



Highlander Environmental Corp.

Midland, Texas

October 14, 2003

Mr. Larry Johnson
Environmental Engineer Specialist
Oil Conservation Division- District I
1625 N. French Drive
P. O. Box 1980
Hobbs, New Mexico 88240

RE: Closure Report for the Spill Area at the (Arch Petroleum, Inc.) Pogo Producing Company, C. E. Lamunyon #30 (southeast of Well #20) located in Section 22, Township 23 South, Range 37 East, Lea County, New Mexico.

Dear Mr. Johnson:

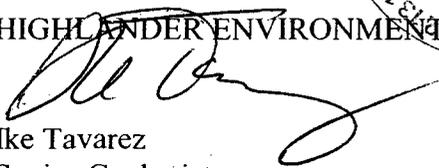
Enclosed is a copy of the Assessment and Closure Report performed at the above-mentioned project. Please review and call me if you require any additional information or have any questions. As you requested, below are the Pogo personnel responsible for maintaining records from the NMOCD. Their names, addresses and e-mail addresses are shown below.

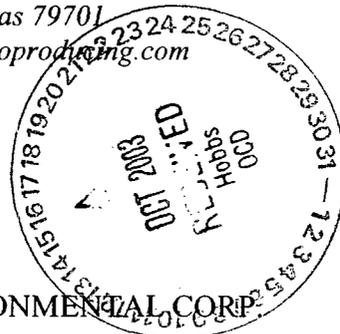
Mr. Don Riggs
Environmental Manager
Pogo Producing Company
5 Greenway Plaza, Ste. 2700
Houston, Texas 77046-0504
riggsd@pogoproducing.com

Mr. Rex Jasper
Pogo Producing Company
300 N. Marienfeld St.
Midland, Texas 79701
jasperr@pogoproducing.com

Respectfully Submitted,

HIGHLANDER ENVIRONMENTAL CORP.


Ike Tavarez
Senior Geologist



Pogo-17891
facility -
incident - NPAC0605328179

application - pPAC0605328391



Highlander Environmental Corp.

Midland, Texas

September 30, 2003

Mr. Larry Johnson
Environmental Engineer Specialist
Oil Conservation Division- District I
1625 N. French Drive
P. O. Box 1980
Hobbs, New Mexico 88240

RE: Closure Report for the Spill Area at the (Arch Petroleum, Inc.) Pogo Producing Company, C. E. Lamunyon #30 (southeast of Well #20) located in Section 22, Township 23 South, Range 37 East, Lea County, New Mexico.

Dear Mr. Johnson:

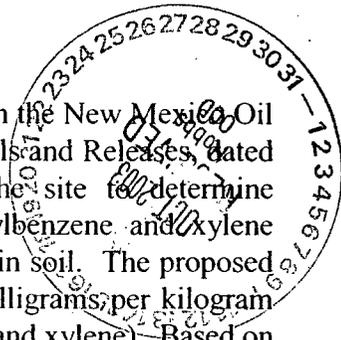
Highlander Environmental Corp. (Highlander) was contacted by Pogo Producing Company (Pogo) to assess a spill, which occurred at the (Arch) Pogo Producing Company C.E. Lamunyon #30 (southeast of Well #20) in Lea County, New Mexico (Site). The Site is located in ~~Section 22, Township 23 South, Range 37 East.~~ The State of New Mexico C-141 (Initial) is shown in Appendix A. The Site is shown in Figure 1.

Groundwater

According to published data, groundwater in the area is greater than 50 feet below surface. The State of New Mexico Well Reports did not show any water wells in Section 27. However, water wells were shown in Section 9, 16, and 32 with an average groundwater depth of greater than ~~100' below surface.~~ The State of New Mexico Well Reports are shown in Appendix B. The published data report, Groundwater Report 6, Geology and Groundwater Conditions in Southern Lea County, New Mexico, did show one well in Section 27 with a groundwater depth ~~of 78' below surface.~~

Regulatory

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 1,000 mg/kg.



Background/Previous Assessment

This spill area was from a flowline leak located west of well #20. The heaviest area of soil impact was noted around three active flowlines. At the release point, the impacted soil measured approximately 25' x 35'. The overspray areas measured approximately 75' x 75' and 20' x 75', and appeared to be surficial. Composite soil samples were collected from the 25' x 35' area at the active flowlines and in the overspray areas. The results are summarized in Table 1.

Table 1

Sample ID	Date Sampled	Depth (ft)	TPH (mg/kg)	Chloride (mg/kg)
Spill Area	8/13/99	0-3"	85,750	2366
Spill Area	8/13/99	0.5'	3210	18
Spill Area	8/13/99	1-1.5'	940	9
Overspray	8/13/99	0-3"	1100	18

Referring to Table 1, a composite sample at 0-3" was collected in the 25' x 35' area and showed a TPH concentration of 85,750 mg/kg and a chloride concentration of 2,366 mg/kg. The deeper samples at 0.5' and 1-1.5' showed decreasing TPH concentration of 3,210 mg/kg and 940 mg/kg, respectively. The chloride levels were 18 mg/kg at 0.5' and 9 mg/kg at 1-1.5'. A composite sample at 0-3" was collected from the overspray area and showed a TPH level of 1,110 mg/kg and a chloride level of 18 mg/kg.

Highlander submitted a Work Plan, dated August 20, 1999 to the NMOC D for review and approval, detailing the sampling and the proposed in-situ remediation of the impacted soils. As discussed in the Work Plan, the more heavily impacted areas did required treatment and periodic maintenance to remediate the impacted soil to below 1,000 mg/kg TPH. The soils were tilled and fertilized to enhance the remediation. Periodic composite samples were obtained to evaluate remediation efforts.

Remediation Results

The main spill area was tilled and resampled periodically to monitor the effectiveness of the remediation. The remediation was performed from September 1999 through January 2000 and performed in 2003. As shown in Table 2, the overspray area was resampled on September 30, 1999 and showed a TPH reduction of 30 mg/kg. On May 1, 2000, a composite sample was collected from the main spill area and showed a TPH level of 8,700 mg/kg, which exceeded the RRAL. However, the BTEX analyses did not exceed the RRAL during this sampling event. In 2003, this area was treated with a Micro-Blaze product and resampled on September 10, 2003. The spill area showed a reduction in TPH to 567 mg/kg, which is below the RRAL. The results are summarized in Table 2. The laboratory report are shown in Appendix B.



Table 2
Soil Remediation Result
 (concentrations in mg/kg)

Sample ID	Date Sampled	TPH 418.1	TPH (8015)		B	T	E	X
			DRO	GRO				
overspray	9/30/99	30	-	-	-	-	-	-
spill area	1/5/00	-	11,800	416	-	-	-	-
spill area	5/1/00	-	8,700	121	0.153	0.096	0.148	0.821
spill area	5/7/03	-	1,760	14.3				
spill area	8/13/03	-	3,600	<50.0				
spill area	9/10/03	-	567	<50.0	-	-	-	-

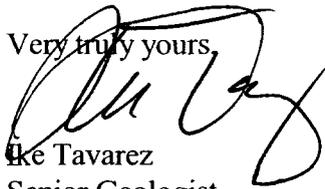
(-) not analyzed

Recommendations

Based on the results and remedial action performed at the Site, Pogo Producing Company (Arch) proposes closure of the spill area. The State of New Mexico C-141 (Final) is shown in Appendix A.

If you require any additional information or have any questions or comments concerning the assessment/closure report, please call.

Very truly yours,



Mike Tavarez
 Senior Geologist

cc: Don Riggs – Pogo Producing Co.
 Rex Jasper – Pogo Producing Co.



FIGURES

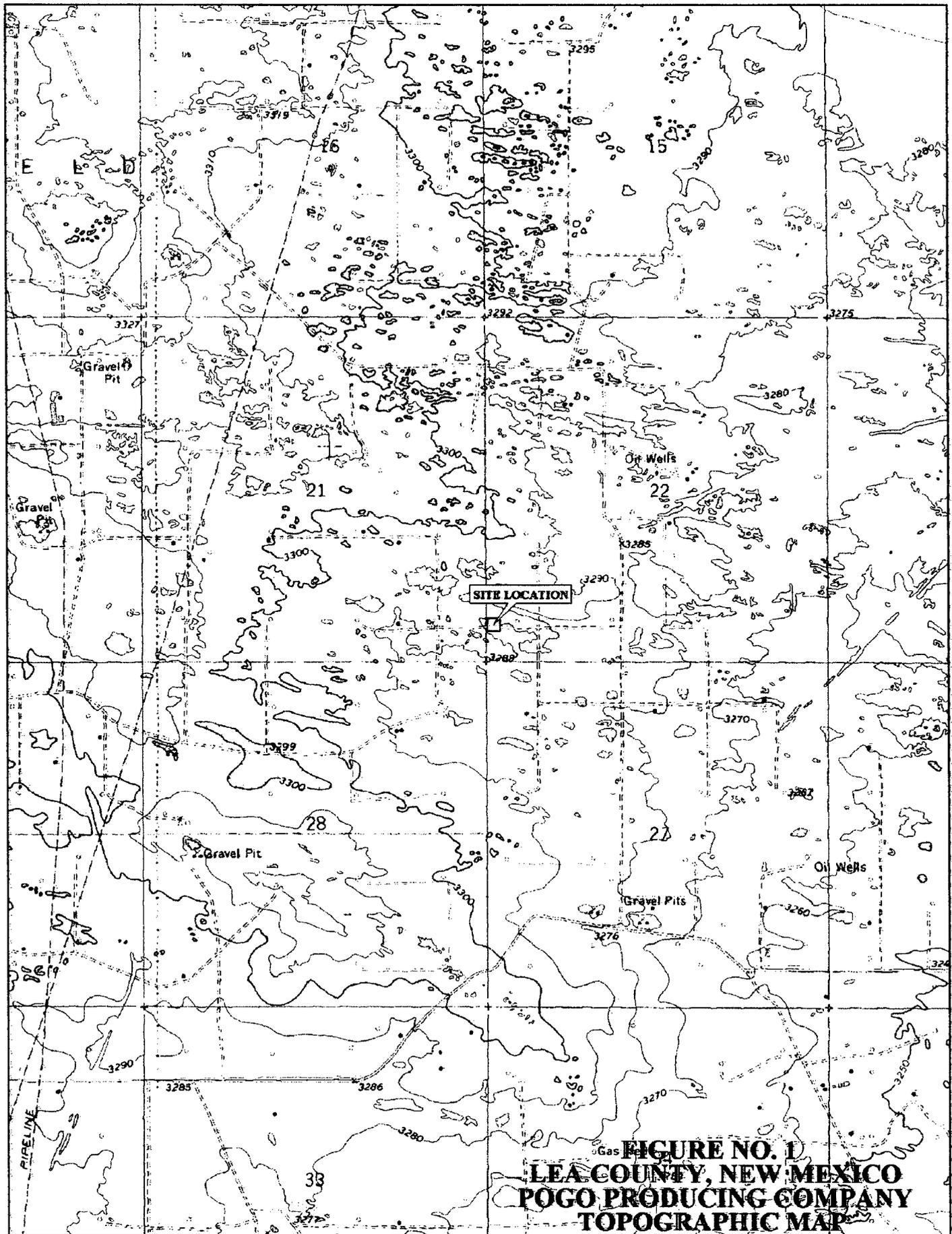


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
TOPOGRAPHIC MAP

Scale 1 : 24,000
 1" = 2000 ft



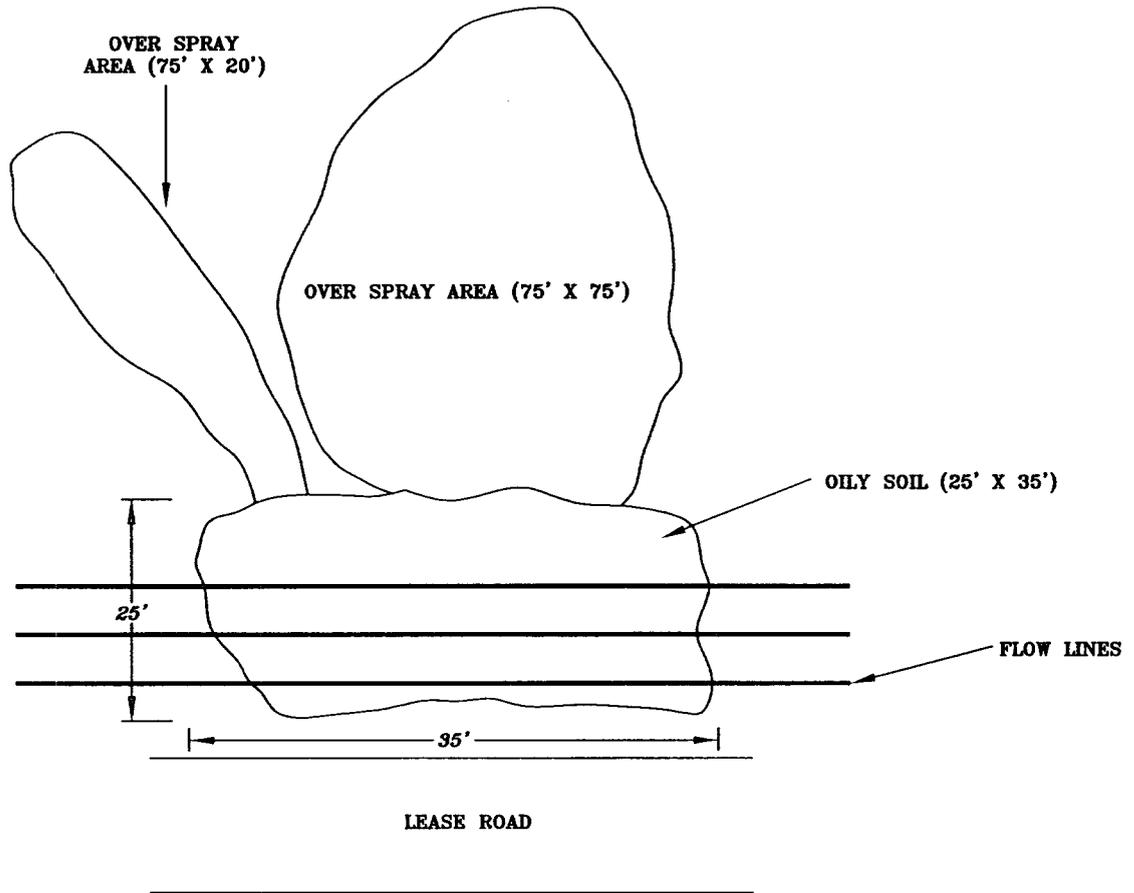


FIGURE NO. 2

LEA COUNTY, NEW MEXICO

POGO PRODUCING COMPANY

FLOW LINE LEAK

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE:
8/23/99
DWN. BY:
JDA
FILE:
CVPOGOVFLOW

NOT TO SCALE

APPENDIX A

State of New Mexico Form C-141

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 Arch/ Pogo Producing Company	Contact Rex Jasper
Address 300 N. Marienfeld, Ste 600, Midland, Tx. 79701	Telephone No. (432) 685-8100
Facility Name C. E. Lamunyon Well #30 (SE of Well #20)	Facility Type Pumping well
Surface Owner D.K. Boyd	Mineral Owner API # 30025224600000
Lease No. NMLC - 030187	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	22	23S	37E					Lea

NATURE OF RELEASE

Type of Release Oil	Volume of Release 10 bbls of oil	Volume Recovered 10 bbls oil
Source of Release flowline	Date and Hour of Occurrence 8/12/99 10:00 am	Date and Hour of Discovery 8/12/99 10:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD	
By Whom? Gary Wells (Pogo)	Date and Hour 8/12/99 4:00pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Flowline/Repaired leak		
Describe Area Affected and Cleanup Action Taken.* The impact at the Site was shallow to a depth of approximately 1.0' below surface. The spill impacted the area at the flowlines (25' x 35') and overspray (75' x 75' and 20' x 75'). These areas were remediated in place by tilling and adding fertilizer. Confirmation samples collected showed levels below the RRAL. Closure Report 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.

OIL CONSERVATION DIVISION

Signature: <i>Ike Tavarez</i>	Approved by District Supervisor:	
Printed Name: Ike Tavarez	Approval Date:	Expiration Date:
Title: Senior Geologist	Conditions of Approval:	
E-mail Address: itavarez@hec-enviro.com	Attached <input type="checkbox"/>	
Date: 9/19/03	Phone: (432) 682-4559	

* Attach Additional Sheets If Necessary

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-141
 Originated 3/13/97

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 Arch Pet Inc.	Contact GARY WOLLS
Address EUNICE N.M.	Telephone No. MOB 915-553-7419 OFF. 505-397-2246
Facility Name C.E LAMUNTON 3020	Facility Type PUMPING WELL
Surface Owner D. K Boyd	Mineral Owner
	Lease No. NMOC 030187

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	22				T-23-S		R-37-E	L&A

NATURE OF RELEASE

Type of Release OIL	Volume of Release 10 BBLs	Volume Recovered 10 BBLs
Source of Release Flowline	Date and Hour of Occurrence 8/12/99 10:AM	Date and Hour of Discovery 8/12/99 10AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD - 110 BBLs	
By Whom? GARY WOLLS	Date and Hour 8/12/99	4:00 PM
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)

Flowline Leak - REPAIRED LEAK

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

OVER SPRAY IN PASTER OIL ON SIDE OF ROAD PU - STANDING OIL - WILL BRUSH HOV OVER SPRAY - CLEAN UP SIDE OF ROAD.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and immediately contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOC 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: Gary Wolls	OIL CONSERVATION DIVISION		
Printed Name: GARY WOLLS	Approved by District Supervisor:		
Title: Field Forman	Approval Date:	Expiration Date:	
Date: 8/14/99	Phone: 505-397-2246	Conditions of Approval:	Attached <input type="checkbox"/>

APPENDIX B

Analytical Results

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HIGHLANDER ENVIRONMENTAL CORP.
ATTN: MR. IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND, TEXAS 79705
FAX: 915-682-3946

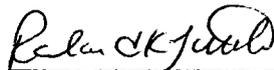
Sample Type: Soil
Sample Condition: Intact/ Iced
Project #: 1344
Project Name: Pogo/ Lumunyon #30 (W of #20)
Project Location: Lea Co., N.M.

Sampling Date: 09/30/99
Receiving Date: 09/30/99
Analysis Date: 10/01/99

ELT#	FIELD CODE	TPH (mg/kg)
20511	SP-1 (Overspray) 0-3"	30

BLANK	<10
% INSTRUMENT ACCURACY	100
% EXTRACTION ACCURACY	114

Methods: EPA 418.1


Raland K. Tuttle

10-1-99
Date

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(915) 682-4559

Fax (915) 682-3946

CLIENT NAME: Pogo Production SITE MANAGER: R. L. Laverne

PROJECT NO.: 1344 PROJECT NAME: Loge/Komurayon #30(W & 20)

LAB I.D. NUMBER: 20511 DATE: 9/30/99 TIME: 11:25 MATRIX: X COMP: X GRAB: X

SAMPLE IDENTIFICATION
SP-1 (over spray), 0-3"

PRESERVATIVE METHOD

HCL
HNOS
ICE
NONE

X

NUMBER OF CONTAINERS
FILTERED (Y/N)

1

PAGE: 1 OF: 1

ANALYSIS REQUEST

(Circle or Specify Method No.)

<input type="checkbox"/>	HTX 8080/808
<input type="checkbox"/>	MTE 8080/808
<input checked="" type="checkbox"/>	TPH 418 8015 MOD. TX008
<input type="checkbox"/>	PAH 8270
<input type="checkbox"/>	RCRA Metals Ag As Ba Cd Cr Pb Hg Se
<input type="checkbox"/>	TCF Volatiles
<input type="checkbox"/>	TCF Semivolatiles
<input type="checkbox"/>	ECI
<input type="checkbox"/>	GCMS Vol. 8240/8260/824
<input type="checkbox"/>	GCMS Sem. Vol. 8270/825
<input type="checkbox"/>	PCB's 8080/808
<input type="checkbox"/>	Post. 808/808
<input type="checkbox"/>	BOD, TSS, pH, TDS, Chloride
<input type="checkbox"/>	Gamma Spec.
<input type="checkbox"/>	Alpha Beta (Alr)
<input type="checkbox"/>	PLM (Asbestos)

RELINQUISHED BY: (Signature) <u>[Signature]</u> Date: <u>9/30/99</u> Time: <u>3:45</u>	RECEIVED BY: (Signature) _____ Date: _____ Time: _____	SAMPLED BY: (Signature) <u>[Signature]</u> Date: _____ Time: _____
RELINQUISHED BY: (Signature) _____ Date: _____ Time: _____	RECEIVED BY: (Signature) _____ Date: _____ Time: _____	SAMPLE SHIPPED BY: (Circle) FEDEX <input type="checkbox"/> BUS <input type="checkbox"/> UPS <input type="checkbox"/>
RELINQUISHED BY: (Signature) _____ Date: _____ Time: _____	RECEIVED BY: (Signature) _____ Date: _____ Time: _____	HAND DELIVERED <input type="checkbox"/> OTHER: _____
RECEIVING LABORATORY: _____ ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____	RECEIVED BY: (Signature) <u>[Signature]</u> DATE: <u>9/30/99</u> TIME: <u>3:45</u>	HIGHLANDER CONTACT PERSON: <u>[Signature]</u>
SAMPLE CONDITION WHEN RECEIVED: _____	MATRIX: W-Water A-Air S-Solid S-Soil SL-Sludge O-Other	REMARKS: _____
		Result by: _____ RUSH Charges: _____ Analyzed: _____ Yes _____ No _____



TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Ike Tavaréz
Highlander Environmental Services
1910 N. Big Spring St.
Midland, TX 79705

Report Date: 1/12/00

Project Number: 1344
Project Name: Pogo/Lamunyon #20 (#30)
Project Location: Lea County, NM

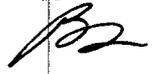
Order ID Number: A00010808

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
138386	#1 Composite	Soil	1/5/00	11:30	1/8/00

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

This report consists of a total of 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Report Date: 1/12/00
1344

Order ID Number: A00010808
Pogo/Lamunyon #20 (#30)

Page Number: 2 of 3
Lea County, NM

Analytical Results Report

Sample Number: 138386
Description: #1 Composite

Param	Flag	Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TPH DRO (mg/Kg) DRO		11800	5	Mod. 8015B	1/10/00	1/10/00	MA	PB00228	QC00298	50
TPH GRO (mg/Kg) GRO		416	50	8015B	1/10/00	1/10/00	RC	PB00226	QC00294	0.1

Quality Control Report Method Blanks

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
DRO (mg/Kg)		<50	50	1/10/00	PB00228	QC00298

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
GRO (mg/Kg)		<5	0.1	1/10/00	PB00226	QC00294

Quality Control Report Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
MS	DRO (mg/Kg)	<50	1	250	232	93		80 - 120	0 - 20	QC00298
MS	DRO (mg/Kg)	<50	1	250	232	93		70 - 130	0 - 20	QC00298
MSD	DRO (mg/Kg)	<50	1	250	243	97	5	80 - 120	0 - 20	QC00298
MSD	DRO (mg/Kg)	<50	1	250	243	97	5	70 - 130	0 - 20	QC00298

Quality Control Report Lab Control Spikes and Duplicate Spike

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS DRO (mg/Kg)	<50	1	250	221	88		80 - 120	0 - 20	QC00298
LCS DRO (mg/Kg)	<50	1	250	221	88		70 - 130	0 - 20	QC00298
LCSD DRO (mg/Kg)	<50	1	250	188	75	16	80 - 120	0 - 20	QC00298
LCSD DRO (mg/Kg)	<50	1	250	188	75	16	70 - 130	0 - 20	QC00298

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS GRO (mg/Kg)	<5	1	1	0.907	91		80 - 120	0 - 20	QC00294
LCSD GRO (mg/Kg)	<5	1	1	0.919	92	1	80 - 120	0 - 20	QC00294

Quality Control Report Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	DRO (mg/Kg)		250	218	87	70 - 130	1/10/00	QC00298
CCV (1	DRO (mg/Kg)		250	246	98	70 - 130	1/10/00	QC00298
CCV (2	DRO (mg/Kg)		250	248	99	70 - 130	1/10/00	QC00298

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	GRO (mg/Kg)		1	1.17	117	80 - 120	1/10/00	QC00294
CCV (1	GRO (mg/Kg)		1	0.971	97	80 - 120	1/10/00	QC00294
CCV (2	GRO (mg/Kg)		1	1.04	104	80 - 120	1/10/00	QC00294

100010808

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(915) 682-4559

Fax (915) 682-3948

CLIENT NAME: Veg. Producing SITE MANAGER: KE Lanier

PROJECT NO.: 1344 PROJECT NAME: Veg. Farming #20 (#30)
Flamingo Spill area, Lee County, TX

SAMPLE IDENTIFICATION

LAB I.D. NUMBER: 13886 DATE: 1/5/00 TIME: 11:30 X

#1 Composite

PRESERVATIVE METHOD

HCL
HNOS
ICE
NONE

NUMBER OF CONTAINERS: 1

FILTERED (Y/N)

PCRA Metals Ag As Ba Ca Cr Pb Hg Se
TCIP Metals Ag As Ba Ca Cr Pb Hg Se
TCIP Volatiles
TCIP Semi Volatiles
RCI
GCMS Vol. 8240/8260/824
GCMS Semi Vol. 8270/825
PCB's 8080/808
Post. 808/808
BOD, TSS, pH, TDS, Chloride
Gamma Spec.
Alpha Beta (Av.)
PLM (Asbestos)

BTX 8020/808
MTE 8020/808
TPH 418.1
8015 MOD
7X1008
PAH 8870
PCRA Metals Ag As Ba Ca Cr Pb Hg Se
TCIP Metals Ag As Ba Ca Cr Pb Hg Se
TCIP Volatiles
TCIP Semi Volatiles
RCI
GCMS Vol. 8240/8260/824
GCMS Semi Vol. 8270/825
PCB's 8080/808
Post. 808/808
BOD, TSS, pH, TDS, Chloride
Gamma Spec.
Alpha Beta (Av.)
PLM (Asbestos)

Produce

REQUISITIONED BY: (Signature) [Signature] Date: 1/7/00 Time: 11:00
RELINQUISHED BY: (Signature) [Signature] Date: 1/5/00 Time: 4:45 PM
RELINQUISHED BY: (Signature) [Signature] Date: 1/5/00 Time: 6:00 PM

RECEIVED BY: (Signature) [Signature] Date: 1/5/00 Time: 10:00
RECEIVED BY: (Signature) [Signature] Date: 1/5/00 Time: 10:00

SAMPLED BY: (Print & Sign) KE Lanier Date: _____ Time: _____
FEDERX
HAND DELIVERED
AIRBILL # _____
OTHER: _____

RECEIVING LABORATORY: _____
ADDRESS: _____ STATE: _____ ZIP: _____
CITY: _____ PHONE: _____
CONTACT: _____

REMARKS: 4°C Buo 159384 6837
1 sample -HS
HIGHLANDER CONTACT PERSON: KE Lanier
RUSH Charges Authorized: Yes No

PROJECT MANAGER REMAINS PINK COPY - ACCOUNTING RECEIVES GOLD COPY.
Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp.



TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
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Analytical and Quality Control Report

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

Report Date: 5/4/00

Project Number: 1344
Project Name: Pogo/CE Lamunyon #30 (W of #20)
Project Location: N/A

Order ID Number: A00050215

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
145523	#1 Composite	Soil	5/1/00	-	5/2/00

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

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

Analytical Results Report

Sample Number: 145523

Description: #1 Composite

Param	Result	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
BTEX (mg/Kg)									
Benzene	0.153	50	S 8021B	5/3/00	5/3/00	RC	PB02070	QC02459	0.001
Toluene	0.096	50	S 8021B	5/3/00	5/3/00	RC	PB02070	QC02459	0.001
Ethylbenzene	0.148	50	S 8021B	5/3/00	5/3/00	RC	PB02070	QC02459	0.001
M,P,O-Xylene	0.212	50	S 8021B	5/3/00	5/3/00	RC	PB02070	QC02459	0.001
Total BTEX	0.609	50	S 8021B	5/3/00	5/3/00	RC	PB02070	QC02459	0.001
Surrogate (mg/Kg)									
	Result	Dilution	Spike Amount	% Rec.	% Rec. Limit	Analyst	Prep Batch #	QC Batch #	
TFT	5.11	50	0.1	102	72 - 128	RC	PB02070	QC02459	
4-BFB	4.86	50	0.1	97	72 - 128	RC	PB02070	QC02459	
TPH DRO (mg/Kg)									
DRO	8700	1	Mod. 8015B	5/3/00	5/3/00	BP	PB02062	QC02455	50
TPH GRO (mg/Kg)									
GRO	121	1	8015B	5/3/00	5/3/00	RC	PB02072	QC02460	0.1

Quality Control Report Method Blanks

Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
Benzene (mg/Kg)		<0.05	0.05	5/3/00	PB02070	QC02459
Toluene (mg/Kg)		<0.05	0.05	5/3/00	PB02070	QC02459
Ethylbenzene (mg/Kg)		<0.05	0.05	5/3/00	PB02070	QC02459
M,P,O-Xylene (mg/Kg)		<0.05	0.05	5/3/00	PB02070	QC02459
Total BTEX (mg/Kg)		<0.05	0.05	5/3/00	PB02070	QC02459
Surrogate						
		Result	Spike Amount	% Rec.	% Rec. Limit	QC Batch #
TFT (mg/Kg)		4.65	0.1	93	72 - 128	QC02459
4-BFB (mg/Kg)		4.81	0.1	96	72 - 128	QC02459
Method Blank						
Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
DRO (mg/Kg)		<50	50	5/3/00	PB02062	QC02455
Method Blank						
Param	Flag	Blank Result	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
GRO (mg/Kg)		<5	0.1	5/3/00	PB02072	QC02460

Quality Control Report Matrix Spike and Matrix Duplicate Spike

Standard	Param	Sample Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD	QC Batch #
MS	Benzene (mg/Kg)	0.204	50	0.1	1.8	32		80 - 120	-	QC02459
MS	Toluene (mg/Kg)	0.206	50	0.1	1.82	32		80 - 120	-	QC02459
MS	Ethylbenzene (mg/Kg)	<0.05	50	0.1	1.38	28		80 - 120	-	QC02459
MS	M,P,O-Xylene (mg/Kg)	1.84	50	0.3	5.16	22		80 - 120	-	QC02459
Standard	Surrogate	Result	Dil.	Spike Amount	Analyst	% Rec.		% Rec. Limit	Prep Batch #	QC Batch #
MS	TFT (mg/Kg)	4.7	50	0.1	RC	94		72 - 128	PB02070	QC02459
MS	4-BFB (mg/Kg)	4.95	50	0.1	RC	99		72 - 128	PB02070	QC02459
MSD	Benzene (mg/Kg)	0.204	50	0.1	5.02	96	100	-	0 - 20	QC02459
MSD	Toluene (mg/Kg)	0.206	50	0.1	4.86	93	97	-	0 - 20	QC02459
MSD	Ethylbenzene (mg/Kg)	<0.05	50	0.1	4.53	91	107	-	0 - 20	QC02459
MSD	M,P,O-Xylene (mg/Kg)	1.84	50	0.3	14.5	84	117	-	0 - 20	QC02459
Standard	Surrogate	Result	Dil.	Spike Amount	Analyst	% Rec.		% Rec. Limit	Prep Batch #	QC Batch #
MSD	TFT (mg/Kg)	5.3	50	0.1	RC	106		72 - 128	PB02070	QC02459
MSD	4-BFB (mg/Kg)	4.81	50	0.1	RC	96		72 - 128	PB02070	QC02459

Quality Control Report Lab Control Spikes and Duplicate Spike

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS MTBE (mg/Kg)	<0.05	50	0.1	4.84	97		80 - 120	-	QC02459
LCS Benzene (mg/Kg)	<0.05	50	0.1	4.46	89		80 - 120	-	QC02459
LCS Toluene (mg/Kg)	<0.05	50	0.1	4.62	92		80 - 120	-	QC02459
LCS Ethylbenzene (mg/Kg)	<0.05	50	0.1	4.45	89		80 - 120	-	QC02459
LCS M,P,O-Xylene (mg/Kg)	<0.05	50	0.3	13.8	92		80 - 120	-	QC02459
Standard Surrogate		Dil.	Spike Amount	Result	% Rec.		% Rec. Limit		QC Batch #
LCS TFT (mg/Kg)		50	0.1	4.34	87		72 - 128		QC02459
LCS 4-BFB (mg/Kg)		50	0.1	4.56	91		72 - 128		QC02459
LCSD MTBE (mg/Kg)	<0.05	50	0.1	5.03	101	4	-	0 - 20	QC02459
LCSD Benzene (mg/Kg)	<0.05	50	0.1	4.29	86	4	-	0 - 20	QC02459
LCSD Toluene (mg/Kg)	<0.05	50	0.1	4.48	90	3	-	0 - 20	QC02459
LCSD Ethylbenzene (mg/Kg)	<0.05	50	0.1	4.39	88	1	-	0 - 20	QC02459
LCSD M,P,O-Xylene (mg/Kg)	<0.05	50	0.3	13.6	91	1	-	0 - 20	QC02459
Standard Surrogate		Dil.	Spike Amount	Result	% Rec.		% Rec. Limit		QC Batch #
LCSD TFT (mg/Kg)		50	0.1	4.1	82		72 - 128		QC02459
LCSD 4-BFB (mg/Kg)		50	0.1	4.37	87		72 - 128		QC02459

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS DRO (mg/Kg)	<50	1	250	221	88		70 - 130	-	QC02455
LCSD DRO (mg/Kg)	<50	1	250	221	88	0	-	0 - 20	QC02455

Param	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS GRO (mg/Kg)	<5	1	1	0.963	96		80 - 120	-	QC02460
LCSD GRO (mg/Kg)	<5	1	1	0.949	95	1	-	0 - 20	QC02460

**Quality Control Report
Continuing Calibration Verification Standard**

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	Benzene (mg/Kg)		0.1	0.08	80	80 - 120	5/3/00	QC02459
ICV	Toluene (mg/Kg)		0.1	0.083	83	80 - 120	5/3/00	QC02459
ICV	Ethylbenzene (mg/Kg)		0.1	0.08	80	80 - 120	5/3/00	QC02459
ICV	M,P,O-Xylene (mg/Kg)		0.3	0.25	83	80 - 120	5/3/00	QC02459
CCV 1	Benzene (mg/Kg)		0.1	0.08	80	80 - 120	5/3/00	QC02459
CCV 1	Toluene (mg/Kg)		0.1	0.084	84	80 - 120	5/3/00	QC02459
CCV 1	Ethylbenzene (mg/Kg)		0.1	0.082	82	80 - 120	5/3/00	QC02459
CCV 1	M,P,O-Xylene (mg/Kg)		0.3	0.253	84	80 - 120	5/3/00	QC02459
CCV 2	Benzene (mg/Kg)		0.1	0.1	100	80 - 120	5/3/00	QC02459
CCV 2	Toluene (mg/Kg)		0.1	0.103	103	80 - 120	5/3/00	QC02459
CCV 2	Ethylbenzene (mg/Kg)		0.1	0.102	102	80 - 120	5/3/00	QC02459
CCV 2	M,P,O-Xylene (mg/Kg)		0.3	0.313	104	80 - 120	5/3/00	QC02459

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	DRO (mg/Kg)		250	244	98	70 - 130	5/3/00	QC02455
CCV 1	DRO (mg/Kg)		250	210	84	70 - 130	5/3/00	QC02455
CCV 2	DRO (mg/Kg)		250	237	95	70 - 130	5/3/00	QC02455

Standard	Param	Flag	CCVs TRUE Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	GRO (mg/Kg)		1	0.855	86	80 - 120	5/3/00	QC02460
CCV 1	GRO (mg/Kg)		1	1.02	102	80 - 120	5/3/00	QC02460

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

Fax (915) 682-3946

(915) 682-4559

CLIENT NAME: Produce Co. SITE MANAGER: Re Weaver

PROJECT NO.: 1344 PROJECT NAME: Pipe/C.E. Lamunyan 30' (w/2)
Lee County, NM

SAMPLE IDENTIFICATION

#1 composite

LAB I.D. NUMBER: 145523
DATE: 5/1/00
TIME: 5 P

NUMBER OF CONTAINERS	PRESERVATIVE METHOD
1	NONE
	ICE
	HNOS
	HCL
	OTHER (Y/N)

ANALYSIS REQUEST (Circle or Specify Method No.)	DATE	TIME
BTEX 8020/808	X	
MTH 8020/808		
TPH 418.1 8015 MOD 71005	X	
PAH 8870		
RCRA Metals Ag As Ba Cd Cr Pb Hg Se		
TCF Volatiles		
TCF Semi Volatiles		
RCI		
GCMS Vol 8240/8260/824		
GCMS Semi Vol 8270/825		
PCB's 8080/808		
Pest. 808/808		
BOD, TSS, pH, TDS, Chloride		
Gamma Spec		
Alpha Beta (Air)		
PLM (Asbestos)		

RELINQUISHED BY: (Signature) [Signature] Date: 5/1/00 Time: 4:35 PM
 RECEIVED BY: (Signature) [Signature] Date: 5/1/00 Time: 4:35 PM

RELINQUISHED BY: (Signature) [Signature] Date: 5/1/00 Time: 6:30 PM
 RECEIVED BY: (Signature) [Signature] Date: 5/1/00 Time: 6:30 PM

RELINQUISHED BY: (Signature) [Signature] Date: 5/1/00 Time: 10:30

RECEIVING LABORATORY: Trace Labs STATE: TX ZIP: 79701
 ADDRESS: 159-384-757-4

HIGHLANDER CONTACT PERSON: Re Weaver

REMARKS: 1

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

10
 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.
Re Weaver 159-384-757-4

40050015

PAGE: 1 OF: 1

ANALYTICAL REPORT

Prepared for:

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Project: Pogo Producing/ C.F. Lamunyon #30
(West 4 #20) Fl

PO#:

Order#: G0306447

Report Date: 05/13/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

682-3946

Order#: G0306447
Project: 1344
Project Name: Pogo Producing/ C.F. Lamunyon #30
(West 4 #20) FI
Location: Lea County, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

			Date / Time	Date / Time		
0306447-01	Composite #1 (0-1')	SOIL	5/7/03	5/8/03	4 oz glass	Ice
				17:30		
	<u>Lab Testing:</u>	Rejected: No		Temp: 6.0 C		
	8015M					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
 1910 N. BIG SPRING STREET
 MIDLAND, TX 79705

Order#: G0306447
Project: 1344
Project Name: Pogo Producing/ C.F. Lamunyon #30 (West 4 #20) Fl
Location: Lea County, NM

Lab ID: 0306447-01
Sample ID: Composite #1 (0-1')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>CK</u>	<u>8015M</u>
		5/9/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	14.3	10.0
DRO, >C12-C35	1,760	10.0
TOTAL, C6-C35	1,774	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	111%	70	130
1-Chlorooctadecane	108%	70	130

Approval: *Cele D Keene* 05/13/03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

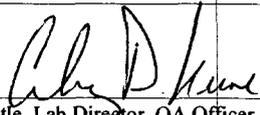
IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0306447
Project: 1344
Project Name: Pogo Producing/ C.F. Lamunyon #30 (West 4 #20) Fl
Location: Lea County, NM

Lab ID: 0306447-01
Sample ID: Composite #1 (0-1')

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	<20.0	mg/kg	1	20	9253	5/12/03	CK

Approval:  05/13/03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0306447

<i>BLANK</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005486-02			<10.0		
<i>MS</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306443-01	0	952	967	101.6%	
<i>MSD</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306443-01	0	952	995	104.5%	2.9%
<i>SRM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005486-05		1000	960	96.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306447

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005496-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306447-01	0	500	514	102.8%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306447-01	0	500	514	102.8%	0.0%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005496-04		5000	5140	102.8%	

ANALYTICAL REPORT

Prepared for:

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Project: Pogo/C.E. Lamunyen #30, (west of
#20)

PO#:

Order#: G0307239

Report Date: 08/20/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705
682-3946

Order#: G0307239
Project: 1344
Project Name: Pogo/C.E. Lamunyen #30, (west of #20)
Location: Lea County N.M.

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307239-01	#1 Composite	SOIL	8/13/03	8/18/03 17:10	4 oz glass	ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
 HIGHLANDER ENVIRONMENTAL CORP.
 1910 N. BIG SPRING STREET
 MIDLAND, TX 79705

Order#: G0307239
 Project: 1344
 Project Name: Pogo/C.E. Lamunyen #30, (west of #20)
 Location: Lea County N.M.

Lab ID: 0307239-01
 Sample ID: #1 Composite

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>CK</u>	<u>8015M</u>
		8/19/03	1	5	CK	

Parameter	Result mg/kg	RL
GRO, C6-C12	<50.0	50.0
DRO, >C12-C35	3,600	50.0
TOTAL, C6-C35	3,600	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	24%	70	130
1-Chlorooctadecane	29%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>CK</u>	<u>8021B</u>
0006536-02		8/19/03 11:34	1	25	CK	

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	87%	80	120
Bromofluorobenzene	85%	80	120

Approval: Jeanne McMurrey 08-20-03
 Raland K. Tuttle, Lab Director, QA Officer
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0307239

<i>BLANK</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006552-02			<10.0		
<i>CONTROL</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006552-03		952	912	95.8%	
<i>CONTROL DUP</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006552-04		952	893	93.8%	2.1%
<i>SRM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006552-05		1000	1079	107.9%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307239

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0006536-02			<0.025		
Toluene-mg/kg		0006536-02			<0.025		
Ethylbenzene-mg/kg		0006536-02			<0.025		
p/m-Xylene-mg/kg		0006536-02			<0.025		
o-Xylene-mg/kg		0006536-02			<0.025		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0006536-03		0.1	0.093	93.%	
Toluene-mg/kg		0006536-03		0.1	0.091	91.%	
Ethylbenzene-mg/kg		0006536-03		0.1	0.093	93.%	
p/m-Xylene-mg/kg		0006536-03		0.2	0.188	94.%	
o-Xylene-mg/kg		0006536-03		0.1	0.094	94.%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0006536-04		0.1	0.092	92.%	1.1%
Toluene-mg/kg		0006536-04		0.1	0.090	90.%	1.1%
Ethylbenzene-mg/kg		0006536-04		0.1	0.092	92.%	1.1%
p/m-Xylene-mg/kg		0006536-04		0.2	0.186	93.%	1.1%
o-Xylene-mg/kg		0006536-04		0.1	0.093	93.%	1.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0006536-05		0.1	0.089	89.%	
Toluene-mg/kg		0006536-05		0.1	0.089	89.%	
Ethylbenzene-mg/kg		0006536-05		0.1	0.090	90.%	
p/m-Xylene-mg/kg		0006536-05		0.2	0.182	91.%	
o-Xylene-mg/kg		0006536-05		0.1	0.091	91.%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0307239

Project: Pogo/C.E. Lamunyen #30,
(west of #20)

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
#1 Composite	0307239-01	SOIL	08/13/2003	08/18/2003

Surrogate recoveries on the 8015M TPH are outside of control limits due to dilution (G0307239-01).

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: Deanne McMuney
Environmental Lab of Texas I, Ltd.

Date: 08-20-03

ANALYTICAL REPORT

Prepared for:

IKE TAVAREZ
HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Project: Pogo Producing/ C.E. Lamunyon #30
(SE of #20)

PO#:

Order#: G0307449

Report Date: 09/16/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

682-3946

Order#: G0307449

Project: 1344

Project Name: Pogo Producing/ C.E. Lamunyon #30 (SE of #20)

Location: Lea Co., NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

			Date / Time	Date / Time		
0307449-01	#1 Composite (0-1')	SOIL	9/10/03	9/12/03 17:20	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 14.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

IKE TAVAREZ
 HIGHLANDER ENVIRONMENTAL CORP.
 1910 N. BIG SPRING STREET
 MIDLAND, TX 79705

Order#: G0307449
 Project: 1344
 Project Name: Pogo Producing/ C.E. Lamunyon #30 (SE of #20)
 Location: Lea Co., NM

Lab ID: 0307449-01
 Sample ID: #1 Composite (0-1')

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor	CK	8015M
		9/12/03	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<50.0	50.0
DRO, >C12-C35	567	50.0
TOTAL, C6-C35	567	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	19%	70	130
1-Chlorooctadecane	17%	70	130

Approval: *Jeanne McMurrey 09-16-03*
 Raland K. Tuttle / Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0307449

BLANK	SOLID	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006809-02			<10.0		
CONTROL	SOLID	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006809-03		952	860	90.3%	
CONTROL DUP	SOLID	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006809-04		952	751	78.9%	13.5%
SRM	SOLID	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0006809-05		1000	822	82.2%	

CASE NARRATIVE

ENVIRONMENTAL LAB OF TEXAS

Prepared for:

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING STREET
MIDLAND, TX 79705

Order#: G0307449

Project: Pogo Producing/ C.E.
Lamunyon #30 (SE of #20)

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
#1 Composite (0-1')	0307449-01	SOIL	09/10/2003	09/12/2003

Surrogate recoveries on the 8015M are outside of control limits due to dilution (G0307449-01).

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By: Janne McMurray Date: 09-16-03
Environmental Lab of Texas I, Ltd.

