1R - 130

REPORTS

DATE:

2 - 08 - 1999

CLOSURE REPORT

TEXAS - NEW MEXICO PIPE LINE COMPANY
TNM-95-54
SECTION 36, TOWNSHIP 17S, RANGE 34E
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-95-54
SECTION 36, TOWNSHIP 17S, RANGE 34E
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

Daryl Stacey
Project Manager

Theresa Nix
Project Manager

Pat Bullinger, P.E.

KEI Job No. 710006-1-0

January 29, 1999

TABLE OF CONTENTS

PURPOSE AND SCOPE

The objective of the site closure activities was to obtain closure for the site based on New Mexico Oil Conservation Division (OCD) regulations. The following activities were performed to achieve this objective:

- water well survey
- determination of closure standards
- excavation of impacted soil
- on-site blending of impacted soil with adjacent clean soil
- backfilling the excavation area with the blended soils and restoring the area to original grade

SITE BACKGROUND

The Texas - New Mexico Pipe Line Company (TNMPL) alleged release site TNM-95-54 near Buckeye, Lea County, New Mexico is located in NE 1/4, SE 1/4, Section 36, Township 17 South, Range 34 East. A site location map is presented as FIG. 1. The site is owned by the State of New Mexico. The site details are presented on FIG. 2.

The release was discovered on September 27, 1995. Approximately 30 barrels were released from an 8 inch crude oil pipeline and approximately 10 barrels were recovered. Apparent hydrocarbon impact to soils was identified at the subject site and the release was excavated and repaired at the time of discovery.

CLOSURE ACTIVITIES

WATER WELL SURVEY

A registered water well survey was conducted for the area within a 0.5 mile radius of the site. According to the well records provided by the State of New Mexico Engineer Office, no water wells are located within 0.5 mile of the site. Water wells estimated to be within 1 mile of the site have a depth to water of approximately 120 feet. The water well records are presented in APPENDIX B.

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:

Depth to Ground Water	Greater than 100 Feet	0 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	**0 Points**

Based on the total ranking score, the closure objectives for this site for concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH) are summarized below.

CONSTITUENT	CLOSURE CONCENTRATIONS (mg/kg)
BENZENE	10
BTEX	50
TPH	5000 + Background Concentration

EXCAVATION, BLENDING, AND SOIL CHARACTERIZATION

The following response activities were subsequently performed by Safety & Environmental Solutions, Inc. in April and May of 1996:

- excavated impacted soils and stockpiled on plastic along the south side of the excavation
- sampled the stockpile and analyzed for RCRA characteristic ignitability, determined to be non-ignitable
- blended stockpiled soils with adjacent clean soil
- obtained composite sample from the bottom of the excavation and analyzed for TPH
- backfilled excavation with the blended soils and restored to the original grade
- obtained composite sample from the blended soils and analyzed for TPH

The finished and graded site is presented on FIG 2.

CONFIRMATION SAMPLING

During a subsurface investigation performed by KEI, 1 soil boring was advanced in the excavation and backfill area. The soils were classified in the field and screened using a photoionization detector (PID). All PID readings obtained during the investigation were below instrument detection limits (ND). A selected soil sample at 4 to 5 feet below ground surface (bgs) was submitted for determination of BTEX and TPH concentrations.

Laboratory results of the soil sample indicated the following:

CONSTITUENT	CONCENTRATION (mg/kg)
BENZENE	ND
BTEX	ND
TPH	58.5

All soil laboratory results are summarized in TABLE I. The laboratory reports are presented as APPENDIX A. The approximate location of the soil boring is presented on FIG. 2 and a detail of the boring is presented on FIG. 3.

CLOSURE SUMMARY

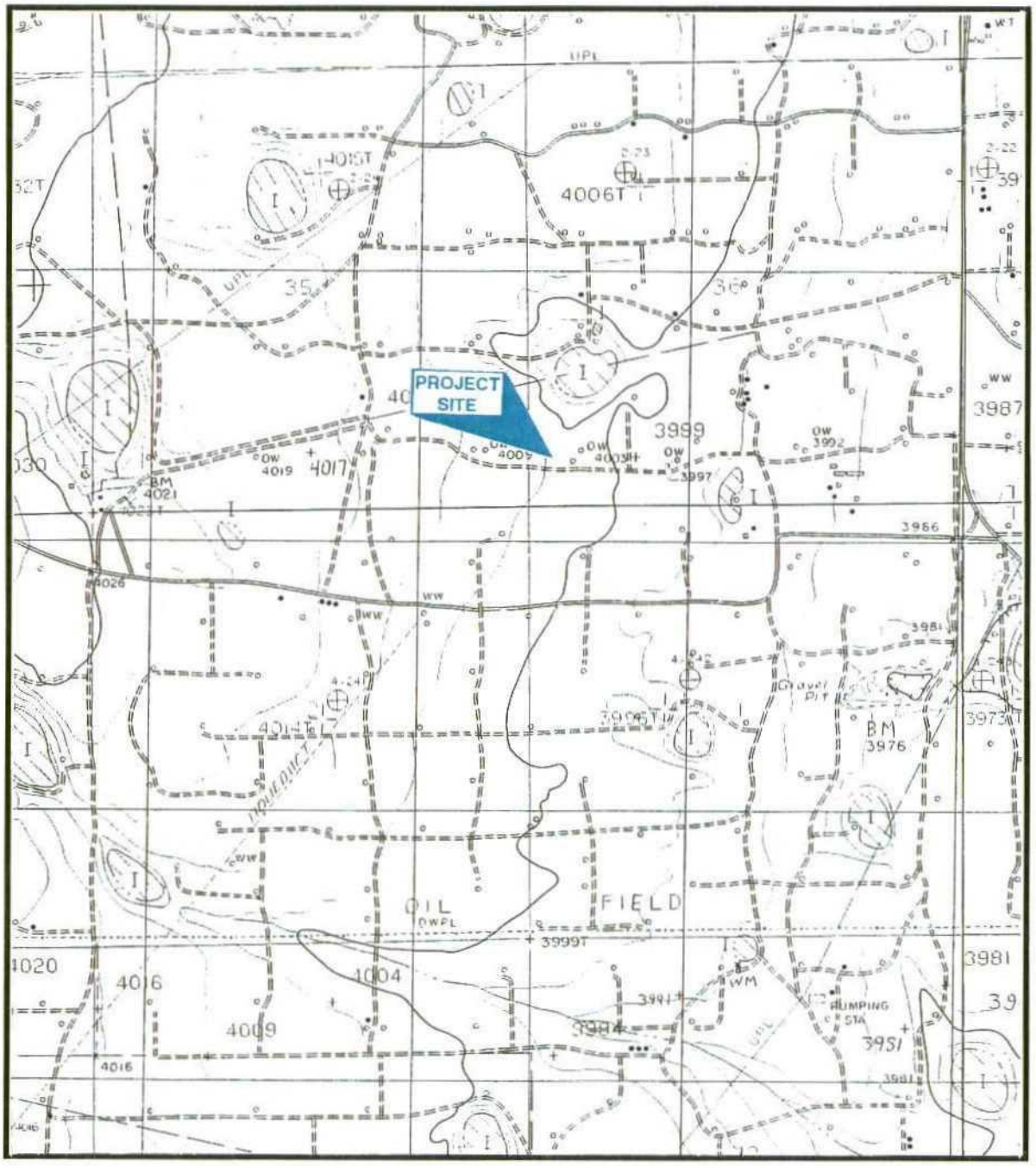
The following can be summarized from field and laboratory data:

- Hydrocarbon impacted soil was excavated, stockpiled, blended with unimpacted soil, and placed back in the excavation.
- A confirmation sample from the excavation bottom hole and blended soils indicated TPH concentrations below OCD closure standards.
- A sample obtained from a soil boring within the excavated area indicated BTEX and TPH concentrations below OCD closure standards.

From the details presented above, we request the site be closed under OCD regulations.

BUCKEYE QUADRANGLE

NEW MEXICO - LEA CO.
Printed 1985



SCALE 1:24000

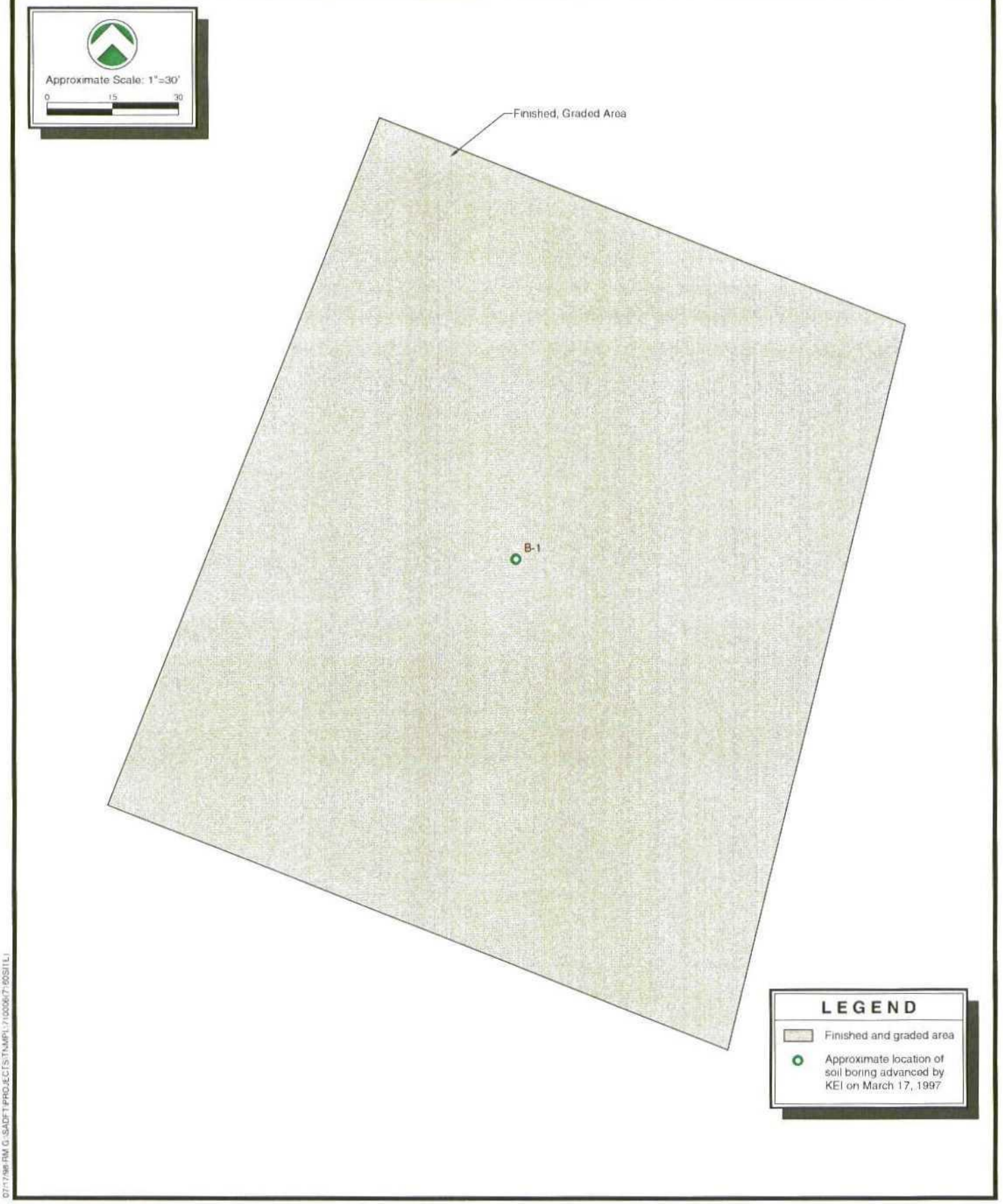
1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 5 FEET

k·e·i	*SITE LOCATION MAP*	710006
	TEXAS - NEW MEXICO PIPE LINE CO. TNM-95-54 LEA COUNTY, NEW MEXICO	FIG 1

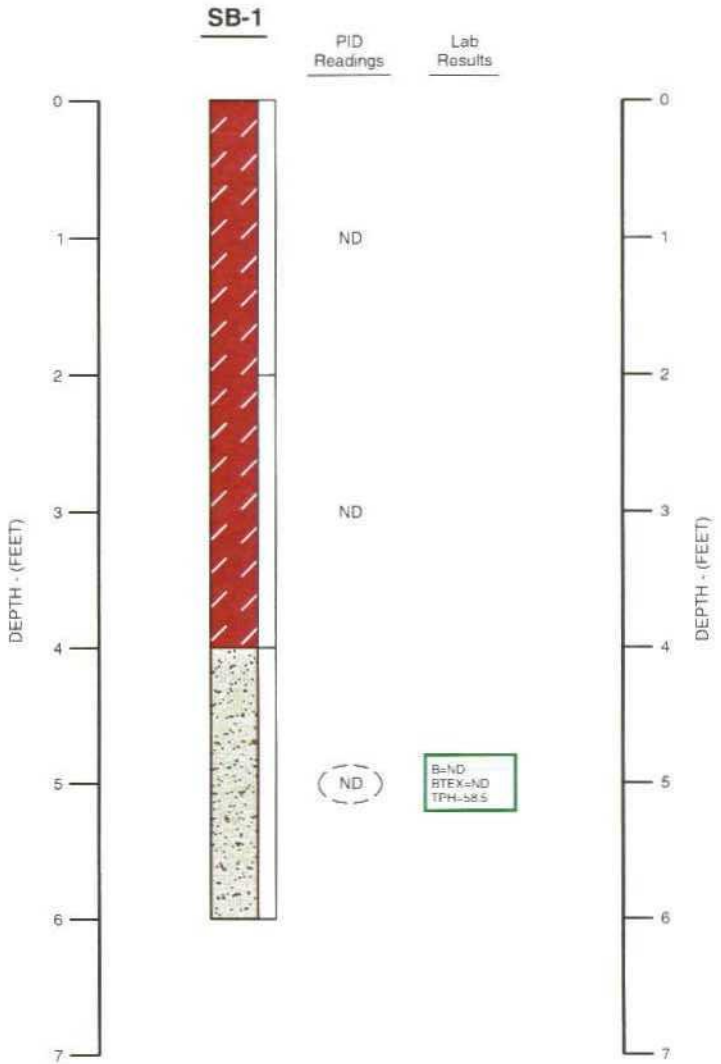


07/17/98 RM G:\SADFT\PROJECTS\TNMPL\710006\710SITE.I

k·e·i

FINISHED AND GRADED SITE PLAN	710006
TEXAS-NEW MEXICO PIPE LINE CO. TNM-95-54 LEA COUNTY, NEW MEXICO	FIG 2

07/17/98-RM G:\SADFT\PROJECTS\TNMPL\710006\710006T1



LEGEND

Clay (CL), sandy, red, moist.

Sand (SC), clayey, pink to tan, moist.

Indicates the depth interval from which a soil sample was selected and prepared for field head-space and/or laboratory analysis.

Indicates sample selected for laboratory analysis.

B = Benzene Concentration (mg/kg)
BTEX = Total BTEX Concentration (mg/kg)
TPH = Total Petroleum Hydrocarbon Concentration (mg/kg)

PID = Head-space readings in ppm obtained with a photoionization detector.

ND = Indicates the concentration was below laboratory detection limits.

NOTES:

1. Soil boring was drilled on March 17, 1997.
2. No ground water was encountered during boring advancement.
3. The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
4. The depths indicated are referenced from the ground surface.
5. The soil boring was grouted to the ground surface with cement grout containing 5 percent bentonite.

k·e·i

LOG AND DETAILS OF SOIL BORING

TEXAS - NEW MEXICO PIPE LINE CO. TNM-95-54 LEA COUNTY, NEW MEXICO

710006

FIG 3

GENERAL NOTES

ND - Indicates constituent was not detected above the method detection or reporting limit
--- - Indicates constituent was not analyzed (TABLE I)

Method reporting/detection limits:

Soil:	TPH	-	7.50 to 10 mg/kg
	BTEX	-	0.020 to 0.120 mg/kg

Laboratory test methods:	BTEX	-	EPA Method SW846-8020
	TPH	-	EPA Method 418.1
	Ignitability	-	EPA Method SW846-2.1.1

TABLE I

SUMMARY OF LABORATORY RESULTS - BTEX AND TPH
TEXAS - NEW MEXICO PIPE LINE COMPANY
TNM-95-54
LEA COUNTY, NEW MEXICO

SAMPLE LOCATION	SAMPLE DATE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	TOTAL BTEX (mg/kg)	TPH (mg/kg)
Bottom Excavation	04/19/96	---	---	---	---	---	2160
Final Composite	05/09/96	---	---	---	---	---	2880
*B-1 at 4-5 feet bgs	03/17/97	ND	ND	ND	ND	ND	58.5

NOTE:
* Indicates the sample was collected by KEI personnel

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
Attention: Dyke Browning
703 E. Clinton, Suite 103
Hobbs, NM 88240

April 4, 1996
Receiving Date: 04/02/96
Sample Type: Soil
Project No: TNMPICo-Buckeye
Project Location: NA

Prep Date: 04/04/96
Analysis Date: 04/04/96
Sampling Date: 04/01/96
Sample Condition: Intact & Cool
Sample Received by: SH
Project Name: NA

TA#	FIELD CODE	IGNITABILITY
TS0452	TNMPICo-Buckeye	Non-ignitable
RPD		0

METHODS: EPA SW 846-2.1.1.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

4-4-96
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Engineering

Figure D

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
Attention: Dee Whatley
703 E. Clinton, Suite 103
Hobbs, NM 88240

April 23, 1996
Receiving Date: 04/20/96
Sample Type: Soil
Project No: TNMP Buckeye
Project Location: Buckeye

Extraction Date: 04/20/96
Analysis Date: 04/22/96
Sampling Date: 04/19/96
Sample Condition: Intact & Cool
Sample Received by: BL
Project Name: Bottom

TA#	FIELD CODE	TRPHC (mg/kg)
T51453	Buckeye Bottom	2,160
QC	Quality Control	101
REPORTING LIMIT		10
RPD		2
% Extraction Accuracy		91
% Instrument Accuracy		101

METHODS: EPA SW 846-3550 High Level; EPA 418.1.
TRPHC SPIKE: 250 mg/kg TRPHC.
TRPHC SPIKE: 100 mg/L TRPHC.

BS

4-23-96

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

Figure E

6701 Aberdeen Avenue
Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
P. O. Box 1613
Hobbs, NM 88240

May 13, 1996
Receiving Date: 05/10/96
Sample Type: Soil
Project No: NA
Project Location: Buckeye
COC# 10

Extraction Date: 05/10/96
Analysis Date: 05/13/96
Sampling Date: 05/09/96
Sample Condition: Intact & Cool
Sample Received by: SH
Project Name: Buckeye

TA#	FIELD CODE	TRPHC (mg/kg)
T52140	Final Composite	2,880
QC	Quality Control	98
REPORTING LIMIT		10
RPD		1
% Extraction Accuracy		104
% Instrument Accuracy		98

METHODS: EPA SW 846-3550 High Level; EPA 418.1.
CHEMIST: AG
TRPHC SPIKE: 250 mg/kg TRPHC.
TRPHC SPIKE: 100 mg/L TRPHC.

5-13-96

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

Figure C

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-70663

K.E.I. Consultants, Inc.

Project Name: TNMPL

Project ID: 710006
Project Manager: Ann Baker
Project Location: Buckey

Date Received in Lab: Mar 20, 1997 11:30 by CC
Date Report Faxed: Mar 24, 1997
XENCO contact: Carlos Castro/Edward Yonemoto

Analysis Requested	*Lab ID:*	170663-001					
	Field ID:	B-1					
	Depth:	4-5'					
BTEX Analyzed by EPA 8020	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)						
	Mar 21, 1997						
Benzene	< 0.020						
Toluene	< 0.020						
Ethylbenzene	< 0.020						
m,p-Xylenes	< 0.040						
o-Xylene	< 0.020						
Total BTEX	< 0.120						
TPH Analyzed by EPA 418.1	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)						
	Mar 20, 1997						
Total Petroleum Hydrocarbons	58.5						

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project ID: 710006
Project Manager: Ann Baker
Project Location: Buckey

Project Name: TNMPL Monument

XENCO COC#: 1-70663
Date Received in Lab: Mar 20, 1997 11:30 by CC
XENCO contact : Carlos Castro/Edward Yonemoto

							Date and Time			
	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Sample Collected	Addition Requested	Extraction	Analysis
1	B-1 (4-5')	170663-001	BTEX	SW-846	ppm	Standard	Mar 17, 1997 15:40		Mar 20, 1997 by CB	Mar 21, 1997 00:20 by CB
2			TPH	EPA 418.1	ppm	Standard	Mar 17, 1997 15:40		Mar 20, 1997 by HL	Mar 20, 1997 16:20 by HL

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A25A93

SW- 846 5030/8020 BTEX

Date Validated: Mar 21, 1997 09:00
Date Analyzed: Mar 20, 1997 20:34
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CB
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 170661- 001	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Method Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	
Benzene	< 0.020	2.640	2.480	2.000	0.020	25.0	6.3	132.0	124.0	65-135	
Toluene	< 0.020	2.560	2.420	2.000	0.020	25.0	5.6	128.0	121.0	65-135	
Ethylbenzene	< 0.020	2.600	2.440	2.000	0.020	25.0	6.3	130.0	122.0	65-135	
m,p-Xylenes	< 0.040	5.280	5.000	4.000	0.040	25.0	5.4	132.0	125.0	65-135	
o-Xylene	< 0.020	2.540	2.420	2.000	0.020	25.0	4.8	127.0	121.0	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M S D. = Matrix Spike Duplicate
M S D. Recovery [H] = 100*(C-A)/[D]
N D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A25A93

SW- 846 5030/8020 BTEX

Date Validated: Mar 21, 1997 09:00
Date Analyzed: Mar 20, 1997 20:16
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CB
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Method Detection Limit ppm	[E] QC LIMITS Blank Spike Recovery %	[F] Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1130	0.1000	0.0010	113.0	65-135	
Toluene	< 0.0010	0.1110	0.1000	0.0010	111.0	65-135	
Ethylbenzene	< 0.0010	0.1100	0.1000	0.0010	110.0	65-135	
m,p-Xylenes	< 0.0020	0.2270	0.2000	0.0020	113.5	65-135	
o-Xylene	< 0.0010	0.1090	0.1000	0.0010	109.0	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A30B02

EPA 413.1 Total Petroleum Hydrocarbons

Date Validated: Mar 21, 1997 12:00
Date Analyzed: Mar 20, 1997 15:41
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: HL
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Method Detection Limit ppm	[E] QC LIMITS Blank Spike Recovery %	[F] QC LIMITS Recovery Range %	[G] Qualifier
Total Petroleum Hydrocarbons	< 7.50	189	198	7.50	95.6	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A30B02

EPA 418.1 Total Petroleum Hydrocarbons

Date Validated: Mar 21, 1997 12:00
Date Analyzed: Mar 20, 1997 15:50
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: HL
Matrix: Solid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 170661- 001 / Parameter	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Method Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	
Total Petroleum Hydrocarbons	29.50	226	219	198	7.50	30.0	3.1	99.4	95.9	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Dyke Browning

Phone #:

FAX #:

Company Name & Address:

Project #: TNMP/Co - Buckeye

Project Name : FAX (505) 393-4388

Project Location:

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
	TNMP/Co - Buckeye	1	4oz		X					X		4/1	3:16p

ANALYSIS REQUEST

BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270

SPECIAL HANDLING

Turn around # of days

Fax ASAP

Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	4/1	3:20p			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

REMARKS

RCRA Characteristic
Ignitability only

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: SEST

Phone #: (505) 397 - 0510

FAX #: (505) 393 - 4388

Company Name & Address: Safety + Environmental Sol. 703 E. Clinton Ste 103 Hobbs

Project #: TAMP Buckeye

Project Name: Bottom + Final

Project Location: Buckeye

Sampler Signature: D Whitley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	SAMPLING: DATE	SAMPLING: TIME	BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270
	Buckeye Bottom				X					X		4-19	11:00		X							
	Buckeye Final				X					X		4-19	11:00		X							

ANALYSIS REQUEST

SPECIAL HANDLING

Turn around # of days
Fax ASAP: X
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
D Whitley	4-19-96	11:00 AM			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

REMARKS

XENCO Laboratories

11381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab. Batch # 170663-SA

Contractor: K.E.T. Phone: (210) 680 3767

Address: 5309 Wurzbach Ste 100 San Antonio Tx 78238

Project Name: TRUMP Project Director: PAUL HARTNETT

Project Location: BUCKEYE Project Manager: Ann Baker

Sampler Signature: Project No. 710006

No. coolers this shipment: Contractor COC # 0010

Carrier: Quote #:

Airbill No. P.O. No: 7277

Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P, G	Preservative Ice	Preservative Other	Sample Description	No of Containers Total	BTEX (8020 or 8020-602)	TPH (418.1)	Please Hold	Remarks	LAB ONLY ID #
B-1 4.5'	3/17/97	1540	4.5	X			X	4,8	G	X		B-1, 4.5'	2	X	X		Hold 8oz	1
																		2
																		3
																		4
																		5
																		6
																		7
																		8
																		9
																		10

Turn-around: * ASAP * 24 hrs 48 hrs (Standard)

Unl Dies Ker Unknown

Waste Oil

PIT No: Tank No:

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
K.E.T.	3/17/97	1800	Donald Carroll	3-18-97	1200
Donald Carroll	3/18/97				
			Received For Laboratory by: Castro	3-20-97	11:30 → Via UPS

Remarks: P/S. Hold 8oz pending TPH results.

Pink (Contractor), Yellow & White (Lab)

* Pre-scheduling is recommended

Precision Analytical Services

Office of the State Engineer

1900 W. Second St.
Roswell, NM 88201
(505) 622-6521 800-231-8933
Fax: (505) 623-8559

FAX TRANSMISSION COVER SHEET

Date: *June 4, 1998*

To: *Daryl Stacey, Project Manager*

Fax: *210-680-3763*

Re: *Well info*

Sender: *Eric C. Milstead*

YOU SHOULD RECEIVE 4 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE CALL (505) 622-6521 800-231-8933.

As per your request dated June 1, I have tried to locate wells within the section you specified within your fax. Accompanying this letter, you will find the information I related to you on the phone.

I hope this information is helpful in your endeavors. If you have any further questions, please call. Thank you for your request.

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
DEC 01, 1965	44.97	FEB 09, 1971	45.65	FEB 20, 1981	47.63		
MAR 06, 1968	46.26	FEB 17, 1976	46.31				

HIGHEST 44.97 DEC 01, 1965
LOWEST 47.63 FEB 20, 1981

SITE ID: 324354103374802 B
LOCATION: 18S.33E.23.23140A
OTHER ID: 11743
ELEVATION: 3881.00
USE: U
DEPTH: 60
GEO. UNIT: 110AVMB

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
DEC 01, 1965	45.57	FEB 17, 1976	47.12	APR 07, 1986	49.08	MAY 22, 1991	48.94

HIGHEST 45.57 DEC 01, 1965
LOWEST 49.08 APR 07, 1986

SITE ID: 324224103394901
LOCATION: 18S.33E.33.21131
OTHER ID: 13225
ELEVATION: 3768.00
USE: S
DEPTH: 200
GEO. UNIT: 231CHNL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS
DEC 09, 1958	177.33

SITE ID: 324651103303901
LOCATION: 18S.34E.01.12222
OTHER ID: 11744
ELEVATION: 3991.00
USE: P
DEPTH:
GEO. UNIT: 121QBLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
MAR 06, 1961	79.69	MAR 11, 1981	105.86	MAY 15, 1991	123.20 P		
FEB 13, 1976	93.92	APR 03, 1986	118.61				

MAR 06, 1961 88.30

SITE ID: 324649103321101
LOCATION: 17S.34E.35.333331
OTHER ID: 11326
ELEVATION: 4021.00
USE: H
DEPTH:
GEO. UNIT: 1210GLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS
MAR 06, 1961	87.90

SITE ID: 324711103313701
LOCATION: 17S.34E.35.411411
OTHER ID: 05023
ELEVATION: 4014.00
USE: U
DEPTH: 240
GEO. UNIT: 1210GLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS
JUL 28, 1982 ~~121.26~~	122.26

SITE ID: 324737103301401
LOCATION: 17S.34E.36.224112
OTHER ID: 11327
ELEVATION: 3993.00
USE: U
DEPTH:
GEO. UNIT: 1210GLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
FEB 15, 1961	77.79	FEB 17, 1971	81.58	JAN 23, 1981	99.55	JAN 15, 1991	112.06 *
MAR 16, 1966	79.44	FEB 20, 1976	86.48	APR 01, 1986	107.40		

HIGHEST 77.79 FEB 15, 1961
LOWEST 112.06 JAN 15, 1991

SITE ID: 324712103310201
LOCATION: 17S.34E.36.31231
OTHER ID: 11328
ELEVATION: 3996.00

USE: U
DEPTH:
GEO. UNIT: 1210GLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
FEB 16, 1961	78.64	FEB 17, 1971	85.35	JAN 23, 1981	103.43	JAN 15, 1991	123.24
MAR 16, 1966	81.82	FEB 20, 1976	93.18	APR 10, 1986	117.58		

HIGHEST 78.64 FEB 16, 1961
LOWEST 123.24 JAN 15, 1991

SITE ID: 324650103310801
LOCATION: 17S.34E.36.333323
OTHER ID: 13220
ELEVATION: 4004.60
USE: U
DEPTH: 230
GEO. UNIT: 1210GLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
MAY 19, 1977	107.51	JAN 23, 1981	116.67

HIGHEST 107.51 MAY 19, 1977
LOWEST 116.67 JAN 23, 1981

SITE ID: 325116103240401
LOCATION: 17S.35E.01.444131
OTHER ID: 11329
ELEVATION: 3926.00
USE: S
DEPTH:
GEO. UNIT: 1210GLL

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS	DATE	WATER LEVEL MS
MAR 09, 1961	43.86	FEB 11, 1971	51.69 R	JAN 14, 1981	50.98	DEC 19, 1990	52.74
FEB 21, 1966	50.93 R	MAR 16, 1976	50.12	APR 09, 1986	51.90		

HIGHEST 43.86 MAR 09, 1961
LOWEST 52.74 DEC 19, 1990

SITE ID: 325137103274901
LOCATION: 17S.35E.04.31224
OTHER ID: 11330
ELEVATION: 3986.00
USE: S
DEPTH:
GEO. UNIT: 1210GLL

QA/QC PROCEDURES

SOIL SAMPLING

Representative soil samples collected by KEI were divided into 2 separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was sealed and labeled for head-space analysis using a photoionization detector (PID) calibrated to a 100 ppm isobutylene standard. Each sample was allowed to volatilize for approximately 30 minutes at ambient temperature prior to conducting the analysis.

The soil sample selected for analysis was 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. The container was labeled and placed on ice in an insulated cooler. The cooler was sealed for shipment to XENCO Laboratories in San Antonio, Texas for determination of the following constituents:

- BTEX concentrations by EPA Method SW846-8020
- TPH concentrations by EPA Method 418.1

Proper chain-of-custody documentation was maintained throughout the sampling process.

LABORATORY PROTOCOL

The laboratory was responsible for proper QA/QC procedures. These procedures are either transmitted with the laboratory reports or are on file at the laboratory.