

Highlander Environmental Corp.

Midland, Texas

August 27, 2007

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

RE: Assessment and Closure Request for the Spill at the Jalmat Yates, Well #29, Unit Letter L, Section 18, Township 25 South, Range 37 East, Lea County, New APP 30005 116510000 Mexico, Operated by COG Operating LLC, 1RP 1380.

Dear 'Mr. Johnson:

Highlander Environmental Corp. (Highlander) was contacted by COG Operating LLC (COG) to assess and to remediate the soil impact from a spill that occurred at the Jalmat Yates Well #29 located in Unit Letter L, Section 18, Township 25 South, Range 37 East, Lea County, New Mexico. The site location is shown on Figure 1.

Background

The spill was discovered on June 2, 2007, from a leak on a flowline located near the well pad location. Approximately 1 barrel of oil and 2 barrels of water were released from the flowline and no fluids were recovered. The release impacted an area west and south of the well pad location. The initial Form C-141 is included in Appendix C.

Groundwater and Regulatory

The spill area is located in Section 18, Township 25 South, Range 37 East. The State of New Mexico Well Reports did not show any water wells in Section 18. However, there were water wells shown in Sections 19 and 20, Township 25 South, Range 37 East with an average groundwater depth of approximately 34' to 44' below surface.

Published data, from the Geology and Groundwater Conditions in Southern New Mexico, showed wells in Section 15 and 23, Township 25 South, Range 36 East with reported depths of 120' and 53.7', respectively. In Sections 17, 19 and 20, Township 25 South, Range 37 East, water wells showed average groundwater depths of approximately 62' to 65' below surface. In addition, the USGS data base reported a depth to water at 51'in the southeast quarter of Section 18, Township 25 South, Range 37 East. A monitor well, located in the western edge of Section 18, reportedly had a water level of approximately 63.0' in 2004. Based on the relative elevation of the Site and surrounding

RP#156

wells, the groundwater appears to be greater than 50.0' below surface. The State of New Mexico Well Reports, USGS report and published reports are included in Appendix B.

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

Assessment and Corrective Action

On June 7, 2007, Highlander personnel inspected the spill area. During the inspection, the impacted area west and south of the well pad had been excavated to a depth of approximately 6" below surface. The excavated soils were transported to Sundance Services, Inc., located in Eunice, New Mexico for proper disposal. A total of three (3) auger holes were installed in the spill area. The auger hole locations are shown on Figure 2.

The soil samples collected were analyzed for Total Petroleum Hydrocarbon (TPH) by method modified 8015 DRO/GRO, benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method 8021B and chloride by EPA method 300.0. All samples were collected and preserved in laboratory prepared sample containers, shipped under proper chain-of-custody control and analyzed within the standard holding times. The sample results are shown in Table 1. The analytical reports and chain of custody are shown in Appendix B.

Referring to Table 1, the sample from AH-2 (0-1') exceeded the RRAL for TPH with a concentration of 5,290 mg/kg. The remaining samples at 0-1' were below the RRAL for TPH and BTEX. The deeper sample at AH-2 (1-1.5') was below the TPH RRAL. The chloride concentrations ranged from 92.8 mg/kg (AH-3, 1-1.5') to 653 mg/kg (AH-2, 0-1').

On July 14, 2007, Highlander supervised the excavation to remove the impacted soil above the RRAL. The area of AH-2 was excavated and an additional 6" to 1.0 of soil was removed. The excavated area is shown Figure 3. The excavated soils were then transported to proper disposal. Once excavated, one confirmation sample CS (0-1") was collected from the excavated area. The TPH concentration was <50.0 mg/kg.

Conclusion

The spill from the release caused a shallow hydrocarbon impact to the subsurface soils, which were excavated to below NMOCD RRAL. The chloride concentrations do not appear to be an imminent threat to groundwater. Based on the results and remedial activities performed, COG request closure for the Site. The final Form C-141 is included in Appendix C.



If you require any additional information or have any questions or comments, please contact us at (432) 682-4559.

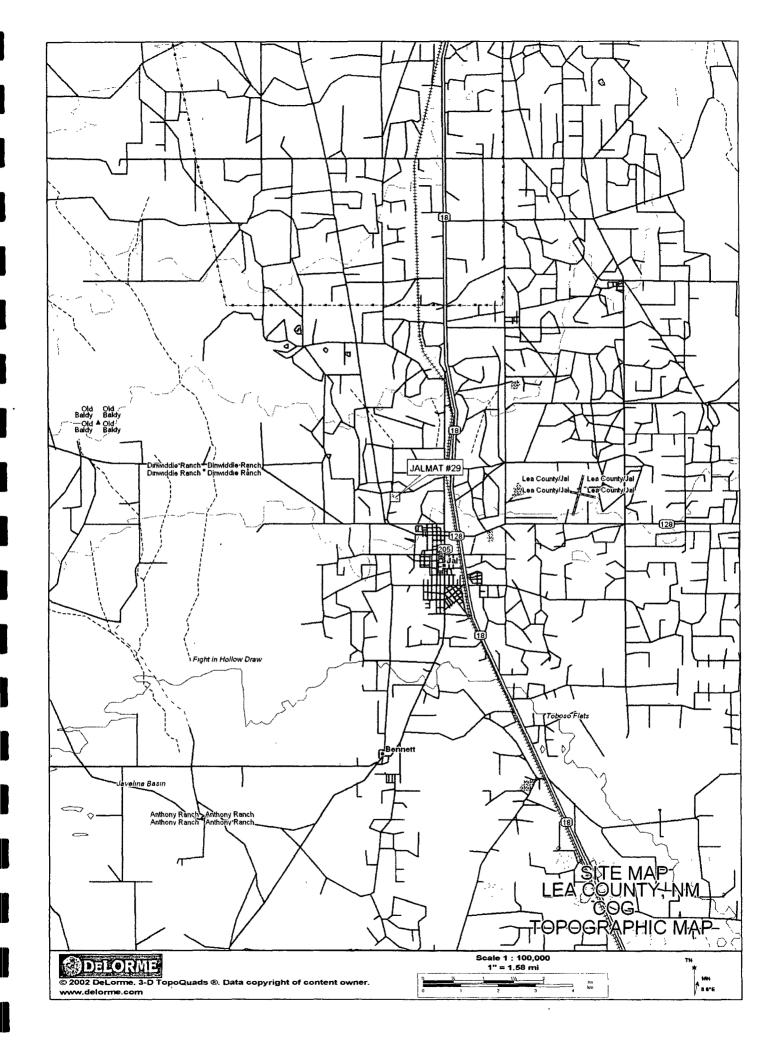
Highlander Environmental Corp.

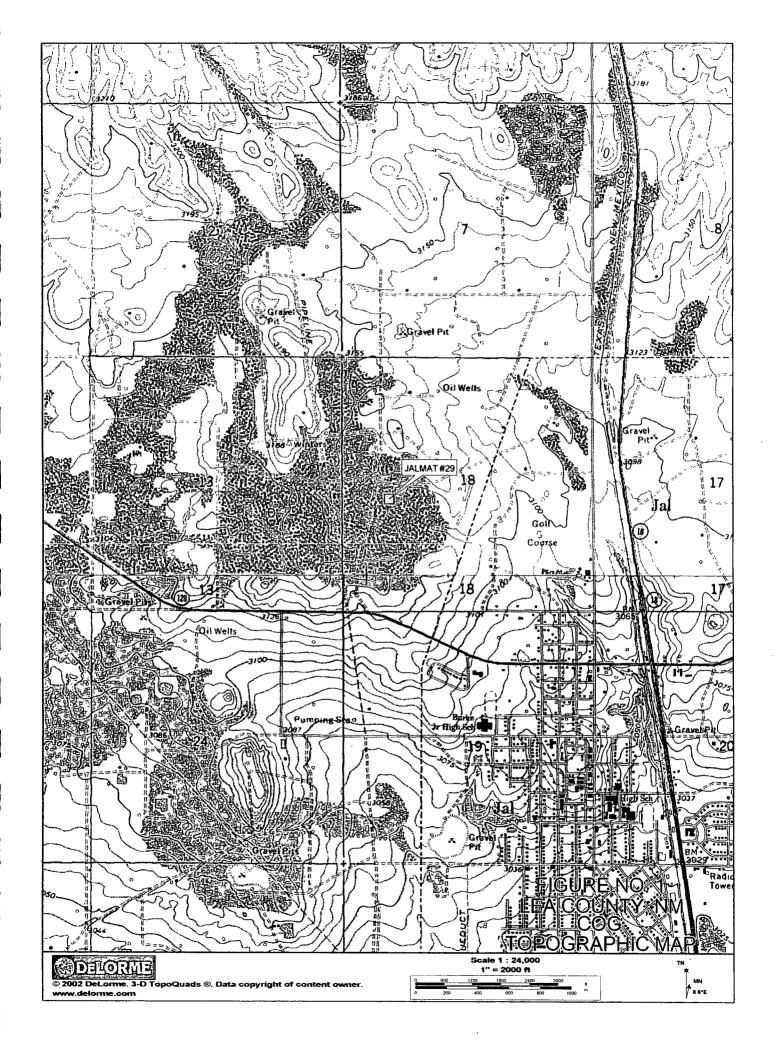
lke Tavarez, P

Project Manager/Senior Geologist

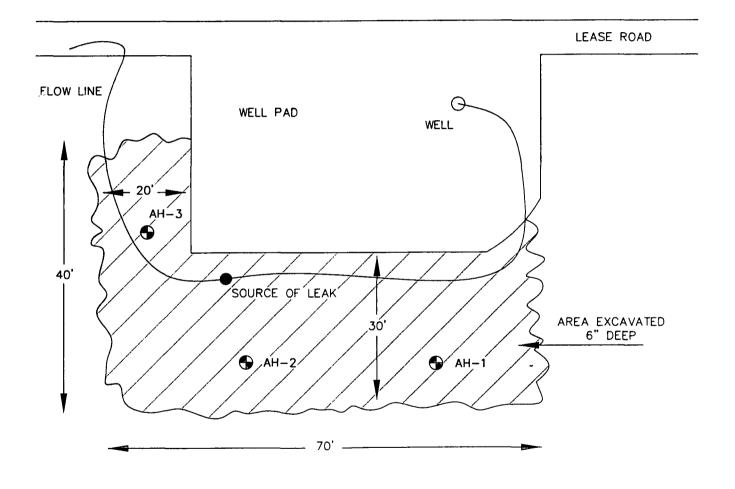
cc: COG – Boyd Chesser

		SITE	INFORMAT	ΓΙΟΝ	
	RP - 13		Report Type:	CLOSUR	RE REPORT
General Site Info		er i tre para (arrelatable)		412	100 年 10 日本 10
Site:	-124	Jalmat Yates l		A. S. A. C.	
Company:		COG Operatin			
Well Location:		Section 18, T2			
Unit Letter:		Unit L	,		
Lease Number:		301048			
County:		Lea			
Spill GPS:		N32.12944°	W103.20727°		
Surface Owner:		Clay Osborne			
Mineral Owner:		Unknown			
Directions:	******		lexico intersection	of Hwy 18 at	nd Hwy 128, go 1.1 miles (west) on
<u> </u>					0.5 miles and turn right (east) and go
		0.1 mile to well le		u, go norar c	o.o miles and turn right (east) and go
		0.1 mile to well it	ocauon.		
The Continue Town	TOWNS CONTRACT AND TOWNS IN THE TOWNS				
Release Data:		TO A SOURCE STREET, SHE	1174, 217		
Date Released:		6/2/2007			
Type Release:		Oil and water			
Source of Contam	nination:	Flow line leak			
Fluid Released:			and 2 Barrels of V	<i>l</i> ater	
Fluids Recovered	•	None			
Official Commun	nteattons				
Name:	Kanicia Carrillo)			Ike Tavarez
Company:	COG Operating	g, LLC			Highlander Environmental Corp.
Address:	550 W. Texas,	Ste 1300			1910 N. Big Spring
P.O. Box	·				<u> </u>
City:	Midland Texas,	79701-7340			Midland, Texas
Phone number:					(432) 682- 4559
	(432) 683-7443				(432) 682- 4559
Fax:	(432) 683-7441				
Email:		nchoresources.	<u>com</u>		itavarez@hec-enviro.com
Ranking Gifteda					
.			In		<u> </u>
Depth to Groundw <50 ft	ater:		Ranking Score		Site Data
50-99 ft			10		
>100 ft.			0		
				l	
WellHead Protecti			Ranking Score		Site Data
Water Source <1,0			20		None
Water Source >1,0	000 ft., Private >2	200 ft.	0		
Curface Dade of 14	Vatar		Banking Coord	I	Sito Data
Surface Body of W <200 ft.	vater:		Ranking Score		Site Data None
200 ft - 1,000 ft.			10		None
>1,000 ft.			0		
·			1		
Tota	l Ranking Sco	re:	10	1	20 10 10 10 10 10 10 10 10 10 10 10 10 10
			ole Soil RRAL (m	g/kg)	(A) (A)
		Benzene	Total BTEX	TPH	
		10	50	1,000	1 6 W W
			1		Co Constitution of
					\$505.282.282.40









SPILL AREA

AUGER HOLE

DATE:
8/2/07
DWN. BY.
RC
FILE:
c:\coo;\soan

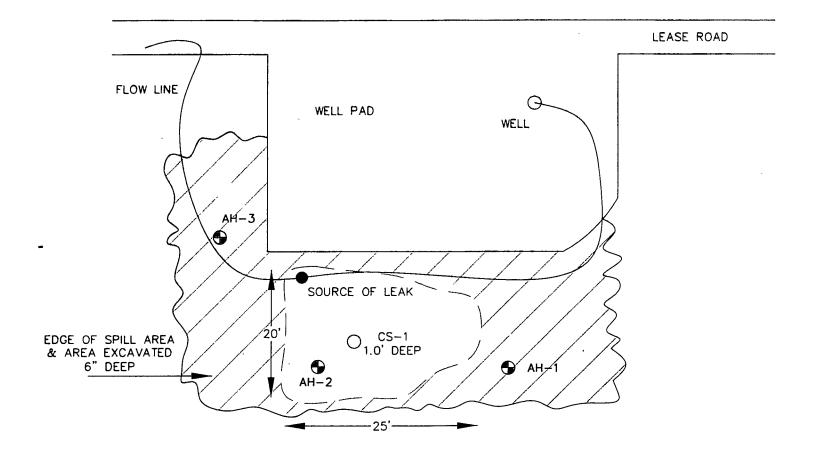
COG OPERATING, LLC JALMAT #29

FIGURE NO. 2 LEA COUNTY, TEXAS

HIGHLANDER ENVIRONMENTAL CORP. MIDLAND, TEXAS

NOT TO SCALE





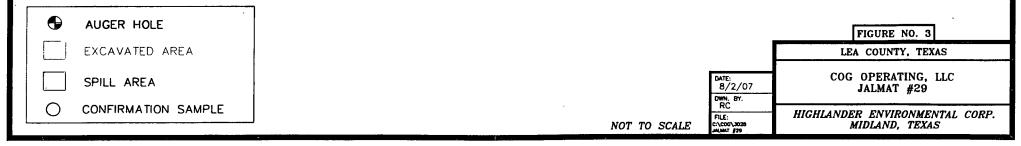


Table 1 COG Operating Jalmat Yates Unit #29 Well Lea County, New Mexico

Sample	Date	Sample		TPH (mg/kg	<u>;</u>)	Benzene	Toluene	Ethlybenzene	Xylene	Chloride
ID	Sampled	Depth (ft)	DRO	GRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Confirmation Sar	npling - Area ex	cavated 6" p	orior to sa	mpling						
A TT 1		0.1.0	150.0	-1.00	-50.0		10.0100	0.0257	0.100	0.770
AH-1	6/7/2007	0-1.0'	<50.0	<1.00	<50.0	< 0.0100	< 0.0100	0.0357	0.180	279
AH-1	6/7/2007	1'-1.5'	-	-	-	-	-	-	-	105
AH-2	6/7/2007	0-1.0'	3,360	1,930	5,290	0.178	5.20	9.77	26.6	653
AH-2	6/7/2007	1'-1.5'	<50.0	5.44	5.44	-	_	-	_	206
AH-2	6/7/2007	2'-2.5'	-	-	-	-	-	-	•	472
AH-3	6/7/2007	0-1.0'	85.1	<1.00	85.1	<0.0100	<0.0100	0.0889	0.275	128
AH-3	6/7/2007	1'-1.5'	-	-	-	-	-	-	-	92.8

⁽⁻⁾ Not Analyzed

Sample ID	Date Sampled	Sample Depth (ft)	DRO	TPH (mg/kg GRO	r) Totaļ	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
Confirmation Samp	oling - Area of	AH-2, exca	vation add	ditional 6"	to total de	epth of 1.0' t	o 1.5' BEB			
CS-1 (0-1') BEB 1.0'	7/14/2007	0-1.0'	<50.0	<1.00	<50.0	< 0.0100	<0.0100	0.0357	0.180	279

Summary Report

Ike Tavarez

Highlander Environmental Services

1910 N. Big Spring Street

Midland, TX, 79705

Report Date. June 19, 2007

Work Order: 7060838

Project Location: Lea County, NM

COG-Jalmet #29

Project Name: Project Number:

3028

		•	Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
127046	AH-1 (0-1')	soil	2007-06-07	00:00	2007-06-08
127047	AH-1 (1-1.5')	soil	2007-06-07	00:00	2007-06-08
127048	AH-2 (0-1')	soil	2007-06-07	00:00	2007-06-08
127049	AH-2 (1-1.5')	soil	2007-06-07	00:00	2007-06-08
127050	AH-2 (2-2.5')	soil	2007-06-07	00:00	2007-06-08
127053	AH-3 (0-1')	soil	2007-06-07	00:00	2007-06-08
127054	AH-3 (1-1.5')	soil	2007-06-07	00:00	2007-06-08

		BTEX				TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/Kg)
127046 - AH-1 (0-1')	< 0.0100	< 0.0100	0.0357	0.180		< 50.0	<1.00
127048 - AH-2 (0-1')	0.178	5.20	9.77	26.6	1	3360	1930
127049 - AH-2 (1-1.5')						< 50.0	5.44
127053 - AH-3 (0-1')	< 0.0100	< 0.0100	0.0889	0.275		85.1	< 1.00

Sample: 127046 - AH-1 (0-1')

Param	Flag	Result	Units	RL
Chloride		279	mg/Kg	2.00

Sample: 127047 - AH-1 (1-1.5')

Param	Flag	Result	Units	RL
Chloride		105	mg/Kg	2.00

Sample: 127048 - AH-2 (0-1')

Param	Flag	Result	Units	RL
Chloride		653	mg/Kg	2.00

Report Date: June 3028	e 19, 2007	Work Order: 7060838 COG-Jalmet #29	Pag	ge Number: 2 of 2 Lea County, NM
Sample: 127049	- AH-2 (1-1.5')			
Param	Flag	Result	Units	RL
Chloride		206	mg/Kg	2.00
Sample: 127050	- AH-2 (2-2.5')			
Param	Flag	Result	Units	RL
Chloride		472	m mg/Kg	2.00
Sample: 127053	- AH-3 (0-1')			
Param	Flag	Result	Units	RL
Chloride		128	mg/Kg	2.00
Sample: 127054	- AH-3 (1-1.5')			
Param	Flag	Result	Units	RL
Chloride		92.8	mg/Kg	2.00



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway, Suite 110 Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703

800 • 378 • 1296 888 • 588 • 3443 806 • 794 • 1296 915 • 585 • 3443 FAX 806 • 794 • 1298 FAX 915 • 585 • 4944 FAX 432 • 689 • 6313

432 • 689 • 6301 817 • 201 • 5260

Ft Worth, Texas 76132 E-Mail lab@traceanalysis com

Analytical and Quality Control Report

Ike Tavarez Highlander Environmental Services 1910 N. Big Spring Street Midland, TX, 79705

Report Date: June 19, 2007

Work Order: 7060838

Project Location: Lea County, NM Project Name:

COG-Jalmet #29

Project Number: 3028

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
127046	AH-1 (0-1')	soil	2007-06-07	00:00	2007-06-08
127047	AH-1 (1-1.5')	soil	2007-06-07	00:00	2007-06-08
127048	AH-2 (0-1')	soil	2007-06-07	00:00	2007-06-08
127049	AH-2 (1-1.5')	soil	2007-06-07	00:00	2007-06-08
127050	AH-2 (2-2.5')	soil	2007-06-07	00:00	2007-06-08
127053	AH-3 (0-1')	soil	2007-06-07	00:00	2007-06-08
127054	AH-3 (1-1.5')	soil	2007-06-07	00.00	2007-06-08

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

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project COG-Jalmet #29 were received by TraceAnalysis, Inc. on 2007-06-08 and assigned to work order 7060838. Samples for work order 7060838 were received intact at a temperature of 4 deg C.

Samples were analyzed for the following tests using their respective methods

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
TPH DRO	Mod 8015B
TPH GRO	S 8015B

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 7060838 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Work Order: 7060838

Page Number: 3 of 16 COG-Jalmet #29 Lea County, NM

Analytical Report

Sample: 127046 - AH-1 (0-1')

BTEX Analysis: QC Batch. 38108 Prep Batch: 33027

Analytical Method: S 8021BDate Analyzed: 2007-06-12 Sample Preparation: 2007-06-12 Prep Method· S 5035 JWAnalyzed By: Prepared By. JW

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 0.0100	mg/Kg	1	0.0100
Toluene .		< 0.0100	${ m mg/Kg}$	1	0.0100
Ethylbenzene		0.0357	mg/Kg	1	0.0100
Xylene		0.180	mg/Kg	1	0.0100

				,	Spike	$\operatorname{Percent}$	$\operatorname{Recovery}$
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.830	${ m mg/Kg}$	1	1.00	83	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.01	${ m mg/Kg}$	1	1.00	101	51.1 - 119.1

Sample: 127046 - AH-1 (0-1')

Chloride (Titration) Analysis:

QC Batch: 38069 32964 Prep Batch:

Analytical Method: SM 4500-Cl B Date Analyzed:

2007-06-12

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

RL

Parameter	Flag	Result	Units	Dilution	RL
Chloride		279	mg/Kg	25	2.00

Sample Preparation:

Sample: 127046 - AH-1 (0-1')

TPH DRO Analysis: QC Batch: 38088 32963 Prep Batch:

Analytical Method: Mod. 8015B Date Analyzed 2007-06-11 Sample Preparation: 2007-06-11

Prep Method: N/A Analyzed By. AGPrepared By:

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

	.*				Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		129	mg/Kg	1	150	86	32.9 - 167

Sample: 127046 - AH-1 (0-1')

Analysis: TPH GRO 38280 QC Batch: Prep Batch: 33143

Analytical Method: S 8015B 2007-06-18 Date Analyzed: Sample Preparation: 2007-06-18

Prep Method: S 5035 Analyzed By: KBPrepared By: KB ·

3028

Work Order: 7060838 COG-Jalmet #29

Page Number: 4 of 16 Lea County, NM

Parameter	Flag		$rac{ ext{RL}}{ ext{Result}}$		Units	Г	ilution	m RL
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.884	mg/Kg	1	1.00	88	33.2 - 160
4-Bromofluorobenzene (4-BFB)		0.951	mg/Kg	1	1.00	$\epsilon 95$	10 - 227

Sample: 127047 - AH-1 (1-1.5')

Analysis: QC Batch: Chloride (Titration)

38069 Prep Batch: 32964 Analytical Method: Date Analyzed:

Sample Preparation:

SM 4500-Cl B

2007-06-12

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

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Chloride		105	mg/Kg	25	2.00

Sample: 127048 - AH-2 (0-1')

Analysis: QC Batch:

Prep Batch:

BTEX 38108 33027

Analytical Method: Date Analyzed:

S 8021B

2007-06-12 Sample Preparation: 2007-06-12 Prep Method: S 5035

Analyzed By: JWPrepared By: JW

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		0.178	mg/Kg	1	0.0100
Toluene	1	5.20	mg/Kg	1	0.0100
Ethylbenzene	2	9.77	mg/Kg	1	0.0100
Xylene	3	26.6	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} \mathbf{Spike} \ \mathbf{Amount} \end{array}$	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.647	mg/Kg	1	1.00	65	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	51.1 - 119.1

Sample: 127048 - AH-2 (0-1')

Analysis:

Chloride (Titration)

QC Batch: 38069 Prep Batch: 32964 Analytical Method: Date Analyzed:

Sample Preparation:

SM 4500-Cl B 2007-06-12

Prep Method: N/A

Analyzed By: AR Prepared By: AR

		RL
arameter	\mathbf{Flag}	Result

Parameter	Flag	Result	Units	Dilution	RL
Chloride		653	mg/Kg	25	2.00

¹Estimated concentration value greater than standard range.

²Estimated concentration value greater than standard range.

³Estimated concentration value greater than standard range.

Work Order: 7060838 COG-Jalmet #29

Page Number: 5 of 16 Lea County, NM

Sample: 127048 - AH-2 (0-1')

32963

Analysis: QC Batch:

Prep Batch:

TPH DRO 38088

Analytical Method: Date Analyzed:

Mod 8015B 2007-06-11

Prep Method· N/A Analyzed By: AG

Sample Preparation: 2007-06-11 Prepared By: AG

RL

Parameter	Flag	Result	Units	Dilution	RL
DRO		3360	mg/Kg	1	50.0

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		203	mg/Kg	1	150	135	32.9 - 167

Sample: 127048 - AH-2 (0-1')

Analysis: QC Batch:

TPH GRO 38280 Prep Batch: 33143

Analytical Method: Date Analyzed

Sample Preparation

S 8015B 2007-06-18 2007-06-18 Prep Method: S 5035 Analyzed By: KB

KB

Prepared By-

RL

Parameter	Flag	Result	Units	Dilution	RL
GRO		1930	mg/Kg	20	1.00

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.422	mg/Kg	20	1.00	42	33.2 - 160
4-Bromofluorobenzene (4-BFB)		1.49	${ m mg/Kg}$	20	1.00	149	10 - 227

Sample: 127049 - AH-2 (1-1.5')

Analysis: QC Batch:

Prep Batch:

Chloride (Titration)

38069 32964 Analytical Method: Date Analyzed:

SM 4500-Cl B 2007-06-12

Prep Method: N/A Analyzed By: AR

Sample Preparation

Prepared By: AR

Parameter Flag

RLResult Units Dilution RL206 mg/Kg 25 2.00

Sample: 127049 - AH-2 (1-1.5')

32993

Analysis: QC Batch:

Prep Batch:

Chloride

TPH DRO 38107

Analytical Method: Date Analyzed:

Sample Preparation:

Mod. 8015B 2007-06-12 2007-06-12

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

RL

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

Report Date: June 19, 2007 3028

 ${\bf Surrogate}$

Trifluorotoluene (TFT)

4-Bromofluorobenzene (4-BFB)

Flag

Result

0.819

1.06

Work Order: 7060838 COG-Jalmet #29

7060838 Page Number: 6 of 16 2 #29 Lea County. NM

Surrogate		Flag ·	Result	Units	Dilu	tion	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	.e		123	${ m mg/Kg}$	1		150	82	61.7 - 143.2
Sample: 12	7049 - 1	AH-2 (1-	1.5')						
Analysis:	TPH G	RO		Analytical	Method·	S 8015B			Method· S 5035
QC Batch:	38280			Date Anal		2007-06-1			zed By: KB
Prep Batch:	33143			Sample Pr	reparation.	2007-06-1	8	Prepar	red By· KB
				RL					
Parameter		Flag	•	Result		Units		Dilution	RL
GRO /				5.44		${ m mg/Kg}$		1	1.00
							Spike	Percen	t Recovery
Surrogate			Flag	Result	Units	Dilutio	n Amount	Recover	
Trifluorotolu	ene (TF)	[]		1.07	mg/Kg	1	1.00	107	33.2 - 160
	rohenzen	e (4-BFB))	1.26	mg/Kg	1	1.00	126	10 - 227
4-Bromofluor Sample: 12 Analysis:	7050 - A		,	Analy	tical Metho	od: SM 4	500-C1 B	Prep) Method: N/A
Sample: 12	7050 - A	AH-2 (2-	,	Date A Sampl		2007-		Ana	o Method: N/A lyzed By: AR pared By: AR
Sample: 12 Analysis: QC Batch: Prep Batch:	7050 - A Chlorid 38069	AH-2 (2-	on)	Date A Sampl RL	tical Metho Analyzed:	2007-i		Ana Prep	lyzed By: AR pared By: AR
Sample: 12 Analysis: QC Batch: Prep Batch:	7050 - A Chlorid 38069	AH-2 (2-	on)	Date A Sampl RL Result	tical Metho Analyzed:	2007-lion: Units		Ana Prep Dilution	lyzed By: AR oared By: AR
Sample: 12 Analysis: QC Batch: Prep Batch:	7050 - A Chlorid 38069 32964	AH-2 (2- e (Titrati Flag	on)	Date A Sampl RL	tical Metho Analyzed:	2007-i		Ana Prep	lyzed By: AR pared By: AR
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 12	7050 - A Chlorid 38069 32964	AH-2 (2- e (Titrati Flag	on)	Date A Sampl RL Result	tical Metho Analyzed: e Preparati	2007-lion: Units		Ana Prep Dilution 25	lyzed By: AR bared By: AR 2.00
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 12 Analysis: QC Batch:	7050 - A Chlorid 38069 32964 7053 - A BTEX 38108	AH-2 (2- e (Titrati Flag	on)	Date A Sampl RL Result 472	tical Metho Analyzed: e Preparati	2007- ion: Units mg/Kg		Ana Prep Dilution 25	lyzed By: AR bared By: AR 2.00
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 12 Analysis: QC Batch:	7050 - A Chlorid 38069 32964 7053 - A	AH-2 (2- e (Titrati Flag	on)	Date A Sample RL Result 472	tical Metho Analyzed: e Preparati e Preparati	2007- ion: <u>Units</u> <u>mg/Kg</u> S 8021B		Ana Prep Dilution 25 Prep I Analys	lyzed By: AR bared By: AR 2.00 Method: S 5035
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chlonde Sample: 12 Analysis: QC Batch: Prep Batch	7050 - A Chlorid 38069 32964 7053 - A BTEX 38108	AH-2 (2- e (Titrati Flag	on)	Date A Sample Prepared RL Result 472 Analytical Mate Analyz Sample Prepared RL	tical Metho Analyzed: e Preparati fethod: Sed: 2 paration: 2	2007- ion: Units mg/Kg S 8021B 2007-06-12 2007-06-12	06-12	Ana Prep Dilution 25 Prep I Analy Prepa	AR Darred By: AR
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 12 Analysis: QC Batch: Prep Batch	7050 - A Chlorid 38069 32964 7053 - A BTEX 38108	AH-2 (2- e (Titrati Flag	on)	Pate A Sample RL Result 472 Analytical Mate Analyz Sample Prepared RL Result	tical Metho Analyzed: e Preparati Method: S ad: 2 paration: 2	2007-dion: Units mg/Kg S 8021B 2007-06-12 2007-06-12 Units	06-12	Ana Prep Dilution 25 Prep Analy Prepa	Method: S 5035 zed By: JW red By: JW
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 12 Analysis: QC Batch: Prep Batch: Prep Batch	7050 - A Chlorid 38069 32964 7053 - A BTEX 38108	AH-2 (2- e (Titrati Flag	on)	Analytical Months Property Sample Property RL Result Result 472 	tical Metho Analyzed: e Preparati Method: S ed: 2 paration: 2	2007-don: Units mg/Kg S 8021B 2007-06-12 2007-06-12 Units mg/Kg	06-12	Ana Prep Dilution 25 Prep Analy Prepa Dilution 1	Method: S 5035 zed By: JW red By: JW RL 0.0100
Sample: 12 Analysis: QC Batch: Prep Batch: Parameter Chloride Sample: 12 Analysis:	7050 - A Chlorid 38069 32964 7053 - A BTEX 38108 33027	AH-2 (2- e (Titrati Flag	on)	Pate A Sample RL Result 472 Analytical Mate Analyz Sample Prepared RL Result	tical Metho Analyzed: e Preparati Method: S ted: 2 paration: 2	2007-dion: Units mg/Kg S 8021B 2007-06-12 2007-06-12 Units	06-12	Ana Prep Dilution 25 Prep Analy Prepa	Method: S 5035 zed By: JW red By: JW

Units

mg/Kg mg/Kg Dilution

1

1

Amount

1.00

1.00

Recovery

82

106

Limits

26 - 117.8

51.1 - 119.1

Work Order, 7060838 COG-Jalmet #29

Analytical Method:

Page Number: 7 of 16 Lea County, NM

Sample: 127053 - AH-3 (0-1')

Analysis: QC Batch: Prep Batch

Chloride (Titration)

38070 Date Analyzed: Sample Preparation: 32965

SM 4500-Cl B 2007-06-12

Analyzed By-ARPrepared By: AR

N/A

2.00

Prep Method

128

RLFlag Result Parameter

Dilution RL

 $\overline{25}$

Sample: 127053 - AH-3 (0-1')

Analysis: QC Batch:

Prep Batch:

Chloride

TPH DRO 38088 32963

Analytical Method: Date Analyzed:

Mod. 8015B 2007-06-11

Units

mg/Kg

Prep Method. N/A Analyzed By: AG

Sample Preparation:

2007-06-11

Prepared By: AG

RL

Dilution RLFlag Result Units Parameter DRO 85.1 50.0 mg/Kg

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane		142	mg/Kg	1	150	95	32.9 - 167

Sample: 127053 - AH-3 (6-1')

TPH GRO Analysis: QC Batch 38280 Prep Batch: 33143

Analytical Method: S 8015B Date Analyzed: 2007-06-18 2007-06-18 Sample Preparation:

S 5035 Prep Method· Analyzed By: KB Prepared By KB

Flag Parameter

RLResult Units Dilution RL

1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	33.2 - 160
4-Bromofluorobenzene (4-BFB)		0.994	mg/Kg	1	1.00	99	10 - 227

Sample: 127054 - AH-3 (1-1.5')

Analysis: QC Batch:

GRO

Chloride (Titration)

Analytical Method: Date Analyzed

SM 4500-Cl B 2007-06-12

mg/Kg

Prep Method· N/A Analyzed By: AR

38070 Prep Batch: 32965 Sample Preparation:

Prepared By: AR

RL

<100

Parameter Flag Result Units Dilution RLChloride 92.8 mg/Kg 25 2.00

Work Order: 7060838 Page Number: 8 of 16 Report Date: June 19, 2007 COG-Jalmet #29 Lea County. NM 3028 QC Batch: 38069 Method Blank (1) Date Analyzed Analyzed By: AR QC Batch. 38069 2007-06-12 32964 QC Preparation 2007-06-12 Prepared By: AR Prep Batch: MDL Flag Units RLParameter Result < 0.500 mg/Kg 2 Chloride QC Batch: 38070 Method Blank (1) 38070 Date Analyzed: 2007-06-12 Analyzed By: AR QC Batch 32965 QC Preparation 2007-06-12 Prepared By: AR Prep Batch: MDL Flag Result Units RLParameter Chloride < 0.500 mg/Kg 2 QC Batch: 38088 Method Blank (1) QC Batch: 38088 Date Analyzed: 2007-06-11 Analyzed By: AG QC Preparation Prep Batch: 32963 2007-06-11 Prepared By: AG MDL Flag Result Units RLParameter <14.6 DRO mg/Kg 50 Spike Percent Recovery Flag Result Units Dilution Recovery Limits Surrogate Amount 44.7 - 133.6 172 mg/Kg 150 115 n-Triacontane 1 QC Batch: 38107 Method Blank (1) 2007-06-12 QC Batch 38107 Date Analyzed: Analyzed By AG 32993 Prep Batch: QC Preparation 2007-06-12 Prepared By: AG MDL Flag Parameter Result Units RLDRO · <13.4 mg/Kg 50

Flag

Surrogate

n-Triacontane

Result

114

Units

mg/Kg

Percent

Recovery

76

Recovery

Limits

61.7 - 143.2

Spike

Amount

150

Dilution

1

Work Order: 7060838 Page Number 9 of 16 Report Date: June 19, 2007 3028 COG-Jalmet #29

QC Batch: 38108 Method Blank (1)

Analyzed By: JW QC Batch: 38108 Date Analyzed: 2007-06-12 Prepared By: JW

Lea County NM

QC Preparation: 2007-06-12 Prep Batch: 33027

MDL Parameter Flag Result Units RLBenzene < 0.00110 mg/Kg 0.01 Toluene < 0.00150 mg/Kg 0.01 mg/Kg 0.01Ethylbenzene < 0.00160 mg/Kg 0.01 Xylene < 0.00410

Spike Percent Recovery Flag Units Dilution Amount Recovery Limits Surrogate Result Trifluorotoluene (TFT) 0.941 mg/Kg 1 1.00 94 62.6 - 117.6 4-Bromofluorobenzene (4-BFB) 0.938 mg/Kg 1 1 00 94 53.9 - 125.1

Method Blank (1) QC Batch: 38280

Date Analyzed: Analyzed By: KB QC Batch. 38280 2007-06-18 Prepared By: KB Prep Batch: 33143 QC Preparation: 2007-06-18

MDL Result Units RLParameter Flag GRO < 0.459 mg/Kg

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1 12	mg/Kg	1	1.00	112	73.2 - 125
4-Bromofluorobenzene (4-BFB)		0.860	${ m mg/Kg}$	1	1.00	86	51.9 - 110

Laboratory Control Spike (LCS-1)

QC Batch 38069 Date Analyzed .2007-06-12 Analyzed By. AR 32964 QC Preparation: 2007-06-12 Prepared By: AR Prep Batch:

	LCS			$_{ m Spike}$	Matrix		${ m Rec}$
Param	Result	Units	Dil.	\mathbf{Amount}	Result	Rec.	Limit
Chloride	97.7	mg/Kg	1	100	< 0.500	98	85 - 115

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	98.7	mg/Kg	1	100	< 0.500	99	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch. 38070 Date Analyzed: 2007-06-12 Analyzed By: AR Prep Batch. 32965 QC Preparation. 2007-06-12 Prepared By: AR Report Date: June 19, 2007 3028

LCS

Result

121

Surrogate

n-Triacontane

LCSD

Result

107

Work Order: 7060838 COG-Jalmet #29 Page Number: 10 of 16 Lea County, NM

0020				0000	J. 40				200.0	- carroj,
		LC	S			Spike	N	latrix		Rec.
Param		Resi		Units	Dil.	Amount		lesult	Rec	Limit
Chloride		97.		mg/Kg	1	100		(0.500	97	85 - 113
Percent recovery is bas	sed on the sp	oike result.			the spike	and spike d	uplicate	result		
		LCSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil	Amount		Rec	Limit) Limi
Chloride		98.3	m mg/Kg	1	100	< 0.500	98	85 - 11	l <u>5</u> 1	20
Percent recovery is bas	sed on the sp	oike result	RPD is	based on	the spike	and spike d	uplicate	result.		
Laboratory Control	Spike (LC	S-1)								
QC Batch: 38088			Date Ar	alyzed:	2007-06	-11			Analyzed	By· AG
Prep Batch: 32963			QC Pre	paration	2007-06	-11			Prepared	By: AG
		LCS				Spike	Mat	rix		Rec.
Param		Resu		Jnits	Dil.	Amount	Res		ec.	Limit
DRO		270	m	ıg/Kg	1	250	<14	4.6 1	08 4	7.5 - 144.
Percent recovery is bas	sed on the sp	oike result.	RPD is l	based on	the spike $$	and spike d	uplicate	result		
		LCSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPI	
DRO		235	mg/Kg	1	250	<14.6	94	47.5 - 144	1.1 14	20
Percent recovery is bas	sed on the sp	oike result.	RPD is	based on	the spike	and spike d	uplicate	result.		
	LCS	LCSD				Spike	LCS	LCS	SD	Rec.
Surrogate	Result	Result	Uı	nits	Dil	Amount	Rec.			Limit
n-Triacontane	133	130	mg	/Kg	Ţ	150	89	87		7.3 - 131.6
Laboratory Control	Spike (LC	S-1)								
QC Batch: 38107 Prep Batch: 32993			Date Ar QC Pre	nalyzed [.] paration	2007-06- 2007-06-				Analyzed Prepared	
		LCS)		Spike	Mat		•	Rec.
		Resu	lt U	Units	Dil.	Amount	Res	ult R	ec.	Limit
DRO	and on the	Resu 196	lt I	ıg/Kg	1	Amount 250	Res	ult R		
DRO	sed on the sp	Resu 196 pike result.	lt I	ıg/Kg	the spike	Amount 250 and spike d	Res	e result.		Limit 2.5 - 135 4
DRO Percent recovery is bas	sed on the sp	Resu 196 pike result. LCSD	RPD is	ng/Kg based on	the spike Spike	Amount 250 and spike d Matrix	Res <13 uplicate	e result. Rec.	78 6	Limit 2.5 - 135 4 RPD
Param DRO Percent recovery is bas Param DRO	sed on the sp	Resu 196 pike result.	lt I	ıg/Kg	the spike	Amount 250 and spike d	Res	e result.	78 6 RP	Limit 2.5 - 135 4 RPD D Limi

LCS

Rec.

81

Spike

Amount

150

Dil.

Units

mg/Kg

LCSD

Rec.

71

Rec.

Limit

66.6 - 140.9

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Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:

3028

38108 33027 Date Analyzed: QC Preparation

2007-06-12 2007-06-12

JWAnalyzed By JW Prepared By

	LCS			Spike	Matrix		Rec
Param	Result	Units	Dil	Amount	Result	Rec.	Limit
Benzene	0.994	mg/Kg	ĭ	1.00	< 0.00110	99	68.6 - 123.4
Toluene	1.01	${ m mg/Kg}$	1	1.00	< 0.00150	101	74.6 - 119.3
Ethylbenzene	0.979	mg/Kg	1	1.00	< 0.00160	98	72.3 - 126.2
Xylene	2.95	${ m mg/Kg}$	1	3.00	< 0.00410	98	76.5 - 121.6

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	0.926	mg/Kg	1	1.00	< 0.00110	93	68.6 - 123.4	7	20
Toluene	0.944	mg/Kg	1	1.00	< 0.00150	94	74.6 - 119.3	7	20
Ethylbenzene	0.913	mg/Kg	1	1.00	< 0.00160	91	72.3 - 126.2	7	20
Xylene	2.75	mg/Kg	1	3.00	< 0.00410	92	76.5 - 121.6	7	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	${f Amount}$	Rec	Rec.	Limit
Trifluorotoluene (TFT)	0.857	0.862	mg/Kg	1	1.00	86	86	64.1 - 118.2 ·
4-Bromofluorobenzene (4-BFB)	0.947	0.942	mg/Kg	1	1.00	95	94	68.7 - 125.8 -

Laboratory Control Spike (LCS-1)

QC Batch Prep Batch 38280

33143

, Date Analyzed:

2007-06-18 QC Preparation: 2007-06-18 Analyzed By: KB Prepared By. KB

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
GRO	9.09	mg/Kg	1	10.0	< 0.459	91	79.6 - 113

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	9.87	mg/Kg	1	10.0	< 0.459	99	79.6 - 113	8	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil	\mathbf{Amount}	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	0.938	1.02	mg/Kg	1	1.00	94	102	77.1 - 117
4-Bromofluorobenzene (4-BFB)	0.944	0.948	${ m mg/Kg}$	1	1.00	94	95	78.1 - 118

Matrix Spike (MS-1) Spiked Sample: 127050

QC Batch:

Prep Batch: 32964

38069

Date Analyzed: QC Preparation:

2007-06-12 2007-06-12

Analyzed By: AR Prepared By: AR

Report Date: June 19, 2007 3028	Work Order: 7060838 Page Number: COG-Jalmet #29 Lea Co								
Param	M: Res		Units	Dil.	Spike Amount		trıx sult R	ec	Rec. Limit
Chloride	300		mg/Kg	25	2500			01	85 - 115
Percent recovery is based on the	spike result.	RPD is		the spike a	nd spike dur	olicate r	esult		
	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
Chloride	3030	mg/K	g 25	2500	472.345	102	85 - 115	1	20
Prep Batch: 32965	M	•	eparation:	2007-06-1	.2 Spike	Ma	Pr€ .trix	pared E	By· AR Rec.
Param	Res		Units	Dil.	Amount			ec.	Limit
Chloride	250	00	mg/Kg	25	2500	92.	.851 9	96	85 - 115
Percent recovery is based on the	spike result.	RPD is	based on	the spike a	nd spike duj	olicate r	esult		
	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	2530	mg/K	g 25	2500	92.851	97	85 - 115	1	20
Percent recovery is based on the	•		based on	the spike a	nd spike duj	olicate r	esult.		
Matrix Spike (MS-1) Spike	ed Sample 1:	27018							

QC Batch: Date Analyzed: 2007-06-11 Analyzed By: AG 38088 2007-06-11 Prepared By: AG Prep Batch: 32963 QC Preparation:

	MS ,			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	288	mg/Kg	1	250	<14.6	115	11.7 - 152.3

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
DRO	10	497	m mg/Kg	1	250	<14.6	199	11.7 - 152.3	53	20

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

		MS	MSD			Spike	MS	MSD	Rec.
Surrogate		Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane	11	142	261	mg/Kg	1	150	95	174	17 - 163.1

Matrix Spike (MS-1) Spiked Sample: 127049

QC Batch: 38107 Date Analyzed: 2007-06-12 Analyzed By: AG Prep Batch: 32993 QC Preparation: 2007-06-12 Prepared By: AG

¹⁰ Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control 11 High surrogate recovery due to peak interference.

Report Date: June 19, 2007 3028

Work Order: 7060838 COG-Jalmet #29 Page Number: 13 of 16 Lea County, NM

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	227	mg/Kg	1	250	<13.4	91	29.7 - 168.6

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	222	mg/Kg	1	250	<13.4	89	29.7 - 168.6	2	20

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

	MS	MSD			Spike	MS	MSD	Rec
Surrogate	Result	Result	Units	Dil	Amount	Rec.	Rec.	Limit
n-Triacontane	134	131	mg/Kg	1	150	89	87	43 4 - 193.9

Matrix Spike (MS-1) Spiked Sample: 127017

QC Batch: 38108 Prep Batch: 33027 Date Analyzed: 2007-06-12 QC Preparation: 2007-06-12

Analyzed By: JW Prepared By: JW

	MS			Spike	Matrix		Rec
Param	Result	Units	Dil	Amount	Result	Rec.	Limit
Benzene	1.05	mg/Kg	1	1.00	< 0.00110	105	64.4 - 115.7
Toluene	1.08	${ m mg/Kg}$	1	1.00	< 0.00150	108	57.8 - 124.4
Ethylbenzene	1.06	mg/Kg	1	1.00	< 0.00160	106	64.8 - 125.8
Xylene	3.18	mg/Kg	1	3.00	< 0.00410	106	65.2 - 121.8

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

		MSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	12	2.06	mg/Kg	1	1.00	< 0.00110	206	64.4 - 115.7	65	20
Toluene	13	2.11	mg/Kg	1	1.00	< 0.00150	211	57.8 - 124.4	65	20
Ethylbenzene	14	2.12	mg/Kg	1	1.00	< 0.00160	212	64.8 - 125.8	67	20
Xylene	15	6.36	mg/Kg	1	3.00	< 0.00410	212	65.2 - 121.8	67	20

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

	MS	MSD			Spike	MS	MSD	$\mathrm{Re}c.$
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.873	0.831	mg/Kg	1	1	87	83	52.8 - 121.7
4-Bromofiuorobenzene (4-BFB)	0.958	0.947	${ m mg/Kg}$	1	1	96	95	66.7 - 131.9

Matrix Spike (MS-1) Spiked Sample: 127255

QC Batch 38280 Prep Batch: 33143 Date Analyzed: 2007-06-18 QC Preparation: 2007-06-18 Analyzed By: KB Prepared By: KB

¹²MSD out of control limits, due to prep error (double-spiked) Use LCS/LCSD to demonstrate method in control. •

¹³MSD out of control limits, due to prep error (double-spiked) Use LCS/LCSD to demonstrate method in control. •

 $^{^{14}}$ MSD out of control limits, due to prep error (double-spiked) Use LCS/LCSD to demonstrate method in control $\, ullet$

¹⁵MSD out of control limits, due to prep error (double-spiked). Use LCS/LCSD to demonstrate method in control. •

QC Batch: 38070

Work Order: 7060838 COG-Jalmet #29

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Analyzed By: AR

3028	te: June 19, 200		COG-Jalmet #29							Lea County, NM		
			MS			Sn	ike M	latrix]	Rec.	
Param			esult	Units	Dil.	•		esult	Rec.	L	imit	
GRO			8.20	mg/Kg	; 1	10	> 0.0	0.459	82	40.	7 - 157	
Percent rec	overy is based o	n the spike resu	lt. RPD	is based	on the spike	and sp	ike duplicat	e result.				
	v	-									nn	
		MSD	***	. ~.	Spike		trix	Re		DDD	RPD	
Param		Result					sult Rec.	Lin		RPD	Limit	
GRO		8.58	mg/		10.0		.459 86	40.7	- 1-07	4	19 6	
Percent rec	overy is based o	n the spike resu	lt. RPD	is based	on the spike	and sp	oike duplicat	e result				
			MS	MSD			Spike	MS	MSI) 1	Rec.	
Surrogate			esult	Result	Units	Dil.	Amount	Rec	Rec		ımit	
	luene (TFT)		.867	0.900	mg/Kg	$\frac{2\pi}{1}$	1	87	90		9 - 155	
	orobenzene (4-B		1.00	1.03	mg/Kg	1	1	100	103		5 - 153	
QC Batch:	3000		ICV	-	d: 2007-06-1 ICVs		CVs	Perce		yzed By:		
			ICV	rs.	ICVs	Ţ	CVs	Perce	ent			
			Tru	e	Found	Pe	rcent	Recov	ery	Γ	ate	
Param	Flag	Units	Con		Conc.		overy.	Limi			alyzed	
Chloride		mg/Kg	100)	97.6		98	85 - 1	15	2007	-06-12	
Standard QC Batch:			Date	e Analyze	d: 2007-06-1	12		•	Anal	iyzed By	AR	
			CCV	Žs.	CCVs	С	CVs	Perce	ent.			
				· -						r	ate	
			1.ru	e	Found	Pe	rcent	necov	GT /			
Param	Flag	Units	Tru Con		Found Conc.		rcent covery	Recov Limi	-	Ana	alyzed	
Param Chloride	Flag	Units mg/Kg		с.		Red			ts		alyzed 7-06-12	
Chloride Standard	(ICV-1)		Con 100	c.)	Conc. 102	Rec	covery.	Limi	ts .15	2007	7-06-1:	
Chloride Standard	(ICV-1)		Con 100	с.	Conc. 102	Rec	covery.	Limi	ts .15		7-06-1:	
Chloride Standard	(ICV-1)		Con 100 Date	c.) e Analyze	Conc. 102 d. 2007-06-	Red	covery 102 CVs	Limi 85 - 1 Perce	ts 15 Anal	2007 lyzed By:	7-06-11 AR	
Chloride Standard QC Batch:	(ICV-1) 38070	mg/Kg	Con 100 Date ICV Tru	c.) e Analyze vs e	Conc. 102 d. 2007-06- ICV's Found	Rec 12 Pe	covery 102 CVs rcent	Limi 85 - 1 Perce Recov	Anal	2007 lyzed By:	7-06-12 AR	
	(ICV-1)		Con 100 Date	c.) e Analyze rs e c.	Conc. 102 d. 2007-06-	Rec 12 Ie Rec	covery 102 CVs	Limi 85 - 1 Perce	Anal	2007 Iyzed By: I An:	7-06-12 AR	

						_	
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/Kg	100	103	103	85 - 115	2007-06-12

Date Analyzed: 2007-06-12

Report Date: June 19, 2007 3028

Work Order: 7060838 COG-Jalmet #29 Page Number: 15 of 16 Lea County, NM

Standard (CCV-2)

QC Batch. 38088

Date Analyzed 2007-06-11

Analyzed By: AG

_			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	265	106	85 - 115	2007-06-11

Standard (CCV-3)

QC Batch: 38088

Date Analyzed: 2007-06-11

Analyzed By: AG

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc	Recovery	Limits	Analyzed
DRO		mg/Kg	250	266	106	85 - 115	2007-06-11

Standard (ICV-1)

QC Batch. 38107

Date Analyzed: 2007-06-12

Analyzed By: AG

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	222	89	85 - 115	2007-06-12

Standard (CCV-1)

QC Batch: 38107

Date Analyzed: 2007-06-12

Analyzed By: AG

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	216	86	85 - 115	2007-06-12

Standard (ICV-1)

QC Batch: 38108

Date Analyzed: 2007-06-12

Analyzed By: JW

-			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0992	99	85 - 115	2007-06-12
Toluene		${ m mg/Kg}$	0.100	0.0997	100	85 - 115	2007-06-12
Ethylbenzene		m mg/Kg	0.100	0.0956	96	85 - 115	2007-06-12
Xylene		mg/Kg	0.300	0.291	97	85 - 115	2007-06-12

Standard (CCV-1)

QC Batch: 38108

Date Analyzed: 2007-06-12

Analyzed By: JW

Report Date: June 19, 2007 3028

Work Order: 7060838 COG-Jalmet #29 Page Number: 16 of 16 Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0990	99	85 - 115	2007-06-12
Toluene		mg/Kg	0.100	0.0976	98	85 - 115	2007-06-12
Ethylbenzene		mg/Kg	0.100	0.0921	92	85 - 115	2007-06-12
Xylene		${ m mg/Kg}$	0.300	0.277	92	85 - 115	2007-06-12

Standard (ICV-1)

QC Batch: 38280

Date Analyzed: 2007-06-18

Analyzed By· KB

			$rac{ ext{ICVs}}{ ext{True}}$	$rac{ ext{ICVs}}{ ext{Found}}$	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	0.943	94	85 - 115	2007-06-18

Standard (CCV-1)

QC Batch: 38280

Date Analyzed: 2007-06-18

Analyzed By: KB

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		m mg/Kg	1.00	1.08	108	85 - 115	2007-06-18

Analysis Request and Chain of Custody Record PAGE: OF: /											
HIGHLANDER ENVIRONMENTAL	ANALISIS REQUESI										
1910 N. Big Spring St. Midland, Texas 79705	TX1005										
CLIENT NAME: COG SITE MANAGER! COVER	(432) 682-3946 SO										
PROJECT NO. 028 PROJECT NAME: JAINET # 29	### CONTAINERS RED (Y/N)										
LAB I.D. DATE TIME BY SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS FILTERED (Y/N) HCL HNO3 HCL HNO3 HCE NONE HCE NONE HTH 418.1 8016 MCB TCLP Metals Ag As Ba Cd Cr TCLP Metals Ag As Ba Cd Cr TCLP Wetals Ag As Ba Cd Cr TCLP Semi Volatiles FCL Semi Volatiles FCL Semi Volatiles HCG GCLS Semi Volatiles HCG										
6-7-07 5 144-1 01											
47 1 5 AH-1 1-1.5											
48 5 1 AH-2 0-1											
49 F 1 A4-2 1-1.5'											
49 5 1 A4-2 1-1.5' 50 9 1 A4-2 2-2.5'											
51 8 1AH-2 3-3.5'											
52 5 AH.2 4-4.5'											
53 8 1 AH-3 O-1	<u> ' </u>										
54 V 3 /AH-3 1-1.5'											
RELINQUISHED HY: (Signature) Date: 06/08/0 RECEIVED BY: (Signature) Time: 5:00	Date: Date: SAMPLED BY: (Print & Sigh) (Date:										
RELEVQUISHED BY: (Signature) Date: RECEIVED BY: (Signature) Time:	Date: SAMPLE SHIPPED BY: (Circle) Time: BUS AIRBILL #										
RELINQUISHED BY: (Signature) Date: RECRIVED BY: (Signature) Time:	Date: HAND DELIVERED UPS OTHER: Time: Results by:										
RECEIVING LABORATORY: RECEIVED BY: (Signature)	HIGHLANDER CONTACT PERSON: RUSH Charges										
CITY: STATE: ZIP:	TIME: RIMARKS: Run addita 17PH f Speed S										
SAMPLE CONDITION WHEN RECEIVED: MATRIX: W-Water A-Air SD-Solic S-Sail SL-Sindge 0-Other	REMARKS: Run addited 1/P11/7 apoceeds 1,000 mg/(cg. all took - Mulland) der Endownental Corn - Product Hangar relating plak gons - Accounting receives Gold corn										

7060838

Ana	Analysis Request and Chain of Custody Record PAGE: OF: /																																						
					_					-				•									-				(Cir						UES (eth		No.)			
	HIGHLANDER ENVIRONMENTAL CORP. 1910 N. Big Spring St. Midland, Texas 79705 (432) 682-4559 Fax (432) 682-3946 PROJECT NO: OS PROJECT NAME: OS PRO																																						
CLIENT N	AME	<i>]:</i> (0			>		2	SITE (MAN	GER;	au	-C~	1-6			NERS		Pl		ERV.		E		8015 MOB)	As Ba Cd	As Ba Ca			280/824	8270/625							
PROJECT	мо С	, O	28	P.	RO.	JEC O	T NAI		Λ	lne	I	#	2	9			CONTAINERS	(X/X)					600/	808	1 .		s Ag As	Ag Ag	Volatile		8240/8	. Vol. 8	908/	50. 5H. TDS	9c.	(Air)	tos)		
LAB I.D. NUMBER	D	ATE	TIME			GRAB				عو	\mathcal{C}^{\prime}	٠.	CATIOI		•		NUMBER OF	RED	HCL	HINOS	E	NONE	coa/ ocoa Ama	MTHE 8020/808	тен 418.1	PAH 8270	RCRA Metals Ag	TCLP Metals A	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8280/624	GC.MS Semi. Vol.	PCB's 8080/60	Post. 806/806 BOD, TSS. pH.	Gamma Spec.	Alpha Beta (Air)	PLW (Asbestos)		
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SAMPLE CON	OFTIC	ON WH	EN RECEI	VED:	:			MAT	TRIX:		Water Soil		A–Air SL–Slu			Solid ther			RI	EMAR Ext	KS:	12 v Oc	א. א עי	91	el o Il C	(c) 	لان	7	φ	7	17		O _C	ce	ed	(5)			

Work Order: 7081608 COG-Jalmat Yates Unit #29 well Page Number: 1 of 1 Lea County, NM

Summary Report

Ike Tavarez Highlander Environmental Services 1910 N. Big Spring Street Midland, TX, 79705

Report Date: August 17, 2007

Work Order: 7081608

Project Location: Lea County, NM

Project Name: COG-Jalmat Yates Unit #29 well

Project Number: 3028

 Sample
 Description
 Matrix
 Taken
 Taken
 Received

 133330
 CS-1 (0-1.0') BEB (1.0')
 soil
 2007-08-14
 00:00
 2007-08-16

	TPH DRO	TPH GRO
	DRO	GRO `
Sample - Field Code	(mg/Kg)	(mg/Kg)
133330 - CS-1 (0-1.0') BEB (1.0')	<50.0	11.0



670) Aberdeen Avenue, Suite 9 200 East Sunset Hoad, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway, Suite 110

El Faso, Texas 79922 Midiana Texas 79703 Ft Worth Texas 76132

889 • S88 • 3443

915 • 585 • 3443 432 • 689 • 6301

FA> 915.585.4944 TAX 432 • 689 • 6313

817 • 201 • 5260

F-Mail Tabi@traccanalysis.com

Analytical and Quality Control Report

Ike Tavarez Highlander Environmental Services 1910 N. Big Spring Street Midland, TX, 79705

Report Date:

August 17, 2007

Work Order:

Project Location: Lea County, NM

Project Name:

COG-Jalmat Yates Unit #29 well

Project Number:

3028

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

Difference are	the finally field respond and a dame,	Common reciporation	one rone wing bompie(b)	, bubililioud uc	Traccition, bib, tire.
			Date	\mathbf{Time}	Date
Sample	Description	Matrix	Taken	Taken	Received
133330	CS-1 (0-1.0') BEB (1.0')	soil	2007-08-14	00:00	2007-08-16

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

Dr. Blair Leftwich, Director

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

Work Order: 7081608 COG-Jalmat Yates Unit #29 well Page Number: 2 of 5 Lea County, NM

Analytical Report

Sample: 133330 - CS-1 (0-1.0') BEB (1.0')

Analysis: QC Batch: TPH DRO

40129 Prep Batch: 34727

Analytical Method: . Date Analyzed:

Mod. 8015B 2007-08-16

Sample Preparation: 2007-08-16 Prep Method: N/A Analyzed By: Prepared By:

RL

Parameter Flag $\overline{\mathrm{DRO}}$

Result < 50.0

Units mg/Kg Dilution

RL50.0

Surrogate n-Triacontane Flag Result 169

Units Dilution mg/Kg 1

Spike Amount 150

Percent Recovery 113

Recovery Limits 17.3 - 169.6

Sample: 133330 - CS-1 (0-1.0') BEB (1.0')

Analysis: QC Batch: Prep Batch: TPH GRO

40185 34766 Analytical Method: Date Analyzed:

Sample Preparation:

S 8015B 2007-08-17 2007-08-16 Prep Method: S 5035

Analyzed By: Prepared By:

RL

Result Parameter Flag GRO 11.0

Units mg/Kg Dilution

1.00

RL

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	Percent Recovery	$egin{array}{c} ext{Recovery} \ ext{Limits} \end{array}$
Trifluorotoluene (TFT)		0.814	mg/Kg	1	1.00	81	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	50.8 - 131.6

Method Blank (1)

QC Batch: 40129

QC Batch: Prep Batch: 40129

34727

Date Analyzed:

2007-08-16

Analyzed By:

QC Preparation: 2007-08-16 Prepared By:

MDL

Flag Parameter $\overline{\text{DRO}}$

Result

Units

mg/Kg

Units mg/Kg

Percent

Recovery

119

RL

50

Surrogate n-Triacontane

Result

178

<13.4

Spike

Amount

150

Recovery Limits

32.9 - 156.1

Method Blank (1)

Prep Batch: 34766

QC Batch: 40185

QC Batch:

40185

Flag

Date Analyzed:

2007-08-17

Analyzed By:

QC Preparation: 2007-08-16

Dilution

1

Prepared By:

Work Order: 7081608

Page Number: 3 of 5 COG-Jalmat Yates Unit #29 well Lea County, NM

Parameter	Flag		$rac{ ext{MDL}}{ ext{Result}}$		Uni	its	m RL
GRO			< 0.739		mg/	Kg	1
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	67.8 - 103
4-Bromofluorobenzene (4-BFB)		0.946	mg/Kg	1	1.00	95	55.4 - 111.8

Laboratory Control Spike (LCS-1)

40129 QC Batch: Prep Batch: 34727 Date Analyzed: 2007-08-16 QC Preparation: 2007-08-16 Analyzed By: Prepared By:

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
DRO	223	mg/Kg	1	250	<13.4	89	49.1 - 142.3

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

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
DRO	272	mg/Kg	1	250	<13.4	109	49.1 - 142.3	20	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
n-Triacontane	194	192	mg/Kg	1	150	129	128	49 - 133.2

Laboratory Control Spike (LCS-1)

QC Batch: 40185 Prep Batch: 34766 Date Analyzed: 2007-08-17 QC Preparation: 2007-08-16

Analyzed By: Prepared By:

	LCS			Spike	Matrix		Rec.
Param	Result	\mathbf{Units}	Dil.	Amount'	Result	Rec.	Limit
GRO	9.07	mg/Kg	1	10.0	< 0.739	91	56 - 105.2

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
GRO	9.34	mg/Kg	1	10.0	< 0.739	93	56 - 105.2	3	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	Result	Units	Dil.	Amount	Rec.	Rec.	$_{ m Limit}$
Trifluorotoluene (TFT)	0.962	0.954	mg/Kg	1	1.00	96	95	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.971	0.984	mg/Kg	1	1.00	97	98	67.2 - 119.2

Work Order: 7081608 COG-Jalmat Yates Unit #29 well Page Number: 4 of 5 Lea County, NM

Matrix Spike (MS-1)

Spiked Sample: 133330

QC Batch: 40129 Prep Batch: 34727 Date Analyzed: 2007-08-16 QC Preparation: 2007-08-16 Analyzed By: Prepared By:

	MS			$_{ m Spike}$	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
DRO	157	mg/Kg	1	250	<13.4	63	30.2 - 201.4

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	137	mg/Kg	1	250	<13.4	55	30.2 - 201.4	14	20

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

	*	MS	MSD			Spike	MS	MSD	Rec.
Surrogate		Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
n-Triacontane		170	186	mg/Kg	1	150	113	124	10 - 194

Matrix Spike (MS-1) Spiked Sample: 133330

QC Batch: 40185 Prep Batch: 34766 Date Analyzed: 2007-08-17 QC Preparation: 2007-08-16

Analyzed By: Prepared By:

		MS			Spike	Matrix		Rec.
Param		Result	${ m Units}$	Dil.	Amount	Result	Rec.	Limit
GRO	1	10.4	mg/Kg	1	1.00	10.4	0	10 - 102.2

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
GRO	2	11.0	mg/Kg	1	10.0	10.4	0	10 - 102.2	6	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
		resure	resur	Omio	DII.	Amount	nec.	nec.	Lillin
Trifluorotoluene (TFT)	3 4	0.878	0.916	mg/Kg	1	1	88	92	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)		1.36	1.21	mg/Kg	1	1	136	121	58 - 162.6

Standard (ICV-1)

QC Batch: 40129

 $Date\ Analyzed:\ \ 2007\text{-}08\text{-}16$

Analyzed By:

¹Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

³High surrogate recovery due to peak interference.

⁴High surrogate recovery due to peak interference.

Work Order: 7081608

COG-Jalmat Yates Unit #29 well

Page Number: 5 of 5 Lea County, NM

D.	171	T7. 11	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	${f Flag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	228	91	85 - 115	2007-08-16

Standard (CCV-1)

QC Batch: 40129

Date Analyzed: 2007-08-16

Analyzed By:

			$rac{ ext{CCVs}}{ ext{True}}$	${ m CCVs} \ { m Found}$	$rac{ ext{CCVs}}{ ext{Percent}}$	Percent Recovery	Date
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	288	115	85 - 115	2007-08-16

Standard (ICV-1)

QC Batch: 40185

Date Analyzed: 2007-08-17

Analyzed By:

			ICVs True	${ m ICVs} \ { m Found}$	${ m ICVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2007-08-17

Standard (CCV-1)

QC Batch: 40185

Date Analyzed: 2007-08-17

Analyzed By:

			CCVs	\mathbf{CCVs}	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.10	110	85 - 115	2007-08-17

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LAB I.D. NUMBER	DATE		MATRIX	COMP.	CECALO		SAI	Leq APLE	DEI	OWA NTIFI	fy Cati	<i>i IV</i> ON	M	-		NUMBER OF	RED	HCL	HND3	ICE	NONE		HTEX 8020/802	TOTAL TIBE	PAH 8270	RCEA Wetals Ag	rcip Metals	rcie volatil	Total States Total States	GC.MS Vol. (GC.MS Seml. Vol. 8270/62	PCB's 8080/608	Pest. 808/808	600, 138, pH, 108,	Alpha Beta (Air)	PLM (Asbestos)		
33330	8/14/07		5	>	(CS	-1	10	-1.	0	BI	<i>E13</i>	(1.0) ')	1				X			Ť	X							Ī			1				
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RELINQUISHE		mature)				Date:			_ 1	RECEI	VED E	9Y: (8	Signe	sture)			Date	e:				 -	SA	MPLE DEX	SH	PPR	D B	Y: (Circ	le) US				l #			
RELINQUISHE	D BY: (Sig	nature)	-			Date:			_	RECEI	VED E	3Y: (S	Signe	aturo)			Date	B:				- - -	40	עא .	***				ט	PS			THE	R: .	ta by		
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SAMPLE CON	CASE THE	EN RECEI	VED: 5				MATRIX:		-Vate -Sail	_	A-A: 8L-8	ir Sludge	0		-Solid Other			RI	RAMS	ucs:	O.	થ	★	الايت 	. –	V٧	سد	<u>ل</u>	مسك	<u>-e</u>								

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.

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

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised October 10, 2003

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

Release Notification and Corrective Action

PERATO	R						\boxtimes	Initial	Report	Amended	Report
Name of Co		COG Operat				Contact	Phyllis Edward				
				Midland, TX 797			No. 432-683-43	340			
Facility Nar	ne Jalmat	Yates Unit #	‡29			Facility Typ	e Oil Well				
Surface Ow	ner (Clay Osboi	rn	Mineral O	wner				Lease N	lo. 3010 4	18
			,	LOCA	TIO	N OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North	South Line	Feet from the	East/W	est Line	County	
L	18	25S	37E	2310		South	990	w	est	Lea	
			La	titude		_ Longitud	le				
			<u> </u>	NAT	URE	OF REL					
Type of Rele	ase Oil	& Water				Volume of Approx	Release 1 BO & 2 BV		Volume F None	lecovered	
Source of Re	lease Flo	wline				1	four of Occurrence Unknown	e		Hour of Discovery O PM	5-2-07
Was Immedi	ate Notice (3,			If YES, To	Whom?	475. 1.6			
				No Not Re	equired					nk @ Hobbs OC	<u></u>
By Whom? Was a Water	course Peac	Lando	owner			Date and I	Iour 6-2- olume Impacting t		me Unk	nown	
Was a Water	course Reac		Yes 🔀] No		n i i i i i i i i i i i i i i i i i i i	nume impacting i	ile water	course.		
If a Watercon	ırse was Im	pacted, Descri	ibe Fully.	*							
		em and Reme	dial Actio	n Taken.*					·		
Flow line Leak repa											
		n is to have	e conta	minated soil s	crape	d from loc	ation & haule	d to lar	ndfill.		
Deceribe Are	A ffeeted	and Cleanup A	Action Tal	kon *							
Describe Are	a Affected			on location -	oil &	water & 70	' x 30' mist sp	ray on	locatio	n.	
			mediate	action taken:	: dirt	was shove	eled & mixed v	with oil	y dirt.		
		Highlan		5-07, contamin ⁄ironmental wi							
i I		піупап	uer Env	moninentai w	ու Տաբ	ervise illia	ilization of cle	an-up	procedi	ire.	
										suant to NMOCD ru	
										eases which may en ieve the operator of	
should their	operations h	ave failed to a	dequately	y investigate and re	emedia	te contaminat	ion that pose a thr	eat to gro	ound water	r, surface water, hui	nan health
		ddition, NMC vs and/or regu		ptance of a C-141	report o	loes not reliev	e the operator of	responsił	oility for c	ompliance with any	other
1	10 i	- 4110,01 1050		$\overline{}$			OIL CON	SERV	ATION	DIVISION	
Signature:		in a	7 - L	en de							
Printed Nam	e: Phylli	s A. Edwa	rds		Approved by District Supervi			or:			
Title:	Regu	latory Anal	lyst			Approval Da	te:	E	Expiration	Date:	
E-mail Addr	ess: pedw	ards@con	chores	ources.com	Conditions of Approval:			AM11 [7			
Date: 6/4/				432-683-4340						Attached	
		ets If Necess		T34-U03-434U						<u> </u>	

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II

1301 W. Grand Avenue, Artesia, NM 88210

District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

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

Form C-141

Revised June 10, 2003

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

	Release Notification and Corrective Action												
							OPERATOR Initial Report Final Report						
. [Name of Co	mpany: C	OG Operati			Contact: Phyllis Edwards							
					Midland, Tx 79	701	Telephone No. (432) 683-4340						
1	Facility Nan						Facility Type: Oil Well						
۱ آ (Surface Own			Mineral C)wner	Lease No. 30104				Io 301048			
l	Surface Own	ilei Ciay	Willerar	WIICI				Dealse 140. 301010					
LOCATION OF RELEASE													
	Unit Letter	Section\	Township	Range	Feet from the	ł	h/South Line	Feet from the	East/West Line		County		
	L	18	25S	37E	2310'	Sout	h	990'	West		Lea		
' .	Latitude Longitude												
	NATURE OF RELEASE												
[Type of Relea	ase Oil and	d Produced w	ater			Volume of	Volume of Release 1BO & 2BW Volume Recovered 0 bbls					
	Source of Release Flowline						Date and Hour of Occurrence Date and			Hour of Discovery			
											7 7:30 PM		
	Was Immediate Notice Given?						If YES, To Whom?						
	☐ Yes ☐ No ☐ Not Required						Landowner notified Gary Wink @ Hobbs OCD						
	By Whom?						Date and Hour						
	Landowner						06-2-07						
Was a Watercourse Reached? If YES, Volume Impacting the Watercourse.													
☐ Yes ☒ No													
	If a Watercourse was Impacted, Describe Fully.*												
	Describe Cause of Problem and Remedial Action Taken.*												
	Flow line lead	Flow line leak. Repaired flowline and scraped contaminated soil from location and hauled to landfill.											
	Describe Are	a Affected	and Cleanup	Action Tal	ken *								
					ation. The impact	ed soil	ls were excavat	ed and hauled to S	Sundan	ce in Eunice	e. New Mexico fo	r proper	
					collected confirma								
·	A Closure Re	port was pi	repared and si	ubmitted to	o the NMOCD for	revie	w and approval						
	I haraby carti	fy that the i	information a	iven abov	e is true and comp	lete to	the best of my	knowledge and u	indoreta	nd that nurs	ruant to NMOCD	rules and	
					nd/or file certain r								
					ce of a C-141 repo								
Ì					/ investigate and r								
					otance of a C-141	report	does not reliev	e the operator of	respons	ibility for c	ompliance with ar	ny other	
federal, state, or local laws and/or regulations.													
	1.						OIL CONSERVATION DIVISION						
	Signature: /	<u></u>											
Ì	o ignara. Ci						Approved by District Supervisor:						
	Printed Name	: Kanicia	Carrillo				ENVIRONMENTAL ENC.						
	T:A_, D 1 :	A 1	-4				Approval Date: 9.13.07 Expiration Date:						
	Title: Regulat	tory Analys	it			Approval Dat	e: -1, 13,0		Expiration	Date:			
	E-mail Addre	E-mail Address: KCarrillo@conchoresources.com						Conditions of Approval:					
Ì	2 man 1 add voo. 12 diffit (a control cool location)						2 23.23.101.0				Attached		
Date: Phone: (432) 685-4332													