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,

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

Cc...

Bcc...

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

SITE INFORMATION

General Site Information:	
Site:	**Federal 27 #1 Tank Battery**
Company:	**Pogo Producing Company**
Section, Township and Range	**Section 27, T22S, R32 E**
Unit Letter:	**O**
Lease Number:	
County:	**Lea**
GPS:	**32° 21' 22.0", 103° 39' 48.5"**
Surface Owner:	**Federal Land**
Mineral Owner:	
Directions:	From Jal at the intersection of Hwy's 18 & 128, travel west on 128 for 35 miles, past MM
	18 to Red Road. Go north on Red Road for 7.4 miles to Mills Ranch Road. Take right and
	go 5.2 miles. At the green tank, take right on lease road, travel 1.4 miles to TB on right side
	of the road.

Release Data:	
Date Released:	7/6/2005
Type Release:	Produced Water
Source of Contamination:	Hole in piping
Fluid Released:	98 bbl.
Fluids Recovered:	96 bbl.

Official Communication:			
Name:	Pat Ellis	Don Riggs	Ike Tavarez
Company:	Pogo Producing Company	Pogo Producing Company	Highlander Environmental Corp.
Address:	300 N. Marienfeld St.	5 Greenway Plaza, Suite 2700	1910 N. Big Spring
P.O. Box	Box 10340		
City:	Midland Texas, 79701-7340	Houston, Texas 77046	Midland, Texas
Phone number:	(432) 685-8100	(713) 297-5045	(432) 692- 4559
Email:	EllisP@pogoproducing.com	riggsd@pogoproducing.com	itavarez@hec-enviro.com

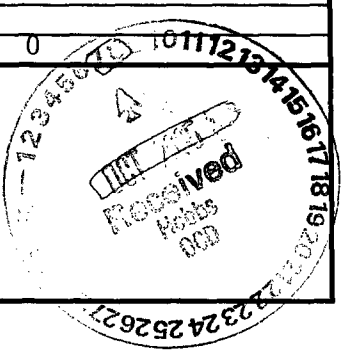
Ranking Criteria

Depth to Groundwater:	*Ranking Score*	*Site Data*
<50 ft	20	
50-99 ft	10	
>100 ft.	**0**	*0*

WellHead Protection:	*Ranking Score*	*Site Data*
Water Source <1,000 ft., Private <200 ft.	*20*	
Water Source >1,000 ft., Private >200 ft.	***0***	*0*

Surface Body of Water:	*Ranking Score*	*Site Data*
<200 ft.	*20*	
200 ft - 1,000 ft.	10	
>1,000 ft.	**0**	0
Total Ranking Score:	**0**	

Acceptable Soil RRAL (mg/kg)		
Benzene	*Total BTEX*	*TPH*
10	50	5,000



Highlander Environmental Corp.

Midland, Texas

1RP-217
10.26.05

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 350' and 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 July 6, 2005, when a hole developed in piping due to corrosion. A total of 98 barrels of produced water were released, with 96 barrels recovered. 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.,

Tim Reed

Timothy M. Reed, P.G.
Vice President

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

FIGURES

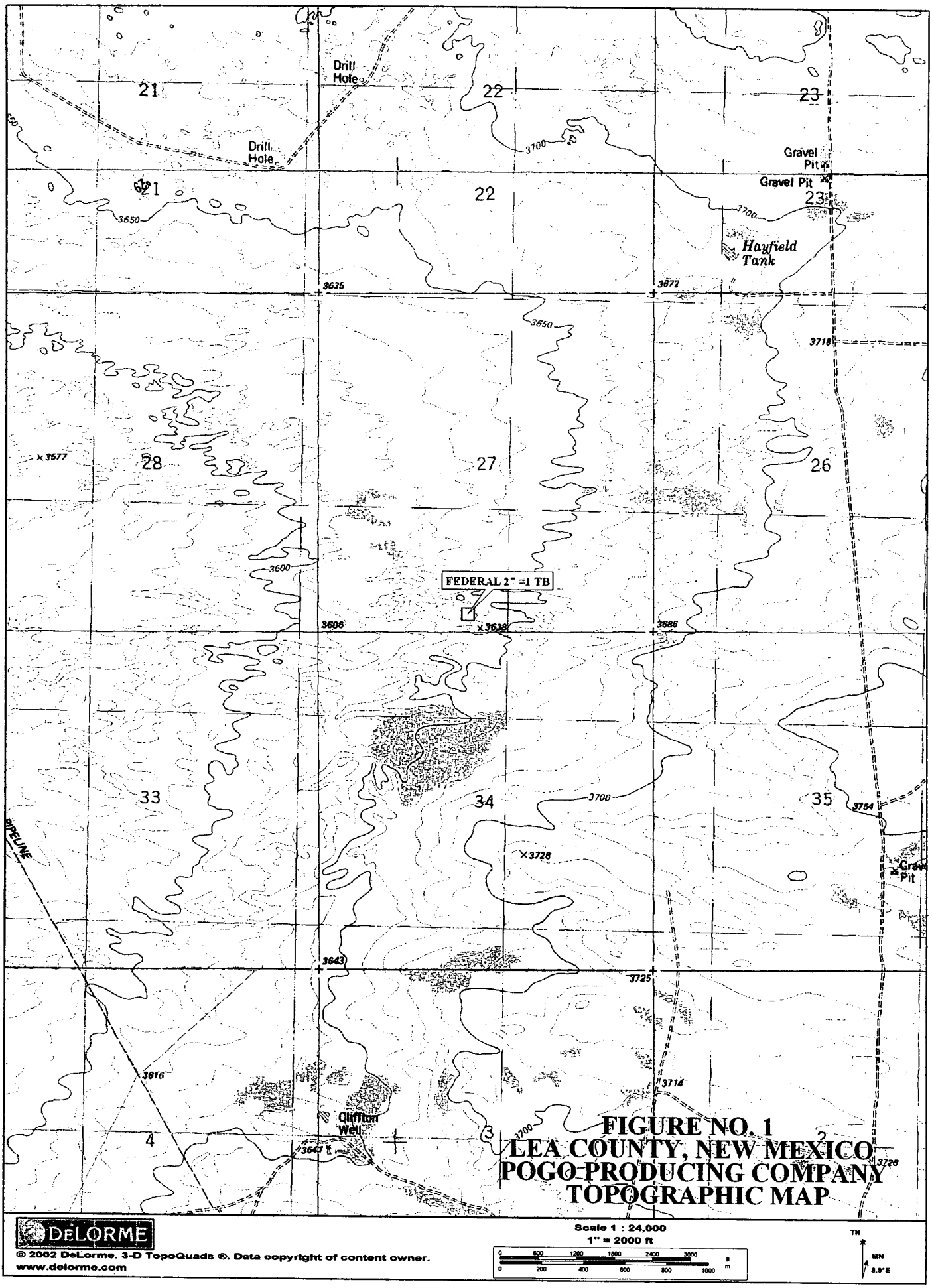
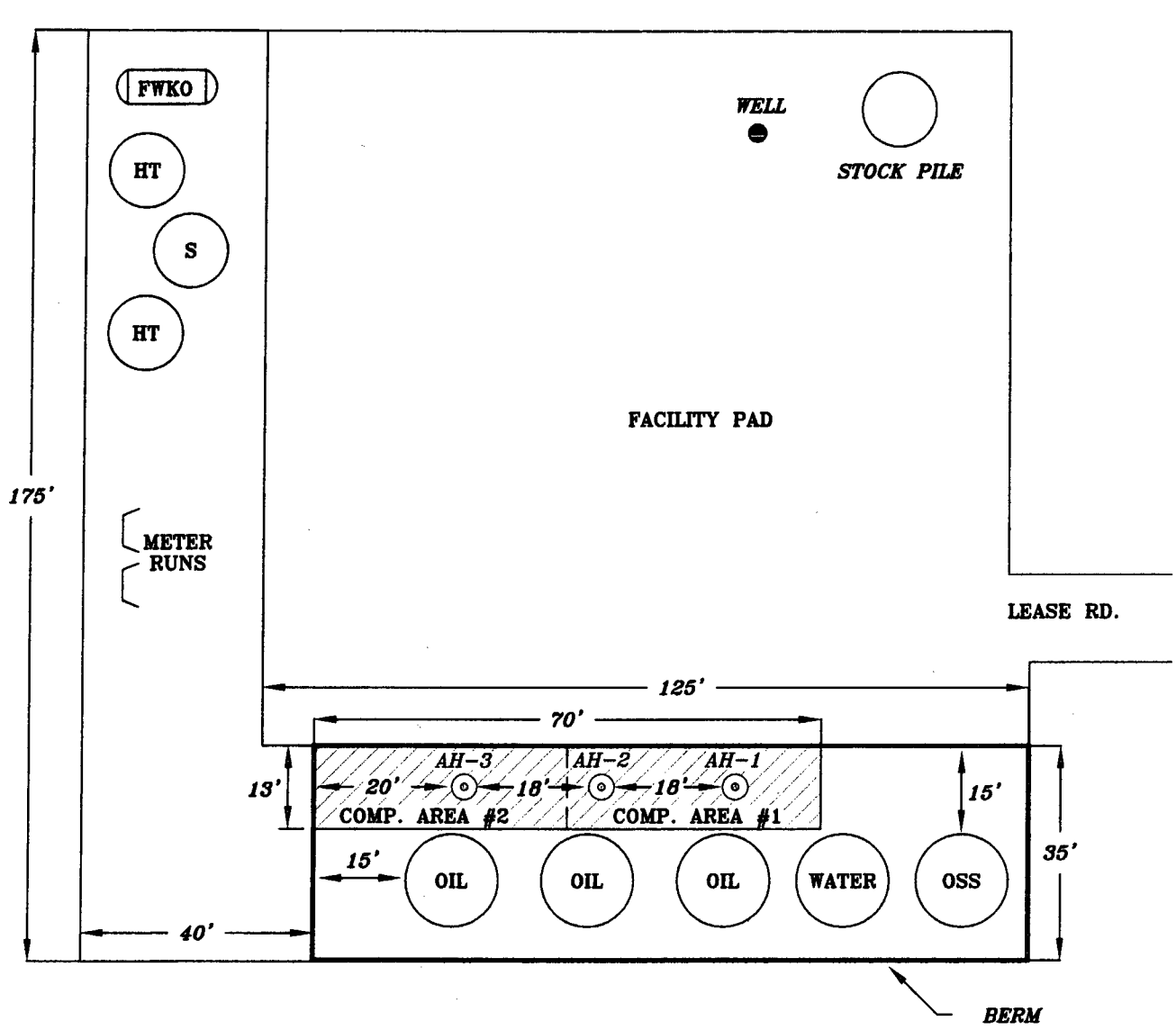


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
TOPOGRAPHIC MAP

Scale 1 : 24,000
1" = 2000 ft

TN
MN
8.9°E



◎ *SAMPLE LOCATION*

EXCAVATION AREA (1' TO 1.5' DEEP)

NOT TO SCALE

FIGURE NO. 2

LEA COUNTY, NEW MEXICO

POGO PRODUCING COMPANY
FEDERAL 27 #1 TB

DATE: 10/3/05

DWN. BY: JJ

FILE: C:\POGO\24327\FED 27 #1 FIG 2

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

TABLE

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

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C35	Total					
AH-1	7/14/2005	0-1	1,810	9,330	11,100	0.375	1.46	1.02	4.26	10,500
AH-1	7/14/2005	1-1.5	<50	1890	1890	-	-	-	-	904
AH-1	7/14/2005	2-2.5	-	-	-	-	-	-	-	736
AH-1	7/14/2005	3-3.5	-	-	-	-	-	-	-	420
AH-1	7/14/2005	4-4.5	-	-	-	-	-	-	-	210
AH-1	7/14/2005	5-5.5	-	-	-	-	-	-	-	231
AH-1	7/14/2005	7-7.5	-	-	-	-	-	-	-	328
AH-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	-	-	-	-	1,460
AH-2	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	-	-	-	-	-	-	-	360
AH-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

New Mexico Office of the State Engineer
Well Reports and Downloads

Township: 22S Range: 32E Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

Well / Surface Data Report | Avg Depth to Water Report
Water Column Report
Clear Form | WATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 07/26/2005

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

Record Count: 3

APPENDIX B

Lab Analysis

Report Date: 08/01/05

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

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.	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	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

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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	"	"	"	"	"	"	
Ethylbenzene	**1.02**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**2.58**	0.0250	"	"	"	"	"	"	
Xylene (o)	**1.68**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.8 %*	*80-120*		"	"	"	"	
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	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**11100**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*17.0 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*15.4 %*	*70-130*		"	"	"	"	*S-06*
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	J
Diesel Range Organics >C12-C35	**1890**	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**1890**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*13.6 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*12.5 %*	*70-130*		"	"	"	"	*S-06*
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	"	"	"	"	"	"	
Ethylbenzene	**0.637**	0.0250	"	"	"	"	"	"	
Xylene (p/m)	**0.800**	0.0250	"	"	"	"	"	"	
Xylene (o)	**1.10**	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.1 %*	*80-120*		"	"	"	"	
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	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**8040**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*14.3 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*15.6 %*	*70-130*		"	"	"	"	*S-06*

Organics by GC

Environmental Lab of Texas

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	**499**	50.0	mg/kg dry	5	EG52011	07/20/05	07/21/05	EPA 8015M	
Diesel Range Organics >C12-C35	**3190**	50.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**3690**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*10.0 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*13.3 %*	*70-130*		"	"	"	"	*S-06*
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	
Toluene	**3.10**	0.100	"	"	"	"	"	"	
Ethylbenzene	**3.50**	0.100	"	"	"	"	"	"	
Xylene (p/m)	**7.92**	0.100	"	"	"	"	"	"	
Xylene (o)	**4.22**	0.100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*113 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.3 %*	*80-120*		"	"	"	"	
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	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**11500**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*15.7 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*15.5 %*	*70-130*		"	"	"	"	*S-06*
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	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**3950**	50.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*10.5 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*14.5 %*	*70-130*		"	"	"	"	*S-06*

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	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	Notes
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	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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	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	Notes
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	%	1	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	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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	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	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	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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)				Prepared & Analyzed: 07/19/05						
Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	*83.4*		*ug/kg*	*100*		*83.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*86.5*		*"*	*100*		*86.5*	*80-120*			
LCS (EG51909-BS1)				Prepared & Analyzed: 07/19/05						
Benzene	101		ug/kg	100		101	80-120			
Toluene	105		"	100		105	80-120			
Ethylbenzene	105		"	100		105	80-120			
Xylene (p/m)	205		"	200		102	80-120			
Xylene (o)	94.0		"	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: 07/20/05						
Benzene	105		ug/kg	100		105	80-120			
Toluene	102		"	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)	**Source: 5G18019-02**			Prepared: 07/19/05 Analyzed: 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		"	200	ND	114	80-120			
Xylene (o)	110		"	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*			

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)	**Source: 5G18019-02**			Prepared: 07/19/05 Analyzed: 07/20/05						
Benzene	105		ug/kg	100	ND	105	80-120	1.89	20	
Toluene	108		"	100	ND	108	80-120	1.83	20	
Ethylbenzene	108		"	100	ND	108	80-120	3.64	20	
Xylene (p/m)	218		"	200	ND	109	80-120	4.48	20	
Xylene (o)	105		"	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: 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: 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	"	500		89.0	75-125			
Total Hydrocarbon C6-C35	907	10.0	"	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: 07/21/05						
Gasoline Range Organics C6-C12	516		mg/kg	500		103	80-120			
Diesel Range Organics >C12-C35	481		"	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*			

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)										
Matrix Spike (EG52011-MS1)	**Source: 5G18015-11**			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 (EG52011-MSD1)	**Source: 5G18015-11**			Prepared: 07/20/05		Analyzed: 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	"	559	ND	102	75-125	2.93	20	
Total Hydrocarbon C6-C35	1160	10.0	"	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*		"	*50.0*		*93.8*	*70-130*			

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 EG51901 - General Preparation (Prep)										
Blank (EG51901-BLK1)				Prepared: 07/18/05 Analyzed: 07/19/05						
% Moisture	ND	0.1	%							
Duplicate (EG51901-DUP1)		**Source: 5G18001-01**		Prepared: 07/18/05 Analyzed: 07/19/05						
% Moisture	1.7	0.1	%		1.6			6.06	20	
Batch EG52104 - Water Extraction										
Blank (EG52104-BLK1)				Prepared & Analyzed: 07/20/05						
Chloride	ND	0.500	mg/kg							
LCS (EG52104-BS1)				Prepared & Analyzed: 07/20/05						
Chloride	10.7		mg/L	10.0		107	80-120			
Calibration Check (EG52104-CCV1)				Prepared & Analyzed: 07/20/05						
Chloride	10.7		mg/L	10.0		107	80-120			
Duplicate (EG52104-DUP1)		**Source: 5G18016-19**		Prepared & Analyzed: 07/20/05						
Chloride	1280	25.0	mg/kg		1320			3.08	20	
Batch EG52911 - Water Extraction										
Blank (EG52911-BLK1)				Prepared & Analyzed: 07/28/05						
Chloride	ND	0.500	mg/kg							
LCS (EG52911-BS1)				Prepared & Analyzed: 07/28/05						
Chloride	10.4		mg/L	10.0		104	80-120			

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										
Calibration Check (EG52911-CCV1)				Prepared & Analyzed: 07/28/05						
Chloride	10.3		mg/L	10.0		103	80-120			
Duplicate (EG52911-DUP1)		**Source: 5G18017-04**		Prepared & Analyzed: 07/28/05						
Chloride	403	5.00	mg/kg		420			4.13	20	

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.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above 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: Raland K Tuttle Date: 8-01-05

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.

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

Client: Highlander

Date/Time: 7/18/05 13:10

Order #: 5G18017

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	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?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	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 AM
Subject: 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

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 3

CLIENT NAME: P060 SITE MANAGER: Ike Tavarez

PROJECT NO.: 2420 PROJECT NAME: P060 / Federal 27 TB Lea County, NM

SG 180177

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	418.1 (TPH) 8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-01	7/14/05		S		X	AH-1 (0-1.0')	1				X		X		X											X			
-02			S		X	AH-1 (1.0'-1.5')	1				X				X											X			
-03			S		X	AH-1 (2.0'-2.5')	1				X															X			
-04			S		X	AH-1 (3.0'-3.5')	1				X															X			
-05			S		X	AH-1 (4.0'-4.5')	1				X															X			
-06			S		X	AH-1 (5.0'-5.5')	1				X															X			
-07			S		X	AH-1 (7.0'-7.5')	1				X															X			
-08			S		X	AH-1 (10.0'-10.5')	1				X															X			
-09			S		X	AH-2 (0-1.0')	1				X		X		X											X			
-10			S		X	AH-2 (1.0-1.5')	1				X				X											X			

RELINQUISHED BY: (Signature) Date: 7/14/05 Time: 1:10

RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Ty Tawker + Jeremy Jones Date: 7/15/05 Time: 7:00

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #
HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Environmental Lab of Texas

ADDRESS:

CITY: Odessa STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature) Jason Murray

DATE: 7-18-05 TIME: 1310

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.5°C 4oz glass on ice w/seals + labels + seal on cooler

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: * Add Cl- 07-26-05 as per attached e-mail

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

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: Pogo | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2420 | PROJECT NAME: Pogo / Federal 27 TB, Lea County, NM

SG180117

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-11	7/14/05		S		X	AH-2 (2.0'-2.5')	1				X															X			
-12			S		X	AH-2 (3.0'-3.5')	1				X															X			
-13			S		X	AH-2 (4.0'-4.5')	1				X															X			
-14			S		X	AH-2 (5.0'-5.5')	1				X															X			
-15			S		X	AH-2 (7.0'-7.5')	1				X															X			
-16			S		X	AH-2 (10.0'-10.5')	1				X															X			
-17			S		X	AH-3 (0-1.0')	1				X		X		X											X			
-18			S		X	AH-3 (1.0'-1.5')	1				X				X											X			
-19			S		X	AH-3 (2.0'-2.5')	1				X															X			
-20			S		X	AH-3 (3.0'-3.5')	1				X																		

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature) Date: 7/18/05 Time: 1:10 | RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time: | RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time: | RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Jay Taylor & Jeremy Jones Date: 7/15/05 Time: 3:00

SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: HAND DELIVERED UPS OTHER:

RECEIVING LABORATORY: Environmental Lab of Texas
ADDRESS: CITY: Odessa STATE: TX ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Jaime McMurry
DATE: 7-18-05 TIME: 1310

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.5°C 4 oz glass on ice w/seals + labels + seal on cooler

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: * Add Cl⁻ 07-26-05 as per attached e-mail

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

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

CLIENT NAME: POGO | SITE MANAGER: Ike Tavarez

PROJECT NO.: 2420 | PROJECT NAME: POGO / Federal 27 TB, Lea County, NM

5G18017

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 8015 MOD. / TX1005 / 418.1	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-21	7/14/05		S		X	AH-3 (4.0'-4.5')	1				X																		
-22	↓		S		X	AH-3 (5.0'-5.5')	1				X																		
-23	↓		S		X	AH-3 (7.0'-7.5')	1				X																		
-24	↓		S		X	AH-3 (10.0'-10.5')	1				X																		

RELINQUISHED BY: (Signature) — Date: 7/14/05 Time: 1:10 | RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time: | RECEIVED BY: (Signature) — Date: Time:

RELINQUISHED BY: (Signature) — Date: Time: | RECEIVED BY: (Signature) — Date: Time:

SAMPLED BY: (Print & Sign) Jay Taylor & Jeffery Jones — Date: 7/15/05 Time: 3:00

SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: HAND DELIVERED UPS OTHER:

RECEIVING LABORATORY: Environmental Lab of Texas — ADDRESS: — CITY: Odessa — STATE: TX — ZIP: — CONTACT: — PHONE:

RECEIVED BY: (Signature) Sam McCurley — DATE: 7-18-05 — TIME: 1310

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 0.5°C 4oz glass on ice w/seals + labels

MATRIX: W-Water A-Air SD-Solid (S-Soil) SL-Sludge O-Other

REMARKS:

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

+ Seal on cooler

Lab Analysis

Report Date: 09/20/05

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

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: 5I13012

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

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#1 Composite (5I13012-01) Soil									
Gasoline Range Organics C6-C12	**J [5.53]**	10.0	mg/kg dry	1	EI51414	09/14/05	09/17/05	EPA 8015M	J
Diesel Range Organics >C12-C35	**500**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**500**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*86.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*92.0 %*	*70-130*		"	"	"	"	
#2 Composite (5I13012-02) Soil									
Gasoline Range Organics C6-C12	**89.0**	10.0	mg/kg dry	1	EI51414	09/14/05	09/17/05	EPA 8015M	
Diesel Range Organics >C12-C35	**1150**	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	**1240**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*86.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
Stockpile (5I13012-03) Soil									
Gasoline Range Organics C6-C12	**895**	50.0	mg/kg dry	5	EI51414	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 %*	*70-130*		"	"	"	"	*S-06*
Surrogate: 1-Chlorooctadecane		*17.0 %*	*70-130*		"	"	"	"	*S-06*

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
#1 Composite (5I13012-01) Soil									
% Moisture	**0.2**	0.1	%	1	EI51420	09/14/05	09/14/05	% calculation	
#2 Composite (5I13012-02) Soil									
% Moisture	**0.5**	0.1	%	1	EI51420	09/14/05	09/14/05	% calculation	
Stockpile (5I13012-03) Soil									
% Moisture	**3.4**	0.1	%	1	EI51420	09/14/05	09/14/05	% calculation	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

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 EI51414 - Solvent Extraction (GC)										
Blank (EI51414-BLK1)				Prepared: 09/14/05 Analyzed: 09/15/05						
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	*44.7*		*mg/kg*	*50.0*		*89.4*	*70-130*			
Surrogate: 1-Chlorooctadecane	*45.2*		"	*50.0*		*90.4*	*70-130*			
LCS (EI51414-BS1)				Prepared: 09/14/05 Analyzed: 09/15/05						
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 (EI51414-CCV1)				Prepared: 09/14/05 Analyzed: 09/17/05						
Gasoline Range Organics C6-C12	443		mg/kg	500		88.6	80-120			
Diesel Range Organics >C12-C35	422		"	500		84.4	80-120			
Total Hydrocarbon C6-C35	865		"	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 (EI51414-MS1)	**Source: 5113008-01**			Prepared: 09/14/05 Analyzed: 09/15/05						
Gasoline Range Organics C6-C12	939	10.0	mg/kg dry	568	289	114	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 (EI51414-MSD1)	**Source: 5113008-01**			Prepared: 09/14/05 Analyzed: 09/15/05						
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	"	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*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

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

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

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

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.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above 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: Raland K. Tuttle Date: 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.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Mogo Producing Co. SITE MANAGER: Ike Tavarez

PROJECT NO.: 24/20 PROJECT NAME: Mogo Federal 27 1 Lea County, NM.

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 418.1	8015 MOD.	TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
521301?																															
-01	9/8/05		S	-		#1 Composite	1				-				X																
-02	9/8/05		S	-		#2 Composite	1				-				X																
-03	9/8/05		S	X		Stockpile	1				1				X																

RELINQUISHED BY: (Signature) Date: 9-13-05 Time: 1600 RECEIVED BY: (Signature) Date: Time: SAMPLED BY: (Print & Sign) IKE Tavarez Date: Time:

RELINQUISHED BY: (Signature) Date: Time: RECEIVED BY: (Signature) Date: Time: SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: HAND DELIVERED UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time: RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: ECI RECEIVED BY: (Signature) Jaime Mireles

ADDRESS: DATE: 9-13-05 TIME: 1600

CITY: STATE: ZIP: CONTACT: PHONE:

HIGHLANDER CONTACT PERSON: IKE Tavarez Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.0°C 4oz-glass on ice w/ labels + seals Seal on cooler

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS:

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.

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

Client: Highlander

Date/Time: 9/19/05 11:00

Order #: 5I13012

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	3.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	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?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

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

Regarding:

Corrective Action Taken:

APPENDIX C

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 South First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-1
Originated 2/13/

Submit 2 copies
Appropriate Distr
Office in accordan
with Rule 116
back side of for

Release Notification and Corrective Action
OPERATOR

☐ Initial Report ☐ Final Repo

Name: POGO PRODUCING COMPANY	Contact: SCOTT HODGES
Address: PO Box 10340	Telephone No.: 432-631-2343
Facility Name: FEDERAL 27	Facility Type: BATTERY

Surface Owner	Mineral Owner	Lease No.
BLM		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	27	22S	32E	330	SOUTH	2310	WEST	LEA

NATURE OF RELEASE

Type of Release: SALTWATER	Volume of Release: 98	Volume Recovered: 96
Source of Release: HOLE IN BATTERY PIPING	Date and Hour of Occurrence: 10:00 AM	Date and Hour of Discovery: 10:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? SYLVIA DICKEY	
By Whom? SCOTT HODGES	Date and Hour: 7/6/05 3:00	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully. (Attach Additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)
HOLE IN PIPING CAUSED BY CORROSION, PICKED UP ALL FREE STANDING FLUID

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)
ALL FLUIDS WERE CONTAINED WITHIN DIKED AREA OF TANKS. SAMPLES WILL BE TAKEN TO DETERMINE CLEANUP.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: [signature]	OIL CONSERVATION DIVISION
Printed Name: SCOTT HODGES	Approved by District Supervisor:
Title: FIELD FOREMAN	Approval Date: / Expiration Date:
Date: 7/6/05 Phone: 432-631-2343	Conditions of Approval: / Attached ☐

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 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 Company Pogo Producing Company	Contact Pat Ellis
Address: 300 N. Marienfeld, Box 10340, Midland Tx. 79701	Telephone No. (432) 685-8100
Facility Name: ~~Federal 27 #1~~	Facility Type: Tank Battery

Surface Owner: BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	27	22S	32E	330	FSL	2310	FWL	Lea

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release 98 barrels	Volume Recovered ~~96~~ barrels
Source of Release Hole in battery piping	Date and Hour of Occurrence 7/6/05, 10:00am	Date and Hour of Discovery 7/6/05 10:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD – Sylvia Dickey	
By Whom? Scott Hodges	Date and Hour 7/6/05 3.00 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Hole in piping caused by corrosion. Picked up all free standing fluid.

Describe Area Affected and Cleanup Action Taken.*
All fluids were contained within diked area of tanks. Samples were taken, and area was excavated to 1.5' below ground surface. Confirmation samples were taken. Closure Report prepared and submitted to the NMOCD for review.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Tim Reed	OIL CONSERVATION DIVISION
Printed Name: Tim Reed, P.G. (Highlander Environmental Corp.)	Approved by District Supervisor:
Title: Vice President	Approval Date: / Expiration Date:
E-mail Address: treed@hec-enviro.com	Conditions of Approval: / Attached ☐
Date: 10/5/05 Phone: (432) 682-4559	

* Attach Additional Sheets If Necessary