

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary Mark E. Fesmire, P.E. Director Oil Conservation Division

October 11, 2005

Mr. Pat Ellis EllisP@pogoproducing.com Pogo Producing Company 300 N. Marienfield Midland, TX 79701-7340

Re: Pogo Fed. 27 #1 Closure Workplan Site Location: UL-O, Sec 27 – T22S - R32E Workplan Dated: September 29, 2005

Dear Mr. Ellis,

The New Mexico Oil Conservation Division (OCD) reviewed the above referenced plan submitted by your agent, Highlander Environmental Corp. (HEC). Based on information provided, the plan is **hereby approved** until November 15, 2005. Once this operation is completed, please submit a final report signed by you, the responsible party, so it can be closed in the records.

Please be advised that OCD approval does not relieve Pogo Producing Company of responsibility should operations result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Pogo Producing Company of responsibility for compliance with any federal, state or local laws and/or regulations. If you have any questions or need assistance please call me at (505) 393-6161, x111 or e-mail larry.Johnson@state.nm.us

Sincerely,

Jaluson

Larry Johnson - Environmental Engineer

CC: Roger Anderson - Environmental Bureau Chief Chris Williams - District I Supervisor Paul Sheeley- Environmental Engineer

Johnson, Larry, EMNRD

To... EllisP@pogoproducing.com

Сс...

<u>B</u>cc...

Subject: Pogo Fed 27#1 Approval

Attachments:

Pat,

Attached is approval to complete the Fed 27 spill. Please note the deadline and that you, POGO, will be responsible for submittal of the final closure report as your signature is required. This approval is being submitted to you for distribution to your agent. Thanks,

Larry

		511	E INFORMA		
	nformation:				
Site:			Tank Battery	<u> </u>	
Company:		Pogo Produc	ing Company	· · · · · · · · · · · · · · · · · · ·	
	ship and Range	Section 27, T	22S, R32 E		· · · · · · · · · · · · · · · · · · ·
Jnit Letter:		0			
_ease Number					
County:		Lea			
GPS:	· · · · · · · · · · · · · · · · · · ·		103° 39' 48.5"		
Surface Owne		Federal Land			
Mineral Owner	·. •				
Directions:					ravel west on 128 for 35 miles, past MM
		18 to Red Road	I. Go north on Red R	oad for 7.4	miles to Mills Ranch Road. Take right and
		go 5.2 miles. A	t the green tank, take	right on lea	ase road, travel 1.4 miles to TB on right sid
		of the road.			
	<u></u>	1			
Release Nata					
Date Released		17/6/2005			
Type Release		Produced Wa	tor		
Source of Con		Hole in piping			
Fluid Released		98 bbl.			
Fluids Recove		96 bbl.			
	nunication:				
		*			
Name:	Pat Ellis	i	Don Riggs		Ike Tavarez
Company:	Pogo Produci		Pogo Producing Co	ompany	Highlander Environmental Corp.
Address:	300 N. Marier	nfeld St.	5 Greenway Plaza,	Suite 2700	1910 N. Big Spring
P.O. Box	Box 10340				
		a 70704 7240			
City:	Midland Lexa	5.79701-7340	Houston, Texas 77	046	Midland, Texas
	Midland Texa	and a second	Houston, Texas 77 (713) 297-5045	046	Midland, Texas
Phone numbe	r: (432) 685-810	and the second	Houston, Texas 77 (713) 297-5045 riggsd@pogoprodu		Midland, Texas (432) 692- 4559 itavarez@hec-enviro.com
City: Phone numbe Email: Ranking Crite	r: (432) 685-810	00 producing.com	(713) 297-5045 riggsd@pogoprodu	icing.com	(432) 692- 4559
Phone numbe Email: Ranking Crite Depth to Grou	r: (432) 685-810 EllisP@pogor	00 producing.com	(713) 297-5045 riggsd@pogoprodu Ranking Score	icing.com	(432) 692- 4559 itavarez@hec-enviro.com
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Highlander Environmental Corp.

Midland, Texas



September 29, 2005

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

RE: Assessment and Closure Report for the Pogo Producing Company, Federal 27 #1 Tank Battery, Unit Letter O, Section 27, T-22-S, R-32-E, Lea County, New Mexico.

Dear Mr. Johnson:

Highlander Environmental Corp. (Highlander) was contacted by Pogo Producing Company (Pogo) to assess a spill, which occurred a from a hole in piping at the Pogo Producing Company (Pogo) Federal 27 #1 Tank Battery in/Lea County, New Mexico (Site). The Site is located in Unit O, Section 27, Township 22 South, Range 32 East. The State of New Mexico C-141 (Initial) is included in Appendix C. The Site is shown in Figure 1.

Groundwater and Regulatory

According to the New Mexico Office of the State Engineer, WATERS database, the closest water wells were found in Sections 14 and 19, T-22-S, R-32-E, with reported average depths to water of $\underline{350}$ and $\underline{280}$ below ground surface (bgs). The State of New Mexico Well Reports are included in Appendix A.

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (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 5,000 mg/kg.

Background

This spill occurred on $\boxed{101y_{6}, 2005}$, when a hole developed in <u>piping</u> due to <u>corrosion</u> A total of <u>98 barrels of produced</u> water were released, with <u>96 barrels recovered</u>. All of the fluids were contained within the facility berm. The spill area is shown on Figure 2.

Inspection and Soil Sampling

Highlander personnel inspected and sampled the site on July 14, 2005. Highlander personnel collected soil samples using a stainless steel, bucket type hand auger. A total of three (3) auger holes (AH) were installed inside the facility berm to delineate subsurface impact. The auger hole locations are shown on Figure 2. All three auger holes were advanced to a depth of 10.0'-10.5'. Samples were collected for evaluation of Total Petroleum Hydrocarbon (TPH) by method 8015M, BTEX by method 8021B and chloride by method SW846-9253. The soil sample results are shown in Table 1. The laboratory reports and the chain of custody documentation are included in Appendix B.

TPH concentrations exceeded the RRAL only in shallow soils from 0-1.0'. No BTEX concentrations exceeded the RRAL for any of the sample locations. Chloride concentrations were elevated at the surface and declined with depth to less than 500 mg/kg within 10' of the surface. The highest chloride concentrations were found in the 0-1' samples from AH-1 (10,500 mg/kg) and AH-3 (3680 mg/kg). The chloride concentrations from 1.0'-1.5' for AH-1 and AH-3, decreased to 904 mg/kg and 523 mg/kg, respectively.

Corrective Action

On September 8, 2005, Highlander supervised excavation of approximately 1.5' of impacted soil from inside the facility berm, in order to remove the TPH impacted soil, which exceeded the RRAL and to address the highest of the residual chloride impacted soils. The soil was placed on plastic on the site. Two confirmation samples and one stockpile sample were taken and analyzed for TPH. The confirmation samples were well below the TPH RRAL. The soil stockpile exceeded the RRAL. The soil stockpile will be removed and hauled to the Sundance Disposal Facility in Eunice, New Mexico.

Conclusions

Based on the confirmation samples collected from the excavation, TPH concentrations did not exceed the RRAL and no BTEX concentrations exceeded the RRAL for any of the sample locations. Chloride concentrations were elevated at the surface and declined with depth to less than 500 mg/kg.

Based on the depth to groundwater, the auger hole sample results and the remediation performed at this facility, Pogo requests closure of this site. The State of New Mexico C-141 (Final) is included in Appendix C.



If you require any additional information or have any questions or comments concerning the assessment report, please call (432) 682-4559.

Highlander Environmental Corp.,

IM

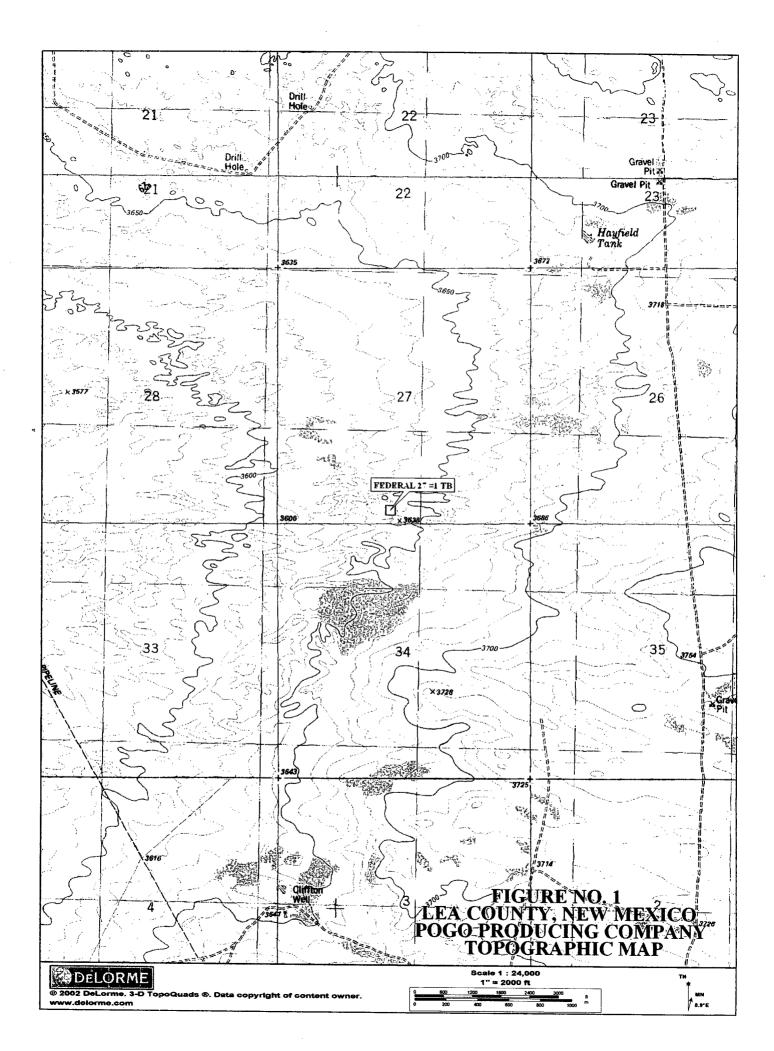
Timothy M. Reed, P.G. Vice President

Don Riggs - Pogo Producing Co. Pat Ellis - Pogo Producing Co. Paul Evans - BLM

cc:

Midland, Texas

FIGURES



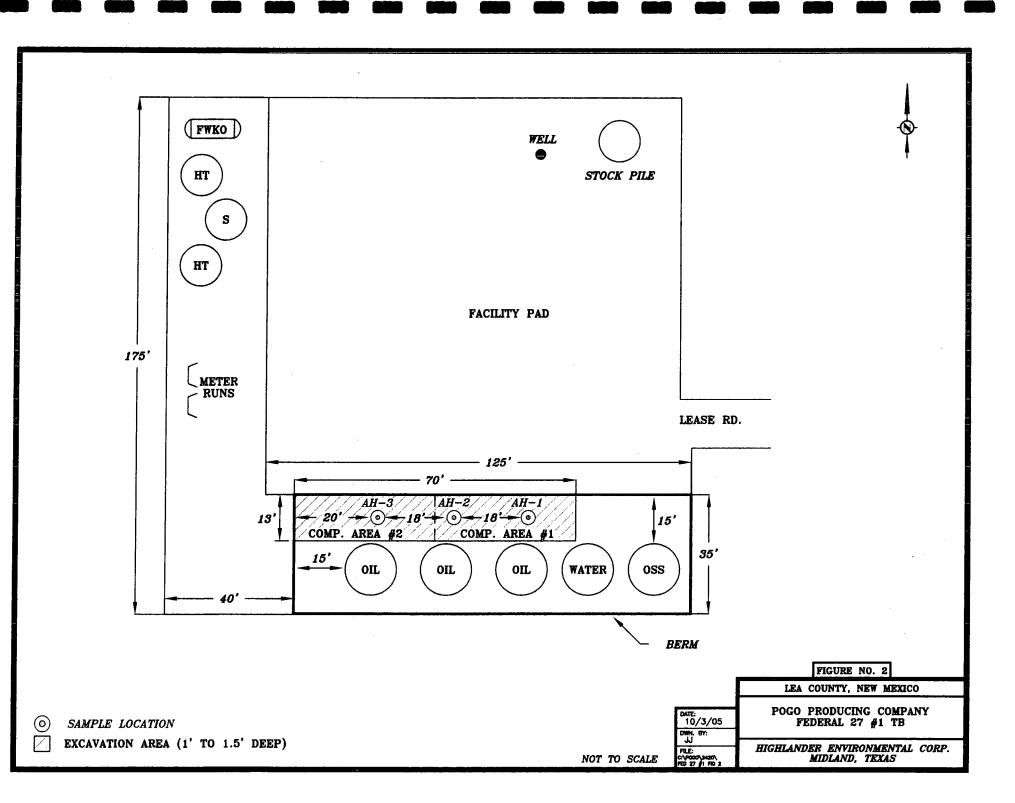


Table 1 Pogo Producing Co. Federal 27 #1 Lea Co. New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	C6-C12	TPH (mg/kg) C12-C35	Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Sampled, 13		24-5C0-C12	G12-C55	10181	(mg/kg)	(mg/kg)	(ing/kg)	(ing/kg)	<u>, · · (iiig/ikg) -</u>
AH-1	7/14/2005	0-1	1,810	9,330	11,100	0.375	1.46	1.02	4.26	10,500
<u>A</u> H-1	7/14/2005	1-1.5	<50	1890	1890	-	-	-		904
<u>A</u> H-1	7/14/2005	2-2.5	-		-	-	-	-		736
<u>A</u> H-1	7/14/2005	3-3.5	-	-	-	-	-	<u>-</u>	-	420
<u>AH-1</u>	7/14/2005	4-4.5	-		-	-			-	210
<u>AH-1</u>	7/14/2005	5-5.5	-	-	-	-			-	231
AH-1	7/14/2005	7-7.5	-	-		_		-		328
<u>A</u> H-1	7/14/2005	10-10.5						-		500
AH-2	7/14/2005	0-1	1,450.0	6,950.0	8,040.0	0.405	0.788	0.637	1.9	753
AH-2	7/14/2005	1-1.5	499	3,190	3,690	-		<u> </u>	-	1,460
<u>AH-2</u>	7/14/2005	2-2.5	-		-	· -			-	1500
AH-2	7/14/2005	3-3.5	-	-	-	-				1520
AH-2	7/14/2005	4-4.5	-		-		·			1300
AH-2	7/14/2005	5-5.5	-		-	-		-	_	1020
AH-2	7/14/2005	7-7.5			-	-		-	-	343
AH-2	7/14/2005	10-10.5	<u> </u>	-	-	-		-		360
<u>A</u> H-3	7/14/2005	0-1	2,290	9,250	11,500	1.09	3.10	3.50	12.14	3,680
AH-3	7/14/2005	1-1.5	599.0	3,350.0	3,950.0	-	_		-	523
AH-3	7/14/2005	2-2.5	-	-	-	-	-		-	358
#1 Composite	9/8/2005	1.5'	<10.0	500	500	-	-		-	
#2 Composite	9/8/2005	1.5'	89	1,150	1,240				_	
Stockpile	9/8/2005	composite	895	4,890	5,790		-	-	-	

.

(-) Not Analyzed

APPENDIX A

		<i>New Mexico O</i> Well Rep	<i>office of the Sta</i> Forts and Dow	0	neer
	Township: 22S	Range: 32E	Sections:		· · · · ·
	NAD27 X:	Y:	Zone:		Search Radius:
County:	:: 🔅 E	Basin:	38 5.	Numbe	r: Suffix:
Owner 1	Name: (First)	(La	est) All		○Non-Domestic ○Domestic
	Well / Su	rface Data Report Wat Clear Form	er Column Repo	ort	to Water Report

							(Depth N	Water in	Feet)
Bsn	Tws	Rng Sec	Zone	х	Y	Wells	Min	Max	Avg
С	22S	32E 14				2	340	360	350
С	22S	32E 19				1	280	280	280

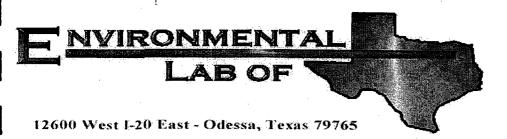
Record Count: 3

APPENDIX B

Lab Analysis

Report Date: 08/01/05

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Analytical Report

Prepared for:

Ike Tavarez Highlander Environmental Corp. 1910 N. Big Spring St. Midland, TX 79705

Project: Pogo/ Federal 27 TB Project Number: 2420 Location: Lea County, NM

Lab Order Number: 5G18017

Report Date: 08/01/05

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

l

Project: Pogo/ Federal 27 TB Project Number: 2420 Project Manager: Ike Tavarez

Fax: (432) 682-3946 Reported: 08/01/05 10:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 (0-1.0')	5G18017-01	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (1.0-1.5')	5G18017-02	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (2.0-2.5')	5G18017-03	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (3.0-3.5')	5G18017-04	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (4.0-4.5')	5G18017-05	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (5.0-5.5')	5G18017-06	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (7.0-7.5')	5G18017-07	Soil	07/14/05 00:00	07/18/05 13:10
AH-1 (10.0-10.5')	5G18017-08	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (0-1.0')	5G18017-09	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (1.0-1.5')	5G18017-10	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (2.0-2.5')	5G18017-11	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (3.0-3.5')	5G18017-12	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (4.0-4.5')	5G18017-13	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (5.0-5.5')	5G18017-14	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (7.0-7.5')	5G18017-15	Soil	07/14/05 00:00	07/18/05 13:10
AH-2 (10.0-10.5')	5G18017-16	Soil	07/14/05 00:00	07/18/05 13:10
AH-3 (0-1.0')	5G18017-17	Soil	07/14/05 00:00	07/18/05 13:10
AH-3 (1.0-1.5')	5G18017-18	Soil	07/14/05 00:00	07/18/05 13:10
AH-3 (2.0-2.5')	5G18017-19	Soil	07/14/05 00:00	07/18/05 13:10

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705 Project: Pogo/Federal 27 TB Project Number: 2420 Project Manager: Ike Tavarez

Fax: (432) 682-3946

Reported: 08/01/05 10:34

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-1 (0-1.0') (5G18017-01) Soil									
Benzene	0.375	0.0250	mg/kg dry	25	EG51909	07/19/05	07/19/05	EPA 8021B	
Toluene	1.46	0.0250	11	"	11	и		н	
Ethylbenzene	1.02	0.0250	"	10	۳.	и	"	"	
Xylene (p/m)	2.58	0.0250	8	11	"	n	"	n .	
Xylene (0)	1.68	0.0250	0	11	11	Ħ	11	H	
Surrogate: a,a,a-Trifluorotoluene		88.3 %	80-1	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		80.8 %	80-1	120	"	"	"	<i>11</i>	
Gasoline Range Organics C6-C12	1810	50.0	mg/kg dry	5	EG52011	07/20/05	07/21/05	EPA 8015M	
Diesel Range Organics >C12-C35	9330	50.0				n		11	
Total Hydrocarbon C6-C35	11100	50.0	. 11		н	u	"	н	
Surrogate: 1-Chlorooctane		17.0 %	70-	130	"	"	"	"	S-06
Surrogate: 1-Chlorooctadecane		15.4 %	70	130	"	"	"	"	S-00
AH-1 (1.0-1.5') (5G18017-02) Soil									
Gasoline Range Organics C6-C12	J [26.3]	50.0	mg/kg dry	5	EG52011	07/20/05	07/21/05	EPA 8015M	
Diesel Range Organics >C12-C35	1890	50.0		11	n		11		
Total Hydrocarbon C6-C35	1890	50.0	N	11	"	u	11	H	
Surrogate: 1-Chlorooctane		13.6 %	70-	130	"	"	"	"	S-00
Surrogate: 1-Chlorooctadecane		12.5 %	70-	130	n	"	"	17	S-00
AH-2 (0-1.0') (5G18017-09) Soil									
Benzene	0.405	0.0250	mg/kg dry	25	EG51909	07/19/05	07/19/05	EPA 8021B	
Toluene	0.788	0.0250	H	n	"		"	n	
Ethylbenzene	0.637	0.0250	н	n	**	и		**	
Xylene (p/m)	0.800	0.0250	и	n	` u [`]	II		u	
Xylene (o)	1.10	0.0250	n	11	"	łi	II	u 	
Surrogate: a,a,a-Trifluorotoluene		91.5 %	80-	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.1 %	80-	120	"	n	"	"	•
Gasoline Range Organics C6-C12	1450	50.0	mg/kg dry	5	EG52011	07/20/05	07/21/05	EPA 8015M	
Diesel Range Organics >C12-C35	6590	50.0	n		"	"	"		
Total Hydrocarbon C6-C35	8040	50.0	**	11	11	· II	"		
Surrogate: 1-Chlorooctane		14.3 %	70-	130	"	H	"	"	S-0
Surrogate: 1-Chlorooctadecane		15.6%	. 70_	130		"	"		S-0

Environmental Lab of Texas

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705		Pr Project Nu Project Ma		20	1 27 TB			Fax: (432) 68 Reporte 08/01/05	:d:
		Orş Environn	ganics b nental L	•	exas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-2 (1.0-1.5') (5G18017-10) Soil									
Gasoline Range Organics C6-C12 Diesel Range Organics >C12-C35	499 3190	50.0 50.0	mg/kg dry "	5	EG52011 "	07/20/05	07/21/05	EPA 8015M "	
Total Hydrocarbon C6-C35	3690	50.0		"			II		
Surrogate: 1-Chlorooctane Surrogate: 1-Chlorooctadecane		10.0 % 13.3 %	70-1 70-1		"	"	"	"	S-00 S-00
AH-3 (0-1.0') (5G18017-17) Soil									
Benzene	1.09	0.100	mg/kg dry	100	EG51909	07/19/05	07/20/05	EPA 8021B	1
Toluene	3.10	0.100	"	μ	н	11	и	н	
Ethylbenzene	3.50	0.100	"	"	"	"	u	"	
Xylene (p/m)	7.92	0.100	"			11	н	н	
Xylene (o)	4.22	0.100	19	H	"	**	11	*J	
Surrogate: a,a,a-Trifluorotoluene		113 %	80-	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	80-	120	"	"	"	<i>n</i> .	
Gasoline Range Organics C6-C12	2290	50.0	mg/kg dry	5	EG52011	07/20/05	07/21/05	EPA 8015M	
Diesel Range Organics >C12-C35	9250	50.0	"	n		11	н	n	
Total Hydrocarbon C6-C35	11500	50.0	11		"	"		n	
Surrogate: 1-Chlorooctane		15.7%	70-	130	"	"	"	"	S-0
Surrogate: 1-Chlorooctadecane		15.5 %	70-	130	"	` <i>n</i>	"	"	S-0
AH-3 (1.0-1.5') (5G18017-18) Soil									
Gasoline Range Organics C6-C12	599	50.0	mg/kg dry	5	EG52011	07/20/05	07/21/05	EPA 8015M	
Diesel Range Organics >C12-C35	3350	50.0	u	H		н		11	
Total Hydrocarbon C6-C35	3950	50.0	H	"	n	"	n	. 17	
Surrogate: 1-Chlorooctane		10.5 %	70-	130	"	"	"	"	S-0
Surrogate: 1-Chlorooctadecane		14.5 %	70-	130	11	"	"	"	S-0

Environmental Lab of Texas

08/01/05 10:34

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
AH-1 (0-1.0') (5G18017-01) Soil		· · · · · · · · · · · · · · · · · · ·							
Chloride	10500	1000	mg/kg	2000	EG52104	07/20/05	07/20/05	EPA 300.0	
% Moisture	11.0	0.1	%	1	EG51901	07/18/05	07/19/05	% calculation	
AH-1 (1.0-1.5') (5G18017-02) Soil					-				
Chloride	904	10.0	mg/kg	20	EG52104	07/20/05	07/20/05	EPA 300.0	
% Moisture	4.5	0.1	%	1	EG51901	07/18/05	07/19/05	% calculation	
AH-1 (2.0-2.5') (5G18017-03) Soil									
Chloride	736	10.0	mg/kg	20	EG52104	07/20/05	07/20/05	EPA 300.0	
AH-1 (3.0-3.5') (5G18017-04) Soil									
Chloride	420	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-1 (4.0-4.5') (5G18017-05) Soil									
Chloride	210	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-1 (5.0-5.5') (5G18017-06) Soil									
Chloride	231	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-1 (7.0-7.5') (5G18017-07) Soil									
Chloride	328	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-1 (10.0-10.5') (5G18017-08) Soil									
Chloride	500	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-2 (0-1.0') (5G18017-09) Soil									
Chloride	753	100	mg/kg	200	EG52104	07/20/05	07/20/05	EPA 300.0	
% Moisture	12.5	0.1	%	1	EG51901	07/18/05	07/19/05	% calculation	

Environmental Lab of Texas

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
AH-2 (1.0-1.5') (5G18017-10) Soil									
Chloride	1460	25.0	mg/kg	50	EG52104	07/20/05	07/20/05	EPA 300.0	
% Moisture	5.3	0.1	%	l	EG51901	07/18/05	07/19/05	% calculation	
AH-2 (2.0-2.5') (5G18017-11) Soil									
Chloride	1500	25.0	mg/kg	50	EG52104	07/20/05	07/20/05	EPA 300.0	
AH-2 (3.0-3.5') (5G18017-12) Soil									
Chloride	1520	25.0	mg/kg	50	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-2 (4.0-4.5') (5G18017-13) Soil									
Chloride	1300	20.0	mg/kg	40	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-2 (5.0-5.5') (5G18017-14) Soil									
Chloride	1020	10.0	mg/kg	20	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-2 (7.0-7.5') (5G18017-15) Soil									
Chloride	343	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-2 (10.0-10.5') (5G18017-16) Soil									
Chloride	360	5.00	mg/kg	10	EG52911	07/28/05	07/28/05	EPA 300.0	
AH-3 (0-1.0') (5G18017-17) Soil									
Chloride	3680	. 50.0	mg/kg	100	EG52104	07/20/05	07/20/05	EPA 300.0	
% Moisture	11.2	0.1	%	1	EG51901	07/18/05	07/19/05	% calculation	
AH-3 (1.0-1.5') (5G18017-18) Soil		·····							
Chloride	523	5.00	mg/kg	10	EG52104	07/20/05	07/20/05	EPA 300.0	
% Moisture	3.5	0.1	%	1	EG51901	07/18/05	07/19/05	% calculation	

Environmental Lab of Texas

Reported: 08/01/05 10:34

General Chemistry Parameters by EPA / Standard Methods

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Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-3 (2.0-2.5') (5G18017-19) Soil									
Chloride	358	5.00	mg/kg	10	EG52104	07/20/05	07/20/05	EPA 300.0	

Environmental Lab of Texas

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG51909 - EPA 5030C (GC)			······							
Blank (EG51909-BLK1)		<u>.</u>		Prepared	& Analyze		 15	<u></u>		
Blank (EG51909-BLK1) Benzene	ND	0.0250	mg/kg wet	Перагеа	& Analyza	.u. 07/19/0				
Toluene	· ND	0.0250	" "							
Ethylbenzene	ND	0.0250								
Xylene (p/m)	ND	0.0250	н							
Xylene (o)	ND	0.0250								
Surrogate: a,a,a-Trifluorotoluene	83.4		ug/kg	100	<u>·</u>	83.4	80-120			
Surrogate: 4-Bromofluorobenzene	86.5		"	100		86.5	80-120			
LCS (EG51909-BS1)				Prepared	& Analyz	ed: 07/19/	05			
Benzene	101		ug/kg	100		101	80-120			
Toluene	105		н	100		105	80-120			
Ethylbenzene	105		۳.	100		105	80-120			
Xylene (p/m)	205		"	200		102	80-120			
Xylene (o)	94.0		u	100		94.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	93.3		"	100		93.3	80-120			
Surrogate: 4-Bromofluorobenzene	101		"	100		101	80-120			
Calibration Check (EG51909-CCV1)				Prepared	: 07/19/05	Analyzed	1: 07/20/05			
Benzene	105		ug/kg	100		105	80-120			
Toluene	102		15	100		102	80-120			
Ethylbenzene	97.9			100		97.9	80-120			
Xylene (p/m)	199			200		99.5	80-120			
Xylene (o)	99.2			100		99.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	96.6		"	100		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	92.8		"	100		92.8	80-120			
Matrix Spike (EG51909-MS1)	So	urce: 5G18()19-02	Prepared	: 07/19/05	Analyzed	d: 07/20/05			
Benzene	107		ug/kg	100	ND	107	80-120			
Toluene	110		"	100	ND	110	80-120			
Ethylbenzene	112		"	100	ND	112	80-120			
Xylene (p/m)	228		n	200	ND	114	80-120			
Xylene (o)	110		u	100	ND	110	80-120			
Surrogate: a,a,a-Trifluorotoluene	98.9		"	100		98.9	80-120	· ·	····· ·	
Surrogate: 4-Bromofluorobenzene	118		"	100		118	80-120			

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Reported: 08/01/05 10:34

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG51909 - EPA 5030C (GC)	····									
Matrix Spike Dup (EG51909-MSD1)	So	urce: 5G180	19-02	Prepared:	07/19/05	Analyzed	: 07/20/05			
Benzene	105		ug/kg	100	ND	105	80-120	1.89	20	
Toluene	108		11	100	ND	108	80-120	1.83	20	
Ethylbenzene	108		*1	100	ND	108	80-120	3.64	20	
Xylene (p/m)	218		11	200	ND	109	80-120	4.48	20	
Xylene (o)	105		11	100.	ND	105	80-120	4.65	20	
Surrogate: a,a,a-Trifluorotoluene	95.7		"	100		95.7	80-120			·
Surrogate: 4-Bromofluorobenzene	106		. "	100		106	80-120			
Batch EG52011 - Solvent Extraction (GC)									
Blank (EG52011-BLK1)				Prepared:	07/20/05	Analyzed	l: 07/21/05			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0								
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	39.5		mg/kg	50.0		79.0	70-130			
Surrogate: 1-Chlorooctadecane	38.1		"	50.0		76,2	70-130			
LCS (EG52011-BS1)				Prepared	: 07/20/05	Analyzed	i: 07/21/05			
Gasoline Range Organics C6-C12	462	10.0	mg/kg wet	500		92.4	75-125			
Diesel Range Organics >C12-C35	445	10.0	n	500		89.0	75-125			
Total Hydrocarbon C6-C35	907	10.0	14	1000		90.7	75-125			
Surrogate: 1-Chlorooctane	47.7		mg/kg	50.0		95.4	70-130			
Surrogate: 1-Chlorooctadecane	38.5		"	50.0		77.0	70-130			
Calibration Check (EG52011-CCV1)				Prepared	: 07/20/05	Analyzed	1: 07/21/05			
Gasoline Range Organics C6-C12	516		mg/kg	500		103	80-120			
Diesel Range Organics >C12-C35	481		11	500		96.2	80-120			
Total Hydrocarbon C6-C35	997		"	1000		99.7	80-120			
Surrogate: 1-Chlorooctane	53.1		"	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	44.2		"	50.0		88.4	70-130			

Environmental Lab of Texas

08/01/05 10:34

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG52011 - Solvent Extraction ((GC)						·			
	So	urce: 5G180	15-11	Prepared:	07/20/05	Analyzed	: 07/21/05			
Gasoline Range Organics C6-C12	587	10.0	mg/kg dry	559	ND	105	75-125			
Diesel Range Organics >C12-C35	589	10.0	"	559	ND	105	75-125			
Total Hydrocarbon C6-C35	1180	10.0	"	1120	ND	105	75-125			
Surrogate: 1-Chlorooctane	56.7		mg/kg	50.0		113	70-130			
Surrogate: 1-Chlorooctadecane	46.2		**	50.0		92.4	70-130			
Matrix Spike Dup (ÈG52011-MSD1)	So	urce: 5G180)15-11	Prepared:	: 07/20/05	Analyzed	1: 07/21/05			
Gasoline Range Organics C6-C12	589	10.0	mg/kg dry	559	ND	105	75-125	0.340	20	
Diesel Range Organics >C12-C35	572	10.0	н	559	ND	102	75-125	2.93	20	
Total Hydrocarbon C6-C35	1160	10.0	n	1120	ND	104	75-125	1.71	20	
Surrogate: 1-Chlorooctane	56.9		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	46.9		\$7	50.0		93.8	70-130			

Environmental Lab of Texas

Highlander Environmental Corp.	Project: Pogo/ Federa	al 27 TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2420		Reported:
Midland TX, 79705	Project Manager: Ike Tavarez		08/01/05 10:34

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
Batch EG51901 - General Preparation	(Prep)						·····			
Blank (EG51901-BLK1)				Prepared:	07/18/05	Analyzed	l: 07/19/05			
% Moisture	ND	0.1	%							
Duplicate (EG51901-DUP1)	So	urce: 5G180()1-01	Prepared:	07/18/05	Analyzed	1: 07/19/05			
% Moisture	1.7	0.1	%		1.6			6.06	20	
Batch EG52104 - Water Extraction										
Blank (EG52104-BLK1)				Prepared	& Analyz	ed: 07/20/	05			
Chloride	ND	0.500	mg/kg							
LCS (EG52104-BS1)				Prepared	& Analyz	ed: 07/20/	05			
Chloride	10.7		mg/L	10.0		107	80-120			
Calibration Check (EG52104-CCV1)				Prepared	& Analyz	ed: 07/20/	05			
Chloride	10.7		mg/L	10.0		107	80-120			
Duplicate (EG52104-DUP1)	So	urce: 5G180	16-19	Prepared	& Analyz	ed: 07/20/	05			
Chloride	1280	25.0	mg/kg		1320			3.08	20	
Batch EG52911 - Water Extraction								_		
Blank (EG52911-BLK1)				Prepared	& Analyz	ed: 07/28/	/05			
Chloride	ND	0.500	mg/kg							
LCS (EG52911-BS1)				Prepared	& Analyz	ed: 07/28/	/05			
Chloride	10.4		mg/L	10.0		104	80-120			

Environmental Lab of Texas

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705 Project: Pogo/ Federal 27 TB Project Number: 2420 Project Manager: Ike Tavarez

08/01/05 10:34

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG52911 - Water Extraction								. <u> </u>		
Calibration Check (EG52911-CCV1)				Prepared	& Analyze	d: 07/28/	05			
Chloride	10.3		mg/L	10.0		103	80-120			
Duplicate (EG52911-DUP1)	So	urce: 5G180	17-04	Prepared	& Analyze	ed: 07/28/	05			
Chloride	403	5.00	mg/kg		420			4.13	20	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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	Highlande	r Environmental Corp.	Project:	Pogo/ Federal 27 TB	Fax: (432) 682-3946
	1910 N. B	ig Spring St.	Project Number:	2420	Reported:
	Midland T	X, 79705	Project Manager:	Ike Tavarez	08/01/05 10:34
ŀ			Notes and De	efinitions	
	S-06	The recovery of this surrogate is matrix interference's.	lyte concentration and/or		
	J	Detected but below the Reporting	g Limit; therefore, result is an e	estimated concentration (CLP J-Flag)	
ļ	DET	Analyte DETECTED			
	ND .	Analyte NOT DETECTED at or abo	ove the reporting limit		
	NR	Not Reported			

- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By:

June aland K

8-01-05 Date:

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: <u>Highlander</u>
Date/Time: 1/18/05 12:10
Order #:5G18017
Initials:CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 c
Shipping container/cooler in good condition?	res	No	
Custody Seals intact on shipping container/cooler?	TES	No	Not present
Custody Seals intact on sample bottles?	(CES)	No	Not present
Chain of custody present?	Fes	No	
Sample Instructions complete on Chain of Custody?	Tes	No	
Chain of Custody signed when relinquished and received?	E	No	
Chain of custody agrees with sample label(s)	¥@D	No	
Container labels legible and intact?	Xes	No	
Sample Matrix and properties same as on chain of custody?	es	No	
Samples in proper container/bottle?	(es)	No	
Samples properly preserved?	(es)	No	
Sample bottles intact?	(Tes)	No	
Preservations documented on Chain of Custody?	(ES)	No	
Containers documented on Chain of Custody?	(ES)	No	
Sufficient sample amount for indicated test?	(es)	No	
All samples received within sufficient hold time?	(es)	No	
VOC samples have zero headspace?	Kes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: -_____ Date/Time: _____ Contacted by: _____ Regarding:

Corrective Action Taken:

•_____

Jeanne McMurrey

From:"Tim Reed" <treed@hec-enviro.com>To:"Jeanne McMurrey" <jeanne@elabtexas.com>Sent:Wednesday, July 27, 2005 9:31 AMSubject:RE: Report #5G18017 Pogo/ Federal 27 TB

July 27, 2005

Environmental Labs of Texas

Jeanne:

We request the following sample analysis be added to Lab Number 5G18017:

Pogo/Federal 27

AH-1 (3.0'-3.5'), Chloride AH-1 (4.0'-4.5'), Chloride AH-1 (5.0'-5.5'), Chloride AH-1 (7.0'-7.5'), Chloride AH-1 (10.0'-10.5'), Chloride

AH-2 (3.0'-3.5'), Chloride AH-2 (4.0'-4.5'), Chloride AH-2 (5.0'-5.5'), Chloride AH-2 (7.0'-7.5'), Chloride AH-2 (10.0'-10.5'), Chloride

Thank you,

Tim Reed, P.G. Vice President Highlander Environmental Corp. office - (432) 682-4559 fax - (432) 682-3946 cell - (432) 557-4680 -----Original Message-----From: Jeanne McMurrey [mailto:jeanne@elabtexas.com] Sent: Friday, July 22, 2005 5:27 PM To: Ike Tavarez; Tim Reed Subject: Re: Report #5G18017 Pogo/ Federal 27 TB

> Jeanne McMurrey Environmental Lab of Texas I, Ltd. 12600 West I-20 East Odessa, Texas 79765 432-563-1800

	Ana	alysi	is R	eq	u	es	st a	an	d	Ch	ai	n	0	f	Cı	ıst	od	ly	F	Re	cc	or	d		–					AN	_	AGE SIS		QUI	T SST		OI	<u>.</u>	3	· · · · · · · · · · · ·
		HIG	HLA	1N	D	E	\overline{R}	E	VV	Th	20	N	M	E	N7		Γ,	C	01	RI	Ρ.	· · · · ·						<u> </u>	ГТ						thod		<u>o.)</u>	-1		
					1	91	10]	N.	Big	S	pri	ne	g S	St.			-	-									9001311		Hg Se		ĺ									
	(432	2) 682-	-4559]	Mi	dla	nd	T	exe	18	79	170	5		J	Fax	(43	52)	68	32-3	39 4	46				.		Pd J							6				
	CLIENT N.)				S	ITE I	LANA	GER:	I	ke ;	Juu	1010			L			RES	_	/ATI	VE			SUDE OTON	Ba Cd	Ba Cd		5	860/624	8270/625			TDS, Chlorida				
	PROJECT	NO.: 24	120		юл 06	CT D	NAM F	E: ech	41	27	7 7	Γŀ	3					CONTAINERS	(N/N)						S	808	- I	AR AN	46 A6	88	Semi Volatilea	8240/8	Aol	808	2		1 (1)- (1)-) (so		
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* Add CIT 07-26-05 as per attached e-mail

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ľ	contact: sample cont o. 5 C	TION WHI 02 91 1/seals	ass or	ice	<u> </u>		M	ATRL		W-W S-Sc	ator		/-/ ¥ AAir SLSI	•	- S	D–Solic –Other		: <u> </u>			LARR	<u>(5</u> :			-					<u> </u>						<u> </u>	Yes		N		_

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. + Seal 0. COOH

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Lab Analysis Report Date: 09/20/05



Analytical Report

Prepared for:

Ike Tavarez Highlander Environmental Corp. 1910 N. Big Spring St. Midland, TX 79705

Project: Pogo/ Federal 27 TB Project Number: 2420 Location: Lea Co., NM

Lab Order Number: 5113012

Report Date: 09/20/05

Highlander Environmental Corp.	Project: Pogo/ Federal 27 TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2420	Reported:
Midland TX, 79705	Project Manager: Ike Tavarez	09/20/05 08:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
#1 Composite	5113012-01	Soil	09/08/05 00:00	09/13/05 16:00
#2 Composite	5113012-02	Soil	09/08/05 00:00	09/13/05 16:00
Stockpile	5113012-03	Soil	09/08/05 00:00	09/13/05 16:00

Highlander Environmental Corp.	Project:	Pogo/ Federal 27 TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number:	2420	Reported:
Midland TX, 79705	Project Manager:	lke Tavarez	09/20/05 08:33

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#1 Composite (5113012-01) Soil									
Gasoline Range Organics C6-C12	J [5.53]	10.0	mg/kg dry	1	E151414	09/14/05	09/17/05	EPA 8015M	
Diesel Range Organics >C12-C35	500	10.0			"			**	
Total Hydrocarbon C6-C35	500	10.0		n		н		19	
Surrogate: 1-Chlorooctane		86.0 %	70-13	0	"	"	и	"	
Surrogate: 1-Chlorooctadecane		92.0 %	70-13	0	"	"	"	"	
#2 Composite (5113012-02) Soil					_				
Gasoline Range Organics C6-C12	89.0	. 10.0	mg/kg dry	1	E151414	09/14/05	09/17/05	EPA 8015M	
Diesel Range Organics >C12-C35	1150	10.0	"		"	"		**	
Total Hydrocarbon C6-C35	1240	10.0	м	"		**	•	*	
Surrogate: 1-Chlorooctane		86.0 %	70-13	0	"	"	"	n	
Surrogate: 1-Chlorooctadecane		103 %	70-13	0	"	"	"	n	
Stockpile (5113012-03) Soil									
Gasoline Range Organics C6-C12	895	50.0	mg/kg dry	5	E151414	09/14/05	09/17/05	EPA 8015M	
Diesel Range Organics >C12-C35	4890	50.0	"			"	"		
Total Hydrocarbon C6-C35	5790	50.0	"	•			"	"	
Surrogate: 1-Chlorooctane		16.1 %	70-13	0	"	"	μ	"	S-0
Surrogate: 1-Chlorooctadecane		17.0%	70-13	0	"	"	"	~	5-0

Environmental Lab of Texas

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705		Project Nu Project Ma	mber: 24		27 TB			Fax: (432) 6 Report 09/20/05	ed:
	General Cher	nistry Paraı Environn				rd Method	S		
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
1 Composite (5113012-01) Soil									
6 Moisture	0.2	. 0.1	%	1	E151420	09/14/05	09/14/05	% calculation	
2 Composite (5113012-02) Soil									
% Moisture	0.5	0.1	%	1	E151420	09/14/05	09/14/05	% calculation	
Stockpile (5113012-03) Soil									
% Moisture	3.4	. 0.1	%	1	EI51420	09/14/05	09/14/05	% calculation	

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with written approval of Environmental Lab of Texas.

Page 3 of 6

Highlander Environmental Corp.		Р	roject: Pog	o/ Federal 2	7 TB				Fax: (432)	682-3946
1910 N. Big Spring St.			imber: 242						Repo	rted:
Midland TX, 79705		Project Ma	nager: Ike	Tavarez					09/20/0	5 08:33
	Org	ganics by	GC - Q	uality Co	ontrol					
	ł	Environn	nental L	ab of Tex	as					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch E151414 - Solvent Extraction (GC)									
Blank (E151414-BLK1)				Prepared: 0	9/14/05 A	nalyzed: 09	/15/05			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Dieseł Range Organics >C12-C35	ND	10.0								
Total Hydrocarbon C6-C35	ND	10.0								
Surrogate: 1-Chlorooctane	44.7		mg kg	50.0		89.4	70-130			
Surrogate: 1-Chloroociadecane	45.2		"	50.0		90.4	70-130			
LCS (É151414-BS1)				Prepared: ()9/14/05 A	nalyzed: 09	0/15/05			
Gasoline Range Organics C6-C12	412	10.0	mg/kg wet	500		82.4	75-125		*******	
Diesel Range Organics >C12-C35	436	10.0		500		87.2	75-125			
Total Hydrocarbon C6-C35	848	10.0		1000		84.8	75-125			
Surrogate: 1-Chlorooctane	50.9		mg·kg	50.0		102	70-130			
Surrogate: 1-Chlorooctadecane	50.5		"	50.0		101	70-130			
Calibration Check (E151414-CCV1)				Prepared: (09/14/05 A	nalyzed: 09	9/17/05			
Gasoline Range Organics C6-C12	443		mg/kg	500		88.6	80-120			
Diesel Range Organics >C12-C35	422		9	500		84.4	80-120			
Total Hydrocarbon C6-C35	865		u	1000		86.5	80-120			
Surrogate: 1-Chlorooctane	51.9		"	50.0		104	0-200			
Surrogate: 1-Chlorooctadecane	53.5		"	50.0		107	0-200			
Matrix Spike (E151414-MS1)	Sour	ce: 5113008	-01	Prepared: (09/14/05 A	nalyzed: 09	9/15/05			
Gasoline Range Organics C6-C12	939	10.0	mg/kg dry	568	289	[]4	75-125			
Diesel Range Organics >C12-C35	1400	10.0		568	721	120	75-125			
Total Hydrocarbon C6-C35	2340	10.0	"	1140	1010	117	75-125			
Surrogate: 1-Chlorooctane	61.4		mg kg	50.0		123	70-130			
Surrogate: 1-Chlorooctadecane	56.5		"	50.0		113	70-130			
Matrix Spike Dup (E151414-MSD1)	Sour	ce: 5113008	-01	Prepared: (09/14/05 A	nalyzed: 09	9/15/05			
Gasoline Range Organics C6-C12	914	10.0	mg/kg dry	568	289	110	75-125	2.70	20	
Diesel Range Organics >C12-C35	1400	10.0	н	568	721	120	75-125	0.00	20	
Total Hydrocarbon C6-C35	2310	10.0		1140	1010	114	75-125	1.29	20	
Surrogate: 1-Chlorooctane	53.0		mg kg	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	54.2		"	50.0		108	70-130			

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Environmental Lab of Texas

Highlander Environmental Corp.	Project:	Pogo/ Federal 27 TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number:	2420	Reported:
Midland TX, 79705	Project Manager:	Ike Tavarez	09/20/05 08:33

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

		Reporting	Spike	Source		%REC		RPD	
Analyte	Result	Limit Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch El51420 - General Preparatio	on (Prep)								
Blank (E151420-BLK1)			Prepared &	Analyzed:	: 09/14/05				
% Solids	100	%			,				
Duplicate (E151420-DUP1)	Sourc	e: 5113009-01	Prepared &	2 Analyzed	: 09/14/05				
% Solids	96.2	%		97.6			1.44	20	
Duplicate (E151420-DUP2)	Source	e: 5113010-04	Prepared &	& Analyzed	: 09/14/05				
% Solids	98.1	%		98.1			0.00	20	
Duplicate (EI51420-DUP3)	Sourc	e: 5114002-03	Prepared &	& Analyzed	: 09/14/05				
% Solids	99.9	%		99.9			0.00	20 .	

Environmental Lab of Texas

Highlander Environmental Corp.Project:Pogo/ Federal 27 TBFax: (432) 682-39461910 N. Big Spring St.Project Number:2420Reported:Midland TX, 79705Project Manager:Ike Tavarez09/20/05 08:33

Notes and Definitions

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's. Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). 1 Analyte DETECTED DET Analyte NOT DETECTED at or above the reporting limit ND NR Not Reported dry Sample results reported on a dry weight basis RPD **Relative Percent Difference** LCS Laboratory Control Spike MS Matrix Spike Dup Duplicate

Report Approved By:

Raland K Julies

9/20/2005

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director. Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

Date:

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

Analysis Request and Ch	ain of Custod	ly	R	ec	ore	1	-					A		PAGI YSIS		OUR	ST	(OF		1	
HIGHLANDER ENVIR 1910 N. Big Sp Midland, Texas (432) 682-4559	oring St.					6			TX1008	3	Pd Bg Se	le					hod		<u>>.)</u>			
CLIENT NAME: Woducing CU. SITE MERTIG	avan	·		PRE		ATIVE	-		Cons Holy	2			8	1007 1000	8270/625			Chlorida				
PROJECT NOT 1/20 PROJECT NAME Federal	27 Ty Mon.	R OF CONTAINERS	(N/X) 03				BTEX BORO/BOA	8	18.1	PAH BETO	13	TCLP Volation	172P Sami Volatilea	RCI CC NY Vol Print / April / Par	GC.MS Samt. Vol. 8	PCB's 8050/808	Peet. 209/808	BOD, 738, pH, 103,	Anthe Beta (Air)	PLM (Asbestos)		
NUMBER DATE TIME HE SAMPLE ID	DENTIFICATION	NUMBER	FILTERED	FONH	1CE	NONE	BTEN	RIN	E	PUTA MAT	TCLP Melals	TCLP V	8 4724	12 12 12	GCAG	PCB's	Post.	aoa ,	Abda	PLM (+
-01 9/8/65 5 - #1 Cozos	sct-e	1		+					<u>Y</u> V	_		$\left - \right $					-+	-	+-		_	+
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ANTACT:	ter A-Alr SD-Solid	M.S.		RKHA	ers:		.	<u> </u>				·						~				

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

Environmental Lab of Texas Variance / Corrective Action Report - Sample Log-In

Client:	klander	
Date/Time:	1/15/05	luco
Order #:	51.1301	2
Initials:	MC	

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	<u> </u>
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	¥eş	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	l Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Xes	No	
Containers documented on Chain of Custody?	Xes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	*ৰেই	No	
VOC samples have zero headspace?	Yes?	No	Not Applicable

Other observations:

Variance Documentation:

Regarding:

Contact Person: -_____ Date/Time: _____ Contacted by: _____

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Corrective Action Taken:

APPENDIX C

		TRIUMPHE	XPINC		PAGE 02
08/2005 03:25 524245	3				
÷	State	of New I	Mexico		Form C-
<u>lstrict 1</u> - (505) 593-6161 O. Box 1980	4 ••••				Originated 2/1
obbs, NM 88241-1980	Energy Minerals an	id Natural R	esources Departi	ment	Ougharen 21
Istrict II - (505) 748-1283		nservation I			-
11 South First rtesia, NM 28210		South Pacheco			Submit 2 copi Appropriate Di
istrict III - (505) 334-6178	Santa	Fe, New Medic	o 87 505		Office in accord
00 Rio Brazos Rosd		(505) 827-713			with Rule 11
ztec, NM 87410 isprice IV - (505) 827-7191			·		back side of
الكليلة فالتكر بمناكرتهم بمطلو معيين بمطلوفة مست	Relesse Notif		prrective Action		(m)
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Name Para Pranting 11	5 COMPARY		Constant	HODGE	-5
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PO Box 1034	10		432-6	31-234	
Facility Name			Facility Type	,	
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urface Owner	Mineral C	Dwater		Lease	e No.
BLM					
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0 27 225 3	2E 330 500	uni 23	0 West	LEA	
	NAT	TURE OF REL	EASE	-	
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SALTWATER			98		- 96
Source of Release	•		Date and Hour of Occurrence	x Da	ue and Hour of Discovery
HOLE IN BATTERY	PIPING	}	10:00 Am		10:00 Am
Was Immediate Notice Given?			If YES. To Whom?		
	in No Not Regul		SYLVII	A DICKE	<u>ey</u>
By Whoru?			Date and Hour		
COTT HODGES	•		7/6/05	i Zic	Ø
			UYES, Volume Impacting a	he Watercourse	
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By Whom?	Scott Hodg	es				Date and F 7/6/05 3.00						
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