public health of should their op or the environn	that the in operators a r the enviro erations ha nent. In ac	are required to conment. The a ave failed to ad ddition, NMOC	en above report an cceptanc equately D accep	Is true and comp d/or file certain r e of a C-141 repo investigate and r tance of a C-141	release no ort by the remediate report do	e best of my tifications an NMOCD ma contamination es not relieve	knowledge and un ad perform correct arked as "Final Re on that pose a thre the operator of re	derstand that p ive actions for port" does not at to ground wa sponsibility fo	ursuant to NM releases which relieve the open ater, surface wa r compliance w	OCD rules and may endanger rator of liability ter, human healt vith any other	
tederal, state, o	$\frac{r \log a}{\Lambda}$	vs and/or regula	tions.	···	<u>-</u>						
J	In. 1	hale.	$\Delta \Delta z$				OIL CONS	SERVATIO	<u>N DIVISIO</u>	<u>)N</u>	
Signature:	Up	AVILL	<u> </u>				FADIRA	Engr $\land$	•		
Printed Name:	Pa	am Inskeep	1		A	pproved by	District Supervis	or	beso		
Title Parulatori Administration						pproval Date	5.25.07	Expiratio	on Date: 7.	25.07	
Title:				/		anditions of	A	. <i></i>	Attached	П	
Title:           Date:         11/1	9/2006		Phone	: (432) 682-3753		onations of	Approval:	ALT FINAL (	HB1	·	
Title: Date: 11/1 Attach Additic	9/2006 mal Shee	ts If Necessar	Phone y 76	: (432) 682-3753		onations of	Approval: Jub	Show PCER	CEULS	mit	

strict 1       State o         25 N French Dr., Hobbs, NM 88240       Energy Minerals         01 W Grand Avenue, Artesia, NM 88210       Oil Conse         strict III       Oil Conse         00 Rio Brazos Road, Aztec, NM 87410       1220 Sout         strict IV       1220 Sout	of New Mexico Is and Natural Resources Revised March 17. Revised March 17.
strict II       Energy Mineral:         01 W Grand Avenue, Artesia, NM 88210       Oil Conse         strict III       Oil Conse         00 Rio Brazos Road, Aztec, NM 87410       1220 Sout         strict IV       1220 Sout	ils and Natural Resources 🔉 🔹 🥵 Revised March 17.
strict III       Oil Conse         00 Rio Brazos Road, Aztec, NM 87410       1220 Sout         strict IV       1220 Sout	
strict IV 20 S. St. Francis Dr. Santa Fe. NM 87505	servation Division
······································	uth St. Francis Dr. Received a with Rule 116 on
Santa F	Fe, NM 87505 6 Hohbs A
Release Notificatio	on and Corrective Action
Vame of Company BTA Oil Producers	Contact Pam Instal Report
Address 104 S. Pecos, Midland, TX 79701	Telephone No.□         (432) 682-3753
acility Name Gem, 8705 JV-P Battery	Facility Type Tank Battery
Surface Owner State Mineral Owner	er State Lease No. V-2199
LOCATIO	ON OF RELEASE
nit Letter Section Township Range Feet from the North	rth/South Line Feet from the East/West Line County
C 02 20S 33E 660 North	rtn 2310 West Lea
NATURI	E OF RELEASE
ype of Release Minor	Volume of Release         20 bbls         Volume Recovered         20 bbls
ource of Release Swedge/Tank Leak	Date and Hour of Occurrence Date and Hour of Discovery□ 11/19/2006 10:30 am CDT 11/19/2006
Vas Immediate Notice Given?	If YES, To Whom
As soon as notified in the office 🛛 Yes 📋 No 📋 Not Required	ed Larry Johnson, Hobbs District Office
y Whom?  Pam Inskeep /as a Watercourse Reached?	If YES, Volume Impacting the Watercourse.
🗌 Yes 🖾 No	
a Watercourse was Impacted, Describe Fully.*	
<b>N</b> <sup>1</sup> / <b>I</b>	
<ul> <li>Vescribe Cause of Problem and Remedial Action Taken.*</li> <li>When making his rounds, the pumper discovered a leak at the battery, leak and an estimated 20 bbls of stored oil/water mix leaked out onto th is ayed inside the dike. An estimated ½ bbl affected the pasture land just The swedge was plugged. The tank was emptied. The swedge will b Mr. Kenneth Smith, the grazing lessee (GT-2922), was notified and circulate that was released outside the dike. Clean up will begin the morning of 11/21/2006. We plan to either has attery.</li> <li>Area has been cleaned. Soil has been hauled to an approved site and is been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been cleaned. Soil has been hauled to an approved site and is been been been cleaned. Soil has been hauled to an approved site and is been been been cleaned. Soil has been hauled to an approved site and is been been been been been been been bee</li></ul>	y. The bottom of the 4"x3" swedge on the back of tank #2 corroded and develo the soil at the battery on the south side of the tanks. All but approximately ½ b st outside the dike at the leak location. All of the release is unrecoverable. be replaced. came by the location. He was not greatly concerned with the small amount of haul off and dispose of the affected soil at an approved site or use the soil on the d used at the battery.
iblic health or the environment. The acceptance of a C-141 report by the fould their operations have failed to adequately investigate and remedia the environment. In addition, NMOCD acceptance of a C-141 report of deral, state, or local laws and/or regulations.	the NMOCD marked as "Final Report" does not relieve the operator of liability iate contamination that pose a threat to ground water, surface water, human heal t does not relieve the operator of responsibility for compliance with any other OIL CONSERVATION
	- EnviroEner
gnature: peple Braca	Approved by District Supervisor:
inted Name: Joseph A. Baca	Approved by District Supervisor:
ignature: 	Approved by District Supervisor:

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