devon

SITE INVESTIGATION, REMEDIATION AND FINAL C-141 CLOSURE DOCUMENTATION

PANTHER MARTIN

DEVON REF: 120002

UL-K (NE¼ OF THE SW¼) OF SECTION 3 T16S R35E

~6 MILES WEST OF LOVINGTON

LEA COUNTY, NEW MEXICO

LATITUDE: N 32° 57' 0.97" LONGITUDE: W 103° 26' 54.48"

facility - fPAC0602339772
Inspect - ePAC0602340001
incident - nPAC0602340044
application - pPAC0602340585

OCTOBER 1, 2004

PREPARED BY:

Environmental Plus, Inc.

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Devon Energy - 6137

08 October 2004

Mr. Larry Johnson
NM Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division – Environmental Bureau
1625 North French Drive
Hobbs, NM 88240

Re: Site Closure Documentation Devon Energy Panther Martin #120002
UL-K Section 3 T16S R35E, Lea County, New Mexico
Land Owner: Dan Field

Dear Mr. Johnson,

Environmental Plus, Inc. (EPI), on behalf of Mr. Jerry Mathews, Devon Energy, submits for your consideration this *Site Closure Documentation* for the above-referenced site. This report documents the delineation of the vertical and horizontal extents of hydrocarbon contamination at the site, the land treatment of the contaminated soil to below NMOCD remedial thresholds and the backfilling of the excavation with the blended soil. The completion of this project is consistent with the initial C-141 and Remediation Plan submitted to the NMOCD on April 2, 2004. EPI, on behalf of Devon Energy, therefore requests that the NMOCD consider the information included in this report and issue a "*No Further Action*" letter for the site.

All official correspondence should be addressed to:

Mr. Jerry Mathews
Devon Energy
2401 Pecos Avenue
Artesia, NM 88211

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at iolness@hotmail.com. Mr. Jerry Mathews of Devon Energy can be contacted at (505) 748- or via e-mail at jerry.mathews@dvn.com.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain Olness, P.G.
Hydrogeologist

cc: Jerry Mathews, Devon Energy – Artesia
Dave Purdy, Devon Energy – Midland
Sherry Miller, EPI President
Ben Miller, EPI Vice President and General Manager

ENVIRONMENTAL PLUS, INC.

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Project Summary

Site Specific:

- **Company Name**: Devon Energy Production Company, L.P.
- **Facility Name**: Panther Martin #1
- **Project Reference** 120002
- **Company Contacts**: Jerry Mathews
- **Site Location:** WGS84 N32° 57' 0.97"; W103° 26' 54.4"
- **Legal Description**: Unit Letter K, (NW¼ of the SW¼), Section 3, T16S, R35E
- **General Description**: approximately 6-miles west of Lovington, New Mexico
- **Elevation**: 4,012-ft amsl **Depth to Ground Water**: ~56-ft
- **Land Ownership**: Dan Field
- **EPI Personnel**: Project Consultant – Iain Olness
  Site Foreman – Eddie Joe Harper

Release Specific:

- **Product Released**: Water (20 bbls) and Condensate (80 bbls)
- **Volume Released**: ≈100-bbl reported **Volume Recovered**: 0-bbl
- **Time of Occurrence**: 16-February-04 **Time of Discovery**: 17-February-04
- **Release Source**: Valve at the bottom of a tank froze during the night and cracked, releasing the water and condensate.
- **Initial Surface Area Affected**: ~800-ft^2

Remediation Specific:

- **Final Vertical extent of contamination**: 17-ft bgs; Remaining depth to ground water: 39-ft
- **Water wells within 1,000-ft**: 0 **Surface water bodies within 1,000-ft**: 0
- **NMOCD Site Ranking Index**: 20 points (<50 ft to top of water table)
- **Remedial goals for Soil**: TPH – 100 mg/kg; BTEX – 50 mg/kg; Benzene – 10 mg/kg; Chlorides – 250 mg/kg; Sulfates – 600 mg/kg
- **RCRA Waste Classification**: Exempt
- **Remediation Option Selected**: a) Excavation of contaminated soil above NMOCD remedial goals; b) treatment of the impacted soil on site c) laboratory analyses to confirm removal of soil impacted above NMOCD remedial thresholds and treatment to less than NMOCD remedial thresholds; d) backfill the excavation with the treated soil.
- **Disposal Facility**: NA **Volume disposed of**: NA
- **Project Completion Date**: 27 August 2004
- **Additional Commentary**: None

1.0 Introduction & Background

This report addresses the site investigation and remediation of the Devon Energy Production Company, L.P. (Devon) "Panther Martin #1" water and condensate remediation site. The release occurred during the evening of February 16, 2004 and was reported to the New Mexico Oil Conservation Division (NMOCD) on February 17, 2004. This site is located approximately 6 miles west of Lovington, Lea County, New Mexico (*reference Figure 1*). The initial C-141 Form submitted to the New Mexico Oil Conservation Division (NMOCD) on February 17, 2004, reports the release volume as approximately 100-barrels with no recovery. EPI performed GPS surveying, photography and characterization of the site on February 19, 2004. The initial site consisted of an approximate 800 square feet (ft^2) visibly affected surface area (*reference Figure 3*).

Initial activities at the site consisted of the removal of saturated soil from the containment berm and stockpiling the soil on site for treatment at a later date. Upon removal of the saturated soils, nine soil borings were advanced in and around the release area to delineate the vertical extent of contamination (*reference Figure 3*). Samples were collected from the soil borings and analyzed in the field for the presence of organic vapors utilizing an UltraRae photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp. In addition, samples were submitted for laboratory confirmation to ensure the extents of contamination had been delineated.

Once the extents of contamination had been delineated, remediation activities commenced. Remediation of this site consisted of excavation and land farming of approximately 388 cubic yards (yds^3) of contaminated soil on site. The floor and sidewalls of the excavation were sampled on June 28, 2004 and analyzed in the field for the presence of organic vapors utilizing an UltraRae photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp and submitted for laboratory quantification. Analytical results indicated all analytes were below the NMOCD remedial thresholds.

This release site is located in Unit Letter K, (NE¼ of the SW¼), Section 3, T16, R35E, N32° 57' 0.97" and W103° 26' 54.44". The site is approximately 6-miles west of Lovington, New Mexico. The property is owned by Dan Field *(reference Figures 1 through 3)*.

2.0 Site Description

2.1 Geological Description

The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, reports that the Ogallala formation mantles the High Plains Physiographic Region in the area of Lea County north of Hobbs, New Mexico, where it ranges in thickness from 100 to 250 feet. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet because of the very irregular Triassic erosion surface which underlies it. The Ogallala sands are overlain with an indurated and fractured calcium carbonate caliche cap up to 18 meters thick. The hydraulic conductivity of the fine to medium Ogallala sand ranges from 1 to 10 gallons per day/ft^2.

2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Querqus harvardi*) interspersed with

Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rats, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, amphibians, and birds are numerous and typical of area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 Area Ground Water

The unconfined groundwater aquifer at this site is estimated to be approximately 56-feet below ground surface (bgs) based on limited water depth data obtained from the New Mexico State Engineers Office data base and the New Mexico Tech Internet Mapping System (*reference Table 4*).

2.4 Area Water Wells

There are no recorded water supply wells located within a 1,000-foot radius of the release site (*reference Figure 2*).

2.5 Area Surface Water Features

There are no surface water bodies situated within 1,000-foot radius of the release site (*reference Figure 2*).

3.0 NMOCD Site Ranking

Contaminant delineation and remedial work done at this site indicate that the chemical parameters of the soil and the physical parameters of the groundwater were characterized consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- ***Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)***
- ***Unlined Surface Impoundment Closure Guidelines (February 1993)***

Acceptable thresholds for contaminants/constituents of concern (CoC), i.e., TPH^{8015m}, benzene, and the mass sum of benzene, toluene, ethylbenzene, and total xylenes (BTEX), were determined based on the NMOCD Ranking Criteria as follows:

- *Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.*
- *Wellhead Protection Area, i.e., distance from fresh water supply wells.*
- *Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.*

Based on the proximity of the site to protectable area water wells, surface water bodies, and depth to groundwater from the lower most contamination, the NMOCD ranking score for the site is 10 points with the soil remedial goals highlighted in the Site Ranking table presented below.

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water
Depth to GW <50 feet: *20 points*	If <1,000' from water source, or; <200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
Depth to GW 50 to 99 feet: *10 points*		200-1,000 horizontal feet: *10 points*
Depth to GW >100 feet: 0 points	**If >1,000' from water source, or; >200' from private domestic water source: *0 points***	**>1,000 horizontal feet: *0 points***
Ground Water Score = 10	**Wellhead Protection Score= 0**	**Surface Water Score= 0**
Site Rank (1+2+3) = 0 + 0 + 0 = 10 points		

Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Parameter	**20 or >**	10	0
Benzene[1]	**10 ppm**	10 ppm	10 ppm
BTEX[1]	**50 ppm**	50 ppm	50 ppm
TPH	**100 ppm**	1,000 ppm	5,000 ppm

[1] A field soil vapor headspace measurement of 100 ppm may be substituted for a laboratory analysis of the benzene and BTEX concentration limits.

4.0 Subsurface Soil Investigation

The vertical extent of hydrocarbon contamination at the site was determined by advancing nine soil borings within the release area. Field analyses of soil samples collected during the advancement of the soil borings indicated contamination extended to depths of approximately 30 feet below ground surface (*reference Table 1*). Analytical results for soil samples collected during the advancement of the soil borings indicated that contamination was limited to a depth of less than 20 feet below ground surface (*reference Table 2*).

5.0 Ground Water Investigation

The projected depth to ground water at this site was ~56-feet bgs. Analytical results for samples collected from the soil borings indicated contamination was limited to less than 20feet bgs and (*reference Table 1*).

Based on the treatment of impacted soil to below remedial goal concentrations and adequate depth to ground water, there is no need for further groundwater investigation at this site.

6.0 Remediation Process

Remediation of the site commenced on June 28, 2004 and consisted of excavation and treatment of approximately 388 yd^3 of contaminated soil. The contaminated soil was land farmed on site. After field analyses of soil samples collected from the excavation indicated successful removal of impacted soil, samples were submitted to an independent laboratory to verify remedial goals had been attained. Analytical results for all analytes were reported as non-detectable (ND) at or above each analytes respective method detection limit (MDL). On August 5, 2004, the land treatment area was sampled and the samples submitted for quantification of TPH via Method 8015 and BTEX via

Method 8260. The land treatment area was split into four quadrants and a composite sample was collected from each quadrant. Analytical results for these samples were reported as ND for all analytes at or above each analytes respective MDL, with the exception of TPH in the sample collected from the southwest quarter. Analytical results for this sample indicated TPH concentrations of 21.7 milligrams per kilogram. The backfilling and contouring of the site were completed on August 20, 2004.

7.0 Closure Justification

This report documents successful treatment of impacted soil above the remedial thresholds discussed in Section 3 above and confirmed via laboratory analyses for this release site. The impacted soil was land farmed on site. Upon successful treatment of the soil, the excavation was backfilled and contoured to allow proper drainage. Based on the data presented in this report, Environmental Plus, Inc., on behalf of Devon Energy Production Company, requests that the NMOCD require "no further action" at this site and issue a *Site Closure Letter.*

FIGURES

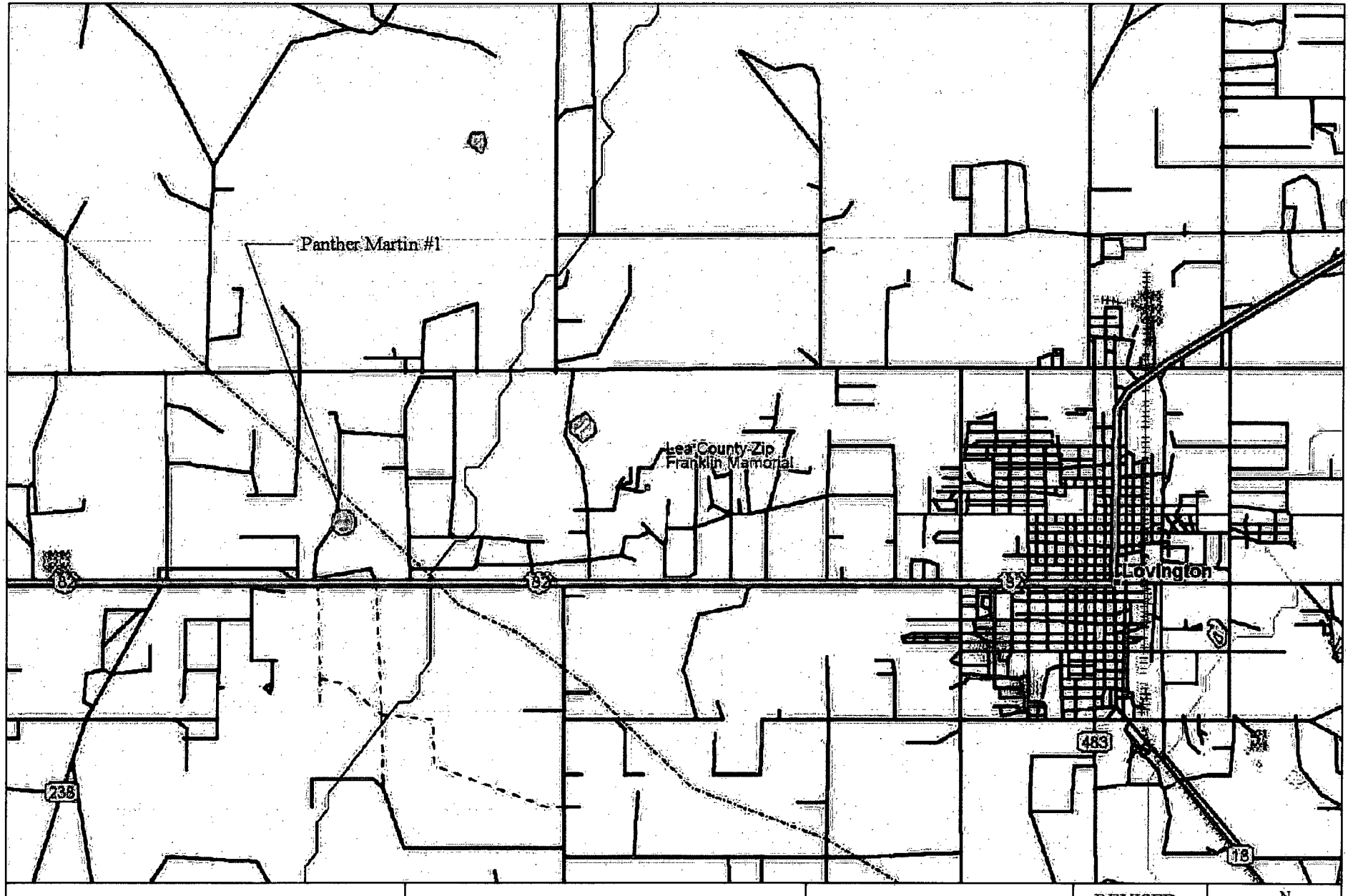

Figure 1 Area Map Devon Energy Panther Martin #1	Lea County, New Mexico NW 1/4 of the SW 1/4, Sect. 3, T16S, R35E N 32° 57' 0.97" W 103 °26' 54.4" Elevation: 4,012 feet amsl	DWG By: Iain Olness March 2004	REVISED:	N
		0 5,280 10,560 Feet.	SHEET 1 of 1	

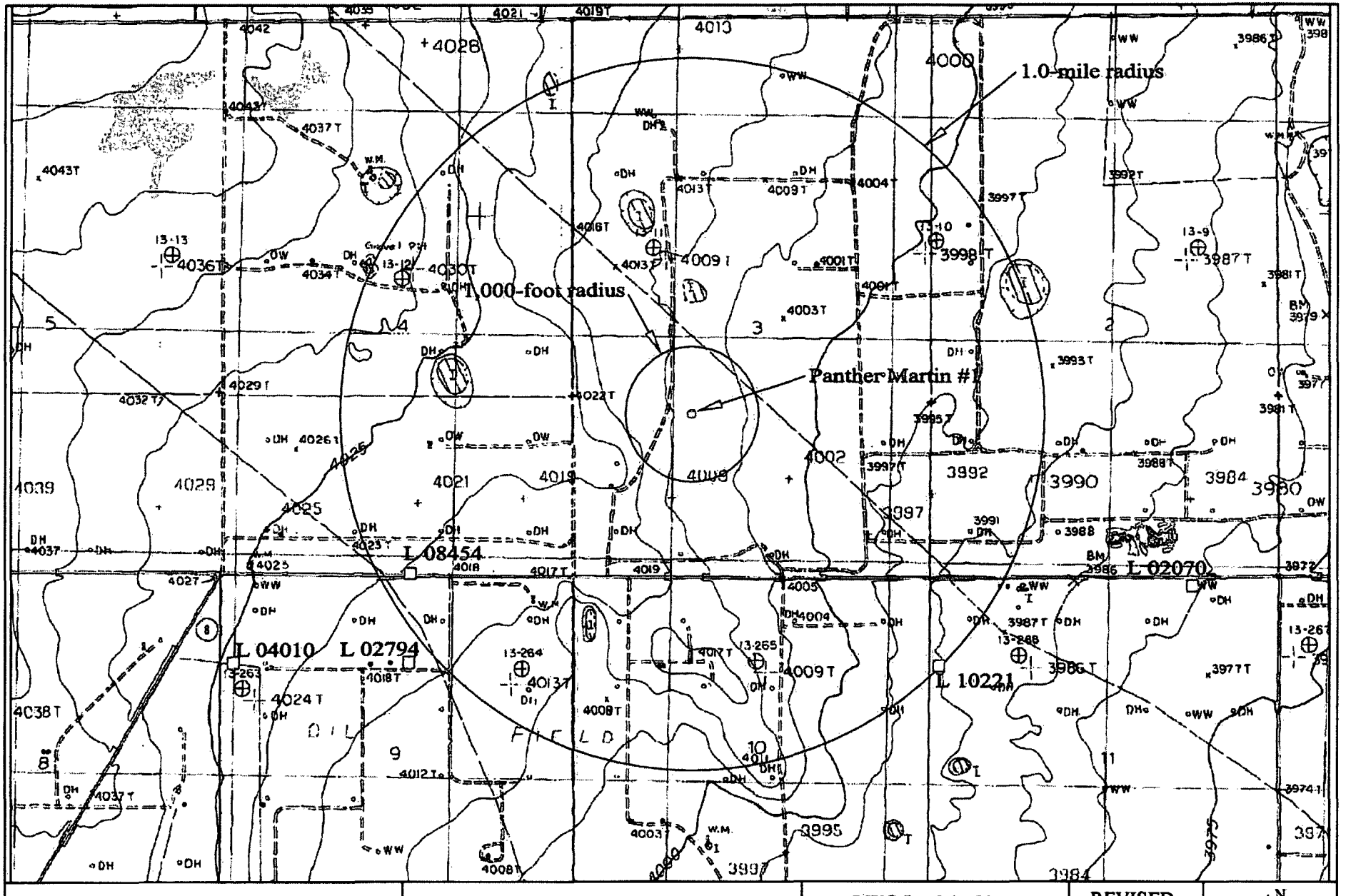

Figure 2 Site and Well Location Map Devon Energy Panther Martin #1	Lea County, New Mexico NW 1/4 of the SW 1/4, Sect. 3, T16S, R35E N 32° 57' 0.97" W 103° 26' 54.4" Elevation: 4,012 feet amsl	DWG By: Iain Olness March 2004	REVISED: August 2004
		0 2,000 4,000 Feet	SHEET 1 of 1

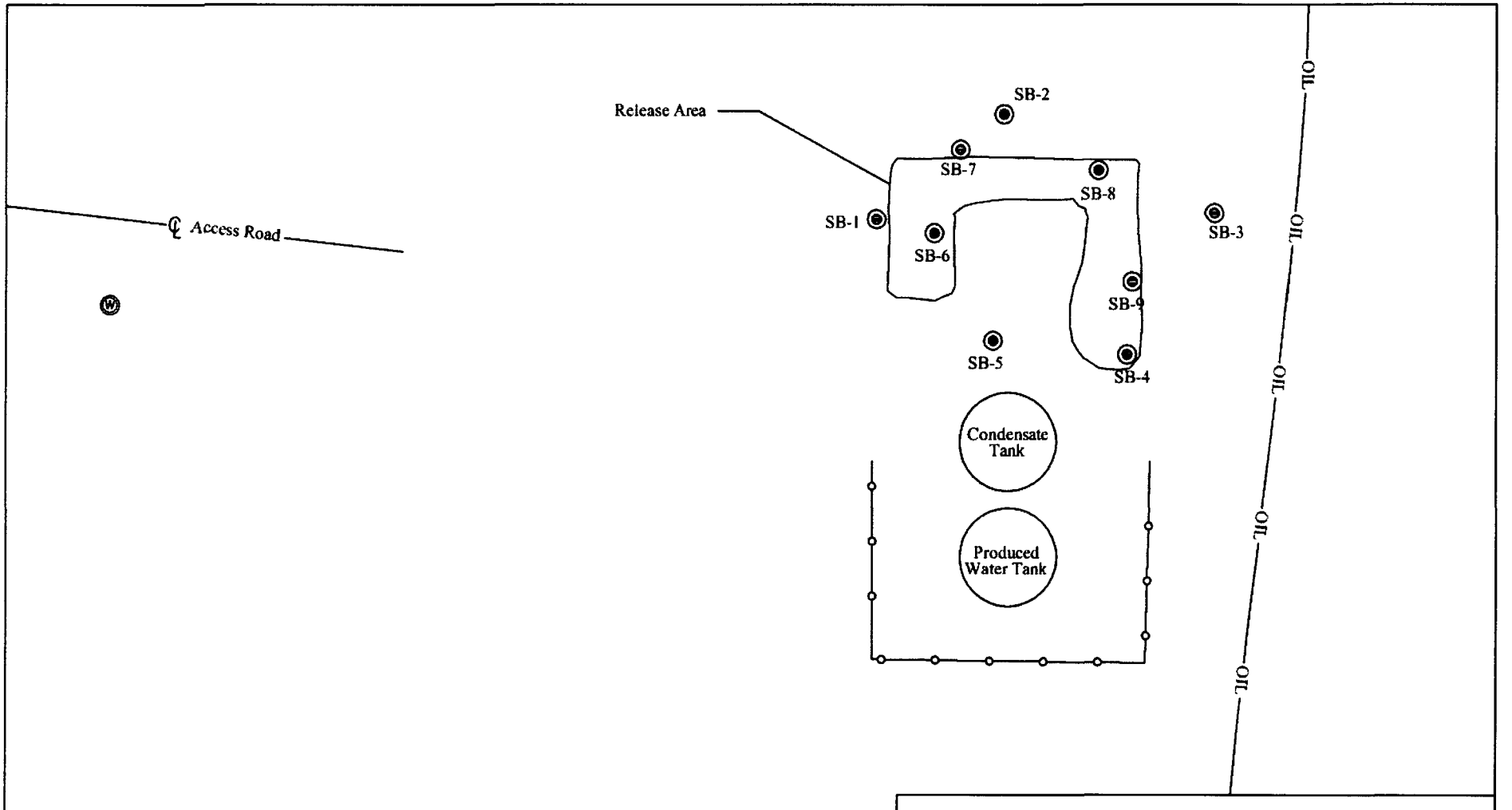

Figure 3 Site Map Devon Energy Panther Martin #1	Lea County, New Mexico NW 1/4 of the SW 1/4, Sect. 3, T16S, R35E N 32° 57' 0.97" W 103° 26' 54.4" Elevation: 4,012 feet amsl	DWG By: Iain Olness March 2004	REVISED:	N
		0 20 40 Feet	SHEET 1 of 1	

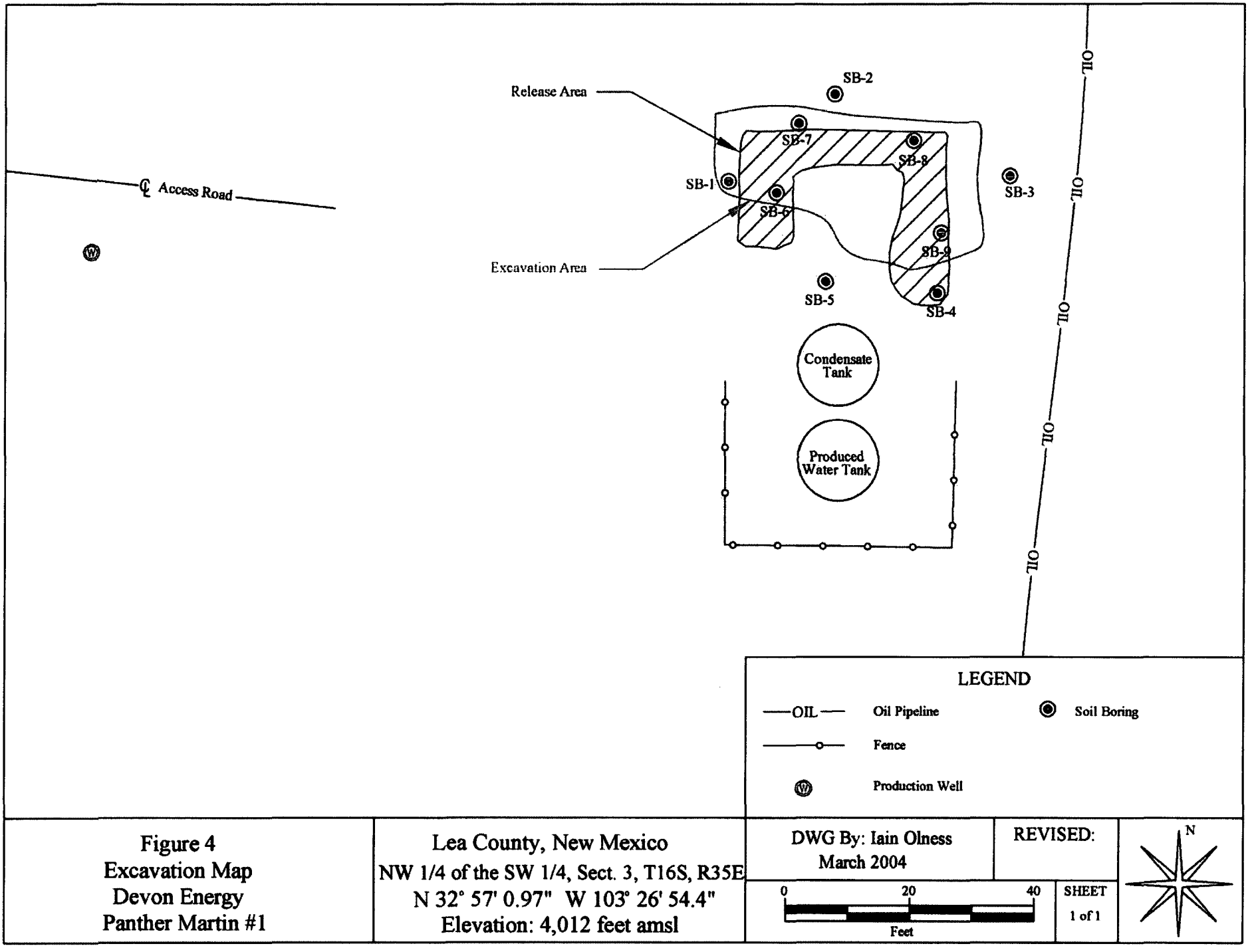

Figure 4 Excavation Map Devon Energy Panther Martin #1	Lea County, New Mexico NW 1/4 of the SW 1/4, Sect. 3, T16S, R35E N 32° 57' 0.97" W 103° 26' 54.4" Elevation: 4,012 feet amsl	DWG By: Iain Olness March 2004	REVISED:	SHEET 1 of 1

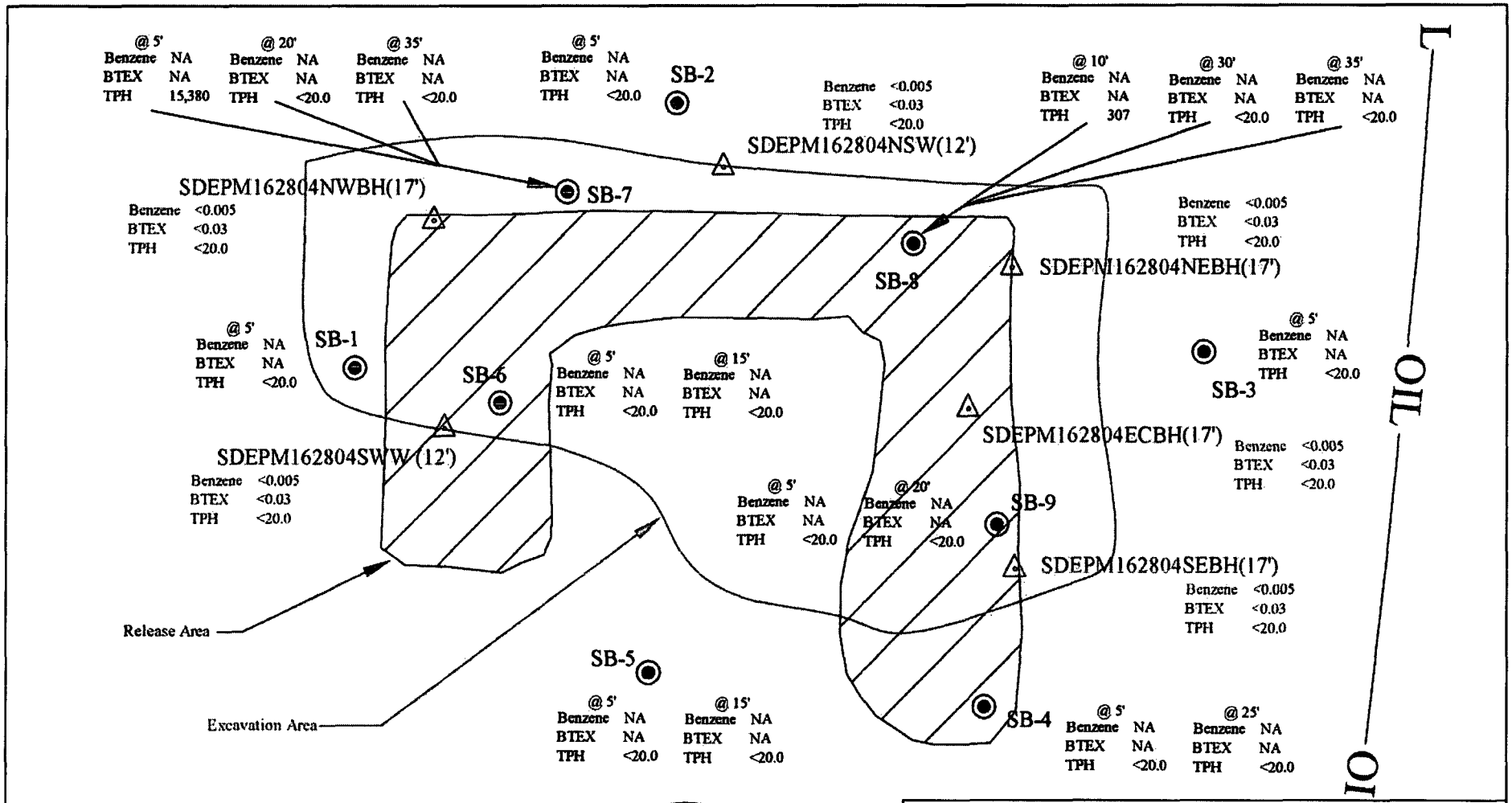

Figure 5 Sample Locations & Analytical Results Devon Energy Panther Martin #1	Lea County, New Mexico NW 1/4 of the SW 1/4, Sect. 3, T16S, R35E N 32° 57' 0.97" W 103° 26' 54.4" Elevation: 4,012 feet amsl	DWG By: Iain Olness March 2004	REVISED: September 2004 SHEET 1 of 1

TABLES

TABLE 1

Summary of Soil Boring Field Screening Results

Devon Energy Panther Martin #1 Well Battery
UL-K, NE¼ of the SW ¼ of Section 3 T16S, R35E, Lea County, New Mexico

Soil Boring	Depth	PID Reading (ppm)	U.S.C.S Symbol	Soil Type	Notes
SB-1	5-7	18.7	SM	Sand with silt and clay	
	10-12	12.3	SM	Sand with silt and clay	
	15-17	9.5	SM	Sand with silt and clay	
	18-20	0	SM	Sand with silt and clay	
SB-2	5-7	0	SM	Sand with silt and clay	
	10-12	7.6	SM	Sand with silt and clay	
	15-17	9.8	SM	Sand with silt and clay	
	18-20	3.4	SM	Sand with silt and clay	
SB-3	5-7	13.4	SM	Sand with silt and clay	
	10-12	5.2	SM	Sand with silt and clay	
	15-17	5.7	SM	Sand with silt and clay	
	18-20	4.8	SM	Sand with silt and clay	
SB-4	5-7	900	SM	Sand with silt and clay	
	10-12	1,797	SM	Sand with silt and clay	
	15-17	80	SM	Sand with silt and clay	
	20-22	1,130	SM	Sand with silt and clay	
	25-27	7.7	SM	Sand with silt and clay	
	28-30	5.3	SM	Sand with silt and clay	
SB-5	5-7	55.5	SM	Sand with silt and clay	
	10-12	32.3	SM	Sand with silt and clay	
	15-17	3.9	SM	Sand with silt and clay	
	18-20	3.9	SM	Sand with silt and clay	
SB-6	5-7	24.9	SM	Sand with silt and clay	
	10-12	59.7	SM	Sand with silt and clay	
	15-17	6.5	SM	Sand with silt and clay	
	18-20	3.9	SM	Sand with silt and clay	
SB-7	5-7	1,570	SM	Sand with silt and clay	
	10-12	1,970	SM	Sand with silt and clay	
	15-17	375	SM	Sand with silt and clay	
	20-22	1,098	SM	Sand with silt and clay	
	25-27	31.1	SM	Sand with silt and clay	
	30-32	126	SM	Sand with silt and clay	
	35-37	13.3	SM	Sand with silt and clay	
	40-42	45.4	SM	Sand with silt and clay	
SB-8	5-7	1,270	SM	Sand with silt and clay	Cl^- at 3' = 128 mg/Kg
	10-12	2,256	SM	Sand with silt and clay	
	15-17	37.6	SM	Sand with silt and clay	
	20-22	300	SM	Sand with silt and clay	
	25-27	139	SM	Sand with silt and clay	
	30-32	146	SM	Sand with silt and clay	
	35-37	10.7	SM	Sand with silt and clay	
	40-42	9.8	SM	Sand with silt and clay	
	45-47	3.3	SM	Sand with silt and clay	
SB-9	5-7	466	SM	Sand with silt and clay	
	10-12	236	SM	Sand with silt and clay	
	15-17	24.5	SM	Sand with silt and clay	
	20-22	234	SM	Sand with silt and clay	
	25-27	4.3	SM	Sand with silt and clay	

TABLE 2

Summary of Soil Boring Analytical Results

Devon Energy Panther Martin #1 Well Battery
UL-K, NE¼ of the SW ¼ of Section 3 T16S, R35E, Lea County, New Mexico

SAMPLE ID#	Date	Sample Location	Sampling Interval (FT. BGS)	Lithology	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethylbenzene (ug/Kg)	m,p-Xylene (ug/Kg)	o-Xylene (ug/Kg)	Total BTEX (ug/Kg)	DRO (mg/Kg)	GRO (mg/Kg)	TPH (mg/Kg)
DPM030204SB1(5')	03/02/04	SB-1	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB2(5')	03/02/04	SB-2	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB3(5')	03/02/04	SB-3	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB4(5')	03/02/04	SB-4	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB4(25')	03/02/04	SB-4	25-27	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB5(5')	03/02/04	SB-5	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB5(15')	03/02/04	SB-5	15-17	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB6(5')	03/02/04	SB-6	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB6(15')	03/02/04	SB-6	15-17	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB7(5')	03/02/04	SB-7	5-7	Sand	NA	NA	NA	NA	NA	NA	**1,480**	**13,900**	**15,380**
DPM030204SB7(20')	03/02/04	SB-7	20-22	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB7(35')	03/02/04	SB-7	35-37	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB8(10')	03/02/04	SB-8	10-12	Sand	NA	NA	NA	NA	NA	NA	**103**	**204**	**307**
DPM030204SB8(30')	03/02/04	SB-8	30-32	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB8(35')	03/02/04	SB-8	35-37	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB9(5')	03/02/04	SB-9	5-7	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
DPM030204SB9(20')	03/02/04	SB-9	20-22	Sand	NA	NA	NA	NA	NA	NA	<10.0	<10.0	<20.0
New Mexico Oil Conservation Division Remedial Thresholds					10,000					50,000			100

NA = Not Analyzed

TABLE 3

Summary of Excavation Analytical Results

Devon Energy Panther Martin #1 Well Battery
UL-K, NE¼ of the SW ¼ of Section 3 T16S, R35E, Lea County, New Mexico

SAMPLE ID#	Date	Sample Location	Sampling Interval (FT. BGS)	Lithology	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)	TPH (mg/Kg)
SDEPM162804NSW(12')	06/28/04	North Sidewall	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDEPM162804ECBH(17')	06/28/04	East Center Bottomhole	17	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDEPM162804NEBH(17')	06/28/04	Northeast Bottomhole	17	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDEPM162804NWBH(17')	06/28/04	Northwest Bottomhole	17	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDEPM162804SWW(12')	06/28/04	Southwest Sidewall	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDEPM162804SEBH(15')	06/28/04	Southeast Bottomhole	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDPM80504SEQ	08/05/04	Southeast Quarter	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDPM80504NEQ	08/05/04	Northeast Quarter	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
SDPM80504SWQ	08/05/04	Southwest Quarter	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	21.7	21.7
SDPM80504NWQ	08/05/04	Northwest Quarter	Composite	Sand	<0.005	<0.005	<0.005	<0.015	<0.03	<10.0	<10.0	<20.0
New Mexico Oil Conservation Division Remedial Thresholds					10,000				50,000			100

TABLE 4

WELL / SURFACE DATA REPORT - 08/31/04

Devon Energy Production Company Panther Martin #1 - Ref #120002

DB	File Nbr	Use	Diversion[A]	Owner	Well Number	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Start Date	Finish Date	Depth of Well (ft bgs)	Depth to Water (ft bgs)
L	02070*	DOM	3	R. E. Hilburn	L 02070		16S	35E	02 4 4 4	N 32° 56' 37.4"	W 103° 25' 24.62"				
L	02727*	PRO	0	Shell Oil Company	L 02727	Shallow	16S	35E	02 3 3	N 32° 56' 37.51"	W 103° 26' 10.91"	23-Dec-54	23-Dec-54	107	60
L	02860*	PRO	3	Shell Oil Company	L 02860	Shallow	16S	35E	02 3 1	N 32° 56' 50.57"	W 103° 26' 10.91"	29-Apr-55	29-Apr-55	112	55
L	02945*	PRO	3	Shell Oil Company	L 02945	Shallow	16S	35E	02 3 2	N 32° 56' 50.54"	W 103° 25' 55.48"	24-Jul-55	24-Jul-55	110	65
L	03000*	PRO	3	Corbett Drilling Company	L 03000	Shallow	16S	35E	02	N 32° 56' 37.51"	W 103° 26' 10.91"	18-Jun-55	18-Jun-55	105	
L	03013*	PRO	3	Shell Oil Company	L 03013	Shallow	16S	35E	02 4 2	N 32° 56' 50.46"	W 103° 25' 24.62"	08-Nov-55	08-Nov-55	123	70
L	05904*	PRO	0	Ocean Energy Resources, Inc.	L 05904		16S	35E	02 2 1	N 32° 56' 37.51"	W 103° 26' 10.91"			132	
L	01878*	PRO	3	Corbett Drilling Company	L 01878	Shallow	16S	35E	03 3 3 3	N 32° 56' 37.77"	W 103° 27' 13.2"	02-Feb-53	02-Feb-53	110	56
L	02385*	PRO	3	Drilling Exploration Company	L 02385	Shallow	16S	35E	03 3 4	N 32° 56' 37.7"	W 103° 26' 57.63"	12-Oct-53	13-Oct-53	105	64
L	02548*	PRO	3	Brantley Drilling Company	L 02548	Shallow	16S	35E	03 3 3	N 32° 56' 37.77"	W 103° 27' 13.2"	25-May-54	26-May-54	100	60
L	02713*	PRO	3	Shell Oil Company	L 02713	Shallow	16S	35E	03 4 2	N 32° 56' 50.64"	W 103° 26' 26.48"	13-Dec-54	13-Dec-54	103	50
L	02799*	PRO	3	Olsen Drilling Company	L 02799	Shallow	16S	35E	03	N 32° 56' 37.77"	W 103° 27' 13.2"	27-Feb-55	27-Feb-55	103	65
L	02956*	PRO	3	Gulf Oil Corporation	L 02956	Shallow	16S	35E	03 1 4 3	N 32° 57' 3.83"	W 103° 26' 57.64"	09-Aug-55	10-Aug-55	130	58
L	03090*	PRO	3	Oil State Drilling Company	L 03090	Shallow	16S	35E	03	N 32° 56' 37.77"	W 103° 27' 13.2"	23-Jan-56	24-Jan-56	110	60
L	05904*	PRO	0	Ocean Energy Resources, Inc.	L 05904	Shallow	16S	35E	03 2 1	N 32° 56' 37.51"	W 103° 26' 10.91"			136	
L	10158*	PRO	3	Bridge Oil Company	L 10158	Shallow	16S	35E	03 3 2 1	N 32° 56' 50.77"	W 103° 26' 57.63"	17-Dec-90	19-Dec-90	128	40
L	01799*	PRO	3	Parker Drilling Company	L 01799	Shallow	16S	35E	04 4 1	N 32° 56' 50.98"	W 103° 27' 44.18"	15-Dec-52	17-Dec-52	110	60
L	02270*	PRO	3	Brantley Drilling Company	L 02270	Shallow	16S	35E	04 3 4	N 32° 56' 37.99"	W 103° 27' 59.64"	10-Jul-53	12-Jul-53	85	58
L	03756*	PRO	3	Cabot Carbon Company	L 03756	Shallow	16S	35E	04 3 3 3	N 32° 56' 38.06"	W 103° 28' 15.11"	01-Jan-58	01-Jan-58	98	60
L	07438*	PRO	0	Tri-Service Drilling Company	L 07438	Shallow	16S	35E	04 2 3 3	N 32° 57' 4.04"	W 103° 27' 44.19"	10-Oct-75	11-Oct-75	115	58
L	08454*	DOM	3	A. W. Johnson	L 08454	Shallow	16S	35E	04 4 3 3	N 32° 56' 37.91"	W 103° 27' 44.16"	07-May-83	09-May-83	115	62
L	08616*	PRO	0	Kimbark Oil and Gas	L 08616	Shallow	16S	35E	04 3 2	N 32° 56' 51.05"	W 103° 27' 59.66"	05-Dec-81	08-Dec-81	120	
L	01624*	PRO	0	Louis Dreyfus Nat. Gas	L 01624	Shallow	16S	35E	09 1 1	N 32° 56' 25"	W 103° 28' 15.11"			138	
L	01690*	PRO	3	Humble Oil & Refining Co.	L 01690	Shallow	16S	35E	09 2 1 3	N 32° 56' 24.85"	W 103° 27' 44.15"	05-Jan-53	06-Jan-53	115	50
L	02386*	PRO	3	Livermore Drilling Co.	L 02386	Shallow	16S	35E	09 2 4	N 32° 56' 11.71"	W 103° 27' 28.66"	20-Oct-53	21-Oct-53	114	60
L	02618*	PRO	0	Gulf Oil Corporation	L 02618	Shallow	16S	35E	09 4 1 1	N 32° 55' 58.72"	W 103° 27' 44.13"	07-Aug-54	08-Aug-54	108	50
L	02794*	DOM	3	Warren Petroleum Corp.	L 02794	Shallow	16S	35E	09 2 1 1	N 32° 56' 24.85"	W 103° 27' 44.15"	11-Mar-55	12-Mar-55	122	50
L	04010*	DOM	3	E. L. Harrod	L 04010	Shallow	16S	35E	09 1 1 4	N 32° 56' 25"	W 103° 28' 15.11"	27-Oct-58	27-Oct-58	100	72
L	06124*	PRO	3	James W. Snow	L 06124		16S	35E	09 1 3 2	N 32° 56' 11.94"	W 103° 28' 15.1"			138	
L	01510*	PRO	3	The Pure Oil Company	L 01510	Shallow	16S	35E	10 1 1	N 32° 56' 24.7"	W 103° 27' 13.19"	12-Aug-52	14-Aug-52	115	60
L	01681*	PRO	3	Parker Drilling Company	L 01681	Shallow	16S	35E	10 3 3	N 32° 55' 45.5"	W 103° 27' 13.17"	03-Dec-52	04-Dec-52	120	
L	02456*	PRO	0	Brantley Drilling Company	L 02456	Shallow	16S	35E	10 2	N 32° 56' 11.51"	W 103° 26' 42.05"	04-Jan-54	05-Jan-54	105	60
L	02521*	PRO	3	Gardener Brother Drilling Co.	L 02521	Shallow	16S	35E	10 4 4	N 32° 55' 45.32"	W 103° 26' 26.49"	25-Mar-54	25-Mar-54	110	50
L	02649*	PRO	3	Superior Oil Company	L 02649	Shallow	16S	35E	10 4 1 1	N 32° 55' 58.45"	W 103° 26' 42.05"	25-Sep-54	25-Sep-54	122	60
L	02578*	PRO	3	Livermore Drilling Co.	L 02578	Shallow	16S	35E	11 1 1 3	N 32° 56' 24.45"	W 103° 26' 10.91"	16-Jul-54	18-Jul-54	105	60
L	02711*	PRO	3	Shell Oil Company	L 02711	Shallow	16S	35E	11 1 2	N 32° 56' 24.41"	W 103° 25' 55.48"	10-Oct-54	11-Oct-54	105	51
L	02755*	PRO	3	J. C. Crain Drilling Company	L 02755	Shallow	16S	35E	11 2 1	N 32° 56' 24.38"	W 103° 25' 40.05"	27-Jan-55	27-Jan-55	105	55
L	02812*	PRO	0	Corbett Drilling Company	L 02812	Shallow	16S	35E	11 3 2	N 32° 55' 58.29"	W 103° 25' 55.49"	14-Mar-55	15-Mar-55	100	50
L	02958*	PRO	3	Corbett Drilling Company	L 02958	Shallow	16S	35E	11 1 4	N 32° 56' 11.35"	W 103° 25' 55.49"	09-Aug-55	10-Aug-55	101	45
L	03052*	PRO	3	Makin Drilling Company	L 03052	Shallow	16S	35E	11 3 2	N 32° 55' 58.29"	W 103° 25' 55.49"	07-Dec-55	08-Dec-55	126	60
L	09648*	DOM	0	Larry Megert	L 09648		16S	35E	11 4	N 32° 55' 45.2"	W 103° 25' 40.05"				
L	10221*	DOM	3	George Nichols	L 10221	Shallow	16S	35E	11 1 1 3	N 32° 56' 24.45"	W 103° 26' 10.91"	02-Oct-91	02-Oct-91	133	70
L	10787*	PRO	0	UMC Petroleum	L 10787		16S	35E	11 4 1 1	N 32° 55' 58.26"	W 103° 25' 40.05"				
L	10813*	PRO	0	Yates Petroleum Corp.	L 10813		16S	35E	11 4 1 1	N 32° 55' 58.26"	W 103° 25' 40.05"				
L	11297*	PRO	3	Yates Petroleum	L 11297	Shallow	16S	35E	11 4 4 1	N 32° 55' 45.16"	W 103° 25' 24.61"	18-Feb-02	18-Feb-02	150	48

TABLE 4

WELL / SURFACE DATA REPORT - 08/31/04

Devon Energy Production Company Panther Martin #1 - Ref #120002

DB	File Nbr	Use	Diversion[A]	Owner	Well Number	Source	Twsp	Rng	Sec q q q	Latitude	Longitude	Start Date	Finish Date	Depth of Well (ft bgs)	Depth to Water (ft bgs)
L	02914*	PRO	3	Humble Oil & Refining Co.	L 02914		15S	34E	36 3 4 3	N 32° 57' 58.61"	W 103° 28' 5.1"	13-Jul-55	13-Jul-55	125	
L	02926*	PRO	3	Humble Oil & Refining Co.	L 02926	Shallow	15S	34E	36 4 1 1	N 32° 58' 11.74"	W 103° 27' 49.64"	14-Jul-55	14-Jul-55	105	70
L	02975*	PRO	3	B. B. & M. Drilling Company	L 02975	Shallow	15S	34E	36 4 4	N 32° 57' 58.75"	W 103° 27' 34.16"	01-Sep-55	01-Sep-55	120	63
L	07470*	PRO	0	Tri-Service Drilling Company	L 07470	Shallow	15S	34E	36 4 4 4	N 32° 57' 58.75"	W 103° 27' 34.16"	14-Jan-76	15-Jan-76	100	54
L	07470 (1)*	PRO	0	Bobby F. Abernathy	L 07470 (1)		15S	34E	36 4 4 3	N 32° 57' 58.75"	W 103° 27' 34.16"				
L	03058*	PRO	3	Southeastern Drilling Corp.	L 03058	Shallow	15S	35E	31 3 3	N 32° 57' 58.81"	W 103° 27' 18.68"	13-Dec-55	13-Dec-55	150	
L	03083*	PRO	3	Southeastern Drilling Corp.	L 03083	Shallow	15S	35E	31 3 3	N 32° 57' 58.81"	W 103° 27' 18.68"			85	73
L	03141*	PRO	3	Humble Oil & Refining Co.	L 03141	Shallow	15S	35E	31 3 3 2	N 32° 57' 58.81"	W 103° 27' 18.68"	25-Mar-56	25-Mar-56	130	65
L	03122*	PRO	3	Humble Oil & Refining Co.	L 03122	Shallow	15S	35E	32 3 2 4	N 32° 58' 12.13"	W 103° 26' 0.77"	09-Mar-56	09-Mar-56	138	70
L	09817*	PRO	0	Mitchell Energy Corporation	L 09817	Shallow	15S	35E	32 1 4	N 32° 58' 25.19"	W 103° 26' 0.78"	25-Mar-86	26-Mar-86	130	65
L	11266*	PRO	3	Energen Resources Corp.	L 11266	Shallow	15S	35E	32 2 4 1	N 32° 58' 25.3"	W 103° 25' 29.79"	16-Oct-01	16-Oct-01	157	
**					9584		16S	35E	04	N 32° 57' 09"	W 103° 26' 53"	28-Feb-91			57
**					9694		16S	35E	03	N 32° 57' 54"	W 103° 27' 21"	21-Jan-81			56
**					9415		16S	35E	10	N 32° 56' 34"	W 103° 27' 12"	28-Feb-91			58
**					9538		16S	35E	04	N 32° 57' 00"	W 103° 27' 38"	28-Feb-91			55
**					9368		16S	35E		N 32° 56' 20"	W 103° 27' 28"	25-Feb-76			53
**					9390		16S	35E	11	N 32° 56' 27"	W 103° 25' 44"	01-Mar-91			53
**					9551		16S	35E	02	N 32° 57' 03"	W 103° 25' 30"	28-Feb-91			54
**					9680		16S	35E		N 32° 57' 52"	W 103° 25' 35"	13-Jan-71			60

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1)

** = Data obtaned from the New Mexico Tech Internet Mapping System

Shaded well information indicates well location shown on Figure 2

[A] = in acre feet per annum

DOM = Domestic One Household

PRO = Prospecting or Development of Natural Resource

(quarters are 1=NW, 2=NE, 3=SW, 4=SE)

(quarters are biggest to smallest)

APPENDIX I

LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY FORMS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: LAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231

Receiving Date: 03/03/04
Reporting Date: 03/04/04
Project Owner: DEVON ENERGY CORPORATION
Project Name: PANTHER MARTIN #1
Project Location: DEFS A-8-2 EXTENSION 052203

FAX TO: (505) 394-2601

Sampling Date: 03/02/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)
ANALYSIS DATE:		03/04/04	03/04/04
H8503-1	DPM030204SB8(10')	204	103
H8503-2	DPM030204SB8(30')	<10.0	<10.0
H8503-3	DPM030204SB8(35')	<10.0	<10.0
H8503-4	DPM030204SB3(5')	<10.0	<10.0
H8503-5	DPM030204SB2(5')	<10.0	<10.0
H8503-6	DPM030204SB7(5')	13900	1480
H8503-7	DPM030204SB7(20')	<10.0	<10.0
H8503-8	DPM030204SB7(35')	<10.0	<10.0
H8503-9	DPM030204SB4(5')	<10.0	<10.0
H8503-10	DPM030204SB4(25')	<10.0	<10.0
H8503-11	DPM030204SB5(5')	<10.0	<10.0
H8503-12	DPM030204SB5(15')	<10.0	<10.0
H8503-13	DPM030204SB1(5')	<10.0	<10.0
H8503-14	DPM030204SB6(5')	<10.0	<10.0
H8503-15	DPM030204SB6(15')	<10.0	<10.0
H8503-16	DPM030204SB9(5')	<10.0	<10.0
H8503-17	DPM030204SB9(20')	<10.0	<10.0
Quality Control		957	1005
True Value QC		1000	1000
% Recovery		95.7	101
Relative Percent Difference		0.3	6.4

METHOD: SW-846 8015 M

Chemist

3/4/04
Date

H8503.XLS

Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Billing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Devon Energy Corporation
Facility Name	Panther Martin #1
Project Reference	DEFS A-8-2 Extension 052203
EPI Sampler Name	Iain Olness

Bill To

ANALYSIS REQUEST

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4)	pH	TCLP	OTHER >>>
H8502-1	1	DPM030204SB8(10')	G	1			X					X		2-Mar	8:27		X					
-2	2	DPM030204SB8(30')	G	1			X					X		2-Mar	8:58		X					
-3	3	DPM030204SB8(35')	G	1			X					X		2-Mar	9:07		X					
-4	4	DPM030204SB3(5')	G	1			X					X		2-Mar	10:09		X					
-5	5	DPM030204SB2(5')	G	1			X					X		2-Mar	10:58		X					
-6	6	DPM030204SB7(5')	G	1			X					X		2-Mar	11:44		X					
-7	7	DPM030204SB7(20')	G	1			X					X		2-Mar	12:03		X					
-8	8	DPM030204SB7(35')	G	1			X					X		2-Mar	12:26		X					
-9	9	DPM030204SB4(5')	G	1			X					X		2-Mar	13:06		X					
-10	10	DPM030204SB4(25')	G	1			X					X		2-Mar	13:36		X					
-11	11	DPM030204SB5(5')	G	1			X					X		2-Mar	14:23		X					
-12	12	DPM030204SB5(15')	G	1			X					X		2-Mar	14:35		X					
-13	13	DPM030204SB1(5')	G	1			X					X		2-Mar	15:08		X					
-14	14	DPM030204SB6(5')	G	1			X					X		2-Mar	15:52		X					
-15	15	DPM030204SB6(15')	G	1			X					X		2-Mar	16:07		X					
-16	16	DPM030204SB9(5')	G	1			X					X		2-Mar	16:42		X					
-17	17	DPM030204SB9(~~15~~ 20')	G	1			X					X		2-Mar	17:00		X					

Sampler Relinquished: Iain Olness	Date 15-45 Time 3/3/04	Received By: John Good	Fax Results To Iain Olness 505-394-2601
Relinquished By: John Good	Date 3/3/04 Time 1435	Received By: (lab staff) Burgess A Cobbs	REMARKS:
Delivered by:	Sample Cool & Intact: (Yes) No	Checked By:	

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 07/01/04
Reporting Date: 07/06/04
Project Number: 120002
Project Name: DEVON ENERGY CORP./PANTHER MARTIN #1
Project Location: NOT GIVEN

Sampling Date: 06/28/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NO.	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		07/02/04	07/02/04	07/02/04	07/02/04	07/02/04	07/02/04
H8872-1	SDEPM162804NSW (12')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8872-2	SDEPM162804ECBH (17')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8872-3	SDEPMA62804NEBH (17')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8872-4	SDEPM162804NWBH (17')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8872-5	SDEPM162804SWW (12')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8872-6	SDEPM162804SEBH (15')	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		784	831	0.100	0.094	0.087	0.261
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		98.0	104	100	94.4	87.4	87.1
Relative Percent Difference		5.6	2.0	4.4	5.2	4.9	2.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

7/6/04
Date

H8872.XLS

Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

Company Name	Environmental Plus, Inc.
EPI Project Manager	Iain Olness
Billing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	505-394-3481 / 505-394-2601
Client Company	Devon Energy Corporation
Facility Name	Panther Martin #1
Project Reference	120002
EPI Sampler Name	Eddie Joe Harper

Bill To

ANALYSIS REQUEST

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl^-)	SULFATES (SO_4^{2-})	pH	TCLP	OTHER >>>
H8872-1	1	SDEPM162804NSW (12')	C	1			X					X		28-Jun	13:10	X	X					
-2	2	SDEPM162804ECBH(17')	C	1			X					X		28-Jun	13:30	X	X					
-3	3	SDEPMA162804NEBH(17')	C	1			X					X		28-Jun	13:50	X	X					
-4	4	SDEPM162804NWBH(17')	C	1			X					X		28-Jun	15:35	X	X					
-5	5	SDEPM162804SWW(12')	C	1			X					X		28-Jun	16:30	X	X					
-6		SDEPM162804SEBH(15')	C	1			X					X		28-June	1130	X	X					

Sampler Relinquished:	Date / Time	Received By:	Fax Results To Iain Olness 505-394-2601
Relinquished by: Iain Olness	Date 7/1/04 Time 9:35	Received By: (lab staff) Jimmy Hill	REMARKS:
Delivered by:	Sample Cool & Intact Yes / No	Checked By:	

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: IAIN OLNESS
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (505) 394-2601

Receiving Date: 08/06/04
Reporting Date: 08/09/04
Project Owner: DEVON ENERGY
Project Name: PANTHER MARTIN
Project Location: LOVINGTON, NM

Sampling Date: 08/05/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NO.	SAMPLE ID	GRO (C_6-C_{10}) (mg/Kg)	DRO (>C_{10}-C_{28}) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		08/07/04	08/07/04	08/06/04	08/06/04	08/06/04	08/06/04
H8988-1	SDPM80504SEQ	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8988-2	SDPM80504NEQ	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
H8988-3	SDPM80504SWQ	<10.0	21.7	<0.005	<0.005	<0.005	<0.015
H8988-4	SDPM80504NWQ	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015
Quality Control		796	822	0.107	0.102	0.095	0.292
True Value QC		800	800	0.100	0.100	0.100	0.300
% Recovery		99.5	103	107	102	94.6	97.4
Relative Percent Difference		2.6	7.9	8.0	2.8	2.3	1.7

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

8/9/04
Date

H8988.XLS

Cardinal Laboratories Inc.

2111 Beechwood, Abilene, TX 79603 — 915-673-7001 Fax 915-673-7020
101 East Marland, Hobbs, NM 88240 — 505-393-2326 Fax 505-393-2476

Company Name	Devon Energy
Project Manager	
Address	
City, State, Zip	
Phone#/Fax#	
Project #/Owner	
Project Name	Panther Martin
Project Location	Lovington
Sampler Name	Roger Boone

Bill To

Environmental Plus Inc.

Analysis Request

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH TX1005 Extended	Cl
H8986-1	SDPM80504SEQ	C	1			X					X		8/5	8:05	X	X	X
-2	SDPM80504NEQ	C	1			X					X		8/5	8:10	X	X	X
-3	SDPM80504SWQ	C	1			X					X		8/5	8:15	X	X	X
-4	SDPM80504NWQ	C	1			X					X		8/5	8:20	X	X	X

Sampler Relinquished: Roger Boone	8-6 Time 1:23	Received By:	Fax Results To Iain Olness 505-394-2601
Relinquished by:	Date / Time	Received By: (lab staff)	Remarks
Delivered by Sampler	Sample Cool & Intact: Yes / No	Checked By:	

APPENDIX II

PROJECT PHOTOGRAPHS

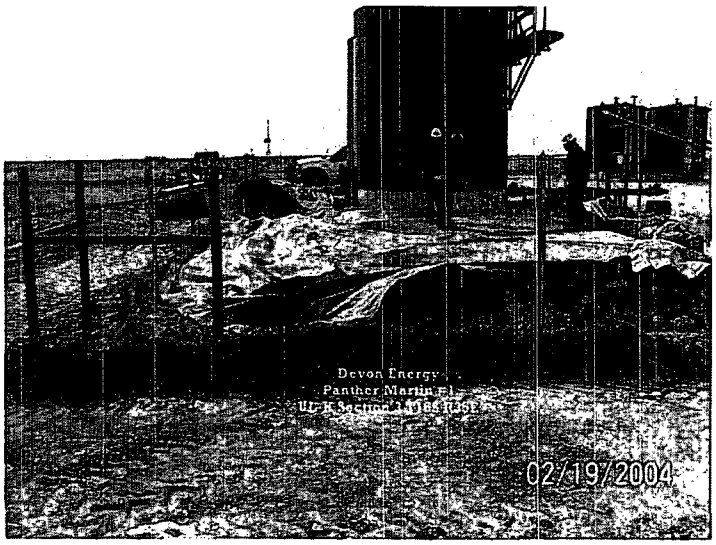

Photo #1: Release area, looking south. The release area was limited to the confines of the bermed area.

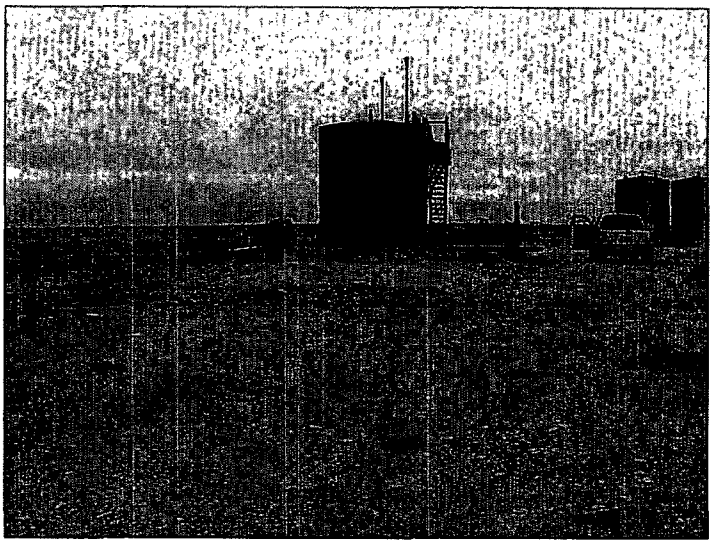
Photo #2: Release area after removal of saturated soil and, berm liner, looking south.

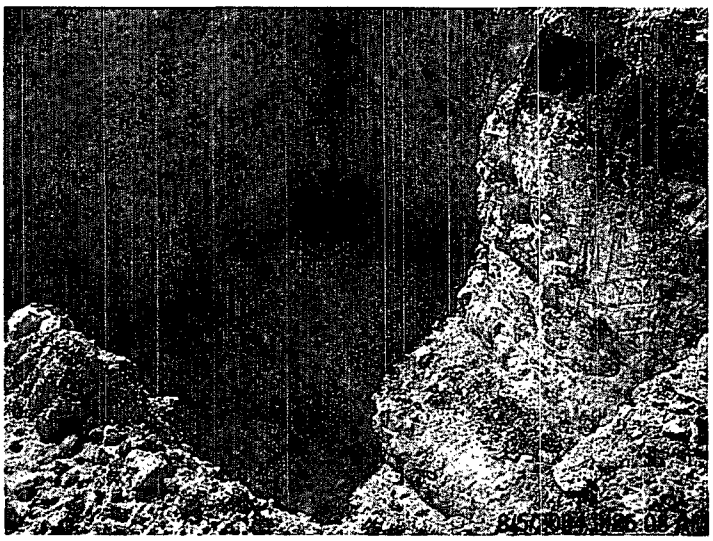
Photo #3: Excavation basin, looking southeasterly.

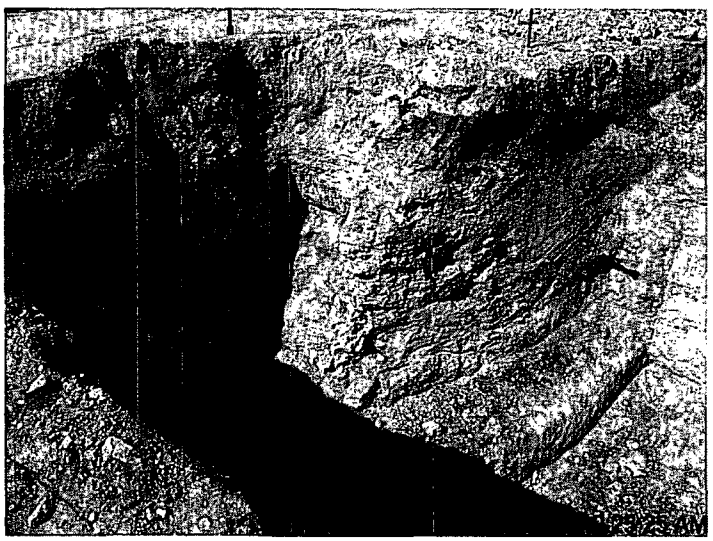
Photo #4: Excavation basin, looking southwesterly.

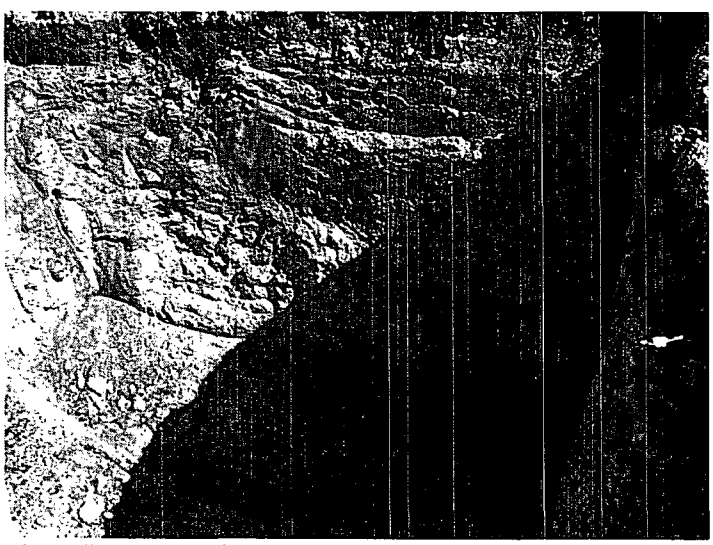
Photo #5: Excavation basin, looking northerly.

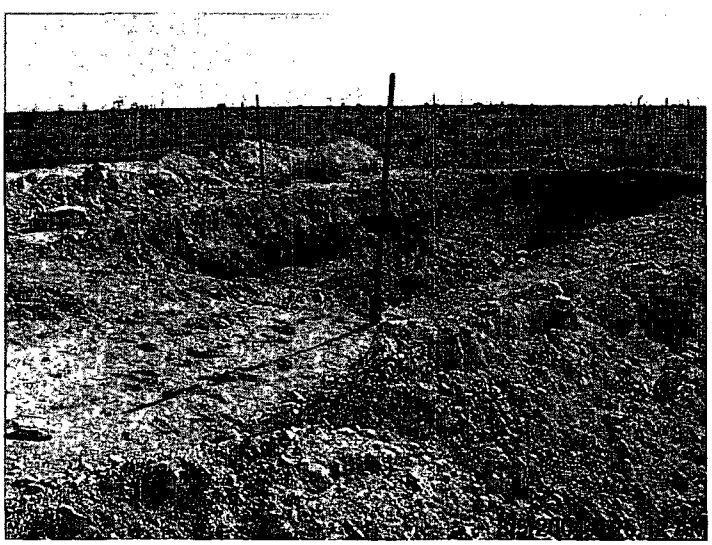
Photo #6: Excavation basin, looking northeasterly.

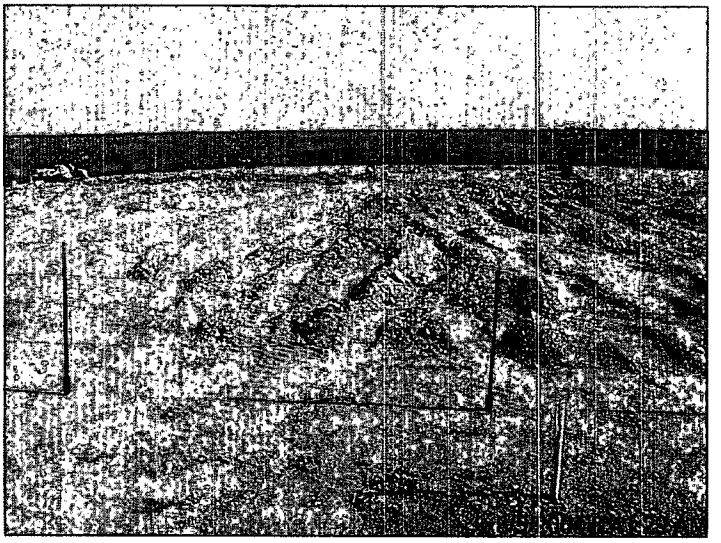

Photo #7: Land treatment area, looking westerly.

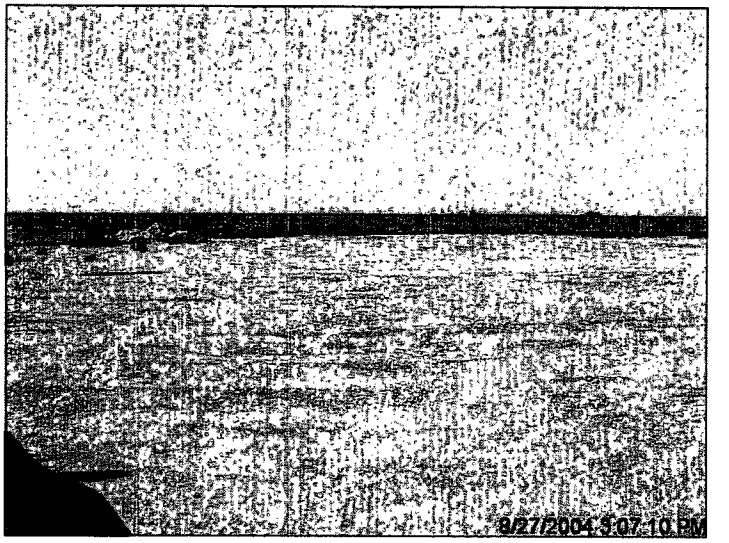

Photo #8: Land treatment area after the excavation was backfilled, looking westerly.

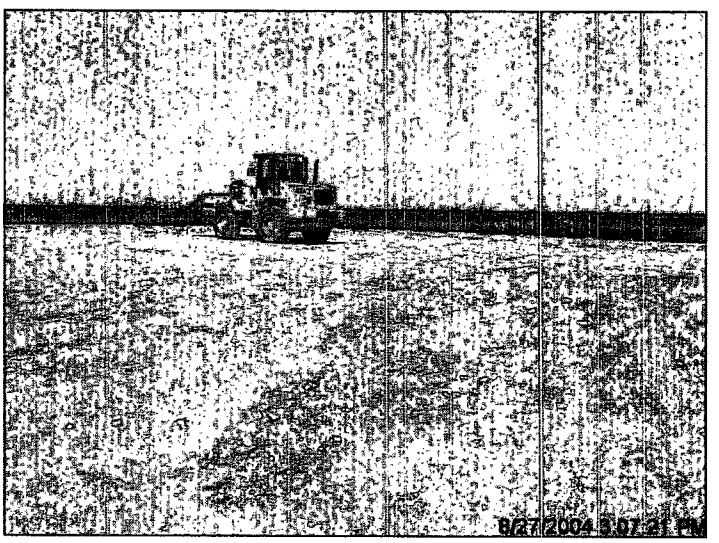

Photo #9: Land treatment area after the excavation was backfilled, looking northwesterly.

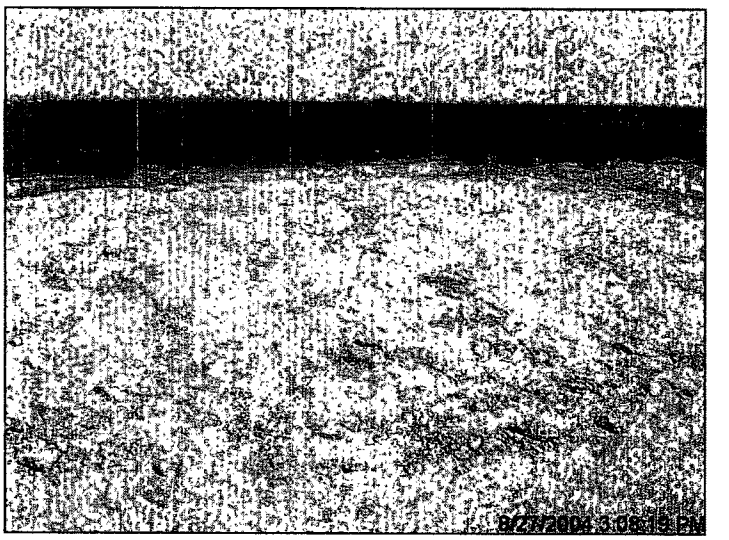

Photo #10: Excavation basin backfilled, looking northwesterly.

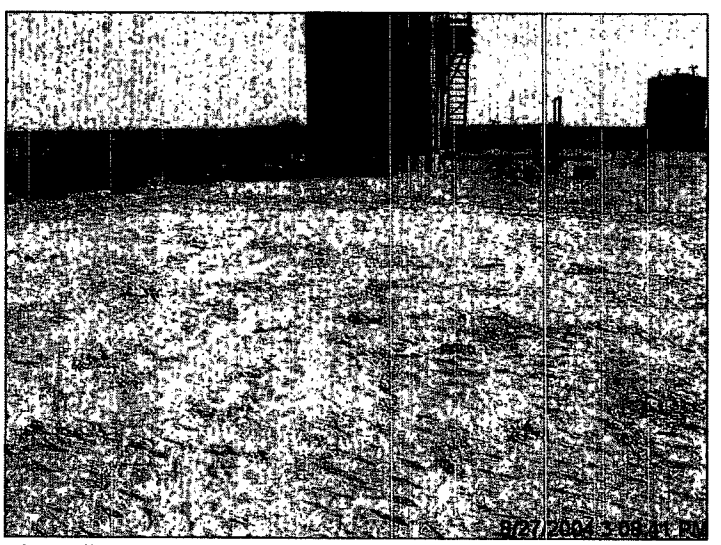

Photo #11: Excavation basin backfilled, looking southerly.

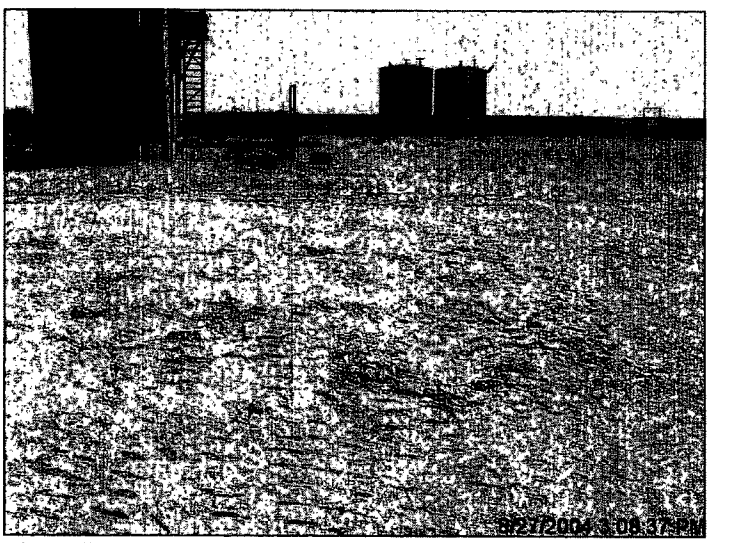

Photo #12: Excavation basin backfilled, looking southerly.

APPENDIX III

SOIL BORING LOGS

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-2481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-1
Surface Elevation: -

Start Date: 03/02/04 Time: 1502
Completion Date: 03/02/04 Time: 1530

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
							Red Brown, Fine to Medium-Grained SAND, with Silt and Clay
						5	
1508	SS	16	Damp	18.7	SC		Red Brown, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1513	Cuttings	--	Damp	12.3	SC		Red Brown, Fine to Medium-Grained SAND, with Silt, Clay and Gravel (Caliche)
						15	
1522	SS	6	Dry	9.5	SC		Red Brown, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
1526	Cuttings	--	Dry	0.0	SM	20	Tan, Fine to Medium-Grained SAND, with Silt and Clay
							End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1508	5-7	5	5	NA
03/02/04	1522	15-17	15	15	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-2 | Surface Elevation: -

Start Date: 03/02/04 Time: 1051
Completion Date: 03/02/04 Time: 1117

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	
1058	SS	17	Dry	0.0	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1104	Cuttings	--	Dry	7.6	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and Gravel (Caliche)
						15	
1109	SS	15	Dry	9.8	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
1117	Cuttings	--	Dry	3.4	SM	20	Tan, Fine-Grained SAND, with Silt and Clay
							End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1058	5-7	5	5	NA
03/02/04	1109	15-17	15	15	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-3 | Surface Elevation: -

Start Date: 03/02/04 Time: 1002
Completion Date: 03/02/04 Time: 1035

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	
1009	SS	11	Dry	13.4	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1015	Cuttings	--	Dry	5.2	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and Gravel (Caliche)
						15	
1018	SS	6	Dry	5.7	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
1026	Cuttings	--	Dry	4.8	SM	20	Tan, Fine-Grained SAND, with Silt and Clay
							End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1009	5-7	5	5	NA
03/02/04	1018	15-17	15	15	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-4
Surface Elevation: -

Start Date: 03/02/04 Time: 1302
Completion Date: 03/02/04 Time: 1344

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	
1306	SS	15	Dry	900	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1315	Cuttings	--	Dry	1,797	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and someGravel (Caliche)
						15	
1321	SS	12	Dry	80	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
						20	
1325	Cuttings	--	Dry	1,130	SM		Tan, Fine-Grained SAND, with Silt and Clay
						25	
1336	SS	10	Dry	7.7	SM		Tan, Fine-Grained SAND, with Silt and Clay
1344	Cuttings	--	Dry	5.3	SM		Tan, Fine-Grained SAND, with Silt and Clay
						30	
							End of Boring at 30.0'

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1306	5-7	5	5	NA
03/02/04	1321	15-17	15	15	NA
03/02/04	1336	25-27	25	25	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-5 | Surface Elevation: -

Start Date: 03/02/04 Time: 1412
Completion Date: 03/02/04 Time: 1444

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
							Tank Pad FILL, Crushed Caliche Rock
						5	
1418	SS	12	Dry	55.5	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1427	Cuttings	--	Dry	32.3	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and Gravel (Caliche)
						15	
1435	SS	8	Dry	3.9	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
1439	Cuttings	--	Dry	3.9	SM		Tan, Fine-Grained SAND, with Silt and Clay
						20	
							End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1058	5-7	5	5	NA
03/02/04	1109	15-17	15	15	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-2481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-6 | Surface Elevation: -
Start Date: 03/02/04 Time: 1542
Completion Date: 03/02/04 Time: 1608

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
							Tank Pad FILL, Crushed Caliche Rock
						5	
1547	SS	4	Dry	24.9	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1550	Cuttings	--	Dry	59.7	SM		Brown, Fine to Medium-Grained SAND, with Silt, Clay and Gravel (Caliche)
						15	
1602	SS	7	Dry	6.5	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
1605	Cuttings	--	Dry	3.9	SM		Tan, Fine-Grained SAND, with Silt and Clay
						20	
							End of Boring at 20.0'
						25	
						30	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1547	5-7	5	5	NA
03/02/04	1602	13-17	15	15	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 2)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-7 | Surface Elevation: -
Start Date: 03/02/04 Time: 1139
Completion Date: 03/02/04 Time: 1232

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	
1144	SS	11	Dry	1,570	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
1150	Cuttings	--	Dry	1,970	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and someGravel (Caliche)
						15	
1156	SS	10	Dry	375	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
						20	
1203	Cuttings	--	Dry	1,098	SM		Tan, Fine-Grained SAND, with Silt and Clay
						25	
1210	SS	9	Dry	31.1	SM		Tan, Fine-Grained SAND, with Silt and Clay
						30	
1217	Cuttings	--	Dry	126	SM		Tan, Fine-Grained SAND, with Silt and Clay
						35	

Log Of Test Borings

(NOTE - Page 2 of 2)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-7 | Surface Elevation: -

Start Date: 03/02/04 Time: 1139
Completion Date: 03/02/04 Time: 1232

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						35	
1226	SS	8	Dry	13.3	SM		Tan, Fine-Grained SAND, with Silt and Clay
						40	
1232	Cuttings	- -	Dry	45.4	SM		Tan, Fine-Grained SAND, with Silt and Clay
							End of Boring at 40.0'
						45	
						50	
						55	
						60	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1156	15-17	15	15	NA
03/02/04	1210	25-27	25	25	NA
03/02/04	1226	35-37	35	35	NA

Drilling Method: HSA 6.25" O.D.
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 2)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-8 | Surface Elevation: -

Start Date: 03/02/04 Time: 0810
Completion Date: 03/02/04 Time: 0927

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						5	
0820	SS	12	Dry	1,270	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
						10	
0829	Cuttings	--	Dry	2,256	SM		Tan, Fine to Medium-Grained SAND, with Silt, Clay and someGravel (Caliche)
						15	
0837	SS	12	Dry	37.6	SM		Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
						20	
0845	Cuttings	--	Dry	300	SM		Tan, Fine-Grained SAND, with Silt and Clay
						25	
0850	SS	11	Dry	139	SM		Tan, Fine-Grained SAND, with Silt and Clay
						30	
0858	Cuttings	--	Dry	146	SM		Tan, Fine-Grained SAND, with Silt and Clay
						35	

Log Of Test Borings

(NOTE - Page 2 of 2)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-8 | Surface Elevation: -

Start Date: 03/02/04 Time: 0810
Completion Date: 03/02/04 Time: 0927

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
						35	
0907	SS	12	Dry	10.7	SM		Tan, Fine-Grained SAND, with Silt and Clay
						40	
0915	Cuttings	--	Dry	9.8	SM		Tan, Fine-Grained SAND, with Silt and Clay
						45	
0927	SS	10	Dry	3.3	SM		Tan, Fine-Grained SAND, with Silt and Clay
							End of Boring at 45.0'
						50	
						55	
						60	

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	0850	25-27	25	25	NA
03/02/04	0907	35-37	35	35	NA
03/02/04	0927	45-47	45	45	NA

Drilling Method: HSA 6.25" O.D.
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

Log Of Test Borings

(NOTE - Page 1 of 1)

ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES
EUNICE, NEW MEXICO
505-394-3481

Project Number: 120002
Project Name: Devon Energy Panther Martin #1
Location: Lovington, NM
Boring Number: SB-9 | Surface Elevation: -

Start Date: 03/02/04 Time: 1624
Completion Date: 03/02/04 Time: 1715

Sample # and Time	Sample Type	Recovery (inches)	Moisture	PID Readings (ppm)	U.S.C.S. Symbol	Depth (feet)	Description
1637	SS	10	Dry	466	SM	5	Tan, Fine to Medium-Grained SAND, with Silt, Clay and some Gravel (Caliche)
1645	Cuttings	--	Dry	236	SM	10	Tan, Fine to Medium-Grained SAND, with Silt, Clay and someGravel (Caliche)
1655	SS	10	Dry	24.5	SM	15	Tan, Fine to Medium-Grained, Hard SAND, with Silt, Clay and Gravel (Caliche)
1702	Cuttings	--	Dry	234	SM	20	Tan, Fine-Grained SAND, with Silt and Clay, Soft
1708	SS	7	Dry	4.3	SM	25	Tan, Fine-Grained SAND, with Silt and Clay, Soft
						30	End of Boring at 25.0'

Water Level Measurements (feet)

Date	Time	Sample Depth	Casing Depth	Cave-in Depth	Water Level
03/02/04	1637	5-7	5	5	NA
03/02/04	1655	15-17	15	15	NA
03/02/04	1708	25-27	25	25	NA

Drilling Method: HSA 6.25" OD
Backfill Method: Bentonite & Cuttings
Field Representative: IAO

APPENDIX IV

SITE INFORMATION AND METRICS FORM
AND
FINAL NMOCD C-141 FORM

Site Information and Metrics	**Incident Date:** 2-16-04 (through night)	**NMOCD Notified:** 2-17-04 at 2:25 pm

Site: Panther Martin #1	**Assigned Site Reference #:** 120002
Company: Devon Energy Production Co., L.P.	
Street Address: P.O. Box 250	
Mailing Address: P.O. Box 250	
City, State, Zip: Artesia, NM 88211	
Representative: Jerry Mathews	
Representative Telephone: (505) 748-5234	
Telephone: (505) 748-5234	
Fluid volume released (bbls): 20 bbls water & 80 bbls condensate	**Recovered (bbls):** 0
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)	
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)	
Leak, Spill, or Pit (LSP) Name: Panther Martin #1	
Source of contamination: Cracked Valve	
Land Owner, i.e., BLM, ST, Fee, Other: Dan Field	
LSP Dimensions: 20 feet X 40 feet	
LSP Area: 800 ft^2	
Location of Reference Point (RP):	
Location distance and direction from RP:	
Latitude: N 32° 57' 0.97"	
Longitude: W 103° 26' 54.4"	
Elevation above mean sea level: 4,012	
Feet from South Section Line: 2,310	
Feet from West Section Line: 1,650	
Location- Unit or ¼¼: NW¼ of the SW¼	**Unit Letter:** K
Location- Section: 3	
Location- Township: T16S	
Location- Range: R35E	
Surface water body within 1000 ' radius of site: None	
Domestic water wells within 1000' radius of site: None	
Agricultural water wells within 1000' radius of site: None	
Public water supply wells within 1000' radius of site: None	
Depth from land surface to ground water (DG): 56 feet	
Depth of contamination (DC): ~20 feet	
Depth to ground water (DG – DC = DtGW): <50 feet	

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or;<200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200-100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	**If >1000' from water source, or; >200' from private domestic water source: *0 points***	**>1000 horizontal feet: *0 points***
Ground water Score = 20	*Wellhead Protection Area Score= 0*	*Surface Water Score= 0*

Site Rank (1+2+3) = 20

Total Site Ranking Score and Acceptable Concentrations

Parameter	>19	10-19	0-9
Benzene[1]	10 ppm	10 ppm	10 ppm
BTEX[1]	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Devon Energy Production Co., L.P.	**Contact** Jerry Mathews
Address P.O. Box 250, Artesia, NM 88211	**Telephone No.** (505) 740-5234
Facility Name Panther Martin #1	**Facility Type** Battery

Surface Owner Dan Field, P.O. Box 1105, Lovington, NM 88260	**Mineral Owner**	**Lease No.** NM 3285-4

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the ~~North~~/South	Feet from the ~~East~~/West	
K	3	16S	35E	Line: 2,310	Line: 1,650	**County:** Lea **Lat.** N 32° 57' 0.97" **Lon.** W 103° 26' 54.4"

NATURE OF RELEASE

Type of Release Water and Condensate Spill	**Volume of Release:** 20 bbbls water & 80 bbls condensate	**Volume Recovered** 0 barrels
Source of Release Cracked valve	**Date and Hour of Occurrence** 2-16-04 (through night)	**Date and Hour of Discovery** 2-17-04 at 0925 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Paul Sheely at the OCD in Artesia, NM	
By Whom? Jerry Mathews, Production Foreman	**Date and Hour:** 2-17-04 at 2:25 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse.** NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Valve at the bottom of tank froze through the night and cracked causing a leak of water and condensate. A vacuum truck was called in and transferred the liquid from the tank and tried to clean up as much as possible around the tank.

Describe Area Affected and Cleanup Action Taken.*The area affected was a 20' X 40' area on location. The valve was replaced and upgraded to a 600 lb ball valve. The impacted soil was excavated, treated on site via land farming and, after treatment, the soil was returned to the excavation. Soil samples were collected to confirm removal and treatment of the impacted soil.

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: Jerry Mathews	**OIL CONSERVATION DIVISION**	
Printed Name: Jerry Mathews	**Approved by District Supervisor:**	
E-mail Address: jerry.mathews@dvn.com		
Title: Production Foreman	**Approval Date:**	**Expiration Date:**
Date: 10/7/04 **Phone:** (505) 748-0161	**Conditions of Approval:**	**Attached** ☐

* Attach Additional Sheets If Necessary