



1 RP-204  
10.24.03

## **CLOSURE REPORT**

**TEXAS - NEW MEXICO PIPE LINE COMPANY  
TNM-97-10  
LEA COUNTY, NEW MEXICO**



5309 Wurzbach, Suite 100  
San Antonio, Texas 78238  
(210) 680-3767  
(210) 680-3763 FAX

## CLOSURE REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY  
TNM-97-10  
LEA COUNTY, NEW MEXICO

PREPARED FOR:

**TEXAS - NEW MEXICO PIPE LINE COMPANY**  
P. O. Box 1030  
Jal, New Mexico 88252

Mr. Tony Savoie

PREPARED BY:

**KEI**

A handwritten signature in cursive script, reading 'Theresa Nix', written over a horizontal line.

Theresa Nix  
Project Manager

A handwritten signature in cursive script, reading 'J. Michael Hawthorne', written over a horizontal line.

J. Michael Hawthorne, P.G., REM  
Senior Geologist

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## EXECUTIVE SUMMARY

The Texas - New Mexico Pipe Line Company (TNMPL) release site TNM-97-10 is located approximately 1.5 miles south of Monument in Lea County, New Mexico. The site is specifically located in Section 5, Township 20 South, Range 37 East. A site location map is presented as FIG. 1. The site is owned by Mr. Jimmy Cooper. Specific site details are presented on FIG. 2. This report summarizes closure activities performed at the project site during July of 1997.

Closure activities performed included the following:

- collection of soil samples from the initial excavation to determine hydrocarbon concentration levels;
- excavation and stockpiling of additional soils which exceeded closure levels;
- collection of confirmation samples in the excavated area;
- characterization of stockpiled soils;
- transportation and off-site landfarming of stockpiled soils;
- backfilling the excavation with clean soils; and
- grading and seeding of disturbed areas.

The following conclusions are based on field and laboratory data:

- The closure standards at the site were determined to be as follows:

CONSTITUENT	CLOSURE CONCENTRATIONS (mg/kg)
BENZENE	10
BTEX	50
TPH	100 + Background Concentration

- 16716
- Approximately 5,572 cubic yards of impacted soil was excavated, stockpiled, and landfarmed off-site.
  - Confirmation soil samples at the site indicated TPH, benzene, and BTEX concentrations below closure standards.

Based on the attainment of closure levels, we recommend the site be closed under New Mexico Oil Conservation Division (OCD) regulations.

## PURPOSE AND SCOPE

The objective of the site closure activities was to obtain closure for the site based on OCD regulations. The following activities were performed to achieve this objective:

- determination of closure standards;
- removal of impacted soil;
- characterization of removed impacted soil;
- confirmation sampling in the excavated area;
- transportation and off-site landfarming of impacted soil; and
- backfill clean soil in the excavated area.

## BACKGROUND INFORMATION

*Pipeline*  
*2-24-98*

A hydrocarbon release was identified at the subject site on June 16, 1997. The following activities were performed as part of the current release response activities:

- Clean overburden soils including topsoil were removed and stockpiled on-site.
- Soils were excavated, stockpiled, and some soils were landfarmed off-site.

## CLOSURE ACTIVITIES

### CLOSURE STANDARDS

The New Mexico OCD Guidelines for Remediation of Leaks, Spills, and Releases contains the standard criteria for remediation activities. A ranking analysis for the site was performed to determine appropriate soil remediation levels. The ranking analysis is as follows:

CRITERIA	APPLICABLE STANDARD	POINTS
Depth to Ground Water	Less Than 50 Feet	20 Points
Well Head Protection	Greater Than 1000 Feet to Water Source Greater Than 200 Feet to Private Water Source	0 Points
Surface Water Body	Greater Than 1000 Feet	0 Points
Total Ranking Score		20 Points

Based on the total ranking score, the closure objectives for this site for concentrations of benzene, BTEX, and TPH are summarized below.

CONSTITUENT	CLOSURE CONCENTRATIONS (mg/kg)
BENZENE	10
BTEX	50
TPH	100 + Background Concentration

## SOIL REMOVAL

Soils were removed from the bottom and sidewalls of the excavation during July of 1997. An estimated 5,572 cubic yards were removed from the existing excavation and stockpiled on-site for characterization prior to off-site landfarming.

## SOIL CHARACTERIZATION

The soil stockpiles were characterized by collecting four composite soil samples for determination of TPH. Laboratory results indicated TPH concentrations of ND, 1,233 mg/kg, 2,092 mg/kg, and 2,976 mg/kg. Laboratory results are presented in APPENDIX A.

## CONFIRMATION SAMPLING

Composite soil samples were collected from the excavation bottom and excavation sidewalls in Sections A through E and submitted for determination of TPH and BTEX concentrations using EPA Method SW846-8015M - Diesel Range Organics and SW846-8020, respectively. Based on the laboratory results of the sidewall and excavation bottom soil samples, additional soils were excavated and the sidewall and excavation bottom resampled. The sample locations are presented on FIG. 3.

Laboratory results of the final composite soil samples indicated the following:

SAMPLE LOCATION	MAX. TPH	MAX. BTEX	MAX. BENZENE
Final Soil Sidewall (mg/kg)	67	12.429	1.189
Soil Bottom (mg/kg)	31	0.648	ND

Soil laboratory results are summarized in TABLE I and graphically presented on FIG. 3.

## SOIL DISPOSAL

Authorization to transport and landfarm the impacted soils off-site was obtained from OCD. The impacted soils were transported to C&C Landfarm Incorporated located approximately two miles south of Monument, New Mexico. Disposal documentation is presented in APPENDIX B.

## BACKFILL AND RESTORATION

Approximately 5,614 cubic yards of clean fill material was purchased from Mr. Cooper and placed in the excavation. The remaining non-impacted stockpiled soils from the initial release excavation activities were used to complete the backfilling operations. The area was graded and reseeded following backfilling.

## QA/QC PROCEDURES

The soil samples collected were placed in a sterile glass container equipped with a Teflon-lined lid furnished by the analytical laboratory. The container was filled to capacity with soil to limit the amount of head-space present. Each container was labeled and placed on ice in an insulated cooler. The cooler was sealed for shipment to Environmental Lab of Texas, Inc. in Odessa, Texas for determination of BTEX and TPH concentrations using EPA Method SW846-8020, 5030 and SW846-8015M Diesel Range Organics, respectively. Proper chain-of-custody documentation was maintained throughout the sampling process.

MONUMENT NORTH QUADRANGLE

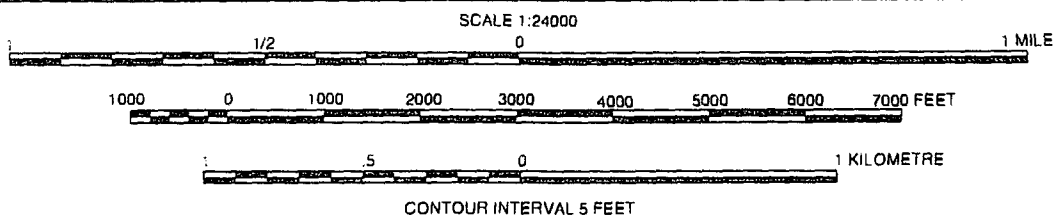
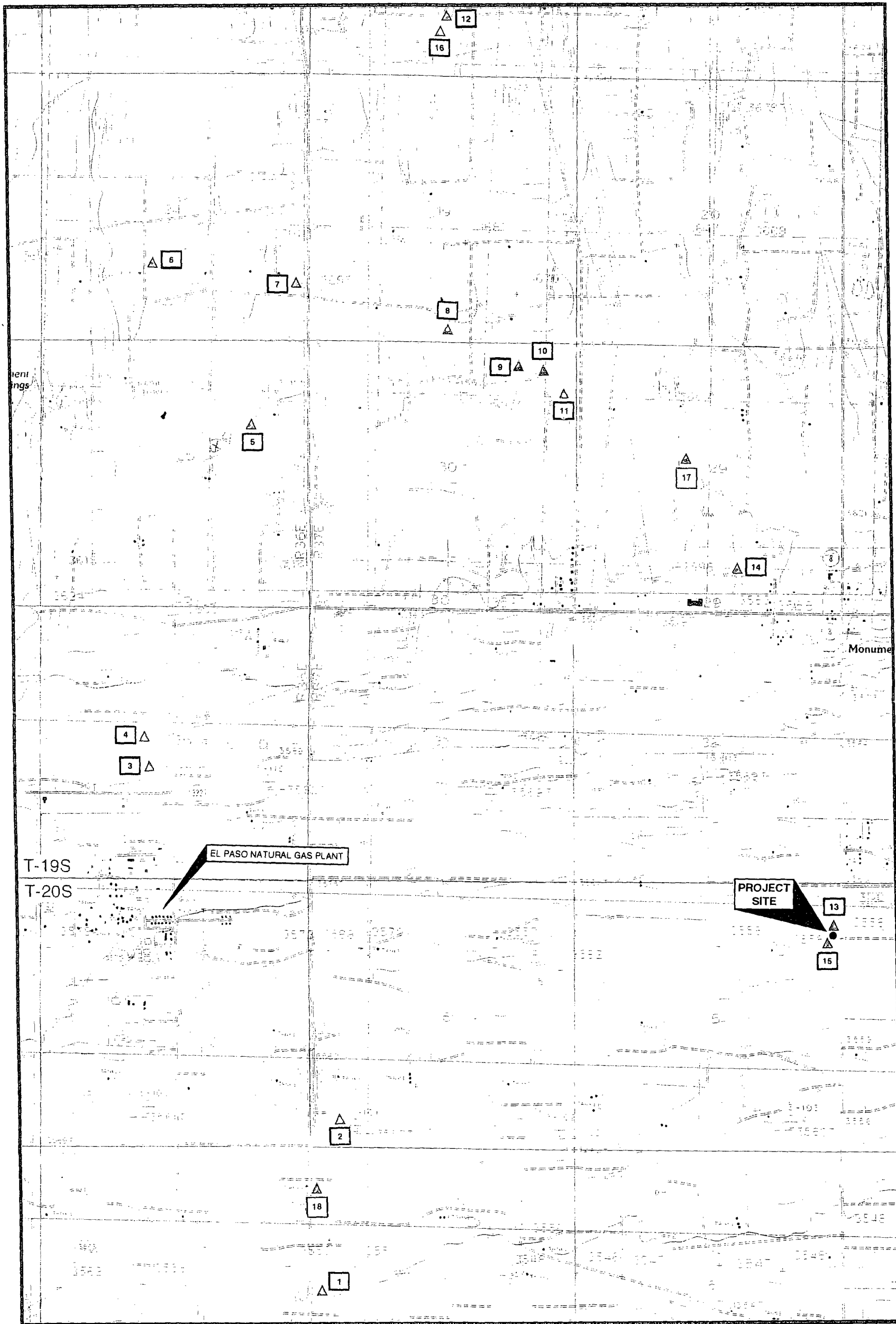
NEW MEXICO - LEA COUNTY

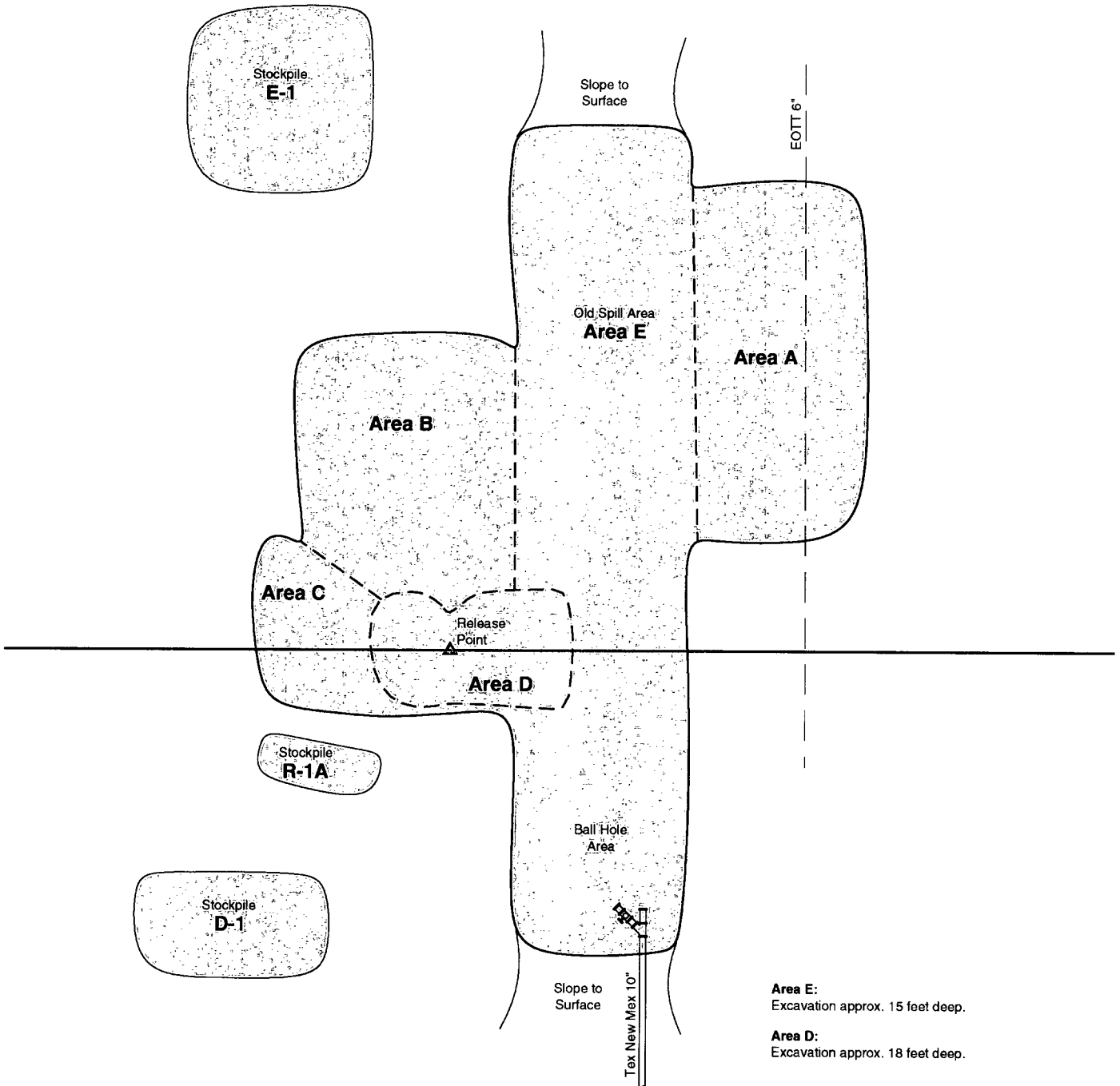
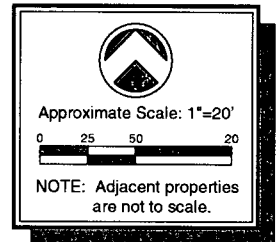
PRINTED 1985

MONUMENT SOUTH QUADRANGLE

NEW MEXICO - LEA COUNTY

PRINTED 1985





11/20/97-RM G:(710026)



# SITE DETAILS

TNMPL

TNM - 97- 10

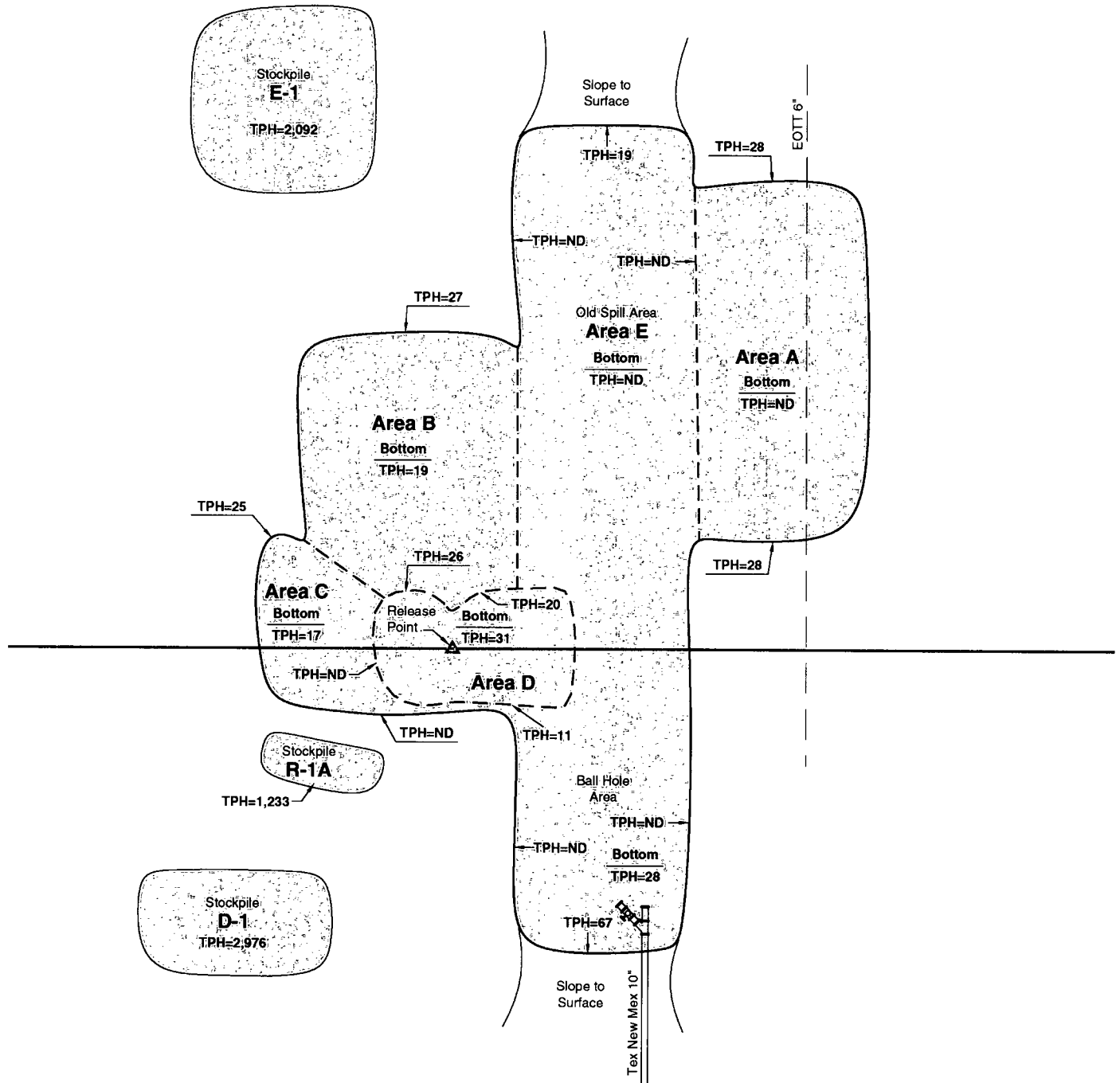
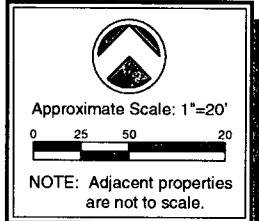
LEA COUNTY, TEXAS

710026

FIG 2



**Closure Level**  
**TPH=100**



TPH = Total Petroleum Hydrocarbons  
Concentration (mg/kg)

11/20/97-RM G:\(7126TPH)

**kei**

**SAMPLING POINT LOCATIONS AND CONCENTRATIONS**

TNMPL

TNM - 97- 10

LEA COUNTY, TEXAS

710026

FIG 3

## GENERAL NOTES

- ND - Indicates constituent was not detected above the method detection limit.  
--- - Indicates sample was not submitted for determination of specified constituent.

### Method detection limits:

Soil:                   TPH    - 10 mg/kg  
                          BTEX - 0.100 mg/kg

Laboratory test methods: BTEX - EPA Method SW846-8020, 8030  
                                  TPH   - SW846-8015M Diesel Range Organics

TABLE I

**SUMMARY OF LABORATORY RESULTS - SOIL  
EXCAVATION ACTIVITIES  
TNM-97-10  
LEA COUNTY, NEW MEXICO**

SAMPLE LOCATION	SAMPLE DATE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	BTEX (mg/kg)	TPH (mg/kg)
<b>Excavation Sampling</b>							
Section A North Sidewall	07/08/97	---	---	---	---	---	28
Section A South Sidewall	07/08/97	---	---	---	---	---	28
Section A Excavation Bottom	07/08/97	---	---	---	---	---	27
Section B North Sidewall	07/08/97	---	---	---	---	---	27
Section B South Sidewall	07/08/97	---	---	---	---	---	26
Section B Excavation Bottom	07/08/97	---	---	---	---	---	26
Section C North Sidewall	07/08/97	---	---	---	---	---	25
Section C South Sidewall	07/08/97	---	---	---	---	---	ND
Section C Excavation Bottom	07/08/97	---	---	---	---	---	ND
Bellhole Sidewall	07/08/97	---	---	---	---	---	223
Bellhole Bottom	07/08/97	---	---	---	---	---	28
Section A Excavation Bottom	07/14/97	ND	0.120	ND	0.192	0.312	163
Section B Excavation Bottom	07/14/97	ND	ND	0.117	ND	0.117	290
Section C Excavation Bottom	07/14/97	ND	ND	ND	ND	ND	17
Section D Excavation Bottom	07/14/97	ND	ND	ND	ND	ND	31
Section D West Sidewall	07/14/97	ND	ND	ND	ND	ND	216
Section D South Sidewall	07/14/97	1.189	2.425	1.368	7.447	12.429	11
Section D North Sidewall	07/14/97	0.143	0.155	0.138	0.654	1.090	20
Section E North Sidewall	07/14/97	ND	0.149	0.122	0.594	0.865	146
Section E East Sidewall	07/14/97	ND	ND	ND	0.118	0.118	309
Section E Excavation Bottom	07/14/97	ND	0.225	0.157	1.038	1.420	469
Bell Hole Area South Sidewall	07/14/97	ND	0.129	ND	0.197	0.326	67
Bell Hole Area West Sidewall	07/14/97	ND	ND	ND	ND	ND	720
Bell Hole Area East Sidewall	07/14/97	ND	ND	ND	0.111	0.111	650
<b>Soil Characterization Sampling</b>							
Stockpile R-1	07/08/97	---	---	---	---	---	ND
Stockpile E-1	07/14/97	---	---	---	---	---	2,092
Stockpile D-1	07/14/97	---	---	---	---	---	2,976
Stockpile R-1A	07/14/97	---	---	---	---	---	1,233
<b>Confirmation Sampling</b>							
Bell Hole Area West Sidewall	07/22/97	0.395	0.100	ND	0.224	0.719	ND <sup>(1)</sup>
Bell Hole Area East Sidewall	07/22/97	ND	ND	ND	ND	ND	ND <sup>(1)</sup>
Section E Excavation Bottom	07/22/97	ND	ND	ND	0.428	0.428	ND <sup>(1)</sup>
Section E East Sidewall	07/22/97	ND	ND	ND	ND	ND	ND <sup>(1)</sup>
Section E North Sidewall	07/22/97	0.153	0.168	0.224	ND	0.545	19 <sup>(1)</sup>
Section E West Sidewall	07/22/97	ND	ND	ND	ND	ND	ND <sup>(1)</sup>
Section D West Sidewall	07/22/97	0.291	0.143	ND	0.271	0.705	ND <sup>(1)</sup>
Section A Excavation Bottom	07/22/97	0.250	0.109	ND	0.289	0.648	ND <sup>(1)</sup>
Section B Excavation Bottom	07/22/97	0.178	ND	ND	ND	0.178	19 <sup>(1)</sup>

## NOTES:

1. Indicates the retest of excavation sidewall samples collected July 14, 1997, following overexcavation of additional soils.

# ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

KEI  
ATTN: THERESA NIX  
5309 WURZBACH SUITE 100  
SAN ANTONIO, TEXAS 78238  
FAX: 210-680-3763

Receiving Date: 07/16/97  
Sample Type: SOIL  
Project #: 710026  
Project Location: TNM 97-10

Analysis Date: 07/16/97  
Sampling Date: 07/14/97  
Sample Condition: Intact/Iced

ELT#	FIELD CODE	BENZENE	TOLUENE	ETHYLBENZENE	m,p-XYLENE	o-XYLENE	TPH DRO
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	C10-C28 mg/kg
11754	Section A: Bottom Hole	<0.100	0.120	<0.100	0.192	<0.100	163
11755	Section B: Bottom Hole	<0.100	<0.100	0.117	<0.100	<0.100	290
11756	Section C: Bottom Hole	<0.100	<0.100	<0.100	<0.100	<0.100	17
11757	Section D: Bottom Hole	<0.100	<0.100	<0.100	<0.100	<0.100	31
11758	Section D: West Wall	<0.100	<0.100	<0.100	<0.100	<0.100	216
11759	Section D: South Wall	1.189	2.425	1.368	5.077	2.370	11
11760	Section D: North Wall	0.143	0.155	0.138	0.364	0.290	20
11761	Section E: North Wall	<0.100	0.149	0.122	0.360	0.234	146
11762	Section E: East Wall	<0.100	<0.100	<0.100	0.118	<0.100	309
11763	Section E: West Wall	<0.100	0.158	0.150	0.434	0.228	241
11764	Section E: Bottom Hole	<0.100	0.225	0.157	0.680	0.358	469
11765	Bell Hole Area: South Wall	<0.100	0.129	<0.100	0.197	<0.100	67
11766	Bell Hole Area: West Wall	<0.100	<0.100	<0.100	<0.100	<0.100	720
11767	Bell Hole Area: East Wall	<0.100	<0.100	<0.100	0.111	<0.100	650
11768	Stockpile E-1						2,092
11769	Stockpile D-1						2,976
11770	Stockpile R-1A						1,233

% IA	89	88	89	88	90	111
% EA	104	105	105	103	106	113
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	11
RPD	9	10	12	11	13	10

METHODS: SW 846-8020,5030, 8015M DRO

  
Michael R. Fowler

7-17-97  
Date




### CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

### ANALYSIS REQUEST

**FAX#:** 210 680 3703

**Project Name :**

**Sampler Signature:** 

**Sampler Signature:**

TNMI-9710

Relinquished by:	Date:	Times:	Received by:	REMARKS
	7-16-97 1240		Ralph D. J. Smith	
Relinquished by:	Date:	Times:	Received by:	
Relinquished by:	Date:	Times:	Received by Laboratory:	

# ENVIRONMENTAL LAB OF , INC.

JUL 29 1997

"Don't Treat Your Soil Like Dirt!"

KEI  
ATTN: THERESA NIX  
5309 WURZBACH SUITE 100  
SAN ANTONIO, TEXAS 78238  
FAX: 210-680-3763  
Fax: 505-396-2754

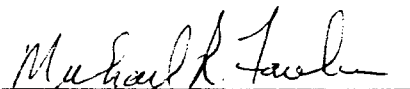
Receiving Date: 07/23/97  
Sample Type: SOIL  
Project #: 710026  
Project Location: TNM 97-10

Analysis Date: 07/23/97  
Sampling Date: 07/22/97  
Sample Condition: Intact/Iced

ELT#	FIELD CODE	TPH (DRO)					
		BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg	C10-C28 mg/kg
11844	Bell Hole Area: West Wall	0.395	0.100	<.100	0.119	0.105	<10
11845	Bell Hole Area: East Wall	<.100	<.100	<.100	<.100	<.100	<10
11846	Section E: Bottom Hole	<.100	<.100	<.100	0.266	0.162	<10
11847	Section E: East Wall	<.100	<.100	<.100	<.100	<.100	<10
11848	Section E: North Wall	0.153	0.168	0.224	<.100	<.100	19
11849	Section E: West Wall	<.100	<.100	<.100	<.100	<.100	<10
11850	Section D: West Wall	0.291	0.143	<.100	0.159	0.112	<10
11851	Section A: Bottom Hole	0.250	0.109	<.100	0.168	0.121	<10
11852	Section B: Bottom Hole	0.178	<.100	<.100	<.100	<.100	19

% IA	102	102	105	100	103	85
% EA	90	90	92	87	91	108
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001	<10

METHODS: SW 846-8020, 5030, 8015m DRO

  
Michael R. Fowler

7-24-97  
Date

### CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

PO # 7022

Phone #: 210 640 3767

**FAX#:** 210 680-3743

## ANALYSIS REQUEST

**Company Name & Address:**

**Project Name :**

**Project #:**

**Project Location:**

**Sampler Signature:**

TNm 97-10

[illegible]

Relinquished by:

Date:

**Times:**

Received by:

REMARKS

7-22-47

1630

**1**

Results ASAP please.

Relinquished by:

Date:

**Times:**

Received by:

fax copy of results to

Relinquished by:

Date:

**Times:**

Received by Laboratory:

Tony Savoie



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

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-138  
Originated 8/8/95

Submit Original  
Plus 1 Copy  
to appropriate  
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: <input type="checkbox"/> Non-Exempt: <input checked="" type="checkbox"/> BY 2 PRI 12 7/24/97	4. Generator T N M P L
Verbal Approval Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	5. Originating Site T N M - 97-10
2. Management Facility Destination C & C Land Farm Inc.	6. Transporter Turner Trucking
3. Address of Facility Operator 2 mi. South Monument NM	8. State N. M.
7. Location of Material (Street Address or ULSTR) SE 4 / NE 4 Sec 5 T 20 S R 37 E Lea County	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.  All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Crude oil Affected Soil

OLD HUBBS  
JUL 24 1997  
RECEIVED

Estimated Volume 4700 cy Known Volume (to be entered by the operator at the end of the haul) \_\_\_\_\_ cy

SIGNATURE: Jimme T. Cooper TITLE: President DATE: 7/24/97  
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jimme T. Cooper TELEPHONE NO. \_\_\_\_\_

(This space for State Use)

APPROVED BY: [Signature] TITLE: ENM ENM DATE: 7/24/97

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: TNM Site 97-10 SE4/NE4 S 5, T20S, R37E

Source: Crude oil Pipeline SPILL

Disposal Location: C&C Land Farm Inc. 2 mi South Monument NM

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's July 1988 Regulatory Determination. To my knowledge, this waste will either be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous or has been verified non-hazardous due to "Knowledge of Process." I further certify that to my knowledge no "hazardous or listed wastes" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3 (b).

I, the undersigned as the agent for the Texas-N.M. Pipeline Co  
concur with the status of the waste from the subject site.

NAME John A. Savoie

TITLE/AGENCY Senior Tech

ADDRESS P.O. Box 1030 Jal, N.M. 88252

SIGNATURE John A. Savoie

DATE 7-24-97

ODD HUBBS  
JUL 24 1997  
RECEIVED