AP - 017

ANNUAL MONITORING REPORT

YEAR(S):
2000

ANNUAL MONITORING REPORT

EOTT ENERGY CORP.
TNM 97-17
LEA COUNTY, NEW MEXICO

PREPARED FOR:

EOTT PIPELINE COMPANY
P. O. BOX
MIDLAND, TEXAS 79704

Ms. Lennah Frost

PREPARED BY:

ENVIRONMENTAL TECHNOLOGY GROUP, INC.
4600 WEST WALL STREET
MIDLAND, TEXAS 79704

March 2000

TABLE OF CONTENTS

INTRODUCTION

Environmental Technology Group, Inc. (ETGI), on behalf of EOTT Energy Corp. (EOTT), prepared this annual report in compliance with the New Mexico Oil Conservation Division (ODC) letter of May 1998, requiring submittal of an annual report by April 1 of each year. The report presents the results of the quarterly ground water monitoring events only. Additional site activities and remedial work is summarized in reports previously submitted to the OCD. For reference, a site location map is provided as Figure 1.

Ground water monitoring was conducted during four quarterly events in 1999 to assess the levels and extent of dissolved phase and free phase petroleum hydrocarbon constituents. The groundwater monitoring events consisted of measuring static water levels in the monitoring wells, checking for the presence of phase-separated hydrocarbons (PSH), and purging and sampling of each well exhibiting sufficient recharge. Monitoring wells containing measurable levels of PSH were not sampled.

FIELD ACTIVITIES

The site monitoring wells were gauged and sampled on February 3, May 13, August 24 and November 5, 1999. During each sampling event, the monitoring wells, designated to be sampled, were purged of approximately 3 well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using disposable Teflon samplers. Monitoring wells with a measurable presence of PSH were not sampled. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and introduced into the existing ground water treatment system.

GROUNDWATER GRADIENT

Locations of the monitoring wells and the inferred ground water gradient, as measured on November 5, 1999, are depicted on Figure 2. The ground water elevation data are provided as Table 1. Groundwater elevation contours, generated from the final semi-annual event of 1999 water level measurements, indicated a general gradient of approximately 0.003 ft/ft to the south-southeast. The depth to groundwater, as measured from the top of the well casing, ranged between 20.72 to 22.60 feet.

On November 5, 1999, 0.96 feet of PSH was detected in monitoring well MW-4. This was the first monitoring event for the recently completed well. Recovery of PSH from the well will be implemented in early February 2000, utilizing a down-hole skimmer pump as described in the recently approved Abatement Plan.

LABORATORY RESULTS

Ground water samples obtained during the first two sampling events were mailed to Xenco Laboratories in San Antonio, Texas. Ground water samples collected during the latter two events were hand delivered to Environmental Laboratory of Texas, Midland, Texas for determination of benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations by EPA Method SW846-8020 and 8021B. The ground water chemistry data are provided as Table 2 and the Labatory Reports are provided as Appendix A. Laboratory results for all of the site ground water samples, obtained during the 1999 annual period, indicated that BTEX concentrations were below detection limits.

SUMMARY

This report presents the results of monitoring activities for the annual monitoring period of calendar year 1999. On November 5, 1999, 0.96 feet of PSH was detected in monitoring well MW-4. This was the first monitoring event for the recently completed well. Recovery of PSH from the well will be implemented in early February 2000, utilizing a down-hole skimmer pump as described in the recently approved Abatement Plan.

Dissolved phase concentrations of BTEX were non-detect in all of the monitoring wells. The ground water gradient is to the south-southeast at a slope of 0.003 ft/ft. There is no evidence of off-site impact as a result of PSH or dissolved phase constituent migration in the ground water.

FIGURES

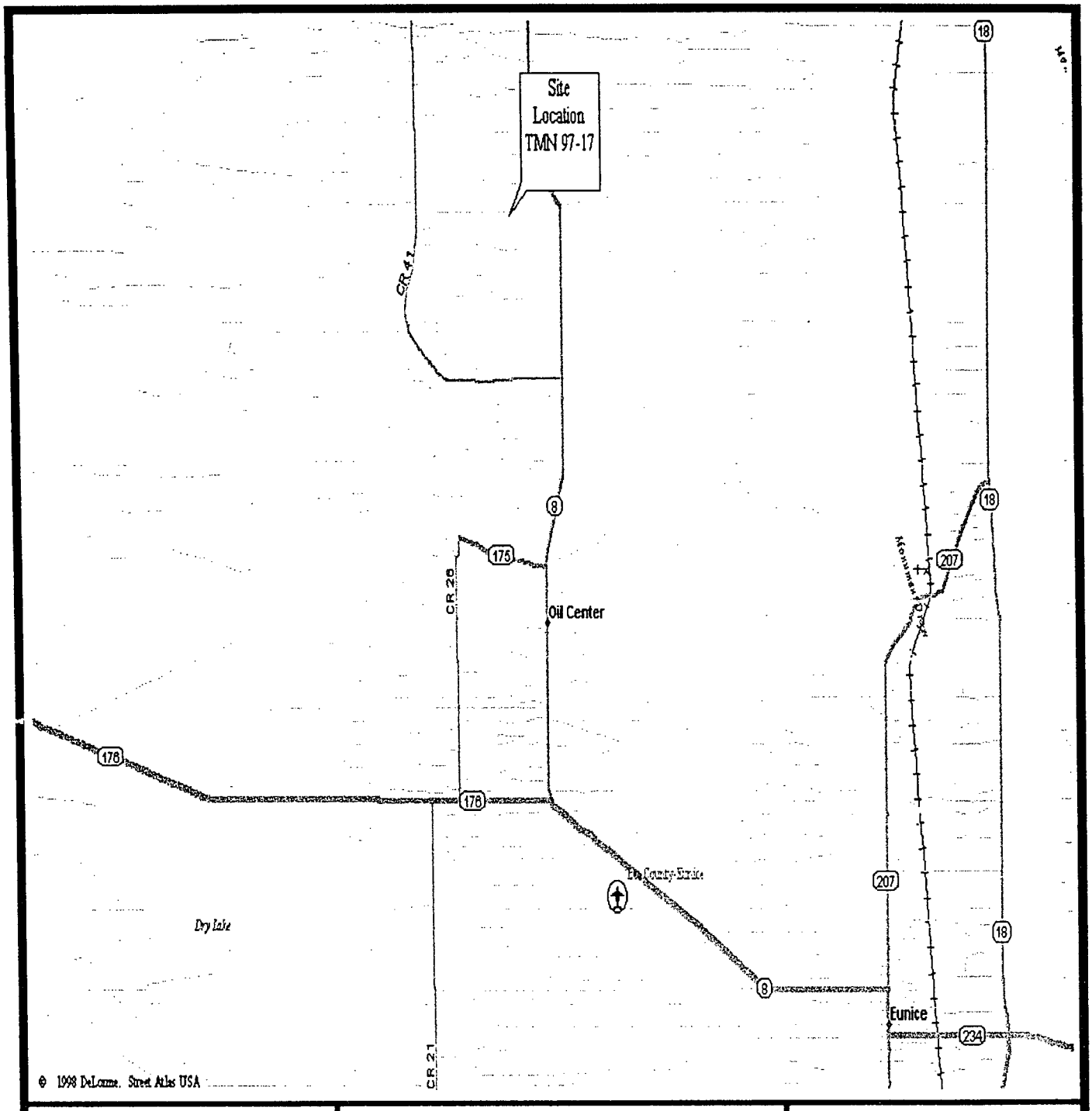

FIGURE 1	Site Location Map	Environmental Technology Group, Inc.
Not To Scale	EOTT Energy Corp. TNM 97-17 Lea County, NM	11 - 22 - 99 RS
		ETGI Project # EOT 1024C

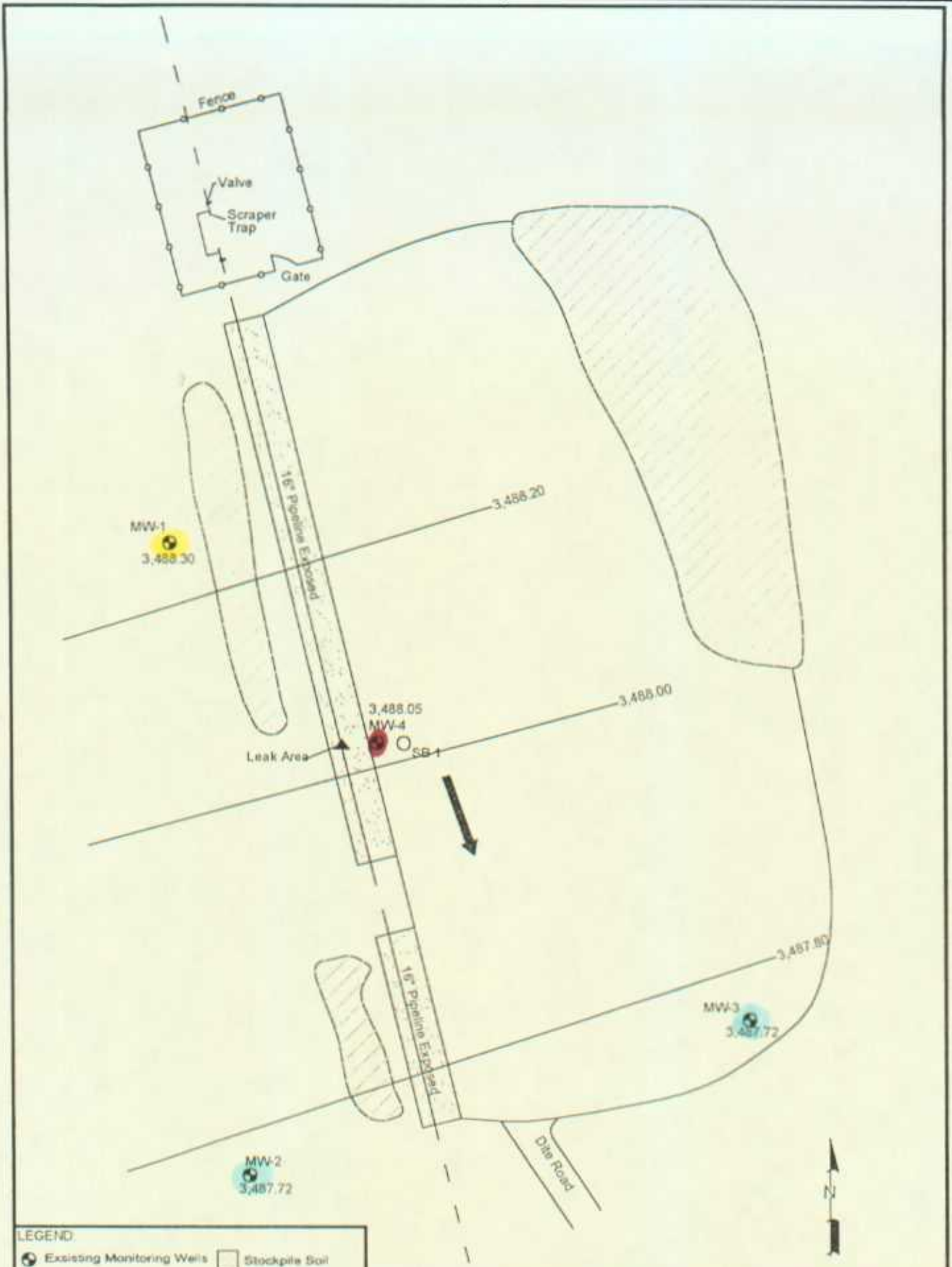

Figure 2
Inferred Ground Water Contours 11/05/99

TNM 97-17
Lea County, NM

Environmental Technology Group, Inc.

Scale: 1" = 40'	Prep By: RS	Checked By: JN
November 30, 1999	ETGI Project # EDT 1624C	

TABLES

TABLE 1
GROUNDWATER ELEVATION TABLE
TNM 97-17
LEA COUNTY, NM
ETGI PROJECT# EOT1015C

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/03/99	3,510.90	-	22.46	0.00	3,488.44
MW-1	05/13/99	3,510.90	-	22.11	0.00	3,488.79
MW-1	08/24/99	3,510.90	-	23.09	0.00	3,487.81
MW-1	11/05/99	3,510.90	-	22.60	0.00	3,488.30
MW-2	02/03/99	3,509.23	-	21.47	0.00	3,487.76
MW-2	05/13/99	3,509.23	-	21.11	0.00	3,488.12
MW-2	08/24/99	3,509.23	-	21.88	0.00	3,487.35
MW-2	11/05/99	3,509.23	-	21.51	0.00	3,487.72
MW-3	02/03/99	3,508.82	-	21.06	0.00	3,487.76
MW-3	05/13/99	3,508.82	-	20.72	0.00	3,488.10
MW-3	08/24/99	3,508.82	-	21.43	0.00	3,487.39
MW-3	11/05/99	3,508.82	-	21.10	0.00	3,487.72
MW-4	11/05/99	3,509.15	20.96	21.92	0.96	3,488.05

TABLE 2
GROUND WATER CHEMISTRY
TNM 97-17
LEA COUNTY, NEW MEXICO
ETGI PROJECT # EOT1015C

SAMPLE	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYLBENZENE (mg/L)	mp-XYLENE (mg/L)	o-XYLENE (mg/L)
MW-1	02/03/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-1	05/13/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-1	08/23/99	<0.001	<0.001	0.004	<0.001	<0.001
MW-1	11/04/99	<0.001	<0.001	0.004	<0.001	<0.001
MW-2	02/03/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-2	05/13/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-2	08/23/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-2	11/04/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-3	02/03/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-3	05/13/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-3	08/23/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-3	11/04/99	<0.001	<0.001	<0.001	<0.001	<0.001

Methods: EPA SW 846-8020, 5030

APPENDIX A

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

February 8, 1999

Project Manager: S. Grover/T. Nix
KEI Consultants, Inc.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: **XENCO Report No.: -90447**
Project Name: TNMPL
Project ID: 810051-1-0
Project Address: Lea Co,NM

Dear S. Grover/T. Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number -90447.r All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. -90447r will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie L. Clemons, II
QA/QC Manager

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 810051-1-0
Project Manager: S. Grover/T. Nix
Project Location: Lea Co,NM

Project Name: TNMPL

XENCO COC#: -90447
Date Received in Lab: Feb 4, 1999 10:20 by LY
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW-1	90447-001	BTEX	SW-846	ppm	10 days	Feb 3, 1999 11:00		Feb 6, 1999 by HL	Feb 6, 1999 23:46 by HL
2	MW-2	90447-002	BTEX	SW-846	ppm	10 days	Feb 3, 1999 11:30		Feb 6, 1999 by HL	Feb 7, 1999 00:04 by HL
3	MW-3	90447-003	BTEX	SW-846	ppm	10 days	Feb 3, 1999 12:00		Feb 6, 1999 by HL	Feb 7, 1999 00:03 by HL

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -90447

KEI Consultants, Inc.

Project Name: TNMPL

Project ID: 810051-1-0
Project Manager: S. Grover/T. Nix
Project Location: Lea Co,NM

Date Received in Lab : Feb 4, 1999 10:20
Date Report Faxed: Feb 8, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	90447 001 MW-1 Liquid 02/03/99 11:00	90447 002 MW-2 Liquid 02/03/99 11:30	90447 003 MW-3 Liquid 02/03/99 12:00
BTEX EPA 8021B	*Analyzed:* / *Units:*	02/06/99 ppm R.L.	02/07/99 ppm R.L.	02/07/99 ppm R.L.
Benzene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Toluene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Ethylbenzene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
m,p-Xylene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
o-Xylene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Total BTEX		N.D.	N.D.	N.D.

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25A68

SW- 846 5030/8021B BTEX

Date Validated: Feb 8, 1999 12:00
Date Analyzed: Feb 6, 1999 17:45

Analyst: HL
Matrix: Liquid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.1050	0.1040	0.1000	0.0010	20.0	1.0	104.9	103.9	65-135	
Toluene	< 0.0010	0.1050	0.1040	0.1000	0.0010	20.0	1.0	104.9	103.9	65-135	
Ethylbenzene	< 0.0010	0.1050	0.1030	0.1000	0.0010	20.0	1.9	104.9	102.9	65-135	
m,p-Xylene	< 0.0020	0.2140	0.2090	0.2000	0.0020	20.0	2.4	107.0	104.5	65-135	
o-Xylene	< 0.0010	0.1090	0.1070	0.1000	0.0010	20.0	1.9	108.9	106.9	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☒ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD
On-LINE Help & Technical Services at XENCO.com

Company COC No: 251 Work Order No: 810051-1-Ø Page 1 of 1

Company: KEI	Phone: (210) 680-3767	Lab Only: 20447-SA	Lab Only Additions
Project Name: TNMPL ☒ Previously done at XENCO	Project ID: 810051-1-Ø	TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days	From: Rcv by: Date
Location: LEA CO NM			From: Rcv by: Date
Project Manager (PM): S. GROVER / TNMX	Project Director (PD): M HAWTHORNE		From: Rcv by: Date
Fax Results to ☒ PM and / or	Fax: (210) 680-3763 + (512) 364-3556		
Invoice to ☐ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to:			
Quote No.	P.O No: 810051-1-Ø ☐ Call for a P.O.		
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)			
Specifications			
Sampler Name: Ken Duffy	Signature:		

	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020	BTEX-MTBE by 8020	TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF	PAHs by 8270 8100 8310	METALS by 6010 8RCRA Tot Pb TCLPB 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d 10d 14d 21d	Addn: PAH above mg/L W. mg/Kg S Highest Hit	Hold Analysis	Remarks
1	MW-1	Ø3 FEB 99	11Ø0				X	2	✓	GA	N, C4	X										QUESTIONS: S. GROVER 210-680-3767 T NMX
2	MW-2	↓	1130				↓	2	↓	↓	↓	↓										
3	MW-3	↓	12ØØ				↓	2	↓	↓	↓	↓										
4																						
5																						
6																						
7																						
8																						
9																						
10																						

	Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time	
1				Total Containers per COC: 6
2		by UPS		Rush TATs Fax Due: Final Fax Due:
3		Lab: Sonia Yordy	2/4/99 1020	Final Report Data Package Due Date:
				Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool.<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

XENCO Laboratories
11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

May 20, 1999

Project Manager: Stan Grover
KEI Consultants, Ltd.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: XENCO Report No.: -91939
Project Name: EOTT
Project ID: 810051-1-0
Project Address: Lea County, NM

Dear Stan Grover:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number -91939.v All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. -91939v will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie L. Clemons, II
QA/QC Manager

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Ltd.

Project ID: *810051-1-0*
Project Manager: *Stan Grover*
Project Location: *Lea County, NM*

Project Name: EOTT

XENCO COC#: -91939
Date Received In Lab: *May 14, 1999 09:45 by JO*
XENCO contact : *Carlos Castro/Debbie Simmons*

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Addition Requested	Extraction	Analysis
1	MW-1	91939-001	BTEX	SW-846	ppm	7 days	May 13, 1999 08:20		May 18, 1999 by MGC	May 18, 1999 16:46 by MG
2	MW-2	91939-002	BTEX	SW-846	ppm	7 days	May 13, 1999 09:16		May 18, 1999 by MGC	May 18, 1999 16:08 by MG
3	MW-3	91939-003	BTEX	SW-846	ppm	7 days	May 13, 1999 09:00		May 18, 1999 by MGC	May 18, 1999 16:32 by MG

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY -91939

KEI Consultants, Ltd.

Project Name: EOTT

Project ID: *810051-1-0*
Project Manager: *Stan Grover*
Project Location: *Lea County, NM*

Date Received in Lab : *May 14, 1999 09:45*
Date Report Faxed: *May 20, 1999*
XENCO contact : *Carlos Castro/Debbie Simmons*

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	91939 001 MW-1 Liquid 05/13/99 08:20	91939 002 MW-2 Liquid 05/13/99 09:15	91939 003 MW-3 Liquid 05/13/99 09:00
BTEX EPA 8021B	Analyzed: / Units:	05/18/99 ppm R.L.	05/18/99 ppm R.L.	05/18/99 ppm R.L.
Benzene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Toluene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Ethylbenzene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
m,p-Xylene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
o-Xylene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Total BTEX		N.D.	N.D.	N.D.

Eddie L. Clemons. II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A03C11

SW- 846 5030/8021B BTEX

Date Validated: May 19, 1999 14:00

Date Analyzed: May 18, 1999 12:23

Analyst: MG

Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.0961	0.0933	0.1000	0.0010	20.0	3.0	96.1	93.3	65-135	
Toluene	< 0.0010	0.0947	0.0920	0.1000	0.0010	20.0	2.9	94.7	92.0	65-135	
Ethylbenzene	< 0.0010	0.1030	0.1001	0.1000	0.0010	20.0	2.9	103.0	100.1	65-135	
m,p-Xylene	< 0.0020	0.1958	0.1907	0.2000	0.0020	20.0	2.6	97.9	95.4	65-135	
o-Xylene	< 0.0010	0.0922	0.0900	0.1000	0.0010	20.0	2.4	92.2	90.0	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.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

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☒ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

17605

Company COC No: 336 Work Order No: Page 1 of 1

Company	KET
Phone	(210) 680-3767
Project Name	EOTT
☐ Previously done at XENCO	
Project ID	810051-1-0
Location	LEA COUNTY NM
Project Manager (PM)	S. GROVER
Project Director (PD)	M. HAWTHORNE
Fax Results to ☒ PM and / or	(210) 680-3763
Fax	

Invoice to ☐ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to:

Quote No. P.O No ☒ Call for a P.O.

Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)

Specifications

Sampler Name KEN DUNCAN Signature Ken Duncan

Lab Only: 91939 - SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Lab Only Additions: From: / Rcv by: / Date

	Sample ID	Sampling Date	Time	Depth ft in m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives H C4	BTEX by 8020	BTEX-MTBE by 8020	TPH by TX1005 418.1 8015GRO 8015DRO 8015Jet-F	PAHs by 8270 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d 10d 14d 21d	Addn: PAH above mg/L W. mg/Kg S Highest Hit	Hold Analysis
1	MW-1	13 MAY 99	0820		W		X	2	V	GA	C4	X									
2	MW-2		0915																		
3	MW-3		0940																		
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Remarks: QUESTIONS S. GROVER (210) 680-3767

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1 KD Ken Duncan		13 MAY 99 / 16:15
2		
3	Lab: Johnny Ortiz	May 14, 1999 9:45

Total Containers per COC: 6

Rush TATs Fax Due: Final Fax Due:

Final Report Data Package Due Date:

Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), Zn Ac+NaOH (ZA), (Cool, <4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ TYPE Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

(51)

GROUND WATER MONITORING AND SAMPLING DATA

JOB NO.: TNM 97-17   FIELD TECHNICIAN: KD   DATE: 24 AUG 99

WELL NO.	TIME WELL PURGED	TOTAL WELL DEPTH (feet) 1	DEPTH TO WATER (feet) 2	HEIGHT WATER COLUMN (feet) (1-2)=3	WELL FACTOR 2"=.16 4"=.65 6"=1.5 4	CALC. WELL VOLUME (gal) (3x4)=5	TOTAL WATER PURGED (gal) 6	ESTIMATED NO. WELL VOLUMES PURGED 6/5	1999 TIME SAMPLE TAKEN/DATE	DEPTH TO PSH (feet)	PSH THICKNESS (feet)	SAMPLE CHARACTERISTIC
MW-1	1215	33.82	23.Ø9	1Ø.73	.16	1.71	5.15	3.Ø	131Ø		PH 7.16	O 48mV
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			8-23		T 21.1	C 15.76mS
MW-2	1225	32.1Ø	21.88	1Ø.22	.16	1.63	49Ø	3.Ø	124Ø		PH 7.15	O 64mV
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			8-23		T 2Ø.4	C 15.Ø1 mS
MW-3	12ØØ	3Ø.42	21.43	8.99	.16	1.43	4.31	3.Ø	1255		PH 7.43	O 33mV
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			8-23		T 17.4	C 13.94mS
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						

Total Removed: 14.36 gal.

DRUMS ON SITE: ____

CARBON DRUM TRAILER: (yes/no) ____

DISCHARGE SAMPLE (time/date): ____

pH: ____

COMMENTS: COC: ØØ5

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.
ATTN: MR. JESSE TAYLOR
P.O. BOX 4845
MIDLAND, TEXAS 79704
FAX: 915-520-4310

Sample Type: Water
Sample Condition: Intact/ Iced/HCl
Project #: TNM 97-17
Project Name: None Given
Project Location: Lea County, N.M.

Sampling Date: 08/23/99
Receiving Date: 08/27/99
Analysis Date: 08/27/99

ELT#	FIELD CODE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYLBENZENE (mg/L)	m,p-XYLENE (mg/L)	o-XYLENE (mg/L)
19615	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001
19616	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
19617	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
	% IA	97	92	93	91	92
	% EA	97	89	85	86	86
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8020,5030

Raland K. Tuttle

9-2-99
Date

COC: 005

P 1 of 1

Environmental Lab of Texas, Inc.

12600 West I-20 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: JESSE TAYLOR

Phone #: (915) 664-9166

FAX #:

Company Name & Address: ETGI
P O BOX 4845
MIDLAND, TX 79704

Project #: TNM 97-17

Project Name: —

Project Location: LEA COUNTY NM

Sampler Signature: Ken Dutton

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	HONE	OTHER	SAMPLING: DATE	TIME	BTEX 8021B/5030	TPH 418.1	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TOS	RCI
19615	MW-1	2	✓	X					X		X			8-23	1310	X							
19616	MW-2	2	✓	X					X		X			8-23	1240	X							
19617	MW-3	2	✓	X					X		X			8-23	1255	X							

Relinquished by:	Date:	Times:	Received by:
Ken Dutton	26 Aug 99	0845	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date: 8/27/99	Times: 10:30	Received by Laboratory:

REMARKS MAIL RESULTS TO:
KEN DUTTON
1606 W CALLE SUR APT B
HOBBS, NM 88240-0985

INVOICE TO: LENNAH FROST PO# 10154

GROUND WATER MONITORING AND SAMPLING DATA

JOB NO.: TNM 97-17 FIELD TECHNICIAN: KD/SC DATE: 11-5-99

WELL NO.	TIME WELL PURGED	TOTAL WELL DEPTH (feet) 1	DEPTH TO WATER (feet) 2	HEIGHT WATER COLUMN (feet) (1-2)=3	WELL FACTOR 2"=.16 4"=.65 6"=1.5 4	CALC. WELL VOLUME (gal) (3x4)=5	TOTAL WATER PURGED (gal) 6	ESTIMATED NO. WELL VOLUMES PURGED 6/5	1999 TIME SAMPLE TAKEN/DATE	DEPTH TO PSH (feet)	PSH THICKNESS (feet)	SAMPLE CHARACTERISTIC
MW 1	0937	33.80	22.60	11.20	.16	1.79	5.37	3.0	11-5		T 21.0	C 14.84 mS
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			1230		ph 7.04	O 137 mV
MW 2	1222	32.10	21.51	10.59	.16	1.69	5.08	3.0	11-5		T 20.4	C 14.10 mS
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			1250		ph 7.27	O 163 mV
MW 3	1230	30.16	21.10	9.06	.16	1.44	4.34	3.0	11-5		T 21.4	C 12.21 mS
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			1307		ph 7.34	O 93 mV
MW4			21.92								0.96	
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:				20.96		
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						

Total Removed: ____________ gal.

DRUMS ON SITE: ____________

CARBON DRUM TRAILER: (yes/no) ____________

DISCHARGE SAMPLE (time/date): ____________

pH: ____________

COMMENTS: ____________

ENVIRONMENTAL
LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ETGI
ATTN: MR. JESSE TAYLOR
P.O. BOX 4845
MIDLAND, TEXAS 79704
FAX: 505-392-3760(Ken Dutton)

Sample Type: Water
Sample Condition: Intact/Iced/HCl
Project #: EOT 1015C
Project Name: TNM 97-17
Project Location: Lea County, N.M.

Sampling Date: 11/05/99
Receiving Date: 11/06/99
Analysis Date: 11/06/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21395	MW-1	<0.001	<0.001	0.004	<0.001	<0.001
21396	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
21397	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
	% IA	105	101	102	103	102
	% EA	103	98	98	99	98
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021,5030

Celey D. Keene

11/8/99
Date

Environmental Lab of Texas, Inc.

12600 West I-20 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

COC 38

Project Manager: Jesse Taylor

Phone #: (915) 664-9166
FAX #: (505) 392-3760

Company Name & Address: ETGI
P.O. Box 4845 Midland, TX 79704

Project #: EOT 1015 C

Project Name: TNM 97-17

Project Location: Lea County, NM

Sampler Signature: Simon Casas

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE (1999)	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 418.1	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI
21395	MW 1	2	V	X					X		X			11-5	1230	X							
21396	MW 2	↓	↓	↓					↓		↓			↓	1250	↓							
21397	MW 3	↓	↓	↓					↓		↓			↓	1307	↓							

Relinquished by:	Date:	Times:	Received by:
Simon Casas	11-6-99		
Ken Dutton	11-6-99	1308	
Relinquished by:	Date:	Times:	Received by Laboratory:

REMARKS: Mail results to K. Dutton

Invoice Lennah Frost PO # 1015 m

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ETGI
ATTN: MR. JESSE TAYLOR
P.O. BOX 4845
MIDLAND, TEXAS 79704
FAX: 505-392-3760(Ken Dutton)

Sample Type: Water
Sample Condition: Intact/Iced/HCl
Project #: EOT 1015C
Project Name: TNM 97-17
Project Location: Lea County, N.M.

Sampling Date: 11/05/99
Receiving Date: 11/06/99
Analysis Date: 11/06/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21395	MW-1	<0.001	<0.001	0.004	<0.001	<0.001
21396	MW-2	<0.001	<0.001	<0.001	<0.001	<0.001
21397	MW-3	<0.001	<0.001	<0.001	<0.001	<0.001
% IA		105	101	102	103	102
% EA		103	98	98	99	98
BLANK		<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021,5030

Celey D. Keene

Celey D. Keene

11/8/99
Date