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REPORTS

DATE:

2/24/1998



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CLOSURE REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY
TNM-97-S1
LEA COUNTY, NEW MEXICO

PREPARED FOR:

TEXAS - NEW MEXICO PIPE LINE COMPANY

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Mr. Tony Savoie

PREPARED BY:

KEI

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

Theresa Nix
Project Manager

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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-S1 is located in the SW/4, NW/4 of Section 29, Township 19 South, Range 37 East in Lea County, New Mexico. A site location map is presented as FIG. 1. The site is owned by Mr. Jimmy T. Cooper. Specific site details are presented on FIG. 2. This report summarizes closure activities performed at the project site during June 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

- Approximately 2,436 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 standards, 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
- backfilling with clean soil in the excavated area.

BACKGROUND INFORMATION

A hydrocarbon release was identified at the subject site during the second quarter of 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

Additional soils were removed from the bottom and sidewalls of the existing excavation from June 20, 1997 through June 30, 1997. An estimated 2,436 cubic yards were removed from the existing excavation and stockpiled on-site for characterization prior to off-site landfarming.

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 concentrations using EPA Methods 418.1 and SW846-8015M - Diesel Range Organics. Based on the laboratory results of the sidewall and excavation bottom soil samples from each section, 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)	56	ND	ND
Soil Bottom (mg/kg)	60	ND	ND

Selected excavation bottom and sidewall samples were also submitted for determination of BTEX concentrations.

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 2,500 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 TPH concentrations using EPA Method 418.1. Selected soil samples were also submitted 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.

OWNERSHIP MAP
SOUTHEAST LEA COUNTY, NEW MEXICO
 POSTED TO 07/21/79



1000 0 2000 4000 6000 8000 10000 12000 7000 FEET
 SCALE 1"=4000'



SITE LOCATION MAP

TNMP

TNM-97-SI

LEA COUNTY, NEW MEXICO

710019

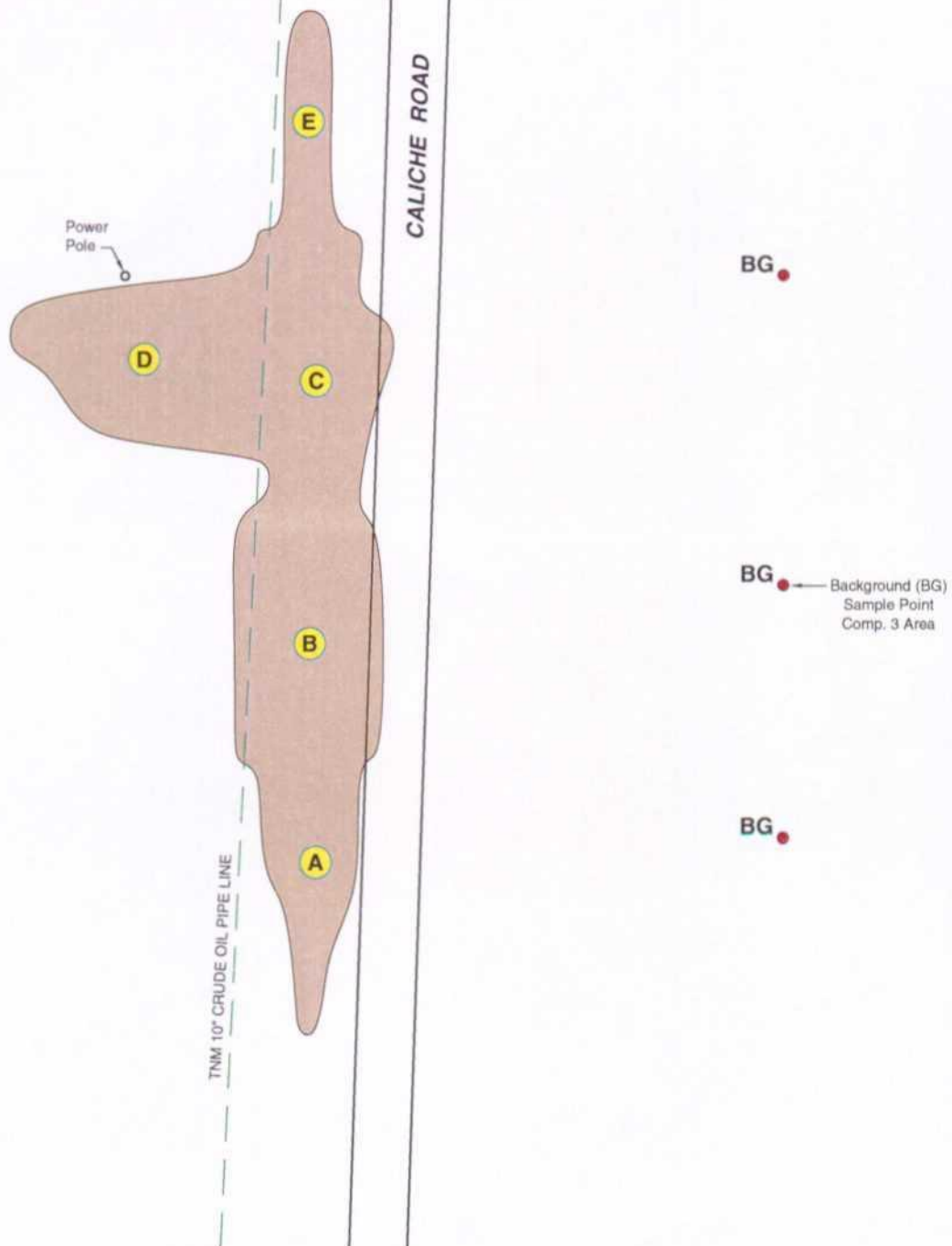
FIG 1



Approximate Scale: 1"=30'

0 15 30

NOTE: Adjacent properties are not to scale.



11/06/97 (NW G-1710019)

k.e.i

SITE DETAILS

TNMPL

TNM - 97- SI

LEA COUNTY, TEXAS

710019

FIG 2

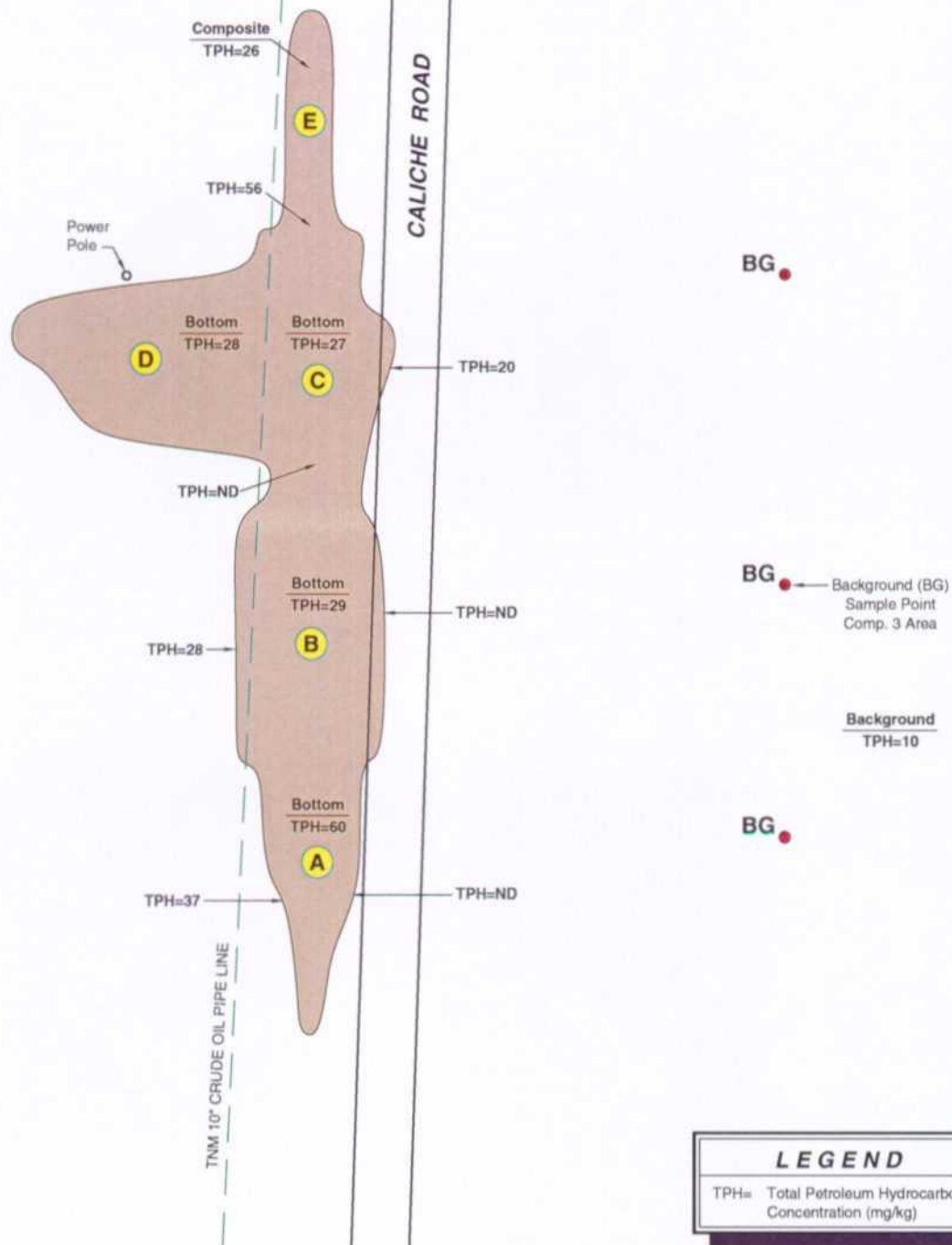


Approximate Scale: 1"=30'

0 15 30

NOTE: Adjacent properties are not to scale.

Closure Level
TPH=110



SAMPLING POINT LOCATIONS AND CONCENTRATIONS

TNMPL

TNM - 97- SI

LEA COUNTY, TEXAS

710019

FIG 3

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