# SITE CLOSURE REQUEST

# GLADIOLA GATHERING UNIT D, SECTION 9, TOWNSHIP 13 SOUTH, RANGE 38 EAST EAST OF TATUM LEA COUNTY, NEW MEXICO

RP #1762

Prepared for:

Centurion Pipeline L.P. 2200 East County road 90 Midland, Texas 79706

received

APR 2 3 2008 HOBBS OCD

Prepared by:

NOVA Safety and Environmental 2057 Commerce Drive Midland, Texas 79703

March 2008



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



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# 1.0 INTRODUCTION AND SITE BACKGROUND

On behalf of Centurion Pipeline L.P. (Centurion), NOVA Safety and Environmental (NOVA) has prepared this Site Closure Request for the site known as Gladiola Gathering. The Gladiola Gathering pipeline is an active 8-inch crude oil pipeline operated by Centurion Pipeline. The release site is located in the Unit D, Section 9, Township 13 South, Range 38 East, Lea County, New Mexico and the site is located on property owned by Mr. Wesley Harris.

On January 19, 2008, Centurion reported a 75 barrel release of crude oil from a 8-inch gathering pipeline located approximately 15 miles southeast of Tatum, New Mexico. A vacuum truck recovered approximately 60 barrels of crude oil immediately following the discovery of the release, resulting in a net loss of approximately 15 barrels of crude oil. The resulting surface stain attributed to the release was approximately 180 feet in length and 20 feet in width. The release was the result of internal corrosion of the 8-inch steel pipeline. A site location map is provided as Figure 1. The Initial Release Notification and Corrective Action (Form C-141) are provided as Appendix C.

# 2.0 NMOCD SITE CLASSIFICATION

On January 25, 2008, NOVA contacted Mr. Chris Williams of the NMOCD regarding the depth the groundwater in the vicinity of the release site. Mr. Williams indicated groundwater at this site is approximately 70 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 no 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 no points being assigned on this ranking criterion.

The NMOCD's *Guidelines for Remediation of Leaks, Spills and Releases* (NMOCD, 1993), indicates the Gladiola Gathering site has a ranking score of 10 points. The soil cleanup levels for a site with a ranking of 10 require 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

From January 20 through February 5, 2008, approximately 2,800 cubic yards (cy) of hydrocarbon impacted soil was excavated from the site. The excavated soil was stockpiled on site pending final disposition of the excavated soil. A Site and Sample Location map is provided as Figure 2.

On January 23, 2008, six excavation sidewall and three floor samples were collected from the main pipeline excavation area measuring approximately 120 feet north and approximately 170 feet south of the leak source. All samples were collected utilizing standard soil sampling protocol as stated in the NMOCD guidelines. Analytical results indicated soil sample North End Wall, 2 ft. located on the north end of the pipeline excavation exhibited a TPH-GRO/DRO

concentration of 1.39 mg/Kg. Analytical results indicated soil sample South End Wall, 2 ft. located at the southern end of the pipeline excavation exhibited a TPH-GRO/DRO concentration of 1.25 mg/Kg. Analytical results indicated soil sample South Central, West Wall, 2.5 ft. located at the southern portion of the pipeline excavation exhibited a TPH-GRO/DRO concentration of 1.79 mg/Kg. Benzene concentrations and total BTEX concentrations were below the laboratory method detection limit of 0.010 mg/Kg. A summary of Confirmation Soil sample analytical results is provided as Table 1. Laboratory Reports are provided as Appendix C.

On January 24, 2008, two additional excavation sidewall and one floor soil sample were collected from the main excavation. Analytical results indicated TPH-GRO/DRO concentrations below the MDL of 50 mg/Kg and total BTEX concentrations were below the MDL of 0.01 mg/Kg for all samples submitted for analysis.

On January 29, 2008, five excavation sidewall and two floor samples were collected from along the leak flowpath and submitted to the laboratory for analysis. Analytical results indicated soil sample Northwest Wall, 4 ft. located along the west sidewall of the flowpath exhibited a TPH-DRO concentration of 1.91 mg/Kg. Benzene concentrations and total BTEX concentrations were below the MDL of 0.010 mg/Kg. Analytical results indicated soil sample Northeast Wall, 4 ft. located along the east sidewall of the flowpath exhibited a TPH-DRO concentration of 1.45 mg/Kg. Benzene concentrations and total BTEX concentrations were below the MDL of 0.010 mg/Kg. Analytical results indicated soil sample Central Floor located midway along the floor of the flowpath exhibited a TPH-GRO concentration of 152 mg/Kg and a TPH-DRO concentration of 17.2 mg/Kg with a total TPH concentration of 169.2 mg/Kg. Benzene concentrations were below the MDL of 0.010 mg/Kg and total BTEX exhibited concentrations of 0.1448 mg/Kg. Analytical results indicated soil sample Southwest Wall, 5 ft. located along the west sidewall of the flowpath exhibited a TPH-GRO concentration of 211 mg/Kg and a TPH-DRO concentration of 16.8 mg/Kg with a total TPH concentration of 227.8 mg/Kg. Benzene concentrations were below the MDL of 0.010 mg/Kg and total BTEX exhibited concentrations of 0.0687 mg/Kg. Analytical results indicated soil sample Southeast Wall, 5 ft. located along the east sidewall of the flowpath exhibited a TPH-DRO concentration of 12.2 mg/Kg. Benzene concentrations were below the MDL of 0.010 mg/Kg and total BTEX exhibited concentrations of 0.1574 mg/Kg. Analytical results indicated soil sample South Floor, 8 ft. located along the southern floor of the flowpath exhibited a TPH-DRO concentration of 1.21 mg/Kg. Benzene concentrations and total BTEX concentrations were below the MDL of 0.010 mg/Kg. Analytical results indicated soil sample South End Wall, 4 ft. located along the south end of the flowpath exhibited a TPH-DRO concentration of 16.4 mg/Kg. Benzene concentrations were below the MDL of 0.010 mg/Kg and total BTEX exhibited concentrations of 0.4098 mg/Kg.

Centurion evaluated available soil remediation strategies and concluded, blending the hydrocarbon impacted soil with non-impacted soil from a borrow area on the landowners property was the most expeditious remediation option. From January 23 to February 6, 2008, approximately 1,960 cubic yards of hydrocarbon impacted soil was transported to a commercial NMOCD permitted landfarm for proper disposal. Approximately 1,500 cubic yards of non-impacted soil was used to blend with the remaining 2,100 cy of hydrocarbon impacted soil.

On February 5, 2008, four soil samples from the blended soil stockpiles were collected and submitted to the laboratory for TPH-GRO/DRO and BTEX analysis. Analytical results indicated TPH-GRO/DRO concentrations ranged from 183.2 to 286.9 mg/Kg. Benzene concentrations were below the laboratory MDL of 0.05 mg/Kg and total BTEX concentrations ranged from 0.3135 mg/Kg to 0.8944 mg/Kg for each sample analyzed.

On February 11, 2008, NOVA on behalf of Centurion requested permission, from the NMOCD Hobbs district office, to backfill the existing excavation with the blended stockpile soil. On February 12, 2008, permission to backfill was approved by the NMOCD Hobbs district office.

On January 23, 2008 through February 6, 2008, approximately 1,960 cy of stockpiled soil was transported to the Gandy Marley Landfarm Facility (#NM-711-1-0020) east of Tatum, New Mexico. Blended stockpile soil was placed in the excavation in twelve inch lifts and compacted. Following backfilling activities the site was contoured to the surrounding topography. Mr. Wesley Harris, landowner, requested reseeding the area surrounding the excavation personally.

## 4.0 SITE CLOSURE REQUEST

In summary, the analytical results of final confirmation soil samples collected from the main excavation floor, excavation sidewalls, flowpath floor and flowpath sidewalls 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 Centurion provide the NMOCD Hobbs district office a copy of this *Site Closure Request* and request the NMOCD grant closure to the Gladiola Gathering release site.

## 5.0 LIMITATIONS

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

This *Site Closure Request* has been prepared for the benefit of Centurion. 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 Centurion.

# 6.0 **DISTRIBUTION**

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Copy 1:	Larry Johnson New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1) 1625 French Drive Hobbs, NM 88240
Copy 2:	Darrel Lester Centurion Pipeline L.P. P.O. Box 51790 Midland, Texas 79710 Darrel_Lester@Oxy.com
Сору 3:	NOVA Safety and Environmental. 2057 Commerce Drive Midland, Texas 79703 rrounsaville@novatraining.cc

# **FIGURES**

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# **TABLES**

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# TABLE 1

Analytical Results - Confirmation Soil Samples Centurion, Gladiola Gathering Tatum, Lea Country, New Mexico Centirion Pipeline, LP

				Chlorides by Method SM 4500-CL B	B	FPH Analyz y Method 80	ed 15B	SW 846-8021B				
SAMPLE DATE	SAMPLE IDENTIFICATION	SAMPLE DEPTH	SOIL STATUS	Chlorides	GRO C6-C12 mg/Kg	DRO >C12-C35 mg/Kg	Total TPH C6-C35 mg/Kg	Benzene	Toluene	Ethyl- Benzene	Xylene	Total BTEX
NMOC	D REGULATORY STANDARDS						1,000	10				50
01/23/08	North End Wall, 2'	2.0 ft.	In-Situ	<100	<50.0	1.39	<50.0	< 0.0100	<0.0100	<0.0100	< 0.010	0
01/23/08	North End Floor, 3'	3.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	< 0.0100	< 0.0100	<0.0100	< 0.0100	0
01/23/08	North Central, East Wall, 2'	2.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	< 0.0100	< 0.0100	<0.0100	< 0.0100	0
01/23/08	North Central, West Wall, 2'	2.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0
01/23/08	North Central, Floor, 2.5'	2.5 ft.	In-Situ	<100	<50.0	<1.00	<50.0	<0.0100	<0.0100	< 0.0100	< 0.0100	0
01/23/08	Leak Source, East Wall, 10'	10.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	<0.0100	<0.0100	< 0.0100	< 0.0100	0
01/23/08	South End Wall, 2'	2.0 ft.	In-Situ	<100	<50.0	1.25	<50.0	<0.0100	<0.0100	< 0.0100	< 0.0100	0
01/23/08	South Central, Floor, 3'	3.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	< 0.0100	<0.0100	< 0.0100	< 0.0100	0
01/23/08	South Central, West Wall, 2.5'	2.5 ft.	In-Situ	<100	<50.0	1.79	<50.0	< 0.0100	< 0.0100	< 0.0100	<0.0100	0
01/24/08	Leak Source, West Wall, 11'	11.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0
01/24/08	Leak Source, Floor, 14'	14.0 ft.	In-Situ	<100	<50.0	<1.00	<50.0	< 0.0100	< 0.0100	< 0.0100	< 0.0100	0
01/24/08	South Central, East Wall, 2.0'	2.0 ft.	Excavated	<100	<50.0	<1.00	<50.0	<0.0100	<0.0100	< 0.0100	< 0.0100	0
01/29/08	South Central, East Wall, 4.0'	4.0 ft.	In-Situ	na	<50.0	3.76	<50.0	<0.0100	<0.0100	< 0.0100	0.0184	0.0184
01/29/08	Flow Path, Northwest Wall, 4.0'	4.0 ft.	In-Situ	na	<50.0	1.91	<50.0	<0.0100	<0.0100	< 0.0100	< 0.0100	< 0.0100
01/29/08	Flow Path, Northeast Wall, 4.0'	4.0 ft.	In-Situ	na	<50.0	1.45	<50.0	<0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100
01/29/08	Flow Path, Central Floor, 6.0'	6.0 ft.	In-Situ	na	152	17.2	169.2	< 0.0100	0.0237	0.0369	0.0842	0.1448
01/29/08	Flow Path, Southwest Wall, 5.0'	5.0 ft.	In-Situ	na	211	16.8	227.8	<0.0100	0.0151	< 0.0100	0.0536	0.0687
01/29/08	Flow Path, Southeast Wall, 5.0'	5.0 ft.	In-Situ	na	<50.0	12.2	<50.0	< 0.0100	0.0424	< 0.0100	0.115	0.1574
01/29/08	Flow Path, South Floor, 8.0'	8.0 ft.	In-Situ	na	<50.0	1.21	<50.0	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100
01/29/08	Flow Path, South End Wall, 4.0'	4.0 ft.	In-Situ	na	<50.0	16.4	<50.0	< 0.0100	0.0838	0.113	0.213	0.4098
02/05/08	SP-1	Stockpile	Backfill	na	208	78.9	286.9	< 0.0500	0.0624	0.177	0.655	0.8944
02/05/08	SP-2	Stockpile	Backfill	na	130	53.2	183.2	< 0.0200	0.0251	0.105	0.347	0.4771
02/05/08	SP-3	Stockpile	Backfill	na	212	79.9	281.9	< 0.0200	0.0693	0.194	0.626	0.8893
02/05/08	SP-4	Stockpile	Backfill	na	203	56	259	< 0.0200	< 0.0200	0.0695	0.244	0.3135

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**Bold:** Indicates TPH concentration above regulatory guidelines na = not analyzed

# **APPENDICES**

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# **APPENDIX A**

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 6701 Aberdeen Avenue: Suite B
 Lubbonk Texes 79424
 800\*378\*1296
 B06\*794\*1296
 FAX 806\*794\*1298

 700 Fast Suinset Road, Suite B
 Lubbonk Texes 79424
 800\*378\*1296
 916\*535\*3443
 FAX 806\*794\*1298

 900 Fast Suinset Road, Suite A1
 Midlend, Texas 79703
 888\*688\*3443
 916\*535\*3443
 FAX 915\*566\*4944

 9015 Harris Parkway, Suite 110
 Ft. Worth, Texas 76132
 817\*201\*5260
 817\*201\*5260

# Analytical and Quality Control Report

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

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Project Location:Lea County, NMProject Name:Gladiola GatheringProject Number:Gladiola Gathering

Report Date: January 30, 2008

Work Order: 8012408

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
148767	N. End Wall, 2'	soil	2008-01-23	12:11	2008-01-24
148768	N. End Floor, 3'	soil	2008-01-23	12:15	2008-01-24
148769	N. CentE. Wall, 2'	soil	2008-01-23	12:23	2008-01-24
148770	N. CentW. Wall, 2'	soil	2008-01-23	12:26	2008-01-24
148771	N. CentFloor, 2.5'	soil	2008-01-23	12:29	2008-01-24
148772	L. Source-E. Wall, 10'	soil	2008-01-23	13:38	2008-01-24
148773	S. End Wall, 2'	soil	2008-01-23	13:45	2008-01-24
148774	S. CentFloor, 3'	soil	2008-01-23	13:56	2008-01-24
148775	S. CentW. Wall, 2.5'	soil	2008-01-23	14:00	2008-01-24

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

Dr. Blair Leftwich, Director

Standard Flags

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

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# **Analytical Report**

Analysis: QC Batch: Prep Batch:	BTEX 45002 38735		Analytical Me Date Analyze Sample Prepa	ethod: d: ration:	S 8021B 2008-01-24 2008-01-24		Prep Met Analyzed Prepared	thod: S By: I By: I	5035 50 50 50 50 50
i icp Daven.	00100		Sumple 1 repu				1 roponod	<i>Dj</i> . 1	
_			RL		<b></b>				
Parameter	Flag	·	Result		Units		Dilution		
Benzene			<0.0100		mg/Kg		1	i (	0100
Loiuene	、 、				mg/Kg		1	(	0100
Xylene	5		< 0.0100		mg/Kg		1	(	0.0100
				· · · · · · ·		Snike	Percent	Bo	COVOTA
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Li	mits
Trifluorotolue	ene (TFT)		0.981	mg/Kg	1	1.00	98	70	- 130
4-Bromofluor	robenzene (4-BFB)		0.968	mg/Kg	1	1.00	97	70	- 130
Prep Batch:	38767 Elog		Sample RL Bogult	Preparat	ion: 2008-01-2	4	Prepar	ed By:	AR
Chlorido	Flag			,	mg/Kg	· · · · · · · · · · · · · · · · · · ·	50		2.00
Sample: 14	8767 - N. End Wa	all, 2'							
	TPH DRO		Analytical 1	Method:	Mod. 8015B		Prep M	lethod:	N/A
Analysis:				-			Analwa	od Bw	τ'n
Analysis: QC Batch:	44989		Date Analy	zed:	2008-01-24		Anaiyz	eu Dy.	ъD
Analysis: QC Batch: Prep Batch:	44989 38737		Date Analy Sample Pre	zed: paration:	2008-01-24 2008-01-24		Prepar	ed By:	LD
Analysis: QC Batch: Prep Batch:	44989 38737		Date Analy Sample Pre RL	zed: paration:	2008-01-24 2008-01-24		Prepar	ed By:	LD
Analysis: QC Batch: Prep Batch: Parameter	44989 38737 Flag		Date Analy Sample Pre RL Result	zed: paration:	2008-01-24 2008-01-24 Units		Dilution	ed By:	LD LD RI
Analysis: QC Batch: Prep Batch: Parameter DRO	44989 38737 Flag		Date Analy Sample Pre RL Result <50.0	zed: paration:	2008-01-24 2008-01-24 Units mg/Kg		Dilution 1	ed By:	LD LD RI 50.0
Analysis: QC Batch: Prep Batch: Parameter DRO	44989 38737 Flag	Docult	Date Analy Sample Pre RL Result <50.0	zed: paration:	2008-01-24 2008-01-24 Units mg/Kg	bike	Prepar Dilution 1 Percent	Recc	LD LD RI 50.0
Analysis: QC Batch: Prep Batch: Parameter DRO Surrogate	44989 38737 Flag Flag	Result 126	Date Analy Sample Pre RL Result <50.0 Units mg/Kg	zed: paration:  Dilu	2008-01-24 2008-01-24 <u>Units</u> mg/Kg Sintion Am	oike ount	Prepar Dilution 1 Percent Recovery 126	Reco Lir	LD LD R. 50. overy nits

# Sample: 148767 - N. End Wall, 2'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	45014	Date Analyzed:	2008-01-24	Analyzed By:	DC
Prep Batch:	38735	Sample Preparation:	2008-01-24	Prepared By:	DC

7 30, 2008	Work Order: 8012408
	Gladiola Gathering

			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
GRO	В		1.39		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	)		0.922	mg/Kg	1	1.00	92	70 - 130
4-Bromofluorobenzene	(4-BFB)		0.946	mg/Kg	1	1.00	95	70 - 130

#### Sample: 148768 - N. End Floor, 3'

Analysis:	BTEX			Analytical M	lethod:	S 8021B		Prep Metl	hod: S 5035
QC Batch:	45002			Date Analyz	ed:	2008-01-24		Analyzed	By: DC
Prep Batch:	38735			Sample Prep	aration:	2008-01-24		Prepared	By: DC
				$\mathbf{RL}$					
Parameter		Flag		Result		Units		Dilution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		1	0.0100
Toluene				< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	•			< 0.0100		mg/Kg		1	0.0100
Xylene	·····			< 0.0100		mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	$\mathbf{Result}$	Units	Dilution	ı Amoun	t Recovery	Limits
Trifluorotolu	ene (TFT)			0.994	mg/Kg	; 1	1.00	99	70 - 130
4-Bromofluor	obenzene (4-Bl	FB)		0.963	mg/Kg	ç 1	1.00	96	70 - 130

#### Sample: 148768 - N. End Floor, 3'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	45016	Date Analyzed:	2008-01-25	Analyzed By:	$\mathbf{AR}$
Prep Batch:	38767	Sample Preparation:	2008-01-24	Prepared By:	$\mathbf{AR}$
		$\mathbf{RL}$			
Parameter	$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148768 - N. End Floor, 3'

Analysis: QC Batch: Prep Batch:	s: TPH DRO Analytical Method: Mod. 8015B ch: 44989 Date Analyzed: 2008-01-24 atch: 38737 Sample Preparation: 2008-01-24		Prep Anal Prep	Method: yzed By: ared By:	N/A LD LD					
				$\mathbf{RL}$						
Parameter		Flag		Result		Un	its	Dilution		$\mathbf{RL}$
DRO				<50.0		mg/l	ζg	1		50.0
							Spike	Percent	Reco	overy
Surrogate	Flag		Result	Units	Dilut	ion	Amount	Recovery	Lin	nits
n-Triacontan	e		111	mg/Kg	1		100	111	39.1 -	137.7

Sample: 148768 - N. End Floor, 3'

Analysis: QC Batch: Prep Batch:	TPH GRO 45014 38735		Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8015B 2008-01-24 2008-01-24		Prep Meth Analyzed H Prepared H	
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		$\mathbf{Units}$	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	. 1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.920	mg/Kg	1	1.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.929	mg/Kg	1	1.00	93	70 - 130

#### Sample: 148769 - N. Cent.-E. Wall, 2'

Analysis: QC Batch: Prep Batch:	BTEX 45002 38735			Analytical M Date Analyze Sample Prepa	ethod: ed: aration:	S 8021B 2008-01-24 2008-01-24		Prep Meth Analyzed Prepared	aod: S 5035 By: DC By: DC
				$\mathbf{RL}$					
Parameter		Flag		$\mathbf{Result}$		Units		Dilution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		1	0.0100
Toluene				< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	e			< 0.0100		mg/Kg		1	0.0100
Xylene				< 0.0100		mg/Kg		1	0.0100
Gumerato			Flore	Pogult	Unita	Dilutio	Spike	Percent	Recovery
Surrogate	(11)(1)		Flag		Units	Dilutio		L Recovery	
Trifluorotolu	ene (TFT)	<b>(</b> 17)		0.981	mg/K	g 1	1.00	98	70 - 130
4-Bromofluor	obenzene (4-B	ғ <b>В</b> )		0.965	mg/K	g 1	1.00	96	70 - 130

#### Sample: 148769 - N. Cent.-E. Wall, 2'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	45016	Date Analyzed:	2008-01-25	Analyzed By:	$\mathbf{AR}$
Prep Batch:	38767	Sample Preparation:	2008-01-24	Prepared By:	AR
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148769 - N. Cent.-E. Wall, 2'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44989	Date Analyzed:	2008-01-24	Analyzed By:	LD
Prep Batch:	38737	Sample Preparation:	2008-01-24	Prepared By:	LD

Flag Flag 1 <b>769 - N. Cent.</b> TPH GRO 45014 38735	g Result 142 E. Wall, 2	RL Result <50.0 Units mg/Kg 2' Analytical Date Anal	Dilut 1 l Method: lyzed:	Units mg/Kg ation 4 1 5 8015B 2008-01-24	s g Spike Amount 100 24
Flag Flag 1 769 - N. Cent. TPH GRO 45014 38735	g Result 142 E. Wall, 2	Result <50.0 Units mg/Kg 2' Analytical Date Anal	Dilut 1 l Method: lyzed:	Units mg/Kg ntion 4 1 S 8015B 2008-01-24	s g Spike Amount 100 24
Flag 1 769 - N. Cent. TPH GRO 45014 38735	Result 142 E. Wall, 2	2' Units mg/Kg 2'	Dilut 1 l Method: lyzed:	mg/Kg ition / I S 8015B 2008-01-24	g Spike Amount 100 24
Flag 1 769 - N. Cent. TPH GRO 45014 38735	Result 142 E. Wall, 2	Units mg/Kg 2' Analytical Date Anal	Dilut 1 1 l Method: lyzed:	tion 2 1 S 8015B 2008-01-24	Spike Amount 100 24
769 - N. Cent. TPH GRO 45014 38735	142	2' Analytical Date Anal	l Method:	S 8015B 2008-01-24	Amount 100 24
<b>769 - N. Cent.</b> TPH GRO 45014 38735	E. Wall, 2	2' Analytical Date Anal	l Method: lyzed:	S 8015B 2008-01-24	24
<b>769 - N. Cent.</b> TPH GRO 45014 38735	E. Wall, 2	2' Analytical Date Anal	l Method: lyzed:	S 8015B 2008-01-24	24
TPH GRO 45014 38735		Analytical Date Anal	l Method: lyzed:	S 8015B 2008-01-24	-24
45014 38735		Date Anal	lyzed:	2008-01-24	-24
38735		~ . n			-
		Sample Pr	reparation:	2008-01-24	-24
		RL	,		
Flag	g	Result		Units	5
		<1.00	· · · · · · · · · · · · · · · · · · ·	mg/Kg	5
					Snike
	Flag	Result	TInita		L 3 L 3 L 7 L 7 L 7 L 7 L 7 L 7 L 7 L 7
ne (TFT)		0.056	Onits	Dilution	ion Amoun
benzene (4-BFB)	8)	0.300	mg/Kg	Dilutior 1	ion Amoun 1.00
770 - N. Cent.	W. Wall,	0.968 2'	mg/Kg mg/Kg	Dilutior 1 1	ion Amoun 1.00 1.00
770 - N. Cent. BTEX 45002 38735	W. Wall,	0.968 0.968 2' Analytical M Date Analyz Sample Prep	mg/Kg mg/Kg Method: S zed: 2 paration: 2	Dilutior 1 1 S 8021B 2008-01-24 2008-01-24	ion Amoun 1.00 1.00
770 - N. Cent. BTEX 45002 38735	W. Wall,	0.968 0.968 2' Analytical M Date Analyz Sample Prep RL	Method: S zed: 2 paration: 2	Dilution 1 1 S 8021B 2008-01-24 2008-01-24	ion Amoun 1.00 1.00
770 - N. Cent. BTEX 45002 38735 Fl:	-W. Wall, lag	0.968 2' Analytical M Date Analyz Sample Prep RL Result	Method: S zed: 2 paration: 2	Dilution 1 1 S 8021B 2008-01-24 2008-01-24 Units ma ///	ion Amoun 1.00 1.00
770 - N. Cent. BTEX 45002 38735 Fla	W. Wall,	0.968 0.968 2' Analytical M Date Analyz Sample Prep RL Result <0.0100 <0.0100	Method: S zed: 2 paration: 2	Dilution 1 1 S 8021B 2008-01-24 2008-01-24 Units mg/Kg mg/Kg	ion Amoun 1.00 1.00 1.00 1.00 1.00
770 - N. Cent. BTEX 45002 38735 Fla	W. Wall, lag	2' Analytical M Date Analyz Sample Prep RL Result <0.0100 <0.0100 <0.0100	Method: S zed: 2 paration: 2	Dilution 1 1 S 8021B 2008-01-24 2008-01-24 Units mg/Kg mg/Kg mg/Kg mg/Kg	ion Amoun 1.00 1.00 1.00 1.00
770 - N. Cent. BTEX 45002 38735 Fl:	-W. Wall, lag	0.968 0.968 2' Analytical M Date Analyz Sample Prep RL Result <0.0100 <0.0100 <0.0100	Method: S zed: 2 paration: 2 t	Dilutior 1 1 S 8021B 2008-01-24 2008-01-24 Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	ion Amoun 1.00 1.00 1.00 1.00 1.00 1.00
770 - N. Cent. BTEX 45002 38735 Fla	-W. Wall, lag Flag	2' Analytical M Date Analyz Sample Prep RL Result <0.0100 <0.0100 <0.0100 <0.0100	Method: S zed: 2 paration: 2 t ) ) Units	Dilution 1 1 S 8021B 2008-01-24 2008-01-24 Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	ion Amoun 1.00 1.00 1.00 1.00 1.00 1.00 Spike ion Amoun
770 - N. Cent. BTEX 45002 38735 Fl: 	-W. Wall, lag Flag	0.968 0.968 2' Analytical M Date Analyz Sample Prep RL Result <0.0100 <0.0100 <0.0100 <0.0100 <0.0100 <0.0100	Method: S zed: 2 paration: 2 t ) ) Units mg/Kg	Dilution 1 1 S 8021B 2008-01-24 2008-01-24 Units mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg 1	ion Amoun 1.00 1.00 1.00 1.00 1.00 1.00 Spike ion Amoun 1.00
	e (TFT)	Flag Flag	Flag Nesult	<1.00	<pre> riag itesuit onto  &lt;1.00 mg/Kp</pre>

Page Number: 6 of 24 Lea County, NM

Percent

Recovery

96

97

Percent

Recovery

99

96

 $\mathbf{RL}$ 50.0

 $\mathbf{RL}$ 1.00

Recovery

Limits

70 - 130

70 - 130

 $\mathbf{RL}$ 

0.0100

0.0100

0.0100

0.0100

Recovery

Limits

70 - 130

70 - 130

 $\mathbf{AR}$ 

AR

 $\mathbf{RL}$ 

2.00

Prep Method: N/A Analyzed By:

Prepared By:

Recovery

Limits

39.1 - 137.7

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

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

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

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#### Sample: 148770 - N. Cent.-W. Wall, 2'

Analysis: QC Batch: Prep Batch:	TPH DRO 44989 38737			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	Mod. 80 2008-01- 2008-01-	)15B -24 -24	Prej Ana Prej	Prep Method: Analyzed By: Prepared By:	
				$\mathbf{RL}$						
Parameter		Flag		Result		$\mathbf{Unit}$	s	Dilution		$\mathbf{RL}$
DRO				<50.0		mg/K	g	1		50.0
							Spike	Percent	Reco	overy
Surrogate	Flag	R	$\mathbf{esult}$	Units	$\mathbf{Dilut}$	ion	Amount	Recovery	Lin	nits
n-Triacontan	e <sup>2</sup>		145	mg/Kg	1		100	145	39.1 -	137.7

#### Sample: 148770 - N. Cent.-W. Wall, 2'

Analysis: QC Batch: Prep Batch:	TPH GRO 45014 38735		Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8015B 2008-01-24 2008-01-24		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		$\mathbf{Units}$	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.959	mg/Kg	1	1.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.965	mg/Kg	1	1.00	96	70 - 130

#### Sample: 148771 - N. Cent.-Floor, 2.5'

Analysis: QC Batch: Prep Batch:	BTEX 45002 38735			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	S 8021B 2008-01-24 2008-01-24		Prep Metho Analyzed By Prepared By	d: S 5035 y: DC y: DC
				$\mathbf{RL}$				·	
Parameter	]	Flag		Result		Units		Dilution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		1	0.0100
Toluene				< 0.0100		mg/Kg		1	0.0100
Ethylbenzene				< 0.0100		mg/Kg		1	0.0100
Xylene				< 0.0100		mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	n Amount	Recovery	Limits
Trifluorotolue	ne (TFT)			0.992	mg/K	g 1	1.00	99	70 - 130
4-Bromofluor	obenzene (4-BF	'B)		0.961	mg/K	g 1	1.00	96	70 - 130

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

#### Sample: 148771 - N. Cent.-Floor, 2.5'

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Analysis: QC Batch: Prep Batch:	Chloride (Titration) 45016 38767	Analytical Method: Date Analyzed: Sample Preparation	SM 4500-Cl B 2008-01-25 : 2008-01-24	Prep Method: Analyzed By: Prepared By:	N/A AR AR
Dawages at an	Pla -	RL Barrult	T 1	Dilution	DT
Parameter	Flag	Result	Units	Dilution	KL
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148771 - N. Cent.-Floor, 2.5'

Analysis: QC Batch: Prep Batch:	TPH DRO 44989 38737			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	Mod. 80 2008-01- 2008-01-	)15B -24 -24	Prep Anal Prep	Method: yzed By: ared By:	N/A LD LD
				$\mathbf{RL}$						
Parameter		Flag		Result		$\mathbf{Unit}$	s	Dilution		$\mathbf{RL}$
DRO				<50.0		mg/K	g	1		50.0
_							Spike	Percent	Reco	overy
Surrogate	Flag		Result	Units	Dilut	ion	$\mathbf{Amount}$	Recovery	$\operatorname{Lin}$	nits
n-Triacontan	e 3		150	mg/Kg	1		100	150	39.1 -	137.7

#### Sample: 148771 - N. Cent.-Floor, 2.5'

Analysis: QC Batch: Prep Batch:	TPH GRO 45014 38735		Analytical Date Anal Sample Pr	Method: yzed: reparation:	S 8015B 2008-01-24 2008-01-24		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
			$\mathbf{RL}$					
Parameter Flag			Result		Units	Dilution		$\mathbf{RL}$
GRO			<1.00		mg/Kg	1		1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		0.925	mg/Kg	1	1.00	92	70 - 130
4-Bromofluor	obenzene (4-BFB)		0.926	mg/Kg	1	1.00	93	70 - 130

#### Sample: 148772 - L. Source-E. Wall, 10'

Analysis: QC Batch: Prep Batch:	BTEX 45002 38735		Analytical Method: Date Analyzed: Sample Preparation:	S 8021B 2008-01-24 2008-01-24	Prep Method: Analyzed By: Prepared By:	S 5035 DC DC
			RL			
Parameter		Flag	$\mathbf{Result}$	Units	Dilution	$\mathbf{RL}$
Benzene			< 0.0100	mg/Kg	1	0.0100
Toluene			<0.0100	mg/Kg	1	0.0100
Ethylbenzene	9		<0.0100	mg/Kg	1	0.0100

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

continued ...

sample 148772 continued ...

		$\mathbf{RL}$						
Parameter Flag		Result		Units	$\mathbf{Dil}$	ution	$\mathbf{RL}$	
Xylene		<0.0100		mg/Kg	1		0.0100	
					Spike	Percent	Recovery	
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)		0.996	mg/Kg	1	1.00	100	70 - 130	
4-Bromofluorobenzene (4-BFB)		0.958	mg/Kg	1	1.00	96	70 - 130	

#### Sample: 148772 - L. Source-E. Wall, 10'

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 45016 38767	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2008-01-25 2008-01-24	Prep Method: Analyzed By: Prepared By:	N/A AR AR
Parameter	Flag	RL Result	Units	Dilution	BL
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148772 - L. Source-E. Wall, 10'

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Analysis:	TPH DRO		Analytical 3	Method: N	Aod. 8015B	Prep	Method: N/A
QC Batch:	44989		Date Analy	rzed: 2	008-01-24	Anal	yzed By: LD
Prep Batch:	38737		Sample Pre	eparation: 2	008-01-24	Prep	ared By: LD
			$\mathbf{RL}$	x			
Parameter	]	Flag	Result		Units	Dilution	$\mathbf{RL}$
DRO			<50.0		mg/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilutio	n Amount	Recovery	Limits
n-Triacontan	e 4	148	mg/Kg	1	100	148	39.1 - 137.7

#### Sample: 148772 - L. Source-E. Wall, 10'

Analysis: QC Batch: Prep Batch:	TPH GRO 45014 38735		Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8015B 2008-01-24 2008-01-24	Prep Metho Analyzed B Prepared B		thod: S 503 l By: DC l By: DC	35
			$\mathbf{RL}$						
Parameter	Fla	g	$\mathbf{Result}$		Units	Di	ilution	R	$\mathbf{L}$
GRO			<1.00		mg/Kg		1	1.(	)0
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recover Limits	r <b>y</b> B
Trifluorotolu	ene (TFT)		0.925	mg/Kg	1	1.00	92	70 - 13	0
					· · · · · · · · · · · · · · · · · · ·	****************		continued	

<sup>4</sup>High surrogate recovery due to peak interference.

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sample continued ...

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					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
4-Bromofluorobenzene (4-BFB)		0.939	mg/Kg	1	1.00	94	70 - 130

#### Sample: 148773 - S. End Wall, 2'

Analysis: QC Batch: Prep Batch:	BTEX 45002 38735			Analytical M Date Analyz Sample Prep	lethod: ed: paration:	S 8021B 2008-01-24 2008-01-24		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
				$\mathbf{RL}$					
Parameter		Flag		Result		Units	Di	lution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		1	0.0100
Toluene				<0.0100		mg/Kg		1	0.0100
Ethylbenzene	:			< 0.0100		mg/Kg		1	0.0100
Xylene				< 0.0100		mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			0.996	mg/K	g 1	1.00	100	70 - 130
4-Bromofluor	obenzene (4-1	BFB)		0.957	mg/K	g 1	1.00	96	70 - 130

#### Sample: 148773 - S. End Wall, 2'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	45016	Date Analyzed:	2008-01-25	Analyzed By:	AR
Prep Batch:	38767	Sample Preparation:	2008-01-24	Prepared By:	AR
		RL			
Parameter	$\mathbf{Flag}$	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148773 - S. End Wall, 2'

n-Triacontane	e riag		mg/Kg	1	100	117	$\frac{1111115}{391-1377}$
Sumorata	Flor	Dogult	Tinita	Dilution	Spike	Percent	Recovery
DRO			<50.0		mg/Kg	1	50.0
Parameter	F	lag	RL Result		Units	Dilution	$\mathbf{RL}$
QC Batch: Prep Batch:	44989 38737		Sample Prep	ed: 20 paration: 20	08-01-24 08-01-24	Prepa	ared By: LD
Analysis:	TPH DRO		Analytical M	fethod: M	od. 8015B	Prep	Method: N/A

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#### Sample: 148773 - S. End Wall, 2'

Analysis: QC Batch: Prep Batch:	TPH GRO 45014 38735		Analytical Method: Date Analyzed: Sample Preparation:	S 8015B 2008-01-24 2008-01-24	Prep Method: Analyzed By: Prepared By:	S 5035 DC DC
<b>D</b>		-	RL	<b>TT</b> •.		
Parameter		Flag	Result	Units	Dilution	RL
GRO		В	1.25	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.926	mg/Kg	1	1.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)		0.940	mg/Kg	1	1.00	94	70 - 130

#### Sample: 148774 - S. Cent.-Floor, 3'

Analysis: QC Batch: Prep Batch:	BTEX 45105 38739			Analytical M Date Analyze Sample Prep	lethod: ed: aration:	S 8021B 2008-01-25 2008-01-24		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
				$\mathbf{RL}$					
Parameter		Flag		$\mathbf{Result}$		Units	]	Dilution	$\mathbf{RL}$
Benzene	······································			< 0.0100		mg/Kg		1	0.0100
Toluene				< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	•			< 0.0100		mg/Kg		1	0.0100
Xylene				< 0.0100		mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			0.971	mg/K	g 1	1.00	97	70 - 130
4-Bromofluor	obenzene (4-E	BFB)		0.961	mg/K	g 1	1.00	96	70 - 130

#### Sample: 148774 - S. Cent.-Floor, 3'

Analysis: QC Batch: Prep Batch:	Chloride (Titration) 45016 38767	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2008-01-25 2008-01-24	Prep Method: Analyzed By: Prepared By:	N/A AR AR
Develop	Flag	RL Bogult	TI-:+-		БТ
Parameter	Flag	nesun	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148774 - S. Cent.-Floor, 3'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	44989	Date Analyzed:	2008-01-24	Analyzed By:	LD
Prep Batch:	38737	Sample Preparation:	2008-01-24	Prepared By:	LD

•		
•	Report Date: Gladiola Gat	January 30, 2008 hering
Ō		
•	Parameter DRO	Flag
Ă		
Ă	Surrogate	Flag
0	n-Triacontane	}
•	Sample: 148	8774 - S. CentF
•	Analysis: QC Batch: Prep Batch:	TPH GRO 45111 38739
•	T TOP SHOOL	
0	Parameter GRO	Flag
Ŏ		
0	Surrogate Trifluorotolue 4-Bromofluor	ene (TFT) obenzene (4-BFB)
•		
•	Sample: 148	8775 - S. CentV
	Analysis: QC Batch: Prep Batch:	BTEX 45105 38739
	Parameter	Flag
	Benzene	
0	Toluene Ethylbenzene Xylene	1
0	Surrogate Trifluorotolue 4-Bromofluoro	ene (TFT) obenzene (4-BFB)
•		
•	Sample: 148	8775 - S. CentV
•	Analysis: QC Batch:	Chloride (Titratio 45090
•	Prep Batch:	38827
	Parameter	Flag
	Chloride	
•		
•		
•		
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Parameter	Fla	RL Flag Result Units		nits	Dilution	RL	
DRO			<50.0	mg/	Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	0	112	mg/Kg	1	100	112	39.1 - 137.7

# t.-Floor, 3'

Analysis: TPH GRO QC Batch: 45111 Prep Batch: 38739			Analytical Method: Date Analyzed: Sampla Propagation:		S 8015B 2008-01-25		od: S 5035 By: DC	
Frep Datch. 50759			Sample Pr	eparation:	2008-01-24		Prepared E	sy: DC
			$\mathbf{RL}$					
Parameter	$\mathbf{F}$ lag		Result		Units	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.922	mg/Kg	1	1.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.942	mg/Kg	1	1.00	94	70 - 130

## t.-W. Wall, 2.5'

Analysis: QC Batch: Prep Batch:	BTEX 45105 38739			Analytical M Date Analyze Sample Prep	ethod: ed: aration:	S 8021B 2008-01-25 2008-01-24		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
				$\mathbf{RL}$					
Parameter		Flag		Result		Units	I	Dilution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		1	0.0100
Toluene				< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	e '			< 0.0100		mg/Kg		1	0.0100
Xylene				< 0.0100		mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)			0.994	mg/K	g 1	1.00	99	70 - 130
4-Bromofluor	obenzene (4-E	3FB)		0.967	mg/K	g 1	1.00	97	70 - 130

#### t.-W. Wall, 2.5'

Analysis:Chloride (Titration)Analysis:QC Batch:45090DataPrep Batch:38827Sar		Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2008-01-28 2008-01-28	Prep Method: Analyzed By: Prepared By:	N/A AR AR
Parameter	Flag	RL Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100 1	ng/Kg	50	2.00

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Sample: 148775 - S. Cent.-W. Wall, 2.5'

Analysis: QC Batch: Prep Batch:	TPH DRO 44989 n: 38737			Analytical Method:Mod. 8015BDate Analyzed:2008-01-24Sample Preparation:2008-01-24			015B -24 -24	Pre Ana Pre	N/A LD LD	
				$\mathbf{RL}$						
Parameter	r Flag			Result		Unit	s	Dilution		$\mathbf{RL}$
DRO				<50.0		mg/K	g	1		50.0
<b>~</b> .			•.	<b>TT</b> 1.			Spike	Percent	Reco	overy
Surrogate	Flag	Res	sult	Units	Dilut	ion	Amount	Recovery	Lin	nits
n-Triacontan	e		124	mg/Kg	1		100	124	39.1 -	137.7

#### Sample: 148775 - S. Cent.-W. Wall, 2.5'

Analysis: TPH GRO QC Batch: 45111 Prep Batch: 38739			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2008-01-25 2008-01-24	Prep Method Analyzed By: Prepared By:		od: S 5035 By: DC By: DC
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		$\mathbf{Units}$	Di	lution	$\mathbf{RL}$
GRO	<u> </u>		1.79		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.920	mg/Kg	1	1.00	92	70 - 130
4-Bromofluor	obenzene (4-BFB)		0.932	mg/Kg	1	1.00	93	70 - 130

#### Method Blank (1) QC Batch: 44989

QC Batch: 44989 Prep Batch: 38737		Date Analyzed: QC Preparation	2008-01-24 : 2008-01-24			Analyzed By: Prepared By:	${f LD}$	
-			N.	IDI				
Parameter		Flag	IV Re	iDL sult		Unite		RI.
DRO		I 145	<	14.6		mg/Kg		50
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Reco Z Lin	very
n-Triacontane		88.4	mg/Kg	1	100	88	33.3 -	157.4
Method Blank (1	) QC	Batch: 45002						
QC Batch: 45002			Date Analyzed:	2008-01-24			Analyzed By:	DC
Prep Batch: 38735			QC Preparation	: 2008-01-24			Prepared By:	DC
				MDL				
Parameter		Flag		Result		Units		$\mathbf{RL}$
Benzene			<0	.00300		mg/Kg		0.01
							continu	ed

method blank continued ...

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			MDI	Ĺ			
Parameter	Flag		$\mathbf{Resul}$	t	Unit	s	$\mathbf{RL}$
Toluene			< 0.0030	0	mg/K	g	0.01
Ethylbenzene	< 0.00400			mg/K	g	0.01	
Xylene		<0.0140			mg/k	(g	0.01
					Spike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.988	mg/Kg	1	1.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)		0.962	mg/Kg	1	1.00	96	70 - 130

Method Bla	nk (1)	QC Batch: 45014								
QC Batch:	45014		Date Analyz	Date Analyzed: 2008-01-24 Analyzed I OC Preparation: 2008-01-24 Prepared E						DC
T Tep Daten.	20120		QO I Ichara		2000-01-2-	1		Ttepareu	Dy.	DC
				MI	DL					
Parameter		Flag		Rest	ılt		Units			RL
GRO				0.6	25		mg/Kg			1
							Spike	Percent	Rec	overy
Surrogate		Flag	Result	Unita	5 Dilu	ition	Amount	Recovery	Li	nits
Trifluorotolue	ne (TFT)		0.962	mg/K	g 1	1	1.00	96	70 ·	- 130
4-Bromofluoro	obenzene (4-	-BFB)	0.948	mg/K	g 1	1	1.00	95	70 -	- 130
Method Bla	nk (1)	QC Batch: 45016								
QC Batch:	45016		Date Analyz	zed:	2008-01-28	5		Analyzed	By:	AR
Prep Batch:	38767		QC Prepara	tion:	2008-01-24	4		Prepared	By:	AR
				мт	זר					
Parameter		Flag		Res	ult		Units			RL
Chloride				<0.5	00		mg/Kg			2
	······									
Method Bla	nk (1)	QC Batch: 45090								
QC Batch:	45090		Date Analyz	zed:	2008-01-28	8		Analyzed	By:	AR
Prep Batch:	38827		QC Prepara	tion:	2008-01-28	8		Prepared	By:	AR
				MI	DL					
Parameter		Flag		Rest	ult		Units			$\mathbf{RL}$
Chloride				<0.5	00		mg/Kg			2
								,		

Method Blank (1) QC Batch: 45105

QC Batch:	45105	Date Analyzed:	2008-01-25	Analyzed By:	DC
Prep Batch:	38739	QC Preparation:	2008-01-24	Prepared By:	DC

			MDI	J			
Parameter	Flag		Resul	t	$\mathbf{Unit}$	5	$\mathbf{RL}$
Benzene			< 0.0030	)	mg/K	g	0.01
Toluene			< 0.0030	)	mg/K	g	0.01
Ethylbenzene			< 0.0040	)	mg/K	g	0.01
Xylene			< 0.014	)	mg/K	.g	0.01
					Spike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.982	mg/Kg	1	1.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.955	mg/Kg	1	1.00	96	70 - 130

#### Method Blank (1) QC Batch: 45111

QC Batch:	45111	Date Analyzed:	2008-01-25	Analyzed By:	DC
Prep Batch:	38739	QC Preparation:	2008-01-24	Prepared By:	DC

			MDL				
Parameter	Flag		Result		Units		$\mathbf{RL}$
GRO			0.628		mg/K	g	1
					Spike	Percent	Recovery
Surrogate	Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.966	mg/Kg	1	1.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)		0.954	mg/Kg	1	1.00	95	70 - 130

#### Laboratory Control Spike (LCS-1)

QC Batch:	44989	Date Analyzed:	2008-01-24	Analyzed By:	LD
Prep Batch:	38737	QC Preparation:	2008-01-24	Prepared By:	LD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	$\operatorname{Amount}$	$\mathbf{Result}$	Rec.	Limit
DRO	246	mg/Kg	1	250	<14.6	98	48.1 - 140.9

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

Param		$\begin{array}{c} \mathrm{LCSD} \\ \mathrm{Result} \end{array}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		262	mg/Kg	1	250	<14.6	105	48.1 - 140.9	6	20
Percent recovery is based	d on the sp	oike result.	RPD is b	ased or	n the spike	and spike	duplicat	e result.		
	LCS	LCSD	ŤŤ	•••	<b>D</b> 'I	Spike		S LCSD	]	Rec.

Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	107	113	mg/Kg	1	100	107	113	42.1 - 138.9
			-					

#### Laboratory Control Spike (LCS-1)

QC Batch:	45002	Date Analyzed:	2008-01-24	Analyzed By:	DC
Prep Batch:	38735	QC Preparation:	2008-01-24	Prepared By:	$\mathbf{DC}$

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Param	$\mathcal{LCS}$ Result	Units	Dil. '	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.02	mg/Kg	1	1.00	< 0.00300	102	70 - 130
Toluene	1.00	mg/Kg	1	1.00	< 0.00300	100	70 - 130
Ethylbenzene	0.984	mg/Kg	1	1.00	< 0.00400	98	70 - 130
Xylene	2.96	mg/Kg	1	3.00	< 0.0140	99	70 - 130

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$	$\mathbf{RPD}$	Limit
Benzene	1.01	mg/Kg	1	1.00	< 0.00300	101	70 - 130	1	
Toluene	0.996	mg/Kg	1	1.00	< 0.00300	100	70 - 130	0	
Ethylbenzene	0.980	mg/Kg	1	1.00	< 0.00400	98	70 - 130	0	
Xylene	2.95	mg/Kg	1	3.00	< 0.0140	98	70 - <b>13</b> 0	0	

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

Surrogate	$\begin{array}{c} \mathbf{LCS} \\ \mathbf{Result} \end{array}$	$\begin{array}{c} \mathbf{LCSD} \\ \mathbf{Result} \end{array}$	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.998	0.998	mg/Kg	1	1.00	100	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.977	0.980	mg/Kg	1	1.00	98	98	70 - 130

#### Laboratory Control Spike (LCS-1)

QC Batch:	45014	Date Analyzed:	2008-01-24	Analyzed By:	DC
Prep Batch:	38735	QC Preparation:	2008-01-24	Prepared By:	DC

	$\mathbf{LCS}$			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	8.17	mg/Kg	1	10.0	<0.0118	82	70 - 130

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	8.13	mg/Kg	1	10.0	< 0.0118	81	70 - 130	0	

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.	$\operatorname{Limit}$
Trifluorotoluene (TFT)	0.973	0.970	mg/Kg	1	1.00	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.984	0.979	mg/Kg	1	1.00	98	98	70 - 130

#### Laboratory Control Spike (LCS-1)

QC Batch:	45016	Γ	ate Analyzed:	2008-01	l-25		Analyzed	d By: AR
Prep Batch:	38767	G	QC Preparation:		2008-01-24			l By: AR
		,						
		LCS			Spike	Matrix		Rec.
Param		Result	t Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit
Chloride		98.6	mg/Kg	1	100	< 0.500	99	85 - 115

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

Report Date: January 30, 2008         Gladiola Gathering         L         Param       R         Chloride       9         Percent recovery is based on the spike is         Laboratory Control Spike (LCS-1)         QC Batch:       45090         Prep Batch:       38827         Param       R         Chloride       Percent recovery is based on the spike is         Param       R         Chloride       Percent recovery is based on the spike is         Param       R         Chloride       Percent recovery is based on the spike is         Laboratory Control Spike (LCS-1)       QC Batch:         QC Batch:       45105         Prep Batch:       38739         Param       Benzene         Toluene       Ethylbenzene         Xylene       LO         Percent recovery is based on the spike is         Chloride       LO         Param       Re         Benzene       O         Toluene       LO         Param       Re         Benzene       O         Toluene       O         Ethylbenzene       O         Chloride       O <th>JCSD Lesult 99.6 result. H ) LCS Resu 99.6 result. H JCSD Lesult 100 result. H )</th> <th>Units mg/Kg RPD is 1 Date Ar QC Prej S lt RPD is 1 mg/Kg RPD is 1</th> <th>Work O Gladio Dil. 1 based on alyzed: paration units mg/Kg based on Dil. 1 based on</th> <th>rder: 80124 la Gatherin Spike Amount 100 the spike a 2008-01- 2008-0008-01- 2008-010</th> <th>108 ng Ma Res <ul> <li>And spill</li> </ul> <li>28 28 28 28 28 28 28 28 28 28</li></th> <th>ke bunt 0 trix 10 trix 10 trix 10</th> <th>Rec. 100 icate r Ma Rec &lt;0 icate r Rec. 100 icate r</th> <th>Pa Rec Lim 85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1</th> <th>age Num Lea Lea it R 115 Analyze Prepare Rec. 100 c. it R 115</th> <th>PD 1 d By d By</th> <th>17 of 1 mty, N] RPI Limi 20 y: AR r: AR Rec. Limit 85 - 11 RPI Limi 20</th>	JCSD Lesult 99.6 result. H ) LCS Resu 99.6 result. H JCSD Lesult 100 result. H )	Units mg/Kg RPD is 1 Date Ar QC Prej S lt RPD is 1 mg/Kg RPD is 1	Work O Gladio Dil. 1 based on alyzed: paration units mg/Kg based on Dil. 1 based on	rder: 80124 la Gatherin Spike Amount 100 the spike a 2008-01- 2008-0008-01- 2008-010	108 ng Ma Res <ul> <li>And spill</li> </ul> <li>28 28 28 28 28 28 28 28 28 28</li>	ke bunt 0 trix 10 trix 10 trix 10	Rec. 100 icate r Ma Rec <0 icate r Rec. 100 icate r	Pa Rec Lim 85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1	age Num Lea Lea it R 115 Analyze Prepare Rec. 100 c. it R 115	PD 1 d By d By	17 of 1 mty, N] RPI Limi 20 y: AR r: AR Rec. Limit 85 - 11 RPI Limi 20
L         Param       R         Chloride       9         Percent recovery is based on the spike i         Laboratory Control Spike (LCS-1)         QC Batch:       45090         Prep Batch:       38827         Param       10         Chloride       10         Param       10         Chloride       10         Param       10         Chloride       10         Percent recovery is based on the spike i       10         Chloride       10         Percent recovery is based on the spike i       10         Laboratory Control Spike (LCS-1)       10         QC Batch:       45105         Prep Batch:       38739         Param       10         Benzene       10         Toluene       10         Ethylbenzene       10         Param       Re         Benzene       0         Toluene       0         Ethylbenzene       0         Chuene       0         Ethylbenzene       0         Chuene       0	LCSD desult 99.6 result. H ) LCS Result 99.6 result. H LCSD desult 100 result. H )	Units mg/Kg RPD is Date Ar QC Prej S lt RPD is mg/Kg RPD is	Dil. 1 based on halyzed: paration: Units mg/Kg based on Dil. 1 based on	Spike Amount 100 the spike a 2008-01- 2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	Ma: Res <0. and spil 28 28 28 28 28 28 28 28 28 28 28 28 28	ke bunt ce dupl ke bunt 0 ce dupl trix ult 500	Rec. 100 icate r Ma Rec <ol> <li>col</li> <li>icate r</li> <li>Rec. 100</li> </ol>	Rec Lim 85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1	Analyze Prepare Rec. 100 :. it R.	PD 1 d B; d B; 2D	RPI Limi 20 y: AR r: AR Rec. Limit 85 - 11 RPI Limi 20
Param       R         Chloride       S         Percent recovery is based on the spike is       S         Caboratory Control Spike (LCS-1)       CBatch: 45090         Prep Batch:       38827         Param       S         Chloride       Param         Chloride       Param         Param       R         Chloride       Param         Percent recovery is based on the spike is       Param         Chloride       Param         Caboratory Control Spike (LCS-1)       Param         Caboratory Control Spike (LCS-1)       Param         Caboratory Control Spike (LCS-1)       Param         Param       Senzene         Foluene       Senzene         Coluene       Senzene         Coluene       Chuene         Chuene       Chuene         Chuene       O         Chuene	LCSD Result 99.6 result. H ) LCS Resu 99.6 result. H LCSD Result 100 result. H	Units mg/Kg RPD is Date Ar QC Prej S lt RPD is Mg/Kg RPD is	Dil. 1 based on halyzed: paration: Units mg/Kg based on Dil. 1 based on	Spike Amount 100 the spike a 2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	Ma Res <0. and spil 28 28 28 28 28 28 28 28 28 28 28 28 28	ke bunt ce dupl ke bunt ce dupl trix ult 500	Rec. 100 icate r Ma Res <0. icate r Rec. 100 icate r	Rec Lim 85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1	2. it R. 115 Analyze Prepare Rec. 100 2. it R. 115	PD 1 d By d By 2D	RPI Limi 20 y: AR v: AR kec. Limit 85 - 11 RPI Limi 20
Param       R         Chloride       9         Percent recovery is based on the spike is       1         Laboratory Control Spike (LCS-1)       2         QC Batch:       45090         Prep Batch:       38827         Param       1         Chloride       1         Param       1         Caboratory Control Spike (LCS-1)       1         QC Batch:       45105         Prep Batch:       38739         Param       1         Benzene       1         Ioluene       1         Ethylbenzene       1         Charam       Re         Benzene       0         Ioluene       0         Chuene       0         Chuene       0         Chuene       0         Chuene       0	Aesult 99.6 result. H ) LCS Resu 99.6 result. H LCSD Aesult 100 result. H )	Units mg/Kg RPD is 1 Date Ar QC Prej S lt RPD is 1 Mg/Kg RPD is 1	Dil. 1 based on alyzed: paration: Units mg/Kg based on Dil. 1 based on	Amount 100 the spike a 2008-01- 2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	Res <pre>     Res </pre> <pre></pre>	ke bunt ce dupl ce dupl trix ult 500	Rec. 100 icate r Ma Rec <ol> <li>col</li> <l< th=""><th>Lim 85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1</th><th>it R. 115 Analyze Prepare Rec. 100  it R. 115</th><th>PD 1 d By 2D</th><th>Limi 20 y: AR y: AR Rec. Limit 85 - 11 RPI Limi 20</th></l<></ol>	Lim 85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1	it R. 115 Analyze Prepare Rec. 100  it R. 115	PD 1 d By 2D	Limi 20 y: AR y: AR Rec. Limit 85 - 11 RPI Limi 20
Chloride       §         Percent recovery is based on the spike is         Laboratory Control Spike (LCS-1)         QC Batch:       45090         Prep Batch:       38827         Param       Chloride         Percent recovery is based on the spike is         Param       Ra         Chloride       Id         Param       Ra         Chloride       Id         Percent recovery is based on the spike is       Id         Chloride       Id         Percent recovery is based on the spike is       Id         Laboratory Control Spike (LCS-1)       QC Batch: 45105         Prep Batch:       38739         Param       Benzene         Toluene       Ethylbenzene         Xylene       Id         Percent recovery is based on the spike is       Id         Param       Re         Benzene       O.         Toluene       O.         Ethylbenzene       O.         Param       Re         Benzene       O.         Chuene       O.         Ethylbenzene       O.         Ethylbenzene       O.         Chuene       O. <th>99.6 result. H ) LCS Resu 99.6 result. H LCSD Result 100 result. H</th> <th>mg/Kg RPD is 1 Date Ar QC Prej S lt RPD is 1 mg/Kg RPD is 1</th> <th>1 based on nalyzed: paration: <u>Units</u> mg/Kg based on <u>Dil.</u> 1 based on</th> <th>100 the spike a 2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a</th> <th><pre>&lt;0. and spil 28 28 28 Amc 10 and spil Ma: Res &lt;0. and spil </pre></th> <th>500 se dupl ke punt 00 se dupl trix ult 500</th> <th>100 icate r Ma Res &lt;0. icate r Rec. 100</th> <th>85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1</th> <th>Analyze Prepare Rec. 100 :. it R. 115</th> <th>1 d By</th> <th>20 y: AR y: AR Rec. Limit 85 - 11 RPI Limi 20</th>	99.6 result. H ) LCS Resu 99.6 result. H LCSD Result 100 result. H	mg/Kg RPD is 1 Date Ar QC Prej S lt RPD is 1 mg/Kg RPD is 1	1 based on nalyzed: paration: <u>Units</u> mg/Kg based on <u>Dil.</u> 1 based on	100 the spike a 2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	<pre>&lt;0. and spil 28 28 28 Amc 10 and spil Ma: Res &lt;0. and spil </pre>	500 se dupl ke punt 00 se dupl trix ult 500	100 icate r Ma Res <0. icate r Rec. 100	85 - 1 esult. trix sult 500 esult. Rec Lim 85 - 1	Analyze Prepare Rec. 100 :. it R. 115	1 d By	20 y: AR y: AR Rec. Limit 85 - 11 RPI Limi 20
Percent recovery is based on the spike relation of the spike spike spike (LCS-1) QC Batch: 45090 Prep Batch: 38827 Param Chloride Percent recovery is based on the spike relation of the spike s	result. I ) LCS Resu 99.6 result. I LCSD Result 100 result. I	RPD is Date Ar QC Prej S lt RPD is Mg/Kg RPD is	based on nalyzed: paration <u>Units</u> mg/Kg based on <u>Dil.</u> 1 based on	the spike a 2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	and spil 28 28 28 28 10 and spil Ma: Res <0. and spil	ke punt 0 krix ult 500	Ma Rei <0. icate r Rec. 100	esult. trix sult 500 esult. Rec Lim 85 - 1	Analyze Prepare Rec. 100 :. it R. 115	d By	y: AR y: AR Limit 85 - 11. RPI Limi 20
Laboratory Control Spike (LCS-1)         QC Batch:       45090         Prep Batch:       38827         Param       Image: Control Spike (Image: Contro	) LCS Resu 99.6 result. H CSD Result 100 result. H	Date Ar QC Prej S lt RPD is l Units mg/Kg RPD is l	Units mg/Kg based on Dil. 1 based on	2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	28 28 Amo 10 and spil Ma Res <0. and spil	ke 00 ce dupl trix ult 500	Ma Res <0. icate r Rec. 100	trix sult 500 esult. Rec Lim 85 - 1	Analyze Prepare Rec. 100 :. it R. 115	d By	y: AR y: AR Limit 85 - 11. RPI Limi 20
QC Batch:       45090         Prep Batch:       38827         Param       Image: Constraint of the spike of the spik	LCS Resul 99.6 result. H LCSD tesult 100 result. H	Date Ar QC Prej S It RPD is 1 Units mg/Kg RPD is 1	Units mg/Kg based on Dil. 1 based on	2008-01- 2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	28 28 Amo 10 and spil Ma Res <0. and spil	ke 00 te dupl trix ult 500	Ma Rec icate r Rec. 100	trix sult 500 esult. Rec Lim 85 - 1	Analyze Prepare Rec. 100 :. it R. 115	ed By d By	y: AR y: AR Rec. Limit 85 - 11, RPI Limi 20
Prep Batch: 38827 Param Chloride Percent recovery is based on the spike r Chloride Percent recovery is based on the spike r Chloride Percent recovery is based on the spike r Laboratory Control Spike (LCS-1) QC Batch: 45105 Prep Batch: 38739 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spike r Charam Charam Chloride Charam Chloride	LCS Resu 99.6 result. H CSD tesult 100 result. H	QC Prej S llt RPD is l <u>Units</u> <u>mg/Kg</u> RPD is l	Units mg/Kg based on Dil. 1 based on	2008-01- Dil. 1 the spike a Spike Amount 100 the spike a	Spi Amo 10 and spil Ma: Res <0. and spil	ke 00 xe dupl trix ult 500	Ma Res <0. icate r Rec. 100	trix sult 500 esult. Rec Lim 85 - 1	Prepare Rec. 100 : it R. 115	d By	y: AR Rec. Limit 85 - 11. RPI Limi 20
Param Chloride Percent recovery is based on the spike is Chloride Param Chloride Percent recovery is based on the spike is Caboratory Control Spike (LCS-1) QC Batch: 45105 Prep Batch: 38739 Param Param Percent recovery is based on the spike is Chloride Coluene Sthylbenzene Coluene C	LCS Resu 99.6 result. H CSD tesult 100 result. H	S lt RPD is Units mg/Kg RPD is	Units mg/Kg based on Dil. 1 based on	Dil. 1 the spike a Spike Amount 100 the spike a	Spi Amo 10 and spil Ma Res <0. and spil	ke 0 ce dupl trix ult 500	Ma Res <0. icate r Rec. 100	trix sult 500 esult. Rec Limi 85 - 1	Rec. 100 :. it R. 115		Rec. Limit 85 - 11 RPE Limi 20
Param Chloride Percent recovery is based on the spike i Param R Chloride Percent recovery is based on the spike i Caboratory Control Spike (LCS-1) QC Batch: 45105 Prep Batch: 38739 Param Benzene Foluene Ethylbenzene Kylene Percent recovery is based on the spike i Charam Ref Benzene 0. Chuene 0. Chylbenzene 0. Chylbenzen	Resu 99.6 result. H CSD tesult 100 result. H	lt RPD is Units mg/Kg RPD is	Units mg/Kg based on Dil. 1 based on	Dil. 1 the spike a Spike Amount 100 the spike a	Amo 10 and spil Ma Res <0. and spil	ount 00 ce dupl trix oult 500	Res <0. icate re Rec. 100	sult 500 esult. Rec Lim 85 - 1	Rec. 100 :. it R. 115	5D	Limit 85 - 11 RPI Limi 20
Chloride         Percent recovery is based on the spike relation         Param       R         Chloride       R         Percent recovery is based on the spike relation       R         Laboratory Control Spike (LCS-1)       R         QC Batch:       45105         Prep Batch:       38739         Param       R         Benzene       R         Toluene       R         Ethylbenzene       L         Param       R         Benzene       0.         Toluene       0.         Ethylbenzene       0.         Chloride       0.	99.6 result. H LCSD tesult 100 result. H	RPD is Units Mg/Kg RPD is 1	mg/Kg based on Dil. 1 based on	1 the spike a Spike Amount 100 the spike a	10 and spil Ma Res <0. and spil	0 xe dupl trix tult 500	<0. icate r Rec. 100	500 esult. Rec Lim 85 - 1	100 c. it R. 115	?D 1	85 - 11 RPE Limi 20
Percent recovery is based on the spike r Param R Chloride Percent recovery is based on the spike r Laboratory Control Spike (LCS-1) QC Batch: 45105 Prep Batch: 38739 Param Benzene Foluene Ethylbenzene Kylene Percent recovery is based on the spike r LC Param Re Benzene O. Coluene Col	result. H LCSD tesult 100 result. H	RPD is Units mg/Kg RPD is 1	Dil. Dil. Dil.	the spike a Spike Amount 100 the spike a	and spil Ma Res <0. and spil	e dupl trix ult 500	icate r Rec. 100	esult. Rec Limi 85 - 1	:. it R. 115	<u>2D</u>	RPL Limi 20
Param R Chloride Percent recovery is based on the spike of the spike (LCS-1) QC Batch: 45105 Prep Batch: 38739 Param Benzene Foluene Ethylbenzene Kylene Percent recovery is based on the spike of the spike o	CSD Result 100 result. H	Units mg/Kg RPD is	Dil. 1 based on	Spike Amount 100 the spike a	Ma Res <0. and spil	trix ult 500	Rec.	Rec Lim 85 - 1	:. it R. 115	<u>2D</u>	RPI Limi 20
Param       R         Chloride       Percent recovery is based on the spike is         Percent recovery is based on the spike is       Laboratory Control Spike (LCS-1)         QC Batch:       45105         Prep Batch:       38739         Param       Benzene         Foluene       Ethylbenzene         Xylene       LO         Param       Re         Benzene       0.         Chuene       0.         Sthylbenzene       0.         Sthylbenzene       0.	tesult 100 result. H	Units mg/Kg RPD is	Dil. 1 based on	Amount 100 the spike a	Res <0. and spil	ult 500	Rec. 100	Lim 85 - 1	it R. 15	$\frac{PD}{1}$	<u></u>
Chloride         Percent recovery is based on the spike i         Laboratory Control Spike (LCS-1)         QC Batch:       45105         Prep Batch:       38739         Param         Benzene         Poluene         Ethylbenzene         Kylene         Percent recovery is based on the spike i         Caram         Re         Benzene         O.         Chuene         O.         Senzene         Senz	100 result. I	_mg/Kg RPD is 1	1 based on	100 the spike a	<0. and spil	500	100	85 - 1	115	1	20
Percent recovery is based on the spike in Laboratory Control Spike (LCS-1) QC Batch: 45105 Prep Batch: 38739 Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spike in Caram Benzene Coluene	result. I	RPD is 1	based on	the spike a	and spil		ing to				
Param Benzene Foluene Ethylbenzene Xylene Percent recovery is based on the spike LC Param Benzene 0. Foluene 0. Ethylbenzene 0.	•	QC Prej	paration	2008-01-	24				Prepare	d By	7: DC
Param Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spike LC Param Benzene 0. Toluene 0. Ethylbenzene	LCS				Spik	е	Mat	rix			Rec.
Benzene Toluene Ethylbenzene Xylene Percent recovery is based on the spike Param Benzene Controluene Ethylbenzene Controluene	Resul	lt	Units	Dil.	Amou	nt	Res	ult	Rec.		Limit
Foluene         Ethylbenzene         Xylene         Percent recovery is based on the spike recovery         Param         Ref         Benzene       0.         Foluene       0.         Ethylbenzene       0.	1.01	n	1g/Kg	1	1.00		<0.0	0300	101		70 - 13
Ethylbenzene Xylene Percent recovery is based on the spike p LC Param Re Benzene 0. Toluene 0. Ethylbenzene 0.	0.989	) n	ıg/Kg	1	1.00		<0.0	0300	99		70 - 13
Xylene         Percent recovery is based on the spike         Param         Renzene         O.         Toluene         O.         Ethylbenzene         O.	0.967	7 n	ıg/Kg	1	1.00	)	<0.0	0400	97		70 - 13
L( Param Re Benzene 0. Foluene 0. Ethylbenzene 0.	result. I	n RPD is l	ng/Kg based on	the spike a	3.00 and spil	e dupl	<0.0	esult.	97		70 - 13
ParamReBenzene0.Foluene0.Ethylbenzene0.	CSD			Spike	Mat	rix		Ree	с.		R.PI
Benzene 0. Foluene 0. Ethylbenzene 0.	esult	Units	Dil.	Amount	Res	ult	Rec.	Lim	it R	PD	Limi
Toluene 0. Ethylbenzene 0.	.999	mg/Kg	1	1:00	<0.0	0300	100	70 - 1	130	1	
Ethylbenzene 0.	.980	mg/Kg	1	1.00	<0.0	0300	98	70 - 3	130	1	
-	.963	mg/Kg	1	1.00	<0.0	0400	96	70 - 3	130	0	
Kylene 2	2.89	mg/Kg	1	3.00	<0.0	140	96	70 - 1	130	1	
Percent recovery is based on the spike i	result. I	RPD is l	based on	the spike a	and spil	æ dupl	icate r	esult.			
	LCS		SD	TTuite	D:1	Spik	æ	LCS	LCSD		Rec.
Surrogate	nesul	$\frac{1}{1}$	Suit	Units	<u>D11.</u>	Amou		Rec.	Rec.		Limit
4-Bromofluorobenzene (4-BFB)	0.989	2 0. <sup>1</sup>	963	mg/Kg	1	1.0	5	99 97	98 96		70 - 13 70 - 13
Laboratory Control Spike (LCS-1)				-							
OC Batch: 45111	.)				0 <b>5</b>				Analway	d P	w DC
Pren Batch: 38730	.)	Date Ar	alvzed•	2008-01-	2.2 A				Prenarc	d R	יי אר זיי איי

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Report Date: January 30, Gladiola Gathering	2008			Work ( Gladie	Order: 8012 ola Gatheri	408 ng		I	Page Nu L	ımber: ea Cou	18 of 24 inty, NM
		$\mathbf{LC}_{\mathbf{c}}^{\mathbf{c}}$	5			Spike	Ma	trix			Rec.
Param		Resu	lt	Units	Dil	Amount	Re	sult	Rec		Limit
GRO		8.28	3	mg/Kg	1	10.0	<0.	0118	83		70 - 130
Percent recovery is based o	n the spi	ke result.	RPD is	based of	n the spike	and spike d	luplicate i	esult.			
		LCSD			Spike	Matrix		Re	ec		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Lir	nit	RPD	Limit
GRO		8.11	mg/K	g 1	10.0	<0.0118	8 81	70 -	130	2	
Percent recovery is based o	n the spi	ke result.	RPD is	based or	n the spike	and spike d	uplicate 1	esult.			
		LCS	L	CSD		ç	Spike	LCS	LCS	SD	Rec.
Surrogate		Resu	lt R	lesult	Units	Dil. A	mount	Rec.	Rec	с.	Limit
Trifluorotoluene (TFT)		1.00	)	1.00	mg/Kg	1	1.00	100	100	0	70 - 130
4-Bromofluorobenzene (4-E	BFB)	0.97	7 C	).987	mg/Kg	1	1.00	98	99	)	70 - 130
QC Batch: 44989 Prep Batch: 38737			Date A QC Pr	nalyzed: eparation	: 2008-01 n: 2008-01	-24 -24			Analy Prepa	yzed B ared B	y: LD y: LD
-		MS		<b></b>	51	Spike	Matri	x		-	Rec.
Param		Resul	.t	Units	<u> </u>	Amount	Resul	.t	Rec.	250	Limit
DRO		200	1	ng/ng	1	200	04.10	) 	80	35.0	5 - 173.0
Percent recovery is based o	n the spi	ke result.	RPD is	based of	n the spike	and spike d	uplicate 1	esult.			
		MSD			Spike	Matrix		Rec			RPD
Param ·	_	Result	Units	Dil.	Amount	Result	Rec.	Lim	it	RPD	Limit
DRO		270	mg/Kg	1	250	64.16	82	35.6 - 1	173.6	4	20
Percent recovery is based o	n the spi	ke result.	RPD is	based or	n the spike	and spike d	uplicate 1	esult.			
	MS	MSD				Spike	MS	5	MSD		Rec.
Surrogate	Result	Result		Units	Dil.	Amount	Rec		Rec.		Limit
n-Triacontane	128	115	I	ng/Kg	1	100	128	3	115	33	3 - 156.2
Matrix Spike (MS-1) QC Batch: 45002	Spiked S	Sample: 14	8700 Date A	nalyzed:	2008-01	-24			Analy	yzed B	y: DC
Prep Batch: 38735			QC Pr	eparation	n: 2008-01	-24			Prepa	ared B	y: DC
Param		MS Resu	lt	Units	Dil.	Spike Amount	Ma Re:	trix sult	Rec		Rec. Limit
Benzene	5	1.45	;	mg/Kg	1	1.00	<0.0	0300	145	5	70 - 130
Toluene	6	1.42	3	mg/Kg	1	1.00	<0.0	0300	142	2	70 - 130
Ethylbenzene	7 8	1.39	)	mg/Kg	1	1.00	<0.0	0400	139	) )	70 - 130
Aylene		4.18	5	mg/Kg	1	3.00	<0.	0140	139	J	70 - 130

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

<sup>5</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control. <sup>6</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control. <sup>7</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	9	1.34	mg/Kg	1	1.00	< 0.00300	134	70 - 130	8	
Toluene	10	1.33	mg/Kg	1	1.00	< 0.00300	133	70 - 130	6	
Ethvlbenzene	11	1.34	mg/Kg	1	1.00	< 0.00400	134	70 - 130	4	
Xylene	12	4.06	mg/Kg	1	3.00	< 0.0140	135	70 - 130	3	
Percent recovery is bas	sed on the spi	ke result.	RPD is ba	used on	the spike a	nd spike dup	licate re	sult.		

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	$\mathbf{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.999	1.01	mg/Kg	1	1	100	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.989	0.982	mg/Kg	1	1	99	98	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 148700

QC Batch:	45014	Date Analyzed:	2008-01-24	Analyzed By:	DC
Prep Batch:	38735	QC Preparation:	2008-01-24	Prepared By:	DC

	MS			Spike	Matrix		Rec.
Param	Result	$\mathbf{Units}$	Dil.	Amount	Result	Rec.	Limit
GRO	10.9	mg/Kg	1	10.0	< 0.0118	109	70 - 130

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	9.62	mg/Kg	1	10.0	< 0.0118	96	70 - 130	12	

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	$\mathbf{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{Limit}$
Trifluorotoluene (TFT)	0.925	0.889	mg/Kg	1	1	92	89	70 - 130
4-Bromofluorobenzene (4-BFB)	1.02	0.995	mg/Kg	1	1	102	100	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 148774

QC Batch:	45016	Date Analyzed:	2008-01-25	Analyzed By:	AR
Prep Batch:	38767	QC Preparation:	2008-01-24	Prepared By:	$\mathbf{AR}$

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	$\mathbf{Limit}$
Chloride	4720	mg/Kg	50	5000	<25.0	94	85 - 115

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	4760	mg/Kg	50	5000	<25.0	95	85 - 115	1	20

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

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

<sup>10</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

<sup>11</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

<sup>12</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

#### Matrix Spike (MS-1) Spiked Sample: 148833

QC Batch:	45090	Date Analyzed:	2008-01-28	Analyzed By:	AR
Prep Batch:	38827	QC Preparation:	2008-01-28	Prepared By:	$\mathbf{AR}$

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	$\mathbf{Limit}$
Chloride	5310	mg/Kg	50	5000	301.703	100	85 - 115

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

	MSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{Result}$	Units	Dil.	Amount	$\mathbf{Result}$	Rec.	Limit	RPD	Limit
Chloride	5360	mg/Kg	50	5000	301.703	101	85 - 115	1	20

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

#### Matrix Spike (MS-1) Spiked Sample: 148774

QC Batch:	45105	Date Analyzed:	2008-01-25	Analyzed By:	DC
Prep Batch:	38739	QC Preparation:	2008-01-24	Prepared By:	DC

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$
Benzene	1.10	mg/Kg	1	1.00	< 0.00300	110	70 - 130
Toluene	1.09	mg/Kg	1	1.00	< 0.00300	109	70 - 130
Ethylbenzene	1.10	mg/Kg	1	1.00	< 0.00400	110	70 - 130
Xylene	3.32	mg/Kg	1	3.00	< 0.0140	111	70 - 130

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

		MSD			Spike	Matrix		Rec.		RPD
Param		$\mathbf{Result}$	Units	Dil.	Amount	Result	Rec.	Limit	$\mathbf{RPD}$	Limit
Benzene	13	1.46	mg/Kg	1	1.00	< 0.00300	146	70 - 130	28	
Toluene	14	1.46	mg/Kg	1	1.00	< 0.00300	146	70 - 130	29	
Ethylbenzene	15	1.48	mg/Kg	1	1.00	< 0.00400	148	70 - 1 <b>3</b> 0	29	
Xylene	16	4.44	mg/Kg	1	3.00	< 0.0140	148	70 - 130	29	

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	$\mathbf{Result}$	Result	Units	Dil.	Amount	Rec.	Rec.	$\mathbf{Limit}$
Trifluorotoluene (TFT)	0.978	0.985	mg/Kg	1	1	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.959	0.972	mg/Kg	1	1	96	97	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 148774

QC Batch:	45111	Date Analyzed:	2008-01-25	Analyzed By:	$\mathbf{DC}$
Prep Batch:	38739	QC Preparation:	2008-01-24	Prepared By:	DC

<sup>13</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
<sup>14</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
<sup>15</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
<sup>16</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
<sup>16</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
<sup>16</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: January 30, 2008 Gladiola Gathering					Work Order: 8012408 Gladiola Gathering				Page	Page Number: 21 of 24 Lea County, NM	
				MS			Spike	e M	atrix		Rec.
Param				Result	Units	Dil.	Amou	nt R	esult	Rec.	Limit
GRO			17	14.4	mg/Kį	g 1	10.0	<(	0.0118	144	70 - 130
Percent reco	overy is b	ased on	the spike r	esult. RPD	is based of	on the spike	and spike	duplicate	result.		
			Ν	ISD		Spike	Matr	ix	Rec.		RPD
Param			Re	esult Ur	its Di	l. Amoun	t Resu	lt Rec	. Limit	RPI	D Limit
GRO		<u> </u>	18 8	.95 mg	/Kg 1	10.0	< 0.01	18 90	70 - 13	0 47	
Percent reco	overy is b	ased on	the spike r	esult. RPD	is based o	on the spike	and spike	duplicate	result.		
				MS	MSD			Spike	MS	MSD	Rec.
Surrogate				Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotol	uene (TF	T)		0.870	0.910	mg/Kg	1	1	87	91	70 - 130
4-Bromofluo	probenzer	ne (4-BI	FB)	1.01	0.981	mg/Kg	1	1	101	98	70 - 130
QC Batch:	44989			Date CCVs	Analyzed	l: 2008-01-: CCVs	24 CCVs		A Percent	nalyzed	By: LD
				True	]	Found	Percen	t	Recovery		Date
Param	Flag		Units	Conc.		Conc.	Recover	(y	Limits		Analyzed
DRO			mg/Kg	250		262	105	•	85 - 115	2	2008-01-24
Standard ( QC Batch: Param	(CCV-2) 44989 Flag	)	Units	Date CCVs True Conc.	Analyzed	l: 2008-01-: CCVs Found Conc.	24 CCVs Percen Recover	t	A Percent Recovery Limits	nalyzed	By: LD Date Analyzed
DRO	0		mg/Kg	250		249	100		85 - 115	2	2008-01-24
Standard QC Batch:	(ICV-1) 45002			Date I(	Analyzed	: 2008-01-2 ICVs	24 ICV	7s	A Percent	nalyzed	By: DC
Danam		Flor	Tinit		rue	Conc	Perc		Limita		Date Anal-
F arain Bongono	<u>.</u>	riag		s 0	100	0.0027	necov	/ely	85, 115		Analyzed
Toluene			mg/K	-5 U. [σ Λ	100	0.0924	94 02		85 - 115	4	2008-01-24
Ethylhenzei	ne		mg/K	το 0. Γρ. Π	100	0.0915	92 92		85 - 115	4	2008-01-24
Xvlene			mg/K	g 0.	300	0.276	92		85 - 115	4	2008-01-24
Standard	(CCV-1)	)		Date	Analyzed	· 2008-01-	24		Δ	nalwed	Bw DC

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<sup>17</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control.
 <sup>18</sup>MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0991	99	85 - 115	2008-01-24
Toluene		mg/Kg	0.100	0.0971	97	85 - 115	2008-01-24
Ethylbenzene		mg/Kg	0.100	0.0948	95	85 - 115	2008-01-24
Xylene		mg/Kg	0.300	0.286	95	85 - 115	2008-01-24

#### Standard (ICV-1)

QC Batch:	45014		Date Ana	alyzed: 2008-0	Analyzed By: DC		
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.969	97	85 - 115	2008-01-24

## Standard (CCV-1)

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QC Batch:	45014		Date Ana	alyzed: 2008-0	Analyzed By: DC		
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.03	103	85 - 115	2008-01-24

#### Standard (ICV-1)

QC Batch:	45016		Date Anal	lyzed: 2008-01	-25	Anal	yzed By: AR
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2008-01-25

## Standard (CCV-1)

QC Batch:	45016		Date Anal	lyzed: 2008-01	-25	Anal	alyzed By: AR	
			CCVs	CCVs	$\mathbf{CCVs}$	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Chloride		mg/Kg	100	100	100	85 - 115	2008-01-25	

#### Standard (ICV-1)

QC Batch: 45090

Date Analyzed: 2008-01-28

Analyzed By: AR

Report Date Gladiola Ga	e: January 30, athering	2008	W	ork Order: 801 Hadiola Gather	Page Number: 23 of 24 Lea County, NM			
			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Chloride		mg/Kg	100	98.5	98	85 - 115	2008-01-28	
Standard (	(CCV-1)							
QC Batch:	45090		Date Analy	yzed: 2008-01	-28	Anal	yzed By: AR	
			CCVs	CCVs Found	CCVs Percent	Percent	Date	
Param	Flag	Units	Conc	Conc	Recovery	Limits	Analyzed	
Chloride	1105	mg/Kg	100	102	102	85 - 115	2008-01-28	
Standard (	(ICV-1)	<b>- - - - - - - - - -</b>				<u> </u>		
QC Batch: 45105			Date Analyzed: 2008-01-25			Analyzed By: DC		
			ICVs	ICVs	ICVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Benzene		mg/Kg	0.100	0.0995	100	85 - 115	2008-01-25	
Toluene		mg/Kg	0.100	0.0975	98	85 - 115	2008-01-25	
Ethylbenzen	ie	mg/Kg	0.100	0.0952	95	85 - 115	2008-01-25	
Xylene		mg/Kg	0.300	0.287	96	85 - 115	2008-01-25	
Standard (	(CCV-1)							
QC Batch:	45105		Date Analyzed: 2008-01-25			Anal	yzed By: DC	
			CCVs	$\mathbf{CCVs}$	CCVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	$\mathbf{Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Benzene		mg/Kg	0.100	0.104	104	85 - 115	2008-01-25	
Toluene		mg/Kg	0.100	0.103	103	85 - 115	2008-01-25	
Ethylbenzer	ne	mg/Kg	0.100	0.0937	94	85 - 115	2008-01-25	
Xylene		mg/Kg	0.300	0.292	97	85 - 115	2008-01-25	
Standard (	(ICV-1)							
QC Batch: 45111		Date Anal	Date Analyzed: 2008-01-25			Analyzed By: DC		
			ICVs	ICVs	ICVs	Percent		
			True	Found	Percent	Recovery	Date	
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QC Batch: 45111

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Date Analyzed: 2008-01-25

Analyzed By: DC
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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.09	109	85 - 115	2008-01-25

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6701 Aberdeen Avenue, Suite 8 Lubbock, Texas 79424 800 • 378 • 1796 806 • 794 • 1296 FAX 806 794 1298 200 Last Sunset Road, Suite E El Paso, Texas 79922 888 588 3443 915•585•3443 FAX 915+585+4944 5002 Basin Street, Suite A1 Midland, Texas 79708 432 689 6301 FAX 432+689+6313 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76192. 817 201 5260 E-Mail lab@traceanalysis.com 10 1 2 2 2 3

## Analytical and Quality Control Report

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

Project Location: Lea County, NM Project Name: Gladiola Gathering Project Number: Gladiola Gathering Report Date: January 31, 2008

Work Order: 8012504

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

Sample	Description	Matrix	Taken	Taken	Date Received
148915	L.S. West Wall, 11'	soil	2008-01-24	12:07	2008-01-25
148916	L.S. Floor, 14'	soil	2008-01-24	12:12	2008-01-25
148917	S. Cent., E-Wall, 2'	soil	2008-01-24	11:05	2008-01-25

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

Michael Al

Dr. Blair Leftwich, Director

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

## **Analytical Report**

#### Sample: 148915 - L.S. West Wall, 11'

Analysis:	BTEX		Analytical M	ethod:	S 8021B		Prep Meth	od: S 5035
QC Batch:	45105	1	Date Analyze	ed:	2008-01-25		Analyzed H	By: DC
Prep Batch:	38739	Sample Preparation:		2008-01-24	Prepared B		By: DC	
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	Dil	ution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			< 0.0100		mg/Kg		1	0.0100
Ethylbenzene	е		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.986	mg/Kg	g 1	1.00	99	70 - 130
4-Bromofluor	robenzene (4-BFB)	<u></u>	0.951	mg/Kg	g 1	1.00	95	70 - 130
Sample: 14	8915 - L.S. West W	all, 11'						

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	45138	Date Analyzed:	2008-01-30	Analyzed By:	$\mathbf{AR}$
Prep Batch:	38869	Sample Preparation:	2008-01-29	Prepared By:	AR
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148915 - L.S. West Wall, 11'

Analysis: QC Batch: Prep Batch:	TPH DRO 45062 38763			Analytical M Date Analyze Sample Prep	ethod: ed: aration:	Mod. 8 2008-01 2008-01	od. 8015B Prej 08-01-25 Ana 08-01-25 Prej		Method: yzed By: ared By:	N/A LD LD
				$\mathbf{RL}$						
Parameter	$\mathbf{Flag}$			Result		Unit	S	Dilution		$\mathbf{RL}$
DRO				<50.0		mg/K	g	1		50.0
							Spike	Percent	Reco	overy
Surrogate	Flag		$\mathbf{Result}$	Units	Dilut	ion	Amount	Recovery	Lin	nits
n-Triacontan	e		95.2	mg/Kg	1		100	95	39.1 -	137.7

#### Sample: 148915 - L.S. West Wall, 11'

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	45111	Date Analyzed:	2008-01-25	Analyzed By:	DC
Prep Batch:	38739	Sample Preparation:	2008-01-24	Prepared By:	DC

Parameter 1	Flag		$\operatorname{RL}$ Result		Units	D	ilution	$\mathbf{RL}$	
GRO		<1.			mg/Kg	1		1.00	
						Spike	Percent	Recovery	
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)			0.850	mg/Kg	1	1.00	85	70 - 130	
4-Bromofluorobenzene (4-B	FB)		0.866	mg/Kg	1	1.00	87	70 - 130	

#### Sample: 148916 - L.S. Floor, 14'

Analysis: QC Batch: Prep Batch:	BTEX 45105 38739			Analytical M Date Analyz Sample Prep	fethod: ed: paration:	S 8021B 2008-01-25 2008-01-24		Prep Method Analyzed By Prepared By	
				RL					
Parameter		Flag		Result		Units	D	ilution	$\mathbf{RL}$
Benzene				< 0.0100	1	mg/Kg		1	0.0100
Toluene				<0.0100		mg/Kg		1	0.0100
Ethylbenzene	9			< 0.0100		mg/Kg		1	0.0100
Xylene		=.		<0.0100		mg/Kg		1	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)			0.985	mg/Kg	g 1	1.00	98	70 - 130
4-Bromofluor	obenzene (4-E	BFB)		0.951	mg/K	g 1	1.00	95	70 - 130

### Sample: 148916 - L.S. Floor, 14'

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Analysis: QC Batch:	Chloride (Titration) 45138	Analytical Method: Date Analyzed:	SM 4500-Cl B 2008-01-30	Prep Method: Analyzed By:	N/A AR
Prep Batch:	38869	Sample Preparation:	2008-01-29	Prepared By:	AR
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00

#### Sample: 148916 - L.S. Floor, 14'

Analysis: TPH DRO QC Batch: 45062 Prep Batch: 38763		Analytica Date Ana Sample P	l Method: M lyzed: 2 reparation: 2	Aod. 8015B 2008-01-25 2008-01-25	Pre An Pre	ep Method: N/A alyzed By: LD epared By: LD	
Parameter		Flag	$\operatorname{RL}$ Result		Units	Dilution	RL
DRO			<50.0		mg/Kg	1	50.0
Surrogate	Flag	Result	Units	Dilutio	Spike n Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	114	mg/Kg	1	100	114	39.1 - 137.7

#### Sample: 148916 - L.S. Floor, 14'

Analysis: TPH GRO QC Batch: 45111 Prep Batch: 38739			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B         Prep Meth           2008-01-25         Analyzed B           2008-01-24         Prepared B			od: S 5035 By: DC By: DC
			$\mathbf{RL}$				•	
Parameter	Flag		$\mathbf{Result}$		$\mathbf{Units}$	Di	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.853	mg/Kg	1	1.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)		0.867	mg/Kg	1	1.00	87	70 - 130	

#### Sample: 148917 - S. Cent., E-Wall, 2'

Analysis: QC Batch: Prep Batch:	BTEX 45105 38739		I S	Analytical M Date Analyze Sample Prepa	ethod: ed: aration:	S 80 200 200	)21B 8-01-25 8-01-24		Prep Metho Analyzed B Prepared B	od: S 5035 by: DC y: DC
				$\mathbf{RL}$						
Parameter	I	Flag		Result			Units	Di	lution	$\mathbf{RL}$
Benzene				< 0.0100			mg/Kg		1	0.0100
Toluene				< 0.0100			mg/Kg		1	0.0100
Ethylbenzene	•			< 0.0100			mg/Kg		1	0.0100
Xylene				< 0.0100			mg/Kg		1	0.0100
								Spike	Percent	Recovery
Surrogate		]	Flag	Result	Units	i	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)			0.978	mg/Kg	ς	1	1.00	98	70 - 130
4-Bromofluor	obenzene (4-BF	B)		0.958	mg/Ka	S	1	1.00	96	70 - 130

#### Sample: 148917 - S. Cent., E-Wall, 2'

Chloride		<100	mg/Kg	50	2.00
Parameter	Flag	RL Result	Units	Dilution	$\mathbf{RL}$
QC Batch: Prep Batch:	45149 38879	- Date Analyzed: Sample Preparation:	2008-01-30 2008-01-30	Analyzed By: Prepared By:	AR AR
Analysis.	Chloride (Titration)	Analytical Method	SM 4500-Cl B	Prep Method	N/A

#### Sample: 148917 - S. Cent., E-Wall, 2'

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	45062	Date Analyzed:	2008-01-25	Analyzed By:	$\mathbf{L}\mathbf{D}$
Prep Batch:	38763	Sample Preparation:	2008-01-25	Prepared By:	$\mathbf{L}\mathbf{D}$

	anuary 31, 2008 ering		W	ork Order Hadiola G	:: 8012504 athering		Page Nu Le	umber: 5 of 12 a County, NM
Parameter	Flag		RL Result		Units		Dilution	RL
DRO			< 50.0		mg/Kg		1	50.0
						Spike	Percent	Recovery
Surrogate	Flag	Result	$\mathbf{Units}$	Dilut	tion	Amount	Recovery	Limits
n-Triacontane		127	mg/Kg	1		100	127	39.1 - 137.7
Sample: 1489	17 - S. Cent.,I	-Wall, 2'						
- Analweie: T	PH CRO	·	Analytical N	lethod.	S 8015B		Prop Mor	thad \$ 5025
OC Batch 4	5111		Date Analyz	red.	2008-01-2	5		$LB_{X'} DC$
Prep Batch: 3	8739		Sample Prer	paration:	2008-01-2	4	Prepared	$B_{\mathbf{X}}$ DC
i tep Datai. 0	0100		bampie i rep	aranon.	2000-01-2	T	Tiepared	. by. DO
			$\mathbf{RL}$					
Parameter	Flag		Result		Units		Dilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilutio	n Amoun	t Recovery	Limits
Trifluorotoluene	e (TFT)		0.857	mg/Kg	1	1.00	86	70 - 130
4-Bromofluorob	enzene (4-BFB)		0.870	mg/Kg	1	1.00	87	70 - 130
Method Bland QC Batch: 4 Prep Batch: 3	k (1) QC B 5062 8763	atch: 45062	Date Analy QC Prepara	zed: 20 ation: 20	008-01-25 008-01-25		Analy Prepa	zed By: LD red By: LD
Method Bland QC Batch: 4 Prep Batch: 3	k (1) QC B 5062 8763	atch: 45062	Date Analy QC Prepara	zed: 20 ation: 20 MDL	008-01-25 008-01-25		Analy Prepa	zed By: LD red By: LD
Method Bland QC Batch: 4. Prep Batch: 3. Parameter	k (1) QC B 5062 8763	atch: 45062 Flag	Date Analy QC Prepara	zed: 20 ation: 20 MDL Result	008-01-25 008-01-25	U	Analy Prepa nits	zed By: LD red By: LD RL
Method Bland QC Batch: 4 Prep Batch: 3 Parameter DRO	k (1) QC B 5062 8763	atch: 45062 Flag	Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3	008-01-25 008-01-25	U me	Analy Prepa nits 5/Kg	zed By: LD red By: LD RL 50
Method Bland QC Batch: 4 Prep Batch: 3 Parameter DRO	k (1) QC B 5062 8763	atch: 45062 Flag	Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3	008-01-25 008-01-25	U mg Spike	Analy Prepa nits 5/Kg Percent	zed By: LD red By: LD RL 50 Recovery
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate	k (1) QC B 5062 8763 Flag	Flag Result	Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut	008-01-25 008-01-25	U mg Spike Amount	Analy Prepa nits 5/Kg Percent Recovery	zed By: LD red By: LD <u>RL</u> 50 Recovery Limits
Method Bland QC Batch: 4 Prep Batch: 3 Parameter DRO Surrogate n-Triacontane	k (1) QC B 5062 8763 Flag	Flag Result 120	Date Analy QC Prepara Units mg/Kg	zed: 20 ation: 20 MDL Result 18.3 Dilut	008-01-25 008-01-25	U mg Spike Amount 100	Analy Prepa nits 5/Kg Percent Recovery 120	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate n-Triacontane Method Bland	k (1) QC B 5062 8763 Flag k (1) QC B	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg	zed: 20 ation: 20 MDL Result 18.3 Dilut	008-01-25 008-01-25	U mg Spike Amount 100	Analy Prepa nits 5/Kg Percent Recovery 120	zed By: LD red By: LD <u>RL</u> 50 Recovery Limits 33.3 - 157.4
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate n-Triacontane Method Bland	k (1) QC B 5062 8763 Flag k (1) QC B	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg	zed: 20 ation: 20 MDL Result 18.3 Dilut	008-01-25 008-01-25	U mg Spike Amount 100	Analy Prepa nits t/Kg Percent Recovery 120	zed By: LD red By: LD <u>RL</u> 50 Recovery Limits 33.3 - 157.4
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4.	k (1) QC B 5062 8763 Flag k (1) QC B 5105	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg Date Analy	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 zed: 20	008-01-25 008-01-25 008-01-25	U mg Spike Amount 100	Analy Prepa nits 5/Kg Percent Recovery 120 Analy	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4 zed By: DC
Method Bland QC Batch: 4 Prep Batch: 3 Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4 Prep Batch: 3	k (1) QC B 5062 8763 Flag k (1) QC B 5105 8739	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 2 zed: 20 ation: 20	008-01-25 008-01-25 ion 008-01-25 008-01-24	U mg Spike Amount 100	Analy Prepa s/Kg Percent Recovery 120 Analy Prepa	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4 zed By: DC red By: DC
Method Bland QC Batch: 4. Prep Batch: 3 Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4. Prep Batch: 3	k (1) QC B 5062 8763 Flag k (1) QC B 5105 8739	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 zed: 20 ation: 20 ME	008-01-25 008-01-25 008-01-25 008-01-25 008-01-24	U mg Spike Amount 100	Analy Prepa nits c/Kg Percent Recovery 120 Analy Prepa	zed By: LD red By: LD <u>RL</u> 50 Recovery Limits 33.3 - 157.4 zed By: DC red By: DC
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4. Prep Batch: 3. Parameter	k (1) QC B 5062 8763 Flag k (1) QC B 5105 8739	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 zed: 20 ation: 20 MI Resu	008-01-25 008-01-25 ion 008-01-25 008-01-24 0L	U mg Spike Amount 100	Analy Prepa nits s/Kg Percent Recovery 120 Analy Prepa	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4 zed By: DC red By: DC RL
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4. Prep Batch: 3. Parameter Benzene	k (1) QC B 5062 8763 Flag k (1) QC B 5105 8739	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 zed: 20 ation: 20 ME Result <0.0033	008-01-25 008-01-25 008-01-25 008-01-25 008-01-24 0L 01 00	U mg Spike Amount 100 t m	Analy Prepa nits 5/Kg Percent Recovery 120 Analy Prepa Jnits g/Kg	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4 zed By: DC red By: DC RL 0.01
Method Bland QC Batch: 4. Prep Batch: 3. Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4. Prep Batch: 3. Parameter Benzene Toluene	k (1) QC B 5062 8763 Flag k (1) QC B 5105 8739	Flag Result 120 atch: 45105	Date Analy QC Prepara Units mg/Kg Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 2 2 2 2 ation: 20 ME Result <0.003 <0.003 <0.003	008-01-25 008-01-25 008-01-25 008-01-25 008-01-24 0L 00 00	U mg Spike Amount 100 U n m	Analy Prepa nits 5/Kg Percent Recovery 120 Analy Prepa Jnits g/Kg g/Kg	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4 zed By: DC red By: DC RL 0.01 0.01
Method Bland QC Batch: 4. Prep Batch: 3: Parameter DRO Surrogate n-Triacontane Method Bland QC Batch: 4. Prep Batch: 3: Parameter Benzene Toluene Ethylbenzene Xylene	k (1) QC B 5062 8763 Flag k (1) QC B 5105 8739	Flag Result 120 atch: 45105 Flag	Date Analy QC Prepara Units mg/Kg Date Analy QC Prepara	zed: 20 ation: 20 MDL Result 18.3 Dilut 1 2 2 2 2 ation: 20 ME Resu <0.003 <0.004 <0.01	008-01-25 008-01-25 008-01-25 008-01-25 008-01-24 0L 01 00 00 00	U mg Spike Amount 100 U m m m	Analy Prepa nits s/Kg Percent Recovery 120 Analy Prepa Jnits g/Kg g/Kg g/Kg	zed By: LD red By: LD RL 50 Recovery Limits 33.3 - 157.4 zed By: DC red By: DC RL 0.01 0.01 0.01

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Surrogate	Flag	- nesuit	Units	3	Dilution	Amount	Recovery	Limits
A Bromofluorobongono	) (A BFB)	0.962	mg/K	.g .a	1	1.00	90	70 - 130
4-Bromondorobenzene	(4-DFD)	0.900	mg/K	-g	<b>L</b>	1.00	90	10 - 130
Method Blank (1)	QC Batch: 45111							
QC Batch: 45111		Date Ana	lyzed:	2008-0	1-25		Analyz	ed By: DC
Prep Batch: 38739		QC Prepa	aration:	2008-0	1-24		Prepar	ed By: DC
				ν <b>τ</b>				
Demomenton	Flog		ML Rogi	)L ,1+		Unita		τσ
GRO	Flag		0.6	111 28		mg/Kg		<u>1</u>
0110			0.0	20				L
						Spike	Percent	Recovery
Surrogate	Flag	Result	Units	<b>3</b> ]	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT	)	0.966	mg/K	g	1	1.00	97	70 - 130
4-Bromofluorobenzene	(4-BFB)	0.954	mg/K	g		1.00	95	70 - 130
Method Blank (1)	QC Batch: 45138							
QC Batch: 45138		Date Ana	lyzed:	2008-0	1-30		Analyz	ed By: AR
Prep Batch: 38869		QC Prepa	aration:	2008-0	1-29		Prepar	ed By: AR
			MI	DL				
Parameter	$\mathbf{Flag}$		Res	ult		Units		$\mathbf{RL}$
Chloride			< 0.5	00		mg/Kg		2
Method Blank (1)	QC Batch: 45149							
QC Batch: 45149		Date Ana	lyzed:	2008-0	1-30		Analyz	ed By: AR
Prep Batch: 38879		QC Prepa	aration:	2008-0	1-30		Prepar	ed By: AR
			10	<b>.</b>				
Demonster	Flog		MI Ros	)L		Unita		DT
Chloride	<b>F</b> lag					mg/Kg		<u></u>
						mg/1xg		
Laboratory Control	Spike (LCS-1)							
QC Batch: 45062		Date Ana	lyzed:	2008-0	1-25		Analyz	ed By: LD
Prep Batch: 38763		QC Prepa	aration:	2008-0	1-25		Prepar	ed By: LD
						*	-	
	τc	19			Spiles	Motnin		Rec
Param	Res	ու ult Մո	nits	Dil	Amount	Result	Rec	nec. Limit
DRO	24	4 mg	Kg	1	250	<14.6	98	48.1 - 140.9

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

Param DRO Percent recovery is based on the s LCS Surrogate Result n-Triacontane 111	LCSD Result 260 spike result. LCSD Result	Units mg/Kg RPD is	Dil. 1 based or	Spike Amount 250	Matrix Result	Rec.	Rec.			RPD
Percent recovery is based on the s LCS Surrogate Result n-Triacontane 111	z60 spike result. LCSD Result	mg/Kg RPD is	based or	250	.110	104	Limit	$\frac{1}{10.0}$	PD	Limit
Percent recovery is based on the s LCS Surrogate Result n-Triacontane 111	spike result. LCSD Result	RPD is	based or		<14.6	104	48.1 - 14	10.9	6	20
LCS Surrogate Result n-Triacontane 111	LCSD Result			n the spike	and spike o	luplicate	result.			
Surrogate Result n-Triacontane 111	Result				Spike	LCS	LC	SD		Rec.
n-Triacontane 111		τ	Jnits	Dil.	Amount	Rec.	R	ec.	]	Limit
	118	m	g/Kg	1	100	111	1	18	42.1	- 138.9
Laboratory Control Spike (L	CS-1)									
OC Potob. 45105		Data A	nalwood.	2002 01	95			Analwa		
QC Batch: 45105 Drop Botch: 28720		Date A	nalyzed:	2008-01	-20 94		(	Analyz	a by	r = DC
Prep Datch: 30739		QUIR	eparation	1: 2008-01	-24		ι.	Prepare	ia by	: DC
	$\mathbf{LC}$	S			Spike	Ma	trix			Rec.
Param	Resu	ılt	Units	Dil.	Amount	Re	sult	Rec.		Limit
Benzene	1.0	1 :	mg/Kg	1	1.00	<0.0	00300	101		70 - 130
Toluene	0.98	<b>39</b> :	mg/Kg	1	1.00	<0.0	00300	99		70 - 130
Ethylbenzene	0.96	<b>37</b> :	mg/Kg	1	1.00	<0.0	0400	97		70 - 130
Xylene	2.9	2 :	mg/Kg	1	3.00	<0.	0140	97		70 - 130
Percent recovery is based on the s	spike result.	RPD is	based or	ı the spike	and spike o	luplicate	result.			
	T COD			0-:1-s	Matula		р.	_		חחח
Porom	Begult	Unite	Dil	Amount	Regult	: Rec	Re Lir	C. vit R	חפ	RPD Limit
	<u> </u>	mg/Ko	<u></u>	1.00		100	70 -	130	1	
Toluene	0.980	mg/Ke	, 1	1.00	<0.0000	0 100	70 -	130	1	
Ethylbenzene	0.963	mg/Ke	r 1	1.00		0 06	70 -	130	ñ	
Xvlene	2.89	mg/Kg	, 1	3.00	< 0.014	0 96	70 -	130	1	
Percent recovery is based on the s	spike result.	RPD is	based or	the spike	and spike o	luplicate	result.			
	$\mathbf{LC}$	S L	CSD			Spike	LCS	LCSD		Rec.
Surrogate	Resu	ılt R	esult	Units	Dil. A	mount	Rec.	Rec.		Limit
Trifluorotoluene (TFT)	0.98	39 0	.981	mg/Kg	1	1.00	99	98		70 - 130
4-Bromofluorobenzene (4-BFB)	0.97	72 0	.963	mg/Kg	1	1.00	97	96		70 - 130
Laboratory Control Spike (L4	CS-1)									
QC Batch: 45111		Date A	nalyzed:	2008-01	-25			Analyz	ed B	y: DC
Prep Batch: 38739		QC Pre	eparation	: 2008-01	-24			Prepare	ed By	r: DC
	τc	IQ.			Calles	٦.	trise			Dee
Param	Ree	າວ nlt	Unite	וים	a pike		aurix milt	Roc		nec. Limit
GRO	8.2	8	mg/Kg	1	10.0	<0	.0118	83		70 - 130
Percent recovery is based on the s	spike result.	RPD is	based or	n the spike	and spike of	luplicate	result.			
				C-il-c	Matei		D-	-		חחם
Param	Benilt	Unita	Бil	аріке Аторт	Popula	Doo	ке т;	с. 	pη	КРД Т ;:-
	8 11	mg/V	<u>, DII,</u> r 1	10 0		Q Q1	70	130 R	<u>י ה זי</u>	JIMIL
		- mg/ 12	<u>5                                    </u>	10.0		0 01	- 10 -	190	4	

Gladiola Gathering		V	Vork Or Gladiola	der: 8012 a Gatherin	504 1g				Page	Number Lea Cou	r: 8 of 12 1nty, NM
Surrogate	LCS Result	LCS Resu	D llt [	Units	Dil.	Spike Amou	e nt	LCS Rec.	LC R	CSD .ec.	Rec. Limit
Trifluorotoluene (TFT)	1.00	1.00	D m	ng/Kg	1	1.00		100	1	00	70 - 130
4-Bromofluorobenzene (4-BFB)	0.977	0.98	57 m	ig/Kg	1	1.00		98		99	70 - 130
Laboratory Control Spike (L0	CS-1)										
QC Batch: 45138	Γ	Date Anal	lyzed:	2008-01-3	30				Ana	lyzed B	y: AR
Prep Batch: 38869	ር	QC Prepa	ration:	2008-01-2	29				Pre	pared B	y: AR
	LCS				Spil	æ	Mat	trix			Rec.
Param	Result	t U	Inits	Dil.	Amou	int	Res	ult	Re	ec.	Limit
Chloride	100	mį	g/Kg	1	100	)	<0.	500	10	00	85 - 115
Percent recovery is based on the s	spike result. R	PD is ba	sed on t	he spike a	und spike	e dupli	cate re	sult.			
	LCSD			Spike	Mati	rix		Re	ec.		RPD
Param	Result	Units	Dil.	Amount	Resu		Rec.	Lir	nit	RPD	Limit
Chloride	101	mg/Kg	1	100	<0.5	00	101	85 -	115	1	20
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879	CS-1) [	Date Anal DC Prepa	lyzed:	2008-01-3 2008-01-3	30 30				Ana Pre	lyzed B pared B	y: AR v: AR
Laboratory Control Spike (LO QC Batch: 45149 ~ Prep Batch: 38879	CS-1) I C	)ate Anal )C Prepa	lyzed: ration:	2008-01-; 2008-01-;	30 30 Spil		Ма		Ana Prej	lyzed B pared B	y: AR y: AR
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param	CS-1) I C LCS Besult	Date Anal QC Prepa	lyzed: ration: Inits	2008-01-; 2008-01-;	30 30 Spił	æ	Mat	trix	Ana Prej Ba	llyzed B pared B	y: AR y: AR Rec. Limit
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride	CS-1)	Date Anal QC Prepa t U	lyzed: ration: Jnits	2008-01-; 2008-01-; Dil.	30 30 Spik Amot	æ int	Mat Res	trix sult	Ana Pre Re	llyzed B pared B ec.	y: AR y: AR Rec. Limit 85 - 11!
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the s	CS-1) LCS Result 96.5 spike result. R	Date Anal QC Prepa t U TPD is ba	lyzed: ration: Jnits g/Kg sed on t	2008-01-3 2008-01-3 Dil. 1 the spike a	30 30 Amou 100 und spike	æ int e dupli	Mat Res <0. cate re	trix sult 500 esult.	Ana Pre Re	lyzed B pared B ec. 6	y: AR y: AR Rec. Limit 85 - 11!
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the s	CS-1) LCS Result 96.5 pike result. R LCSD	Date Anal )C Prepa t U  LPD is ba	lyzed: ration: Jnits g/Kg sed on t	2008-01-3 2008-01-3 Dil. 1 .he spike a Spike	30 30 Spil Amor 100 und spike	te int e dupli	Mat Res <0. cate re	trix sult 500 esult. Re	Ana Prej Re 9	lyzed B pared B ec. 6	y: AR y: AR Rec. Limit 85 - 11:
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the s Param	CS-1) I CS-1) LCS Result 96.5 spike result. R LCSD Result	Date Anal C Prepa t U PD is ba Units	lyzed: ration: Jnits g/Kg sed on t Dil.	2008-01-3 2008-01-3 Dil. 1 the spike a Spike Amount	30 30 Amou 100 and spike Matr Resu	æ int ) e dupli ix ilt	Mat Res <0. cate re Rec.	trix sult 500 esult. Ra Lir	Ana Pre Ra 9 ec. mit	lyzed B pared B ec. 6 RPD	y: AR y: AR Rec. Limit 85 - 115 RPD Limit
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the s Param Chloride	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4	Date Anal QC Prepa t U LPD is ba Units mg/Kg	lyzed: ration: Jnits g/Kg sed on t Dil. 1	2008-01- 2008-01- Dil. 1 he spike a Spike Amount 100	30 30 Amou 100 and spike Mata Resu <0.5	æ int e dupli ix ilt 00	Mat Res <0. cate re Rec. 97	trix sult 500 esult. Ra Lir 85 -	Ana Pre Ra 9 ec. mit 115	lyzed B pared B ec. 6 RPD 1	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the s Param Chloride Percent recovery is based on the s	CS-1) I LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba	lyzed: ration: Jnits g/Kg sed on t Dil. 1 ised on t	2008-01-3 2008-01-3 Dil. 1 he spike a Spike Amount 100 he spike a	30 30 Mato Mato Resu <0.5 und spike	ae int dupli ix ilt 00 e dupli	Mat Res <0. cate re Rec. 97 cate re	trix sult 500 esult. Ra Lir 85 - esult.	Ana Prej Re 9 ec. mit 115	lyzed B pared B ec. 6 1	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param         Chloride         Percent recovery is based on the second of	CS-1) I LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R i Sample: 148	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t	2008-01-3 2008-01-3 Dil. 1 he spike a Spike Amount 100 he spike a	30 30 Amou 100 and spike Mata Resu <0.5 and spike	e int dupli ix it 00 e dupli	Mat Res <0. cate re <u>97</u> cate re	trix 500 esult. Ra Lir 85 - esult.	Ana Prej Ra 9 ec. mit 115	lyzed B pared B ec. 6 RPD 1	y: AR y: AR Rec. Limit 85 - 11: RPD Limit 20
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R 1 Sample: 1486 I	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba 890 Date Anal	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t	2008-01-3 2008-01-3 Dil. 1 he spike a Spike Amount 100 he spike a 2008-01-3	30 30 Mata Resu <0.5 and spike	e mt dupli ix ilt 00 dupli	Mat Res <0. cate re Rec. 97 cate re	trix sult 500 esult. Ra Lir 85 -	Ana Prej Re 9 ec. nit 115	alyzed B pared B ec. 6 <u>RPD</u> 1	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param         Chloride         Percent recovery is based on the second of	CS-1) I LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 148 I C	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: aration:	2008-01-3 2008-01-3 Dil. 1 he spike a Spike Amount 100 he spike a 2008-01-3	30 30 Spil Amou 100 and spike Mata Resu <0.5 and spike 25 25	e int e dupli fix ilt 00 e dupli	Mat Res <0. cate re 97 cate re	trix 500 esult. Ra Lir 85 - esult.	Ana Prej Ra 9 ec. mit 115 Ana Pre	lyzed B pared B ec. 6 <u>RPD</u> 1 alyzed E pared B	y: AR y: AR Rec. Limit 85 - 11: RPD Limit 20 By: LD
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 1484 C MS	Date Anal QC Prepa t U TPD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: tration:	2008-01-3 2008-01-3 Dil. 1 Spike a Spike Amount 100 he spike a 2008-01-3	30 30 Spil Amou 100 und spike <0.5 und spike 25 25 Spike	e int dupli ix ilt 00 dupli	Mat Res <0. cate re 97 cate re	trix sult 500 esult. Ra Lin 85 - esult.	Ana Prej Ra 9 ec. nit 115 Ana Pre	alyzed B pared B ec. 6 RPD 1 alyzed E pared E	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20 By: LD by: LD Rec.
Laboratory Control Spike (LO QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the s Param Chloride Percent recovery is based on the s Matrix Spike (MS-1) Spikes QC Batch: 45062 Prep Batch: 38763	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 148 C MS Result	Date Anal QC Prepa t U TPD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa Un	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: aration:	2008-01-3 2008-01-3 Dil. 1 spike a Spike Amount 100 he spike a 2008-01-3 2008-01-3	30 30 Spik Amou 100 und spike <0.5 und spike 25 25 Spike Amoun	te int dupli tix dupli dupli	Mat Res <0. cate re 97 cate re Matrin Result	trix sult 500 esult. Re Lin 85 - esult.	Ana Prej Re 9 ec. mit 115 Ana Pre Rec.	alyzed B pared B ec. 6 RPD 1 alyzed E pared B	y: AR y: AR Rec. Limit 85 - 119 Limit 20 By: LD by: LD vy: LD Rec. Limit
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 148 I MS Result 305 1	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa Un mg/	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: ration: its	2008-01-3 2008-01-3 Dil. 1 he spike a Spike Amount 100 he spike a 2008-01-3 2008-01-3 2008-01-3	30 30 Spil Amou 100 and spike Matz Resu <0.5 and spike 25 25 25 25 25	te int dupli ix lt 00 e dupli	Matrin Rec. 97 cate re Matrin Result 70	trix sult 500 esult. Ra Lin 85 - esult.	Ana Pre 9 ec. mit 115 Ana Pre Rec. 94	alyzed B pared B ec. 6 RPD 1 alyzed E pared B 35.	y: AR y: AR <u>Limit</u> <u>85 - 11</u> <u>85 - 11</u> <u>85 - 11</u> <u>10</u> <u>89 : LD</u> <u>10</u> <u>10</u> <u>10</u> <u>10</u> <u>10</u> <u>10</u> <u>10</u> <u>10</u>
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 148 MS Result 305 spike result. R	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa Un mg/ PD is ba	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: aration: its /Kg sed on t	2008-01-3 2008-01-3 Dil. 1 spike a Spike a Amount 100 she spike a 2008-01-3 2008-00-3 2008-000-000-000-000-000-000-000-000-000	30 30 30 30 30 30 30 30 30 4 30 4 30 4	te int dupli tix dupli e dupli e dupli	Mat Res <0. cate re 97 cate re Matrin Result 70 cate re	trix sult 500 esult. Re Lin 85 - esult.	Ana Prej Rec. mit 115 Ana Pre Rec. 94	alyzed B pared B ec. 6 RPD 1 alyzed E pared B 35.	y: AR y: AR Rec. Limit 85 - 11: RPD Limit 20 By: LD by: LD Rec. Limit 6 - 173.6
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 148 I MS ms pike result. R MSD	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa Un mg/ PD is ba	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: aration: its /Kg sed on t	2008-01-3 2008-01-3 Dil. 1 she spike a Spike Amount 100 she spike a 2008-01-3 2008-000-000-000-000-000-000-0000-000-00	30 30 30 Matri Resu <0.5 and spike 25 25 Spike Amoun 250 and spike Matrix	te int dupli tix dupli e dupli t t	Mat Res <0. cate re 97 cate re Matrin Result 70 cate re	trix sult 500 esult. Re Lin 85 - esult.	Ana Prej Rec. mit 115 Ana Pre Rec. 94	alyzed B pared B ec. 6 RPD 1 alyzed E pared B 35.	y: AR y: AR Rec. Limit 85 - 115 RPD Limit 20 By: LD By: LD Rec. Limit 6 - 173.6
Laboratory Control Spike (LO         QC Batch:       45149         Prep Batch:       38879         Param	CS-1) LCS Result 96.5 spike result. R LCSD Result 97.4 spike result. R d Sample: 148 I MS Result 305 spike result. R MSD Result	Date Anal QC Prepa t U PD is ba Units mg/Kg PD is ba 890 Date Anal QC Prepa Un mg/ PD is ba	lyzed: ration: Jnits g/Kg sed on t Dil. 1 sed on t lyzed: ration: its /Kg sed on t	2008-01-3 2008-01-3 Dil. 1 spike a Spike Amount 100 she spike a 2008-01-3 2008-00-01-3 2008-00-000-000-000-000-000-000-000-0000-000-000-000-000-00	30 30 Spil Amou 100 und spike Matrix 25 25 Spike Amoun 250 und spike Amoun 250 und spike Amoun 250 Matrix Result	t rix dupli rix du dupli dupli t t Re	Mat Res <0. cate re 97 cate re Cate re 70 cate re c.	trix sult 500 esult. Ra Esult. esult.	Ana Pre 9 ec. mit 115 Ana Pre <u>Rec.</u> 94	alyzed B pared B ec. 6 RPD 1 alyzed E pared B 35. RPD	y: AF y: AF Rec. Limit 85 - 11 Lim 20 By: LI by: LI Rec. Limit 6 - 173 RPI Lim

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

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Report Date: January 31 Gladiola Gathering	, 2008	·····		Work ( Gladie	Order: 8012 ola Gatheri	504 ng				Page I	Numbe Lea Cor	r: 9 of 12 unty, NM
Surrogate	MS Result	MSI Resul	) lt	Units .	Dil.	Spik Amou	æ int	MS Rec		MSD Rec.		Rec. Limit
n-Triacontane	142	118		mg/Kg	1	100	)	142		118	3	3 - 156.2
Matrix Spike (MS-1)	Spiked	Sample: 1	48774									
QC Batch: 45105			Date 4	Analvzed:	2008-01-	25				Ana	vzed B	v: DC
Prep Batch: 38739			QC P	reparation	: 2008-01-	-24				Prep	ared B	y: DC
		M	S			Spike	e	Mat	rix			Rec
Param		Res	ult	Units	Dil.	Amou	nt	Res	ult	Re	c.	Limit
Benzene		1.1	0	mg/Kg	1	1.00	)	< 0.00	0300		0	70 - 130
Toluene		1.0	9	mg/Kg	1	1.00	1	<0.00	0300	10	9	70 - 130
Ethylbenzene		1.1	0	mg/Kg	1	1.00	)	<0.0	0400	11	0	70 - 130
Xylene		3.3	2	mg/Kg	1	3.00	)	<0.0	140	11	1	70 - 130
Percent recovery is based	on the sp	ike result.	RPD i	s based or	the spike a	and spik	æ dup	licate r	esult.			
		MSD	TT : 4.	- 121	Spike	Mat	rix	<b>D</b>	R	ec.	חחח	RPD
Param		Result	Unit	$\frac{3}{2}$ Dil.	Amount	Kes	ult	Rec.		mit 100	RPD	Limi
Benzene	2	1.40	mg/K	.g I 	1.00		2300	140	70 -	- 130	28	
Loluene Ethylhongono	3	1.40	mg/K	.g I `~ 1	1.00		J300 J400	140	70 -	120	29	
Ethylbenzene Yylono	4	1.40	mg/K	.g 1 `a 1	2.00		1400	140	70 - 70	130	29	
Percent recovery is based	on the sp	ike result.	RPD i	s based or	n the spike a	and spik	e dup	licate r	esult.			
		м	s	MSD			Sp	ike	MS	М	SD	Rec.
Surrogate		Res	ult	$\mathbf{Result}$	Units	Dil.	Amo	ount	Rec.	$\mathbf{R}$	ec.	Limit
Trifluorotoluene (TFT)		0.9	78	0.985	mg/Kg	1		1	98	ç	8	70 - 130
4-Bromofluorobenzene (4-	BFB)	0.9	59	0.972	mg/Kg	1		1	96	ç	7	70 - 130
Matrix Spike (MS-1) QC Batch: 45111 Prep Batch: 38739	Spiked	Sample: 1	48774 Date J QC Pi	Analyzed: reparation	2008-01- 1: 2008-01-	25 24			,	Anal Prep	yzed B ared B	y: DC y: DC
5		М	S	** •.	5.1	Spil	œ	Mat	trix	~		Rec.
Param		Res	ult	Units	Dil	Amou	unt	Res	ult	Re	c.	Limit
GRO		, 14	.4	mg/Kg		10.0	0	<0.0	)118	14	4	70 - 130
Percent recovery is based	on the sp	ike result.	RPD i	s based or	n the spike a	and spik	æ dup	licate r	esult.			
		MSD			Spike	Mat	rix		R	ec.		RPD
Param		$\mathbf{Result}$	$\mathbf{Unit}$	s Dil.	Amount	Res	ult	Rec.	$\operatorname{Li}$	$\mathbf{mit}$	RPD	Limit
GRO	6	8.95	mg/k	Kg 1	10.0	<0.0	118	90	70 -	130	47	
Percent recovery is based	on the sp	ike result.	RPD i	s based or	n the spike a	and spik	e dup	licate r	esult.			
<sup>1</sup> Matrix spike recovery out <sup>2</sup> Matrix spike recovery out <sup>3</sup> Matrix spike recovery out	of control 1 of control 1 of control 1	imits due to imits due to imits due to	extracti extracti extracti	on process. on process. on process.	Use LCS/LC Use LCS/LC Use LCS/LC	SD to de SD to de SD to de	monstr monstr monstr	ate anal ate anal ate anal	ysis is 1 ysis is 1 ysis is 1	under co under co under co	ntrol. ontrol. ontrol.	

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<sup>4</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control. <sup>5</sup>Matrix spike recovery out of control limits due to extraction process. Use LCS/LCSD to demonstrate analysis is under control. <sup>6</sup>MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

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Report Date: January 31, 2008 Gladiola Gathering		Work Glad	Order: 8012 liola Gatheriu	504 ng		Pa	age Numb Lea (	er: 10 of 1 County, NN
Surrogate	${ m MS} { m Result}$	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.870	0.910	mg/Kg	1	1	87	91	70 - 130
4-Bromofluorobenzene (4-BFB)	1.01	0.981	mg/Kg	1	1	101	98	70 - 130
Matrix Spike (MS-1) Spiked	Sample: 1490	92						
QC Batch: 45138 Prep Batch: 38869	D. Q	ate Analyze C Preparati	d: 2008-01- on: 2008-01-	-30 -29			Analyzed Prepared	By: AR By: AR
	MS	·		Spik	e Ma	atrix		Rec.
Param	$\mathbf{Result}$	Units	Dil.	Amou	int Re	esult	Rec.	Limit
Chloride	8680	mg/K	g 50	500	) <u>36</u> 1	12.01	101	85 - 115
Percent recovery is based on the sp	oike result. RI	PD is based	on the spike	and spike	e duplicate :	result.		
<b>D</b>	MSD		Spike	Mati	rix	Rec		RPD
Param	Kesult	Units Di	I. Amount	Kesu	IIT Rec.		It RP.	U Limit
	8720 n	ig/ng 5	<u> </u>	3012	.01 102	69 - 1	0	20
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879	Sample: 1491 D Q	25 ate Analyze C Preparati	d: 2008-01- on: 2008-01-	-30 -30			Analyzed Prepared	By: AR By: AR
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879	Sample: 1491 D Q MS	25 ate Analyze C Preparati	d: 2008-01- on: 2008-01-	-30 -30 Spil	ke Ma	atrix	Analyzed Prepared	By: AR By: AR Rec.
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param	Sample: 1491 D Q MS Result	25 ate Analyze C Preparati Units	d: 2008-01- on: 2008-01- Dil.	-30 -30 Spil Amou	ke Ma unt Re	atrix esult	Analyzed Prepared Rec.	By: AR By: AR Rec. Limit
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp	Sample: 1491 D Q MS Result 8890 Dike result. RI	25 ate Analyze C Preparati Units mg/K PD is based	d: 2008-01- on: 2008-01- Dil. g 50 on the spike	-30 -30 Spil Amor 500 and spike	te Ma unt Re 0 38 e duplicate :	atrix esult 667.4 result.	Analyzed Prepared Rec. 100	By: AR By: AR Rec. Limit 85 - 11
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD	25 ate Analyze C Preparati Units <u>mg/K</u> PD is based	d: 2008-01- on: 2008-01- <u></u>	-30 -30 Amou 500 and spike	te Ma unt Re 0 38 e duplicate : rix	atrix esult 667.4 result. Rec	Analyzed Prepared Rec. 100	By: AR By: AR Rec. Limit 85 - 111
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp Param	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result	25 ate Analyze C Preparati Units <u>mg/K</u> PD is based Units D	d: 2008-01- on: 2008-01- g 50 on the spike Spike il. Amount	-30 -30 Amou 500 and spike Matu t Resu	te Ma unt Re 0 38 e duplicate : rix ult Rec.	atrix esult 667.4 result. Rec Lim	Analyzed Prepared Rec. 100	By: AR By: AR Rec. Limit 85 - 111 RPE D Limi
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp Param Chloride	Sample: 1491 D. Q MS Result 8890 Dike result. RI MSD Result 8940 n	25 ate Analyze C Preparati Units PD is based Units D ng/Kg 5	d: 2008-01- on: 2008-01- g 50 on the spike Spike il. Amount 0 5000	-30 -30 Spil Amou 500 and spike Matu t Resu 3867	ke Ma unt Re 0 38 e duplicate s rix ult Rec. 7.4 101	atrix esult 67.4 result. Rec Lim 85 - 1	Analyzed Prepared Rec. 100	By: AR By: AR Rec. Limit 85 - 11 RPI D Limi 20
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp Param Chloride Percent recovery is based on the sp	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 n Dike result. RI	25 ate Analyze C Preparati Units mg/K PD is based Units D ng/Kg 5 PD is based	d: 2008-01- on: 2008-01- g <u>50</u> on the spike Spike il. Amount 0 <u>5000</u> on the spike	-30 -30 Spil Amou 500 and spike Matu t Resu 3867 and spike	te Ma unt Re 0 38 e duplicate : rix ult Rec. 7.4 101 e duplicate :	atrix esult 67.4 result. Rec Lim 85 - 1 result.	Analyzed Prepared Rec. 100	By: AR By: AR Rec. Limit 85 - 11: RPD D Limi 20
Matrix Spike (MS-1)       Spiked         QC Batch:       45149         Prep Batch:       38879         Param	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 n Dike result. RI	25 ate Analyze C Preparati Units mg/K PD is based Units D ng/Kg 5 PD is based	d: 2008-01- on: 2008-01- g <u>50</u> on the spike Spike il. Amount 0 <u>5000</u> on the spike	-30 -30 Spil Amou 500 and spike Matu t Resu 3867 and spike	te Ma unt Re 0 38 e duplicate : rix ult Rec. 7.4 101 e duplicate :	atrix esult 367.4 result. Rec Lim 85 - 1 result.	Analyzed Prepared Rec. 100 :. it RP 15 1	By: AR By: AR Rec. Limit 85 - 111 RPD D Limi 20
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp Param Chloride Percent recovery is based on the sp Standard (CCV-1) QC Batch: 45062	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 m Dike result. RI	25 ate Analyze C Preparati Units mg/K PD is based Units D ng/Kg 5 PD is based ate Analyze	d: 2008-01- on: 2008-01- g <u>50</u> on the spike il. Amount <u>0 5000</u> on the spike d: 2008-01-2	-30 -30 Spil Amou 500 and spike Matu t Resu 3867 and spike	te Mi unt Re 0 38 e duplicate : rix ult Rec. 7.4 101 e duplicate :	atrix esult 67.4 result. Rec Lim 85 - 1 result.	Analyzed Prepared Rec. 100  it RP 15 1 Analyzed	By: AR By: AR Rec. Limit 85 - 110 RPD D Limi 20
Matrix Spike (MS-1) Spiked QC Batch: 45149 Prep Batch: 38879 Param Chloride Percent recovery is based on the sp Param Chloride Percent recovery is based on the sp Standard (CCV-1) QC Batch: 45062	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 n Dike result. RI	25 ate Analyze C Preparati Units Mg/K PD is based Units D ng/Kg 5 PD is based ate Analyze	d: 2008-01- on: 2008-01- g	-30 -30 Spil Amou 500 and spike Matu t Resu 3867 and spike 25 CCV	s at	atrix esult 67.4 result. Rec Lim 85 - 1 result.	Analyzed Prepared Rec. 100 : : : : : : : : : : : : : : : : : :	By: AR By: AR Rec. Limit 85 - 11: RPD D Limi 20
Matrix Spike (MS-1)       Spiked         QC Batch:       45149         Prep Batch:       38879         Param	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 m Dike result. RI D CC Tr s	25 ate Analyze C Preparati Units mg/K PD is based Units D ng/Kg 5 PD is based ate Analyze Vs ue nc.	d: 2008-01- on: 2008-01- g 50 on the spike Spike il. Amount 0 5000 on the spike d: 2008-01-2 CCVs Found Conc.	-30 -30 Spil Amor 500 and spike Matu t Resu 3867 and spike 25 CCV Percer Recove	s nt	atrix esult 67.4 result. Rec Lim 85 - 1 result. Percent Recover Limits	Analyzed Prepared Rec. 100 it RP 15 1 Analyzed	By: AR By: AR Rec. Limit 85 - 110 D Limi 20
Matrix Spike (MS-1)       Spiked         QC Batch:       45149         Prep Batch:       38879         Param	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 m Dike result. RI D CC Tr s Co tg 25	25 ate Analyze C Preparati Units mg/K PD is based Units D ng/Kg 5 PD is based ate Analyze Vs ue nc. 50	d: 2008-01- on: 2008-01- g 50 on the spike J. Amound 0 5000 on the spike d: 2008-01-2 CCVs Found Conc. 222	-30 -30 Spil Amou 500 and spike Matu t Resu 3867 and spike 25 CCV Perces Recove 89	s nt erry	atrix esult 67.4 result. Rec Lim result. Percent Recover Limits 85 - 11	Analyzed Prepared Rec. 100  it RP 15 1 Analyzed y	By: AR By: AR Rec. Limit 85 - 111 RPD D Limi 20
Matrix Spike (MS-1)       Spiked         QC Batch:       45149         Prep Batch:       38879         Param       Chloride         Percent recovery is based on the sp         Param         Chloride         Percent recovery is based on the sp         Standard (CCV-1)         QC Batch:       45062         Param       Flag       Units         DRO       mg/K         Standard (CCV-2)       Kandard (CCV-2)	Sample: 1491 D Q MS Result 8890 Dike result. RI MSD Result 8940 n Dike result. RI D CC Tr s Co	25 ate Analyze C Preparati 	d: 2008-01- on: 2008-01- g 50 on the spike Spike il. Amount 0 5000 on the spike d: 2008-01-2 CCVs Found Conc. 222	-30 -30 Spil Amou 500 and spike Matu t Resu 3867 and spike 25 CCV Perces Recove 89	s nt ery	atrix esult 667.4 result. Rec Lim 85 - 1 result. Percent Recover Limits 85 - 115	Analyzed Prepared Rec. 100	By: AR By: AR Rec. Limit 85 - 11 RPI D Limi 20 By: LD Date Analyzed 2008-01-2

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Report Dat Gladiola G	te: January 31 athering	, 2008	W.	ork Order: 801 Hadiola Gather	2504 'ing	Page N I	umber: 11 of 12 ea County, NM
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	234	94	85 - 115	2008-01-25
Standard	(ICV-1)						
QC Batch:	45105		Date Analy	yzed: 2008-01-	-25	Anal	yzed By: DC
			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0995	100	85 - 115	2008-01-25
Toluene		mg/Kg	0.100	0.0975	98	85 - 115	2008-01-25
Ethylbenze	ne	mg/Kg	0.100	0.0952	95	85 - 115	2008-01-25
Xylene	)	mg/Kg	0.300	0.287	96	85 - 115	2008-01-25
Standard QC Batch:	(CCV-1) 45105		Date Anal	yzed: 2008-01-	-25	Anal	yzed By: DC
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	g Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.104	104	85 - 115	2008-01-25
Toluene		mg/Kg	0.100	0.103	103	85 - 115	2008-01-25
Ethylbenze	ne	mg/Kg	0.100	0.0937	94	85 - 115	2008-01-25
Xylene	<u> </u>	mg/Kg	0.300	0.292	97	85 - 115	2008-01-25
Standard	(ICV-1)						
QC Batch:	45111		Date Analy	yzed: 2008-01-	-25	Anal	yzed By: DC
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.02	102	85 - 115	2008-01-25
Standard	(CCV-1)						
QC Batch:	45111		Date Anal	yzed: 2008-01-	-25	Anal	yzed By: DC
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.09	109	85 - 115	2008-01-25
Standard	(ICV-1)						
	-						

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Report Date Gladiola Ga	e: January 31 thering	., 2008	v	Vork Order: 80 Gladiola Gathe	12504 ring	Page N I	umber: 12 of 12 Jea County, NM
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.0	98	85 - 115	2008-01-30
Standard (	CCV-1)						
QC Batch:	45138		Date Ana	lyzed: 2008-01	-30	Anal	yzed By: AR
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2008-01-30
Standard ( QC Batch:	ICV-1) 45149		Date Ana	lyzed: 2008-01	-30	Anal	vzed By: AR
<b>v</b>			ICVa	• ICVa	ICV <sub>2</sub>	Doncont	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2008-01-30
Standard (	CCV-1)						
QC Batch:	45149		Date Ana	lyzed: 2008-01	1-30	Anal	yzed By: AR
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2008-01-30

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nset Rd., Suite E 6015 Harris Pkwy., Suite 110 Texas 79922 Ft. Worth, Texas 76132 51 585-3443 Tel (817) 201-5260 5) 588-3443	(S REQUEST		piebr		1625	08 08	01.85 08 1A \ 6 nt ♪	AS Semi. Y s 8082 / 6 cides 808 . TSS, pH ture Conte Lo C. C		X	×.,	X				Sitil Muddand	/ Welght Basis Required	RP Report Required eck If Special Reporting its Are Needed	
Suita A1 200 East Su 19703 El Past Su 301 Fax (91 5313 Fax (91 5313 1 (888	ANALYS		<u>БН</u> 7.007/80	l 92 d		624 8a Cd	9 608 / 1 24 0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	A gA state Ag A Detals A Setticide Pesticide Setticide								SE REMARK		₽5 ¥ □ □	AM AN
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## Analytical and Quality Control Report

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

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() () Project Location: Lea County, NM Project Name: Gladiola Gathering Project Number: Gladiola Gathering Report Date: February 4, 2008

Work Order: 8013009

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

١			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
149185	S. Cent. E. Wall, 4'	soil	2008-01-29	13:52	2008-01-30
149186	FP-N.W. Wall, 4'	soil	2008-01-29	15:10	2008-01-30
149187	FP-N.E. Wall, 4'	soil	2008-01-29	15:06	2008-01-30
149188	FP-Cent. Floor, 6'	soil	2008-01-29	15:14	2008-01-30
149189	FP-S.W. Wall, 5'	soil	2008-01-29	15:20	2008-01-30
149190	FP-S.E. Wall, 5'	soil	2008-01-29	15:23	2008-01-30
149191	FP-S. Floor, 8'	soil	2008-01-29	15:26	2008-01-30
149192	FP-S. End Wall, 4'	soil	2008-01-29	15:30	2008-01-30

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

Dr. Blair Leftwich, Director

Standard Flags

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

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## **Analytical Report**

Sample: 149103 - 5. Cent. E. Wan,	ampie:	148109	- D.	Cent.	Ŀ.	yyan,	-41
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QC Batch: 45229 Prep Batch: 38890		Analytical Mo Date Analyze Sample Prepa	ethod: ed: aration:	S 8021B 2008-01-3 2008-01-3	1 D		Prep Meth Analyzed I Prepared I	od: S By: I By: I	55035 DC DC
		RI.							
Parameter Flag		Result		Uni	ts	]	Dilution		$\mathbf{RL}$
Benzene		< 0.0100		mg/K	g		1	(	0.0100
Toluene		< 0.0100		mg/K	Χġ		1	(	0.0100
Ethylbenzene		< 0.0100		mg/K	ξġ		1	(	0.0100
Xylene		0.0184		mg/K	ſg		1	(	0.0100
<u> </u>						Spike	Percent	Rec	covery
Surrogate	Flag	$\mathbf{Result}$	Units	Dilut	ion 1	Amount	Recovery	$\operatorname{Li}$	mits
Trifluorotoluene (TFT)		1.03	mg/Kg	1		1.00	103	70	- 130
4-Bromofluorobenzene (4-BFB)		0.990	mg/Kg	1		1.00	99	70	- 130
Sample: 149185 - S. Cent. E. V	Vall, 4'		·						
Analysis: TPH DRO		Analytical	Method:	Mod. 8	015B		Prep Me	thod:	N/A
QC Batch: 45226		Date Analy	zed:	2008-02	-02		Analyzed	l By:	LD
Prep Batch: 38952		Sample Pre	eparation	2008-02	-02		Prepared	l By:	LD
		$\mathbf{RL}$			r				
Parameter Flag		Result		Unit	8		Dilution		RL
DRO		<50.0		mg/K	g		1		50.0
		TT:	וית		Spike		Percent	Reco	overy
Surrogate Flag Re	esuit	Units	Dili	ition	Amount	t	Recovery		nits
n-Iriacontane	91.2	mg/Kg		1	100		91	39.1 -	137.7

#### Sample: 149185 - S. Cent. E. Wall, 4'

Analysis: QC Batch: Prep Batch:	TPH GRO 45227 38890		Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8015B 2008-01-31 2008-01-30		Prep Meth Analyzed H Prepared H	od: S 5035 By: DC By: DC
Parameter	Flag	1	RL Result	,	Units	Di	ilution	RL
GRO	В		3.76		mg/Kg		1	
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.899	mg/Kg	1	1.00	90	70 - 130
4-Bromofluor	robenzene (4-BFB)		0,946	mg/Kg	1	1.00	95	70 - 130

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#### Sample: 149186 - FP-N.W. Wall, 4'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	S 8021B 2008-01-31 2008-01-30		Prep Metho Analyzed E Prepared B	od: S 5035 Sy: DC y: DC
	~			$\mathbf{RL}$					
Parameter		Flag		Result		Units		Dilution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		. 1	0.0100
Toluene				<0.0100		mg/Kg		1	0.0100
Ethylbenzene	)			<0.0100		mg/Kg		1	0.0100
Xylene				< 0.0100		mg/Kg		1	0.0100
		·					Spike	Percent	Recovery
Surrogate		F	Flag	Result	Units	Dilution	Amoun	t Recovery	Limits
Trifluorotolu	ene (TFT)			0.998	mg/Kg	g 1	1.00	100	70 - 130
4-Bromofluor	obenzene (4-BF	rΒ)		0.974	mg/Kį	g 1	1.00	97	70 - 130

#### Sample: 149186 - FP-N.W. Wall, 4'

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Analysis: QC Batch: Prep Batch:	TPH DRO 45226 38952		Analytica Date Ana Sample Pr	l Method: lyzed: reparation:	Mod. 8 2008-02 2008-02	015B 8-02 8-02	Prep Analy Prep	Method: N/A yzed By: LD ared By: LD
Parameter		Flag	RL Result		Uni	ts	Dilution	RL
DRO	· · · · · · · · · · · · · · · · · · ·		<50.0		mg/K	g	1	50.0
Surrogate	Flag	Result	Units	, Dilut	ion	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	66.1	mg/Kg	1		100	66	39.1 - 137.7

#### Sample: 149186 - FP-N.W. Wall, 4'

Analysis: QC Batch: Prep Batch:	TPH GRO 45227 38890	Analytical Method: Date Analyzed: Sample Preparation:			S 8015B 2008-01-31 2008-01-30		Prep Method: Analyzed By: Prepared By:	
Parameter	Flag		RESULT	• .	Units	Di	ilution	RL
GRO	В		1.91		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.894	mg/Kg	1	1.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.913	mg/Kg	1	1.00	91	70 - <b>130</b>

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#### Sample: 149187 - FP-N.E. Wall, 4'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890		Analytical M Date Analyze Sample Prepa	ethod: d: aration:	S 8021B 2008-01-31 2008-01-30		Prep Meth Analyzed I Prepared E	od: S 5035 By: DC By: DC
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	Di	lution	$\mathbf{RL}$
Benzene			< 0.0100		mg/Kg		1	0.0100
Toluene			<0.0100		mg/Kg		1	0.0100
Ethylbenzene	)		< 0.0100		mg/Kg		1	0.0100
Xylene			< 0.0100		mg/Kg		1	0.0100
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.00	mg/K	g 1	1.00	100	70 - 130
4-Bromofluor	obenzene (4-BFB)		0.979	mg/K	g 1	1.00	98 .	70 - 130

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#### Sample: 149187 - FP-N.E. Wall, 4'

Analysis: TPH DR QC Batch: 45226 Prep Batch: 38952		)		Analytical M Date Analyze Sample Prep	lethod: ed: aration:	Mod. 2008-0 2008-0	8015B 2-02 2-02	Prep Method: Analyzed By: Prepared By:		N/A LD LD
				$\mathbf{RL}$						
Parameter		Flag		Result		Un	its	Dilution		$\mathbf{RL}$
DRO				<50.0	······	mg/	Kg	1		50.0
Surrogate	Flag	Re	esult	Units	Dilut	ion	Spike Amount	Percent Recovery	Reco Lin	overy nits
n-Triacontan	e		78.2	mg/Kg	1		100	78	39.1 -	137.7

#### Sample: 149187 - FP-N.E. Wall, 4'

Analysis: QC Batch: Prep Batch:	TPH GRO 45227 38890		Analytical Date Anal Sample Pr	Method: yzed: reparation:	S 8015B 2008-01-31 2008-01-30		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
Parameter	Flag		RL Result	-	Units	Di	lution	RL
GRO	В		1.45		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.896	mg/Kg	1	1.00	90	70 - 130
4-Bromofluo	robenzene (4-BFB)		0.904	mg/Kg	1	1.00	90	70 - 130

#### Sample: 149188 - FP-Cent. Floor, 6'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	S 8021B 2008-01-31 2008-01-30		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC
				<pre> RL</pre>					
Parameter		Flag		Result		Units		Dilution	$\mathbf{RL}$
Benzene				< 0.0100		mg/Kg		1	0.0100
Toluene				0.0237		mg/Kg		1	0.0100
Ethylbenzene	e			0.0369		mg/Kg		1	0.0100
Xylene				0.0842		mg/Kg		11	0.0100
							Spike	Percent	Recovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)			0.973	mg/K	g 1	1.00	97	70 - 130
4-Bromofluor	obenzene (4-I	BFB)		1.01	mg/K	g 1	1.00	101	70 - 130

#### Sample: 149188 - FP-Cent. Floor, 6'

Analysis: QC Batch: Prep Batch:	TPH DRO 45148 38863		Analytical Date Analy Sample Pre	Method: vzed: eparation:	Mod. 2008-0 2008-0	8015B 01-30 01-30	Prep Analy Prep	Prep Method: Analyzed By: Prepared By:	
Parameter		Flag	${f RL}$	-	Uı	nits	Dilution		RL
DRO			152		mg/	Kg	1		50.0
Surrogate	Flag	Result	Units	Dilut	ion	Spike Amount	Percent Recovery	Reco Lin	overy nits
n-Triacontan	e1	171	mg/Kg	1		100	171	39.1 -	137.7

#### Sample: 149188 - FP-Cent. Floor, 6'

Analysis:TPH GROQC Batch:45227Prep Batch:38890			Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8015B         Prep Me           2008-01-31         Analyze           2008-01-30         Prepared			hod: S 5035 By: DC By: DC	
			$\mathbf{RL}$						
Parameter	Flag		Result		Units	Di	ilution	$\mathbf{RL}$	
GRO			17.2		mg/Kg	· · · · · · · · · · · · · · · · · · ·	1	1.00	
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
Trifluorotolu	ene (TFT)	***************************************	0.885	mg/Kg	1	1.00	88	70 - 130	
4-Bromofluorobenzene (4-BFB)			0.970	mg/Kg	1	1.00	97	70 - 130	

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

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#### Sample: 149189 - FP-S.W. Wall, 5'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	S 8021B 2008-01-31 2008-01-30		Prep Method Analyzed By: Prepared By:		
				$\mathbf{RL}$						
Parameter		Flag		Result		Units	Ι	Dilution	$\mathbf{RL}$	
Benzene				< 0.0100		mg/Kg		1	0.0100	
Toluene				0.0151		mg/Kg		1	0.0100	
Ethylbenzene	9			< 0.0100		mg/Kg		1	0.0100	
Xylene				0.0536		mg/Kg		1	0.0100	
							Spike	Percent	Recovery	
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolu	ene (TFT)			1.01	mg/Kį	g 1	1.00	101	70 - 130	
4-Bromofluor	obenzene (4-B	FB)		1.00	mg/Kg	g 1	1.00	100	70 - 130	

#### Sample: 149189 - FP-S.W. Wall, 5'

Analysis: TPH DRO QC Batch: 45139 Prep Batch: 38863		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 8 2008-0 2008-0	8015B 1-30 1-30	Prep Analy Prepa	Prep Method: Analyzed By: Prepared By:			
				RL		~~ .				
Parameter		Flag		Result		Uni	ts	Dilution		$\mathbf{RL}$
DRO				211	,	mg/H	Кg	1		50.0
Surrogate	Flag		Result	Units	Dilut	ion	Spike Amount	Percent Recovery	Reco Lin	overy
n-Triacontan	e 2		145	mg/Kg	1		100	145	39.1 -	137.7

#### Sample: 149189 - FP-S.W. Wall, 5'

Analysis: TPH GRO QC Batch: 45227 Prep Batch: 38890			Analytical Date Anal Sample Pr	Method: yzed: reparation:	S 8015B 2008-01-31 2008-01-30		Prep Meth Analyzed I Prepared B	od: S 5035 By: DC By: DC
Parameter	Flag		$\operatorname{RL}$ Result		Units	Di	lution	RL
GRO			16.8		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			0.890 0.954	mg/Kg mg/Kg	1 1	1.00 1.00	89 95	70 - 130 70 - 130

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

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#### Sample: 149190 - FP-S.E. Wall, 5'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890		Analytical M Date Analyze Sample Prep	lethod: ed: aration:	S 8021B 2008-01-31 2008-01-30		Prep Method Analyzed By Prepared By		
			$\mathbf{RL}$	•					
Parameter	Flag		$\mathbf{Result}$		Units	Di	lution	$\mathbf{RL}$	
Benzene			< 0.0100		mg/Kg		1	0.0100	
Toluene			0.0424		mg/Kg		1	0.0100	
Ethylbenzene	•		< 0.0100		mg/Kg		1	0.0100	
Xylene			0.115		mg/Kg		1	0.0100	
						Spike	Percent	Recovery	
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolu	ene (TFT)		1.01	mg/Kg	g 1	1.00	101	70 - 130	
4-Bromofluor	obenzene (4-BFB)		1.01	mg/Kg	g 1	1.00	101	70 - 130	

#### Sample: 149190 - FP-S.E. Wall, 5'

Analysis: QC Batch: Prep Batch:	TPH DRO 45139 38863		Analytical M Date Analyz Sample Prep	Iethod:MoMed:200paration:200	od. 8015B 08-01-30 08-01-30	Prep Anal Prep	Method: N/ yzed By: LD ared By: LD	A
Parameter	1	Flag	$\operatorname{RL}$ Result		Units	Dilution	R	L
DRO			<50.0	n	ng/Kg	1	50	.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	,
n-Triacontan	e	118	mg/Kg	1	100	118	39.1 - 137	.7
-			· · ·					

### Sample: 149190 - FP-S.E. Wall, 5'

Analysis: TPH GRO QC Batch: 45227 Prep Batch: 38890			Analytical Method: Date Analyzed: Sample Preparation:			S 8015B         Prep Method           2008-01-31         Analyzed E           2008-01-30         Prepared B		
Parameter	Flag		$\operatorname{RL}$ Result		Units	D	ilution	RL
GRO			12.2	······································	mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)			0.894 0.982	mg/Kg mg/Kg	1 1	1.00 1.00	89 98	70 - 130 70 - 130

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#### Sample: 149191 - FP-S. Floor, 8'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890			Analytical M Date Analyz Sample Prep	lethod: ed: aration:	S 8021B 2008-01-31 2008-01-30		Prep Method Analyzed By Prepared By		
				$\mathbf{RL}$						
Parameter		Flag		Result		Units		Dilution	$\mathbf{RL}$	
Benzene				< 0.0100		mg/Kg		1	0.0100	
Toluene				<0.0100		mg/Kg		1	0.0100	
Ethylbenzene	•			< 0.0100		mg/Kg		1	0.0100	
Xylene				< 0.0100		mg/Kg		11	0.0100	
							Spike	Percent	Recovery	
Surrogate			Flag	$\mathbf{Result}$	Units	Dilution	Amoun	t Recovery	Limits	
Trifluorotolue	ene (TFT)			0.996	mg/K	g 1	1.00	100	70 - 130	
4-Bromofluor	obenzene (4-E	BFB)		0.975	mg/K	g 1	1.00	98	70 - 130	

#### Sample: 149191 - FP-S. Floor, 8'

Analysis: QC Batch: Prep Batch:	ysis: TPH DRO Batch: 45139 Batch: 38863		Analytical Meth Date Analyzed: Sample Prepara			Mod. 2008-0 2008-0	8015B )1-30 )1-30	Prep Method: Analyzed By: Prepared By:		N/A LD LD
Parameter		Flag		RL Result		Un	its	Dilution		$\mathbf{RL}$
DRO				<50.0		mg/	Kg	1		50.0
Surrogate	Flag		Result	Units	Dilut	ion	Spike Amount	Percent Recovery	Reco Lin	overy nits
n-Triacontan	e		106	mg/Kg	1		100	106	39.1 -	137.7

### Sample: 149191 - FP-S. Floor, 8'

Analysis: TPH GRO QC Batch: 45227 Prep Batch: 38890			Analytical Method: Date Analyzed: Sample Preparation:				Prep Method Analyzed By Prepared By		
			$\mathbf{RL}$						
Parameter	Flag		$\mathbf{Result}$		$\mathbf{Units}$	D	ilution	$\mathbf{RL}$	
GRO	B		1.21		mg/Kg		1	1.00	
						Spike	Percent	Recovery	
Surrogate		Flag	$\mathbf{Result}$	$\mathbf{Units}$	Dilution	Amount	Recovery	Limits	
Trifluorotolu	ene (TFT)		0.900	mg/Kg	1	1.00	90	70 - 130	
4-Bromofluorobenzene (4-BFB)			0.898	mg/Kg	1	1.00	90	70 - 130	

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#### Sample: 149192 - FP-S. End Wall, 4'

Analysis: QC Batch: Prep Batch:	BTEX 45229 38890			Analytical M Date Analyz Sample Prep	lethod: ed: varation:	S 8021B 2008-01-31 2008-01-30		Prep Method Analyzed By: Prepared By:		
				$\mathbf{RL}$						
Parameter		Flag		Result		$\mathbf{Units}$	I	Dilution	$\mathbf{RL}$	
Benzene				< 0.0100		mg/Kg		1	0,0100	
Toluene			,	0.0838		mg/Kg		1	0.0100	
Ethylbenzene	e			0.113		mg/Kg		1	0.0100	
Xylene				0.213		mg/Kg		1	0.0100	
							Spike	Percent	Recovery	
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolu	ene (TFT)			1.02	mg/K	g 1	1.00	102	70 - 130	
4-Bromofluor	obenzene (4-E	BFB)		1.04	mg/K	g 1	1.00	104	70 - 130	

#### Sample: 149192 - FP-S. End Wall, 4'

Analysis: QC Batch: Prep Batch:	TPH DRO 45139 38863		Analytica Date Ana Sample Pr	l Method: lyzed: reparation:	Mod. 80 2008-01- 2008-01-	)15B -30 -30	Prep Anal Prep	N/A LD LD	
Parameter		Flag	RL Begult		Unit	q	Dilution		BL
DRO		. 105	<50.0	,	mg/Kg	g	1		50.0
Surrogate	Flag	Result	Units	Dilut	ion	Spike Amount	Percent Recovery	Reco Lin	overy nits
n-Triacontan	e	113	mg/Kg	1		100	113	39.1 -	137.7

#### Sample: 149192 - FP-S. End Wall, 4'

Analysis: QC Batch: Prep Batch:	TPH GRO 45227 38890	TPH GROAnalytical Method:S 8015BPro5227Date Analyzed:2008-01-31Analytical Method:8890Sample Preparation:2008-01-30Pro		Prep Meth Analyzed I Prepared I	od: S 5035 By: DC By: DC			
			$\mathbf{RL}$					
Parameter Flag			Result		Units	Dilution		$\mathbf{RL}$
GRO				16.4		g1		1.00
					<u>_</u> 1	Spike	Percent	Recovery
Surrogate		Flag	$\mathbf{Result}$	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.894	mg/Kg	1	1.00	89	70 - 130
4-Bromofluor	obenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	70 - 130

#### Method Blank (1) QC Batch: 45139

QC Batch:	45139	Date Analyzed:	2008-01-30	Analyzed By:	LD
Prep Batch:	38863	QC Preparation:	2008-01-30	Prepared By:	$\mathbf{L}\mathbf{D}$

Report Date: Fei Gladiola Gatheri	bruary 4, 200 ing	08	Wo Gl	rk Order: adiola G	8013009 athering			Page Number: 10 of Lea County, N		
				MDL						
Parameter		Flag		Result			Units			RL
DRO		·····		18.1			mg/K	5		50
						Sniko	F	Porcont	Baco	voru
Surrogate	Flag	Result	Units	Dilut	ion	Amount	R	ecoverv	Lim	very
n-Triacontane		94.2	mg/Kg	1		100		94	33.3 -	157.4
Method Blank	(1) QC	Batch: 45148								
QC Batch: 451	148		Date Analyzed: 2008-01-30					Analy	zed By:	LD
Prep Batch: 388	863		QC Preparation: 2008-01-30					Prepa	red By:	LÐ
		<b>-</b>		MDL						
Parameter	arameter Flag			Result			Units			RL
DRO				18.0			mg/Kg			50
						Spike	F	Percent	Reco	very
Surrogate	Flag	$\mathbf{Result}$	Units	Dilut	ion	Amount	$\mathbf{R}$	ecovery	Lim	its
n-Triacontane		83.7	mg/Kg 1 100		100		84	33.3 -	157.4	
QC Batch: 452 Prep Batch: 389	226 952		Date Analy QC Prepara	zed: 20 ation: 20	)08-02-02 )08-02-02			Analy Prepa	zed By: red By:	LD LD
				MDL						
Parameter		Flag	·	Result			Units			RI
DRO			<u></u>	<14.6			mg/K	5		50
	,					Spike	F	Percent	Reco	very
Surrogate	Flag	$\mathbf{Result}$	$\mathbf{Units}$	Dilut	ion	Amount	R	ecovery	Lin	nits
n-Triacontane		96.4	mg/Kg	1		100		96	33.3 -	157.4
Method Blank QC Batch: 452 Prep Batch: 388	(1) QC 227 890	Batch: 45227	Date Analy QC Prepara	zed: 20 ution: 20	008-01-31 008-01-30			Analy Prepa	zed By: red By:	DC DC
				MDL			<b>77</b> •:			
Parameter		Flag	· · · · · · · · · · · · · · · · · · ·	Hesult			Units	<u> </u>		
	<u></u>			0.090			mg/K	<u> </u>		1
						S	pike	Percent	Rec	over
Surrogate		Flag	Rogalt	Unita	Dilutic		nount	Doormore	τ:	
Duriogate		Tiag	nesuit	Units	Diutic		nount	necovery		mits
Trifluorotoluene	(TFT)	I Idg	0.920	mg/Kg	1		1.00	92	70	mits - 13(

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QC Batch: 45229		Date A	nalyzed:	2008-01	-31		Anal	yzed By	: DC
Prep Batch: 38890		QC Pre	paration:	2008-01	-30	Prepared By:			
D is star	T31		D	MDL		ŤŤ	· / -		DT
Parameter	Flag		E C	lesult		U	nits		
Benzene			<0.0	00300		mg	;/Kg		10.0
Toluene			<0.0	0300		mg	C/Kg		0.01
Ethylbenzene			<0.0	01400		mg	/Kg		0.01
Xylene			<0	.0140		mg	/Kg		0.01
						Spike	Percent	R	ecovery
Surrogate	Flag	Result	Unit	s D	lution	Amount	Recover	y I	Limits
Trifluorotoluene (TFT)		1.01	mg/F	ζg	1	1.00	101	7	0 - 130
4-Bromofluorobenzene (4-1	BFB)	0.975	mg/F	ζġ	1	1.00	98	7	0 - 130
QC Batch: 45139 Prep Batch: 38863		Date A QC Pre	nalyzed: eparation:	2008-01 2008-01	l-30 l-30		Ana. Prep	lyzed By pared By	r: LD : LD
	-				G 11	N	• _	-	<b>.</b>
Derom	י סו	LCS	Unita	וית	Spike	Matu	rix It Boo	I	Rec.
Param	R	LCS Lesult	Units	Dil.	Spike Amount	Matu Resu	rix 1lt Rec.	I L 	Rec. imit
Param DRO	R	LCS esult 231 r	Units ng/Kg	Dil.	Spike Amount 250	Matr Resu	rix alt Rec. .6 92	H L 48.1	Rec. imit - 140.9
Param DRO Percent recovery is based	R on the spike resu	LCS esult 231 r ılt. RPD is	Units ng/Kg based on t	Dil. 1 the spike	Spike Amount 250 and spike c	Mata Resu <14 luplicate	rix <u>llt Rec.</u> .6 92 result.	H L 48.1	Rec. imit - 140.9
Param DRO Percent recovery is based of	on the spike resu	LCS esult 231 r ilt. RPD is	Units ng/Kg based on t	Dil. 1 the spike Spike	Spike Amount 250 and spike o Matrix	Matu Resu <14 luplicate	rix alt Rec. .6 92 result. Rec.	1 L 48.1	Rec. imit - 140.9 RPD
Param DRO Percent recovery is based Param	on the spike resultion COMPARENTA COMPARENTA COMPARENTA COMPARENTA COMPARENTA COMPARENTA COMPARENTA COMPARENTA COMPARENT	LCS esult 231 r ilt. RPD is t Units	Units ng/Kg based on t Dil.	Dil. 1 the spike Spike Amount	Spike Amount 250 and spike of Matrix Result	Mata Resu <14 luplicate Rec.	rix 11t Rec. 1.6 92 · result. Rec. Limit	H L 48.1 RPD	Rec. imit - 140.9 RPD Limit
Param DRO Percent recovery is based of Param DRO	n the spike results LCSE Result 259	LCS esult 231 r ilt. RPD is t Units mg/Kg	Units ng/Kg based on t Dil. 1	Dil. 1 the spike Spike Amount 250	Spike Amount 250 and spike of Matrix Result <14.6	Matr Resu <14 luplicate <u>Rec.</u> 104	rix .lt Rec. .6 92 result. Rec. Limit 48.1 - 140.9	1 48.1 RPD 11	Rec. imit - 140.9 RPD Limit 20
Param DRO Percent recovery is based of Param DRO Percent recovery is based of	n the spike resu LCSE Resul 259 on the spike resu	LCS esult 231 r ilt. RPD is t Units mg/Kg ilt. RPD is	Units ng/Kg based on t Dil. 1 based on t	Dil. 1 the spike Spike Amount 250 the spike	Spike Amount 250 and spike of Matrix Result <14.6 and spike of	Matr Resu <14 luplicate Rec. 104 luplicate	rix alt Rec. .6 92 - result. Rec. Limit 48.1 - 140.9 result.	1 L 48.1 RPD 11	Rec. imit - 140.9 RPD Limit 20
Param DRO Percent recovery is based of Param DRO Percent recovery is based of	n the spike resul LCSE Resul 259 on the spike resu LCS LC	LCS esult 231 r alt. RPD is t Units mg/Kg alt. RPD is SD	Units ng/Kg based on t Dil. 1 based on t	Dil. 1 the spike Spike Amount 250 the spike	Spike Amount 250 and spike of Matrix Result <14.6 and spike of Spike	Math Resu <14 luplicate Rec. 104 luplicate LCS	rix .11 Rec. .6 92 result. Rec. Limit 48.1 - 140.9 result. LCSD	I L 48.1 RPD 11	Rec. imit - 140.9 RPD Limit 20 Rec.
Param DRO Percent recovery is based of Param DRO Percent recovery is based of Surrogate	F on the spike resu LCSE Resul 259 on the spike resu LCS LC Result Res	LCS esult 231 r alt. RPD is t Units mg/Kg alt. RPD is SD sult U	Units ng/Kg based on t Dil. 1 based on t nits	Dil. 1 the spike Spike Amount 250 the spike Dil.	Spike Amount 250 and spike of Matrix Result <14.6 and spike of Spike Amount	Math Resu <14 luplicate Rec. 104 luplicate LCS Rec.	rix 11 Rec. 16 92 result. Rec. Limit 48.1 - 140.9 result. LCSD Rec.	H L 48.1 RPD 11	Rec. imit - 140.9 RPD Limit 20 Rec. imit
Param DRO Percent recovery is based Param DRO Percent recovery is based Surrogate n-Triacontane	n the spike resu LCSI Resul 259 on the spike resu LCS LC Result Res 117 15	LCS Lesult 231 r 1lt. RPD is t Units mg/Kg 1lt. RPD is SD sult U 37 mf	Units ng/Kg based on t Dil. 1 based on t nits g/Kg	Dil. 1 the spike Spike Amount 250 the spike Dil. 1	Spike Amount 250 and spike of Matrix Result <14.6 and spike of Spike Amount 100	Math Resu <14 luplicate Rec. 104 luplicate LCS Rec. 117	rix .6 92 result. Rec. Limit 48.1 - 140.9 result. LCSD Rec. 137	H 48.1 RPD 11 H L 42.1	Rec. imit - 140.9 RPD Limit 20 Rec. imit - 138.9

#### Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	45148 38863	Dat QC	e Analyzed: Preparation:	2008-01-30 2008-01-30			Analyzed By: LD Prepared By: LD		
Param		$\begin{array}{c} \mathrm{LCS} \\ \mathrm{Result} \end{array}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
DRO		228	mg/Kg	1	250	<14.6	91	48.1 - 140.9	
Percent recov	very is based on the	spike result. RPI	) is based on	the spike	and spike du	plicate resul	t.		
		LCSD	·	Spike	Matrix	I	Rec.	RPD	

Units Dil. Param Result Amount Result Rec. Limit RPD Limit  $\overline{\mathrm{DRO}}$ 230 mg/Kg 250 <14.6 92 48.1 - 140.9 20 1 1

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

Report Date: February 4 Gladiola Gathering	, 2008		Wa G	ork Or ladiol	der: 8013 a Gatherin	009 ng	······································	P	age Nu	imber: ea Cour	12 of 17 nty, NM
Surrogate	LCS Result	$\begin{array}{c} { m LCSD} \\ { m Result} \end{array}$	Units		Dil.	Spike Amount	LCS Rec.		CSD lec.	F L	lec. imit
n-Triacontane	109	92.5	mg/K	g	1	100	109		92	42.1	- 138.9
Laboratory Control Sp	oike (LC	<b>:S-1)</b>			0008.00	00			<b>A</b> 1		LD
Prep Batch: 38952		Q	C Prepara	ation:	2008-02	-02 -02			Prepa	ared By	: LD : LD
Dorom		LCS	17	-	Dil	Spike	Mat	rix	Dee	F	lec.
		160	0	,8 (r	<u>1</u>	250			<u>64</u>	<u></u> /8 1	_ 140 Q
Dauge				*5 		200	<u></u>		<u></u>	40.1	- 140.9
rercent recovery is based	on the sp	pike resuit. R.	rd is dase	a on .	tne spike	and spike	auplicate	result.			
~		LCSD	<b>.</b>		Spike	Matrix	-	Rec.	•		RPD
Param	· · ·	Result U	Juits L	<u>)11.</u>	Amount	Result	Rec.	Limi	t	RPD	Limit
DRO		152 m	lg/Kg	1	250	<14.6	61	48.1 - 1	40.9	5	20
Percent recovery is based	on the s <u>r</u>	pike result. R	PD is base	ed on	the spike	and spike	duplicate	result.			
	LCS	LCSD		٠		Spike	LCS	LC	CSD	F	lec.
Surrogate	Result	Result	Units		Dil.	Amount	Rec.	R	ec.	Li	imit
n-Triacontane	94.6	91.2	mg/Kg	3	1	100	95	9	91	42.1	- 138.9
Laboratory Control Sp QC Batch: 45227 Prep Batch: 38890	ike (LC	2S-1) Q	ate Analy C Prepara	zed: ation:	2008-01- 2008-01-	- <b>3</b> 1 -30			Analy Prepa	vzed By ared By:	: DC : DC
Devery		LCS	TI-:	4-	Dil	Spike	M	atrix	Dee		Rec.
Param CPO		7 79		its Ka	$\frac{D_{11}}{1}$	Amoun			77	•	Limit
Percent recovery is based	on the er	ike result R	PD is base	ng ng	the spike	and snike	U> dunlicate	result		1	0 - 130
a croom recevery to produce	ou nic of	TOOD			Curtles	Bfat.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		-		מממ
Param		LUSD Regult	Unite	ווּת	Spike	Roger	x t Ree	Ке т:	C. nit	քքո	KPD
GRO		7 73 n	ng/Kg	<u>1</u>	10.0		18 77	- 10111 - 70 -	130	0	Linnt
Percent recovery is based	on the sr	oike result. Rl		ed on t	the spike :	and spike	duplicate	result.	100	<u> </u>	
	0 00 2,	TOC			uno spino s	and opino	C-:1	TOO	T CO	-	<b>D</b>
Surragata		LUS Bogult	LUSD Regult	. ·	Tinita		Spike	LUS	LCS	SD N	Rec.
Trifluorotoluene (TFT)		0.967	0 934	, n	nø/Kø	1	1.00	97		7	$\frac{1}{0} - 130$
4-Bromofluorobenzene (4-)	BFB)	0.934	0.940	מ	ng/Kg	1	1.00	93	94	7	0 - 130
Laboratory Control Sp	ike (LC	S-1)			01-0	· · · · · · · · · · · · · · · · · · ·					
QC Batch: 45229		D	ate Analy	zed:	2008-01-	-31			Analy	zed By	: DC
Prep Batch: 38890		Q	C Prepara	ation:	2008-01-	-30			Prepa	red By:	DC:

.

Param	$\mathbf{LCS}$ Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.953	mg/Kg	1	1.00	< 0.00300	95	70 - 130
Toluene	0.932	mg/Kg	1	1.00	< 0.00300	93	70 - 130
Ethylbenzene	0.904	mg/Kg	1	1.00	< 0.00400	90	70 - 130
Xylene	2.72	mg/Kg	1	3.00	< 0.0140	91	70 - 130

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	$\mathbf{Result}$	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	0.946	mg/Kg	1	1.00	< 0.00300	95	70 - 130	1	
Toluene	0.929	mg/Kg	1.	1.00	< 0.00300	93	70 - 130	0	
Ethylbenzene	0.911	mg/Kg	1	1.00	< 0.00400	91	70 - 130	1	
Xylene	2.75	mg/Kg	1	3.00	< 0.0140	92	70 - 130	1	

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

Surrogate	$\begin{array}{c} \mathbf{LCS} \\ \mathbf{Result} \end{array}$	$\begin{array}{c} \mathbf{LCSD} \\ \mathbf{Result} \end{array}$	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.01	1.02	mg/Kg	1	1.00	101	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.981	0.984	mg/Kg	1	1.00	98	98	70 - 130

#### Matrix Spike (MS-1) Spiked Sample: 149260

QC Batch:	45139	Date Analyzed:	2008-01-30		Analyzed By: LD
Prep Batch:	38863	QC Preparation:	2008-01-30		Prepared By: LD
		MC	Q-11-0	Matria	Dec

	MS			Spike	Matrix		Rec.
Param	$\mathbf{Result}$	$\mathbf{Units}$	Dil.	Amount	Result	Rec.	$\mathbf{Limit}$
DRO	137	mg/Kg	1	250	<14.6	55	35.6 - 173.6

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	3	184	mg/Kg	1	250	<14.6	74	35.6 - 173.6	29	20

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

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	4	156	191	mg/Kg	1	100	156	191	33 - 156.2
Matrix Spike (	MS-1)	Spiked S	ample: 14915	3					
QC Batch: 45	148		Da	te Analyzed:	2008-01-	30		Analy	zed By: LD

go batta.	10110	Date maryhea.	2000 01 00	may zeu Dy.	
Prep Batch:	38863	QC Preparation:	2008-01-30	Prepared By:	LD

continued ...

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 $^3\rm MS/MSD$  RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.  $^4\rm High$  surrogate recovery due to peak interference.

MS Result MS Result 4310 sult. RPD is 0 mg/Kg sult. RPD is MSD Result 843	Units Units mg/Kg s based on Dil. g 1 s based on Units mg/Kg	Dil. 1 the spike Spike Amount 250 the spike	Spike Amount Spike Amount 250 and spike du Matrix Result 4310 and spike du	Matrix Result Matrix Result 4310 Iplicate res Rec. 1336 35 Iplicate res	Rec. 0 ult. Rec. Limit .6 - 173.6	F Li 35.6 RPD 25	ec. mit - 173.6 RPD Limit
$\begin{array}{c} \text{MS} \\ \text{Result} \\ \hline \text{MS} \\ \text{Result} \\ \hline 4310 \\ \text{sult. RPD is} \\ \hline 0 \\ \text{sult. RPD is} \\ \hline 0 \\ \text{mg/K}_{\xi} \\ \text{sult. RPD is} \\ \hline \text{MSD} \\ \hline \text{Result} \\ \hline 843 \\ \hline \end{array}$	Units Units mg/Kg s based on Dil. g 1 s based on Units mg/Kg	Dil. 1 the spike Spike Amount 250 the spike	Spike Amount Spike Amount 250 and spike du Matrix Result 4310 and spike du	Matrix Result Matrix Result 4310 Iplicate res Rec. 1336 35 Iplicate res	Rec.           0           ult.           Rec.           Limit           .6 - 173.6	F Li 35.6 RPD 25	tec. mit - 173.6 RPD Limit
MS Result 4310 sult. RPD is D ult Units 0 mg/Kg sult. RPD is MSD Result 843	Units mg/Kg s based on Dil. g 1 s based on Units mg/Kg	Dil. 1 the spike Spike Amount 250 the spike Dil	Amount Spike Amount 250 and spike du Matrix Result 4310 and spike du	Matrix Result 4310 Iplicate res Rec. 1336 35 Iplicate res	Rec. 0 ult. Rec. Limit .6 - 173.6	RPD 25	RPD Limit
MS Result 4310 sult. RPD is 0 mg/Kg sult. RPD is MSD Result 843 le: 149341	Units mg/Kg s based on Dil. g 1 s based on Units mg/Kg	Dil. 1 the spike Spike Amount 250 the spike Dil	Spike Amount 250 and spike du Matrix Result 4310 and spike du	Matrix Result 4310 Iplicate res Rec. 1336 35 Iplicate res	Rec. 0 ault. Rec. Limit .6 - 173.6	F Li 35.6 RPD 25	tec. mit - 173.6 RPD Limit
Result4310sult. RPD isDultUnits0mg/Kgsult. RPD isMSDResult843le: 149341	Units mg/Kg s based on Dil. g 1 s based on Units mg/Kg	Dil. 1 the spike Spike Amount 250 the spike Dil	Amount 250 and spike du Matrix Result 4310 and spike du	Result 4310 Iplicate res Rec. 1336 35 Iplicate res	Rec. 0 ault. Rec. Limit .6 - 173.6	Li 35.6 RPD 25	mit - 173.6 RPD Limit
4310 sult. RPD is D ult Units 0 mg/Kg sult. RPD is MSD Result 843 le: 149341	mg/Kg s based on Dil. g 1 s based on Units mg/Kg	1 the spike Amount 250 the spike	250 and spike du Matrix Result 4310 and spike du	4310 iplicate res Rec. 1336 35 iplicate res	0 sult. Rec. Limit .6 - 173.6	35.6 RPD 25	- 173.6 RPD Limit
sult. RPD is D ult Units 0 mg/Kg sult. RPD is MSD Result 843 le: 149341	Dil. <u>g 1</u> s based on <u>Units</u> <u>mg/Kg</u>	the spike Spike Amount 250 the spike	and spike du Matrix Result 4310 and spike du	Rec. 1336 35 plicate res	Rec. Limit .6 - 173.6	RPD 25	RPD Limit
D ult Units 0 mg/Kg sult. RPD is MSD Result 843 le: 149341	Dil. g 1 s based on Units mg/Kg	Spike Amount 250 the spike	Matrix Result 4310 and spike du	Rec. 1336 35 iplicate res	Rec. Limit .6 - 173.6	RPD 25	RPD Limit
lt Units 0 mg/Kg sult. RPD is MSD Result 843 le: 149341	Dil. g 1 s based on Units mg/Kg	Amount 250 the spike	Result 4310 and spike du	Rec. 1336 35 iplicate res	Limit .6 - 173.6	RPD 25	Limit
0 mg/Kg sult. RPD is MSD Result 843 le: 149341	g 1 s based on Units mg/Kg	250 the spike Dil	4310 and spike du	1336 35 iplicate res	.6 - 173.6	25	00
sult. RPD is MSD Result 843 le: 149341	s based on Units mg/Kg	the spike	and spike du	plicate res			20
MSD Result 843 le: 149341	Units mg/Kg	Dil	a		ult.		
Result 843 le: 149341	Units mg/Kg	Dil	Spiles	MS	MSD		Dee
843	mg/Kg		Amount	Rec	Rec	T	imit
le: 149341	0/ 0	1	100	958	843	33	- 156.2
QC Pr	reparation:	2008-02	-02		Prep	ared By:	LD
MS			Spike	Matrix		B	lec.
Result	Units	Dil.	Amount	Result	Rec.		mit
351	mg/Kg	1	250	248	41	35.6	- 173.6
sult. RPD is	s based on	the spike	and spike du	iplicate res	ult.		
		Spike	Matrix		Rec.		RPD
U			Dograli	Dee	<b>T</b> • • •	חחח	
lt Units	Dil.	Amount	nesuit	nec.	Limit	RPD	Limit
lt Units 5 mg/Kg	Dil. g 1	Amount 250	248	39 35	Limit .6 - 173.6	1 1	Limit 20
llt Units 5 mg/Kg sult. RPD is	Dil. g <u>1</u> s based on	Amount 250 the spike	248 and spike du	39 35 Iplicate res	Limit .6 - 173.6 ult.	<u>RPD</u> 1	Limit 20
lt Units <u>mg/Kg</u> sult. RPD is	$\frac{\text{Dil.}}{\text{g}  1}$ s based on	Amount 250 the spike	248 and spike du	19 35 Iplicate res	Limit .6 - 173.6 ult. MSD	<u>RPD</u> 1	Limit 20 Rec
lt Units <u>mg/Kg</u> sult. RPD is MSD Result	Dil. g <u>1</u> s based on Units	Amount 250 the spike Dil.	248 and spike du Spike Amount	39 35 Iplicate res MS Rec.	Limit .6 - 173.6 Jult. MSD Rec.	1 1	Limit 20 Rec. Limit
R	Date A QC P MS esult 351 ult. RPD i	Date Analyzed: QC Preparation: MS esult Units 351 mg/Kg Ilt. RPD is based on	Date Analyzed: 2008-02- QC Preparation: 2008-02- MS esult Units Dil. 351 mg/Kg 1 Ilt. RPD is based on the spike Spike	Date Analyzed: 2008-02-02 QC Preparation: 2008-02-02 MS Spike esult Units Dil. Amount 351 mg/Kg 1 250 alt. RPD is based on the spike and spike du Spike Matrix	Date Analyzed: 2008-02-02 QC Preparation: 2008-02-02 MS Spike Matrix esult Units Dil. Amount Result 351 mg/Kg 1 250 248 alt. RPD is based on the spike and spike duplicate res	Date Analyzed:       2008-02-02       Analyzed:         QC Preparation:       2008-02-02       Preparation:         MS       Spike       Matrix         esult       Units       Dil.       Amount       Result       Rec.         351       mg/Kg       1       250       248       41         ult.       RPD is based on the spike and spike duplicate result.       Spike       Matrix       Rec.	Date Analyzed:       2008-02-02       Analyzed By         QC Preparation:       2008-02-02       Prepared By:         MS       Spike       Matrix       R         esult       Units       Dil.       Amount       Result       Rec.       Li         351       mg/Kg       1       250       248       41       35.6         ult.       RPD is based on the spike and spike duplicate result.       Spike       Matrix       Rec.

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

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

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

Gladiola Gathering			Work Gla	diola Gathe	13009 ring			P	age Nu Le	mber: ea Cou	15 of 1' inty, NM
Param	MSD Resul	) t Ur	nits I	Spil Dil. Amo	te M unt F	latrix Result	Rec.	Re Lin	c. nit	RPD	RPD Limit
GRO IC	30.0	mg	/Kg	1 10.	0 16	5.3773	136	70 -	130	7	· · · ·
Percent recovery is based on the s	pike resul	t. RPD	is based	on the spik	e and st	oike du	plicate	result.			
	-			•	•	~	•			_	_
<b>a</b>	l D	MS	MSD	<b>TT</b> •.		S	pike	MS	MS	D	Rec.
Surrogate	Re	sult	Kesult	Units		An	nount	Rec.	Rec		Limit
A Bromofluerohongono (A BEB)	U. 1	.895 11	0.875	mg/Kg	1		1	90	88	) 7	70 - 130
4-Diomonuorobenzene (4-Dr D)			1.12	mg/ Kg	<b>L</b>					6	10 - 150
Matrix Spike (MS-1) Spike	ł Sample:	149192									
QC Batch: 45229		Date	Analyze	ed: 2008-0	01-31				Analy	zed B	v: DC
Prep Batch: 38890		QCI	Preparati	ion: 2008-	01-30				Prepa	red B	y: DC
-		-	-						-	·	
	Ν	ЛS			Sp	ike	Ma	trix			Rec.
Param	Re	sult	Units	Dil.	Amo	ount	Re	sult	Rec.		Limit
Benzene	1	.06	mg/Kg	<u>z 1</u>	1.	00	<0.0	00300	106		70 - 130
Toluene	1.	.11	mg/Kg	g 1	1.0	00	0.0	838	103		70 - 130
Ethylbenzene	1	.12	mg/Ke	g · 1	1.	00	0.1	133	101		70 - 13
Xylene	3	.34	mg/Kg	g 1	3.	00	0.5	213	104		70 - 130
Param	MSD Besult	Uni	ts Di	Spike Amou	M nt R	atrix esult	Rec	Re Lin	eC.	RPD	RPE Limi
Benzene	1.03	mg/	$\frac{1}{Kg}$	1.00	<0	.00300	103	70 -	130	3	
Toluene	1.10	mg/	8 - Kg 1	1.00	0.	0838	102	70 -	130	1	
Ethylbenzene	1.14	mg/	Kg 1	1.00	0.	1133	103	70 -	130	2	
Xylene	3.33	mg/2	Kg 1	3.00	0	.213	104	70 -	130	0	
Percent recovery is based on the s	pike resul	t. RPD	is based	on the spil	e and sp	oike du	plicate	result.			
	I	MS	MSD			S	pike	MS	MS	D	Rec.
Surrogate	Re	esult	Result	Units	Dil.	An	nount	Rec.	Rec	2	Limit
Trifluorotoluene (TFT)	1	01	1.01	mg/Kg	1		1	101	10	1	70 - 130
4-Bromofluorobenzene (4-BFB)	1	03	1.05	mg/Kg	1		1	103	10	5	70 - 130
Standard (CCV-1)											
QC Batch: 45139		Date	e Analyze	ed: 2008-0	1-30				Analy	zed B	y: LD
		CCVs	1	CCVs	C	CVs		Percen	t		-
	*-	True		Found	Per	rcent		Recover	ry		Date
Param Flag Uni	ts V -	Conc.		Conc.	Rec	overy		Limits		A	nalyzed
	ing	200		240				00 - 11	0	20	00-01-00
Standard (CCV-2)											

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

Report Dat Gladiola Ga	e: February athering	4, 2008		Work Order: 80 Gladiola Gathe	13009 ering	Page N L	umber: 16 of 17 ea County, NM
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	85 - 115	2008-01-30
Standard (	(CCV-1)			,			
QC Batch:	45148		Date Ana	alyzed: 2008-0	1-30	Anal	yzed By: LD
		<b>T</b> T • .	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	240	98	85 - 115	2008-01-30
Standard (	(CCV-2)						
QC Batch:	45148		Date Ana	alyzed: 2008-0	1-30	Anal	yzed By: LD
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	240	96	85 - 115	2008-01-30
Standard ( QC Batch:	(ICV-1) 45226		Date Ana	alyzed: 2008-0	2-02	Ana	lyzed By: LD
_		<b></b>	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRU		mg/Kg	200			80 - 110	2008-02-02
Standard (	(CCV-1)						
QC Batch:	45226		Date Ana	alyzed: 2008-0	2-02	Ana	lyzed By: LD
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	239	96	85 - 115	2008-02-02
Standard (	(ICV-1)						
QC Batch:	45227		Date Ana	alyzed: 2008-0	1-31	Anal	yzed By: DC
			ICVs	ICVs	ICVs	Percent	_
Damage	I	TT# #+-	True	Found	Percent	Recovery	Date
raram CRO	riag	Units	1 00	0 082	necovery	Limits	Analyzed
			1.00	0.002		00 - 110	2000-01-01

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### Standard (CCV-1)

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QC Batch:	45227		Date Ana	alyzed: 2008-0	1-31	Anal	yzed By: DC
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.962	96	85 - 115	2008-01-31

### Standard (ICV-1)

QC Batch: 452	29		Date Analyzed	l: 2008-01-31		Analy	yzed By: DC
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0962	96	85 - 115	2008-01-31
Toluene		mg/Kg	0.100	0.0942	94	85 - 115	2008-01-31
Ethylbenzene		mg/Kg	0.100	0.0908	91	85 - 115	2008-01-31
Xylene		mg/Kg	0.300	0.274	91	85 - 115	2008-01-31

### Standard (CCV-1)

QC Batch: 4	5229			Date Analyzed:	2008-01-31		Analyze	ed By: DC
				CCVs	CCVs	CCVs	Percent	
				True	Found	Percent	Recovery	Date
Param		Flag	$\mathbf{Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene			mg/Kg	0.100	0.0953	95	85 - 115	2008-01-31
Toluene			mg/Kg	0.100	0.0934	93	85 - 115	2008-01-31
Ethylbenzene			mg/Kg	0.100	0.0909	91	85 - 115	2008-01-31
Xylene			mg/Kg	0.300	0.274	91	85 - 115	2008-01-31

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# **APPENDIX B**

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## **Photographic Documentation**

### **Client:** Centurion Pipeline, L.P. Site Location: Lea County, New Mexico Photograph Date: As Noted

Prepared by: NOVA Photographer: Ron Rounsaville Project Name: Gladiola Gathering

## Photograph No. 1

Date: 01/21/08

**Direction:** South



## Photograph No. 2

pipeline excavation trench prior to line

change out.

Date: 01/21/08

Direction: North

## **Description:** View to the north of the

surface spill flowpath.





## **Photographic Documentation**

Prepared by: NOVA

Photographer: Ron Rounsaville

## Client: Centurion Pipeline, L.P. Site Location: Lea County, New Mexico Photograph Date: As Noted

Photograph No. 3

Date: 01/23/08

**Direction:** View South

**Description:** View of main excavation at leak source following pipeline change out.



## Photograph No. 4

Date: 01/24/08

Direction: View South.

**Description:** View of flow path excavation to the south.




## Photographic Documentation

### Client: Centurion Pipeline, L.P. Site Location: Lea County, New Mexico Photograph Date: As Noted

### Photograph No. 5

Date: 01/29/08

Direction: View North

**Description:** View to the north of the flow path excavation area.





#### Photograph No. 6

Date: 01/29/08

Direction: View North.

**Description:** View of flow path excavation area south of pipeline change out.





### **Client:** Centurion Pipeline, L.P. **Site Location:** Lea County, New Mexico **Photograph Date:** As Noted

### Prepared by: NOVA Photographer: Ron Rounsaville Project Name: Gladiola Gathering

Photograph No. 7

Date: 01/29/08

Direction: View North

**Description:** View of excavation south of leak source.



### Photograph No. 8

Date: 05/07/07

Direction: View North.

**Description:** View of leak source excavation area following completion of excavation activities.





# Photographic Documentation

### Client: Centurion Pipeline, L.P. Site Location: Lea County, New Mexico Photograph Date: As Noted

### Prepared by: NOVA Photographer: Ron Rounsaville Project Name: Gladiola Gathering

### Photograph No. 9

Date: 02/14/08

Direction: View North

**Description:** View of southern end of excavation during final stages of backfilling activities.



### Photograph No. 10

Date: 02/14/08

Direction: View South.

**Description:** View of excavation area following completion of backfilling activities.



# **APPENDIX C**

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N. French Dr., Hobbs, NM-88240 HII W. Grand Avenue, Artesia: NM-88210	Energy Minerals and Natural Resou	Form C-141 Revised October 10, 2003
<u>st III</u> Rio Brazos Road, Aztec, NM 87410. <u>HTV</u> S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr.	Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form
Relea	se Notification and Correct	ive Action
	OPERATOR	🖾 Initial Report 🚺 Final Repor
ne of Company Centurion Pipeline, LP Iress 2200 East CR 90, Midland, TX 797	06 Contact Becky Moo Telephone No. 432	.978-8067
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e of Release Sweet Crude Oil ree of Release. At the Crossroads-Texas Stat de oil gathering line into Gladiola.	Volume of Release e-line, on the 8" Date and Hour of O 01/18/08	75 bbls. Volume Recovered 60 bbls.   ccurrence Date and Hour of Discovery   01/18/08 at 2:30 pm
s Immediate Notice Given?	If YES, To Whom? No 🗔 Not Required.   Chris Williams	
Whom? Becky Moore a Watercourse Reached?	Date and Hour 01/1 If YES, Volume Im	19/08 at 10 am pacting the Watercourse
E Yes X		ու հանձարակությունները։ Հայաստանությունները Հայաստանությունները տարորը հետ հայտությունները։ Հայաստանությունները տարորը հետ հայտությունները։ Հայաստանությունները հետությունները։
watercourse was impacted; Describe Fully.		
cribe Cause of Problem and Remedial Action	Taken.* ade-Texas State Line System on the 87 Gat	hering Line into Gladiola. Emergency Action response
uded stopping the source of the leak with a rediation company was called in to assist with	temporary clamp; also trucks were immedi h emergency response and for assistance in	iately called in to vacuum free oil. A 3rd party remediation and clean up efforts. The area was
tanned until an emergency one call was clear taminated soil was being completed on 8/23.	ed with the State of NM on 8/22/08 (due to '08. Affected soil was brought to the surfac	state office closure during holiday). Excavation of the e and staged on plastic at the site. Soil samples from
bottom of the excavation and from the stock	c piles were taken 8/23/08 for lab analysis to	o ensure NM State clean up levels are met.
wribe Area Affected and Cleanup Action Take a affected at the source of the leak is apx. 44 p were affected. Estimated 1200 Cu. Yds, o uest of the landowner clean soil will be used	n.* 3' x 50' and apx. 10' in depth. Also an area f contaminated soil is currently being haule from the Landowner's orchard which is w	of apx, 250' in length along the pipeline ROW and 12" d offsite to Gandy Landfill West of Tatum. At the ithin proximity of the affected site.
e pipeline is being replaced with 300° of new Il report including lab analysis, pictures, an	pipeline from the source of the corrosion. d all associated closure documentation as re	A final C-141 will be submitted and accompanied with a equired.
reby certify that the information given above i	s true and complete to the best of my knowled	ige and understand that pursuant to NMOCD rules and
blic health or the environment. The acceptance uld their operations have failed to adequately i	of a C-141 report by the NMOCD marked as nyestigate and remediate contamination that n	"Final Report" does not relieve the operator of liability ose a threat to ground water, surface water, human health
he environment. In addition, NMOCD accepts eral, state, or local laws and/or regulations.	nce of a C-141 report does not relieve the ope	erator of responsibility for compliance with any other
PANA	<u>OII</u>	CONSERVATION DIVISION
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nted Name; Becky/Moore		
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e 01/22/08	социция от Арртоу hone: 432-978-8067	Attached 🖂
ach Additional Sheets If Necessary		

District I   State of N     1625 N. French Dr., Hobbs, NM 88240   Energy Minerals a     District II   Oil Conserv     1301 W. Grand Avenue, Artesia, NM 88210   District III     1000 Rio Brazos Road, Aztec, NM 87410   District IV     1220 S. St. Francis Dr., Santa Fe, NM 87505   Santa Fe,     Release Notification     Name of Company: Centurion Pipeline, LP   C     Address: P.O. Box 51790, Midland, TX 79710 (mailing address)   T     Facility Name: *'' Gathering Line into Gladiola Station   H     Surface Owner: Wesley Harris   Mineral Owner						New Mexico RECEIVED and Natural Resources Form C-141 Revised October 10, 2003 rvation Division APR 2 3 2008 b St. Francis DEOBBS OCD Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form n and Corrective Action OPERATOR Initial Report Final Report Contact: Becky Moore Telephone No. 432-686-6805 (office) 432-978-8067 (cell) Facility Type: Sweet Crude Oil Pipeline Lease No.						
				LOCA	TIO	N OF REI	LEASE					
Unit Letter	Section	Township	Kange	Feet from the	Nort	h/South Line	Feet from the	East/W	est Line	County		
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8" crude oil g	athering lin	ne into Gladio	a Station.			01/18/08	01/18/08 01/18/08 at 2:30 pm					
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Was a Water	Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse.					
If a Watercou	If a Watercourse was Impacted, Describe Fully.*											
Describe Cau remedial act and 20 feet i excavated fr transported remaining 2. Describe Are way. NMOO course of exc permitted la impacted soi the site was excavation fr NMOCD reg I hereby certi regulations a oublic health	Describe Cause of Problem and Remedial Action Taken.*Cause of leak was the result of internal corrosion of the 8-inch steel pipeline. Initial remedial actions included recovering apx. 60 barrels of crude oil. The resulting surface stain attributed to the release was apx. 180 feet in length and 20 feet in width. The affected pipeline was replaced with 300' of new pipe. Apx. 2800 cubic yards of hydrocarbon impacted soil was excavated from the site. During the course of excavation and remediation activities apx. 1960 cu yds of hydrocarbon impacted soil was transported to a commercial NMOCD permitted landfarm for proper disposal. Apx. 1,500 cu yds of non-impacted soil was used to blend with the remaining 2,100 cy of hydrocarbon impacted soil.On February 12, 2008, permission to backfill was approved by the NMOCD Hobbs district office. Describe Area Affected and Cleanup Action Taken.*Area affected from the hydrocarbon leak was contained on-site and within the pipeline right of way. NMOCD regards the depth of the groundwater in the vicinity of the release site is apx. 70 feet below ground surface (bgs). During the course of excavation and remediation activities apx. 1960 cu yds of hydrocarbon impacted soil was transported to a commercial NMOCD permitted landfarm for proper disposal. Apx. 1,500 cu yds of non-impacted soil was used to blend with the remaining 2,100 cy of hydrocarbon impacted soil. On February 12, 2008, permission to backfill was approved by the NMOCD Hobbs district office. Following backfilling activities the site was contoured to the surrounding topography. The analytical results of final confirmation soil samples collected from the main excavation floor, excavation sidewalls, flowpath floor and flowpath sidewalls indicate benzene, BTEX and TPH concentrations below the required NMOCD regulatory levels of 10 mg/Kg, 50 mg/Kg and 1,000 mg/Kg, respectively. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regu											
public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other rederal, state, or local laws and/or regulations.												
Printed Name	Signature: Ragini Martin				Approved by District SWALFIGANMENITAL ENGINEER							
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Date: 3/14/2008 Phone: 4336-6805 1RP# 1762												

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