

AP - 36

ANNUAL MONITORING REPORT

YEAR(S):

4/2001

PK 11/5

+1 MW?

ANNUAL MONITORING REPORT

**EOTT PIPELINE COMPANY
TNM 97-23
LEA COUNTY, NEW MEXICO**

12-139

RECEIVED

MAY 09 2001

**ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION**

PREPARED FOR:

**EOTT PIPELINE COMPANY
5805 EAST HIGHWAY 80
MIDLAND, TEXAS 79701**

PREPARED BY:

**ENVIRONMENTAL TECHNOLOGY GROUP, INC.
2540 WEST MARLAND
HOBBS, NEW MEXICO 88240**

April 2001

TABLE OF CONTENTS

INTRODUCTION

FIELD ACTIVITIES

GROUND WATER GRADIENT

LABORATORY RESULTS

SUMMARY

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Ground Water Gradient Map

TABLES

Table 1 – Ground Water Elevation

Table 2 – Ground Water Chemistry

APPENDICES

Appendix A – Laboratory Reports

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 (OCD) 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. For reference, the Site Location Map is provided as Figure 1.

Ground water monitoring was conducted during four quarterly events in calendar year 2000 to assess the levels and extent of dissolved phase constituents. The ground water monitoring events consisted of measuring static water levels in the monitoring wells, and purging and sampling of each well exhibiting sufficient recharge.

FIELD ACTIVITIES

The site monitoring well, MW-1, was gauged and sampled on January 13, monitoring wells MW-2, MW-3, MW-4, and MW-5 were installed February 11, and initial sampling was conducted on February 25. The site monitoring wells were gauged and sampled on June 6, September 15, and November 30, 2000. 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. Ground water was allowed to recharge and samples were obtained using disposable Teflon samplers. 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 disposed of by Pate Trucking, Hobbs, New Mexico, utilizing a licensed disposal facility (OCD AO SWD-730).

GROUND WATER GRADIENT

Locations of the monitoring wells and the inferred ground water gradient, as measured on November 30, 2000, are depicted on Figure 2, the Site Ground Water Gradient Map. The ground water elevation data are provided as Table 1. Ground water elevation contours, generated from the final quarterly event of calendar year 2000 water level measurements, indicated a general gradient of approximately 0.003 ft/ft to the southeast as measured between ground water monitoring wells MW-2 and MW-3. The depth to ground water, as measured from the top of the well casing, ranged between 56.81 to 62.00 feet for the shallow alluvial aquifer.

LABORATORY RESULTS

Ground water samples collected during the sampling events were hand delivered to Environmental Laboratory of Texas, Midland, Texas for determination of benzene, toluene, ethyl benzene and total xylenes (BTEX) concentrations by EPA Method SW846-8021B. The ground water chemistry data are provided as Table 2 and the Laboratory Reports are provided as Appendix A.

Laboratory results for all of the site ground water samples, obtained during the calendar year 2000 monitoring period, indicated that Benzene and BTEX concentrations were below method detection limits for monitoring well MW-1. The Benzene and BTEX concentrations contained in the ground water samples collected from monitoring wells MW-3 and MW-5 were below regulatory standards. The Benzene concentrations contained in the ground water samples collected from monitoring wells MW-2 and MW-4 were above regulatory standards, while the BTEX concentrations were below regulatory standards.

SUMMARY

This report presents the results of monitoring activities for the annual monitoring period of calendar year 2000. Ground water elevation contours, generated from the final quarterly event of calendar year 2000 water level measurements, indicated a general gradient of approximately 0.003 ft/ft to the southeast as measured between ground water monitoring wells MW-2 and MW-3.

Laboratory results for all of the site ground water samples, obtained during the calendar year 2000 monitoring period, indicated that Benzene and BTEX concentrations were below method detection limits for monitoring well MW-1. The Benzene and BTEX concentrations contained in the ground water samples collected from monitoring wells MW-3 and MW-5 were below regulatory standards. The Benzene concentrations contained in the ground water samples collected from monitoring wells MW-2 and MW-4 were above regulatory standards, while the BTEX concentrations were below regulatory standards.

FIGURES



FIGURE 1

Not To Scale

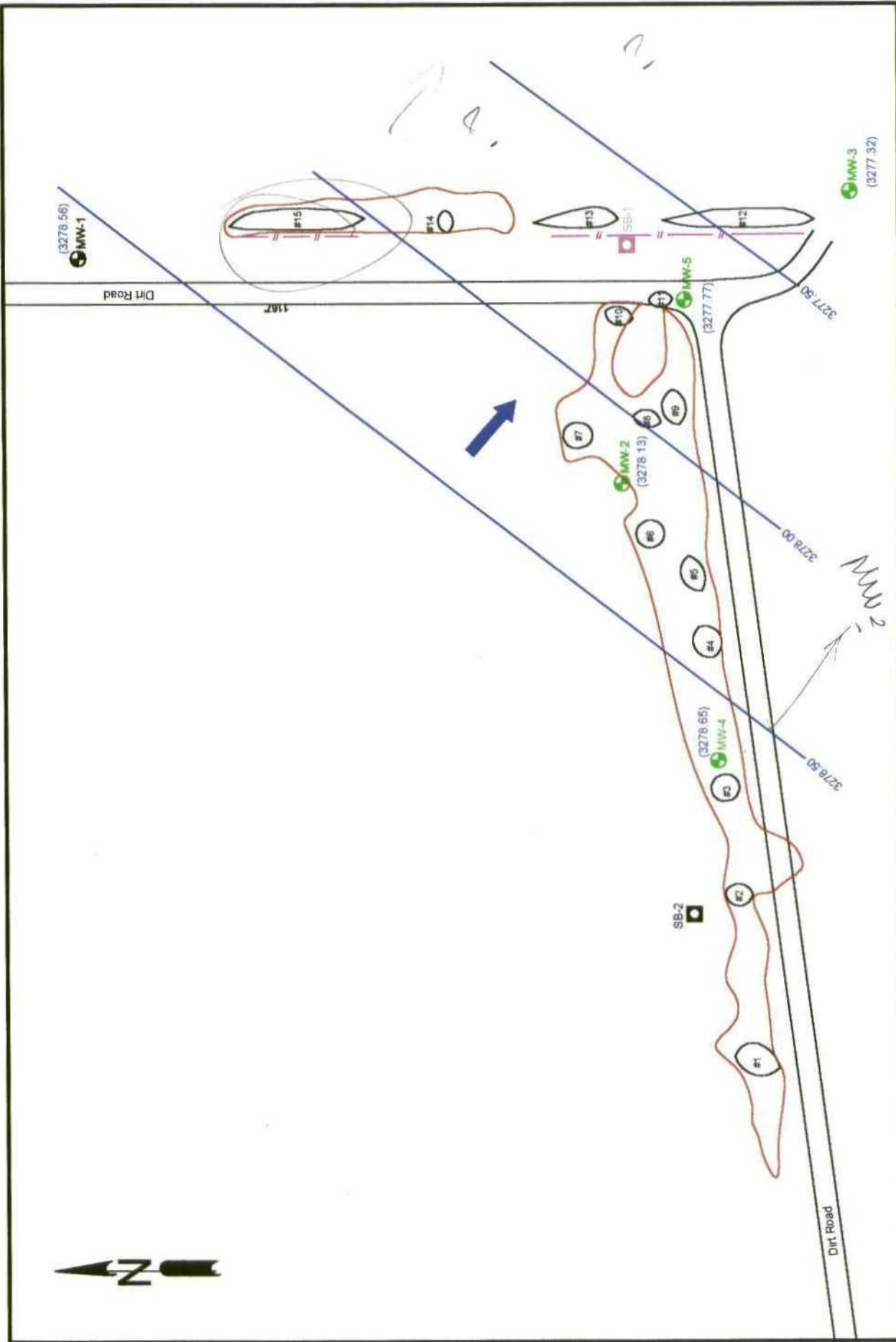
Site Location Map

EOTT Energy Corp.
TNM 97-23
Eunice, NM

Environmental
Technology
Group, Inc.

03 - 06 - 00 RS

ETGI Project # EOT2010C



LEGEND:

- ETGI Monitoring Well Locations (2/11/00)
- KEI Monitoring Well (01/13/98)
- ETGI Soil Boring
- KEI Soil Boring
- #1 Dirt Piles/Numbers
- #1 Area of Stained Surface Soil
- Exposed Pipeline
- Groundwater Gradient Contour
- Groundwater Elevation (in feet)

Figure 2
Site Groundwater
Gradient (1/13/00)
EOTT Energy Corp.
TNM 97-23
Eunice, NM



Environmental Technology
Group, Inc.

Scale: 1" = 95'
 November 30, 2000
 ETGI Project # EOT2010C

Prep By: JDU
 Checked By: CR

TABLES

TABLE 1

GROUND WATER ELEVATION
ANNUAL REPORTEOTT ENERGY CORPORATION
TNM 97- 23
LEA COUNTY, NEW MEXICO
ETGI PROJECT # EOT 2010C

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW - 1	02/25/00	3,338.00	-	59.33	0.00	3,278.67
	06/06/00	3,338.00	-	59.36	0.00	3,278.64
	09/15/00	3,338.00	-	59.42	0.00	3,278.58
	11/30/00	3,338.00	-	59.44	0.00	3,278.56
MW - 2	02/25/00	3,336.79	-	58.57	0.00	3,278.22
	06/06/00	3,336.79	-	58.60	0.00	3,278.19
	09/15/00	3,336.79	-	58.66	0.00	3,278.13
	11/30/00	3,336.79	-	58.66	0.00	3,278.13
MW - 3	02/25/00	3339.32	-	61.89	0.00	3,277.43
	06/06/00	3339.32	-	61.91	0.00	3,277.41
	09/15/00	3339.32	-	61.98	0.00	3,277.34
	11/30/00	3339.32	-	62.00	0.00	3,277.32
MW - 4	02/25/00	3,335.50	-	56.81	0.00	3,278.69
	06/06/00	3,335.50	-	56.82	0.00	3,278.68
	09/15/00	3,335.50	-	56.85	0.00	3,278.65
	11/30/00	3,335.50	-	56.85	0.00	3,278.65
MW - 5	02/25/00	3337.21	-	59.35	0.00	3,277.86
	06/06/00	3,337.21	-	59.38	0.00	3,277.83
	09/15/00	3,337.21	-	59.45	0.00	3,277.76
	11/30/00	3,337.21	-	59.44	0.00	3,277.77

TABLE 2

**GROUND WATER CHEMISTRY
ANNUAL REPORT**

EOTT ENERGY PIPELINE CORPORATION

TNM 97- 23

LEA COUNTY, NEW MEXICO

ETGI PROJECT # EOT 2010C

All concentrations are in mg/L

SAMPLE LOCATION	SAMPLE DATE	SW 846-8021B, 5030				
		BENZENE	TOLUENE	ETHYL- BENZENE	M,P- XYLENES	O- XYLENES
MW - 1	01/13/00	<0.001	<0.001	<0.001	<0.001	<0.001
	06/06/00	<0.001	<0.001	<0.001	<0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001	<0.001
MW - 2	02/25/00	0.001	<0.001	<0.001	<0.001	<0.001
	06/06/00	0.005	0.003	<0.001	0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/30/00	0.012	0.004	<0.001	0.002	<0.001
MW - 3	02/25/00	0.003	0.002	<0.001	<0.001	<0.001
	06/06/00	<0.001	<0.001	<0.001	<0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001	<0.001
MW - 4	02/25/00	0.012	0.007	0.001	0.004	0.001
	06/06/00	0.022	0.014	0.003	0.007	0.002
	09/15/00	0.018	0.008	<0.001	<0.001	<0.001
	11/30/00	0.041	0.027	0.005	0.011	0.004
MW - 5	02/25/00	0.001	<0.001	<0.001	<0.001	<0.001
	06/06/00	0.002	0.001	<0.001	<0.001	<0.001
	09/15/00	<0.001	<0.001	<0.001	<0.001	<0.001
	11/30/00	<0.001	<0.001	<0.001	<0.001	<0.001

APPENDIX

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: 505-392-3780

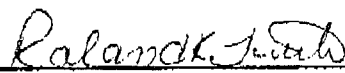
Sample Type: Water
Sample Condition: Intact/Iced/HCl
Project #: EOT1015C
Project Name: TNM 97-23
Project Location: Lea County, N.M.

Sampling Date: 01/13/00
Receiving Date: 01/14/00
Analysis Date: 01/18 & 01/19/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
22849	MW-1	<0.001	<0.001	<0.001	<0.001	<0.001

% IA	94	91	89	91	88
% EA	93	90	87	88	87
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B,5030


Raland K. Tuttle

1-20-00
Date

Environmental Lab of Texas, Inc. 12600 West 120 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

COC 070

Project Manager: Jesse Taylor

Phone #: (915) 664-9166

FAX #: (505) 392-3760

Company Name & Address: ETG

P.O. Box 4845 MIDLAND TX 79704

Project #:

ET 1015 C

Project Name:

TNM 97-23

Project Location:

Lee County NM

Sampler Signature:

[Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	HNO3	NONE	OTHER	DATE

MW / 2 ✓ X X X 11/13 1250X

TPH 418.1
BTEX 8020

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

Relinquished by:

[Signature]

Date:

1/14/00

Time:

1430

Received by:

[Signature]

REMARKS

MAIL RECEIVED: K. Dutton

Relinquished by:

Date:

Time:

Received by:

Received by Laboratory:

Time:

Invoice Lennan Frost 10/5/00

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: 505-392-3760
FAX: 915-520-4310

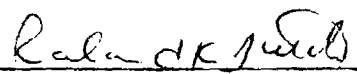
Sample Type: Water
Sample Condition: Intact/Iced/HCl
Project #: EOT1010R
Project Name: TNM 97-23
Project Location: Lea County, N.M.

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 02/28/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
23786	MW-2	0.001	<0.001	<0.001	<0.001	<0.001
23787	MW-3	0.003	0.002	<0.001	<0.001	<0.001
23788	MW-4	0.012	0.007	0.001	0.004	0.001
23789	MW-5	0.001	<0.001	<0.001	<0.001	<0.001

% IA	99	96	92	97	95
% EA	97	94	90	91	90
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B.5030


Raland K. Tuttle

3-2-00
Date

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

40090

Phone #: (915) 664-9166

FAX: (505) 392-3260

Name & Address: *ETGI*
P.O. Box 4845
Mpls MN 55424
79704

Project Name:

WPA 97-23

Sample Slides:

Signature: _____

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX							PRESERVATIVE METHOD					SAMPLING	
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	HNO3	ICE	NONE	OTHER	DATE	TIME		
23786	mw 2	5	4.5	x						x	7	1				6/25	1122
23787	mw 3	1	1														1125
23788	mw 4	1	1														1157
23789	mw 5	1	1	x						x	x	x	x	x			1115

$$\therefore a/b \times 15 = 20 \text{ Yr}$$

1330

100

F. H. Hutton

Rust

Invoice: Lennox Frost 1015 m

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
FAX: 505-392-3760

SampleType: Water
Sample Condition: Intact/ Iced/HCl/ 32 deg. F
Project #: EOT 2010C
Project Name: TNM 97-23
Project Location: Lea County, N.M.

Sampling Date: 06/06/00
Receiving Date: 06/10/00
Analysis Date: 06/12/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
26556	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001
26557	MW 2	0.005	0.003	<0.001	0.001	<0.001
26558	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001
26559	MW 4	0.022	0.014	0.003	0.007	0.002
26560	MW 5	0.002	0.001	<0.001	<0.001	<0.001

% IA	90	87	89	96	88
% EA	96	95	98	106	97
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021B,5030

Umesh Rao
Umesh Rao, Ph. D.

6/14/00
Date

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Corr # 154

Project Manager: Jesse Taylor
Phone #: (505) 392-8731
FAX #: (505) 392-3761

Company Name & Address: 6765
P.O. Box 4845 Mpls MN 55424

Project #: EOT 2010 DC
Project Name: TMM97-23

Project Location: LEA County N/A

Sampler Signature: *[Signature]*

[illegible]

BTEX 811207
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

REMARKS	FAX RESULTS: HOBBS OFFICE 320F ETG I INVOICE: 2011 CONSENT
---------	--

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ENVIRONMENTAL TECHNOLOGY GROUP, INC.
ATTN: BETH ALDRICH
P.O. BOX 4845
MIDLAND, TEXAS 79704
FAX: 915-520-4310
FAX: 505-397-4701

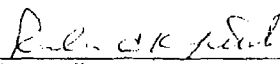
SampleType: Water
Sample Condition: Intact/ Iced/ HCl/ -1 deg. C
Project #: EOT 2010C
Project Name: TNM 97-23
Project Location: Lea County, N.M.

Sampling Date: 09/15/00
Receiving Date: 09/16/00
Analysis Date: 09/21/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L	TOTAL BTX mg/L
31033	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31034	MW 2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31035	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31036	MW 4	0.018	0.008	<0.001	<0.001	<0.001	0.026
31037	MW 5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
31038	EB 1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

% IA	98	96	95	96	90
% EA	92	90	91	92	86
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846 8021B,5030


Randal K. Tuttle

9-25-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

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

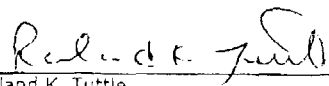
Sample Type: Water
Sample Condition: Intact/ Iced/ HCl/ 0.5 deg. C
Project #: EOT 2010C
Project Name: TNM 97-23
Project Location: Lea County, N.M.

Sampling Date: 11/30/00
Receiving Date: 12/02/00
Analysis Date: 12/03/00

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
34576	MW 1	<0.001	<0.001	<0.001	<0.001	<0.001
34577	MW 2	0.012	0.004	<0.001	0.002	<0.001

%IA	95	102	100	103	98
%EA	96	103	101	104	99
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B, 5030


Roland K. Tuttle

12-4-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

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

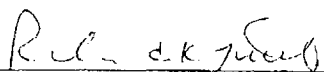
Sample Type: Water
Sample Condition: Intact/ Iced/ HCl/ 0.5 deg. C
Project #: EOT 2010C
Project Name: TNM 97-23
Project Location: Lea County, N.M.

Sampling Date: 11/30/00
Receiving Date: 12/02/00
Analysis Date: 12/03/00

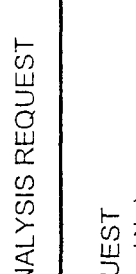
ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
34578	MW 3	<0.001	<0.001	<0.001	<0.001	<0.001
34579	MW 4	0.041	0.027	0.005	0.011	0.004
34580	MW 5	<0.001	<0.001	<0.001	<0.001	<0.001
34581	EB 1	<0.001	<0.001	<0.001	<0.001	<0.001

%IA	95	102	100	103	98
%EA	96	103	101	104	99
BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8021B ,5030


Roland K. Tuttle

12-4-00
Date



Environmental Technology Group, Inc.

4600 West Wall
Midland, TX 79703
Tel (915) 522-1139
Fax (915) 520-4310

For Use On

EOTT ENERGY CORP. Projects Only

2540 West Marland
Hobbs, NM 88242
Tel (505) 397-4862
Fax (505) 397-4701

5805 East Business 20
Midland, TX 79702
Tel (915) 687-3400
Fax (915) 582-2781

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST
(Circle or Specify Method No.)

Project Manager: *Donna Anderson*

Project Name: *TMM 97-23*

Project Location: *Lea Canyon NM*

Project Number: *EOT 24100*

Sampler Signature: *[Signature]*

LAB # (Lab Use Only)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATION METHOD				SAMPLING		TIME	DATE	TIME	
				WATER	SOIL	AIR	SLUDGE	HCL	HNO ₃	NaHSO ₄	ICE	NONE					
	<i>MW 1</i>	<i>2</i>	<i>V</i>	<i>X</i>				<i>X</i>							<i>11/24</i>	<i>11/24</i>	
	<i>MW 2</i>														<i>12/25</i>	<i>12/25</i>	
	<i>MW 3</i>														<i>11/24</i>	<i>11/24</i>	
	<i>MW 4</i>														<i>13/24</i>	<i>13/24</i>	
	<i>MW 5</i>														<i>11/38</i>	<i>11/38</i>	
	<i>EBI</i>														<i>13/15</i>	<i>13/15</i>	

TPH 8015M GRO/DRO

TPH 418.1/TX 1005

PAH 8270C (8100 New Mexico only)

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/470

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Semi Volatiles

Volatiles B260B

Semi Volatiles B270C

TDS 160.1

Cations/Anions 375.4/325.3

REMARKS:

FAX RESULTS: 1-10385 OFFICE

MAIL RESULTS: EOTT REC 0.58

INVOICE: EOTT

Relinquished by: *[Signature]* Date: *12-1-88* Time: *1600*

Relinquished by: *[Signature]* Date: *12-2-88* Time: *1200*

Received by: *[Signature]* Date: *12/10/00* Time: *1400*

Received at Lab by: *[Signature]* Date: *12-02-00* Time: *1200*

ANNUAL MONITORING REPORT

EOTT PIPELINE COMPANY
TNM ~~98-02~~ 97-23 ^{ff}
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

FIELD ACTIVITIES

GROUND WATER GRADIENT

LABORATORY RESULTS

SUMMARY

FIGURES

Figure 1 – Site Location Map

Figure 2 – Inferred Ground Water Gradient Map

TABLES

Table 1 – Ground Water Elevation

Table 2 – Ground Water Chemistry

APPENDICES

Appendix A – Laboratory Reports

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 (OCD) 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. 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 well was gauged and sampled on January 21, May 12, August 23, and November 4, 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 disposed of by Pate Trucking, Hobbs, New Mexico, utilizing a licensed disposal facility (OCD AO SWD-730).

GROUNDWATER GRADIENT

Locations of the monitoring well and the ground water elevation, as measured on November 4, 1999, are depicted on Figure 2. It is not possible to determine the ground water gradient using the single site well. The ground water elevation data are provided as Table 1. The depth to groundwater, as measured from the top of the well casing, ranged between 59.17 to 59.26 feet for the shallow alluvial aquifer. There was no PSH detected in the monitoring well.

LABORATORY RESULTS

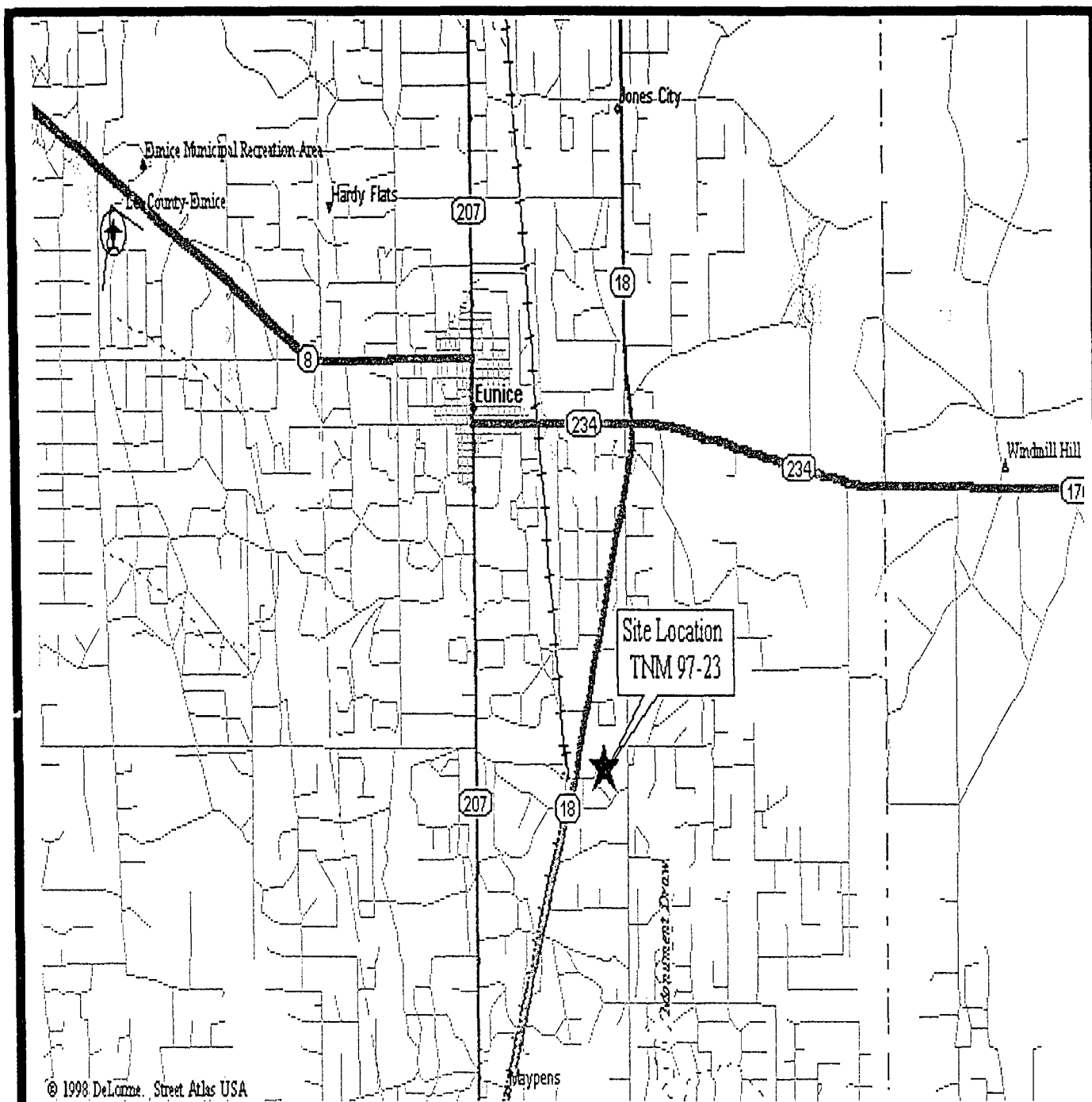
Ground water samples obtained during the first and second sampling events were mailed to Xenco Laboratories in San Antonio, Texas. Ground water samples collected during the third and fourth event were hand delivered to Environmental Laboratory of Texas, Midland, Texas for determination of benzene, toluene, ethyl benzene and total xylenes (BTEX) concentrations by EPA Method SW846-8020 and 8021B. The ground water chemistry data are provided as Table 2 and the Laboratory Reports are provided as Appendix A.

No PSH was detected in the site monitoring well during the 1999 monitoring events. Laboratory results for the site monitoring well indicate that the ground water samples, obtained from the well during the 1999 annual monitoring period were non-detect for BTEX.

SUMMARY

This report presents the results of monitoring activities for the annual monitoring period of calendar year 1999. No PSH was detected in the site monitoring well during the 1999 monitoring events. Laboratory results for the site monitoring well indicate that the ground water samples, obtained from the well during the 1999 annual monitoring period were non-detect for BTEX.

FIGURES



FIGURE

1

Not To Scale

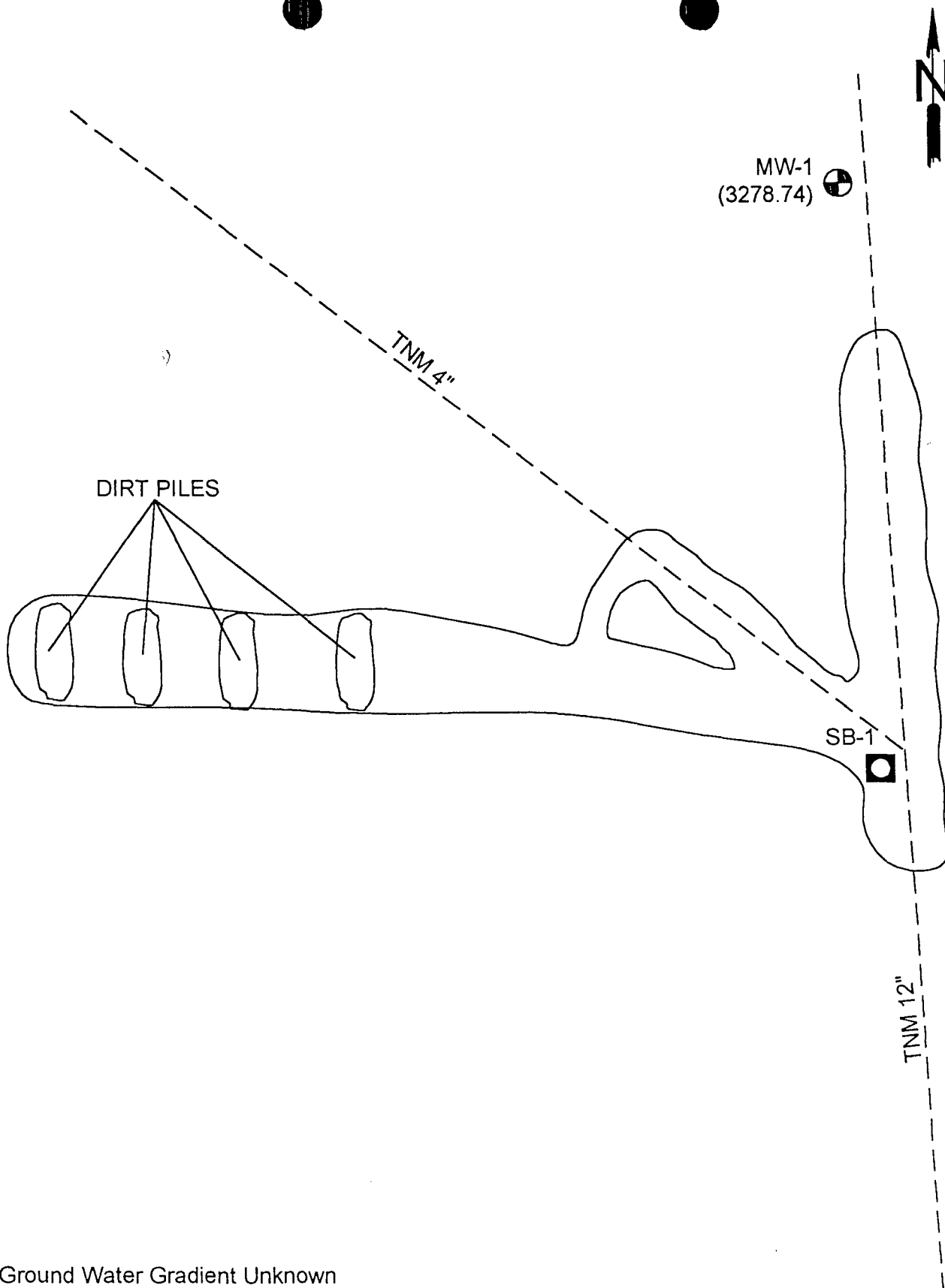
Site Location Map

EOTT Energy Corp.
TNM 97-23
Lea County, NM

Environmental
Technology
Group, Inc.

02 - 09 - 00 RS

ETGI Project # EOT 1015C



* Ground Water Gradient Unknown

LEGEND:

-  KEI Monitoring Well Location
-  KEI Soil Boring Location

Figure 2
 Inferred Ground Water
 Contours 11/04/99
 E.O.T.T. Energy
 TNM 97-23
 Lea County, NM



**Environmental Technology
 Group, INC.**

Scale: 1" = 105'	Prep By: RS	Checked By: JT
February 8, 2000	ETGI Project # EOT 1015C	

TABLES

TABLE 1
GROUNDWATER ELEVATION TABLE
TNM 97-23
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	01/21/99	3,338.00	-	59.17	0.00	3,278.83
MW-1	05/12/99	3,338.00	-	59.20	0.00	3,278.80
MW-1	08/23/99	3,338.00	-	59.21	0.00	3,278.79
MW-1	11/04/99	3,338.00	-	59.26	0.00	3,278.74

TABLE 2
GROUND WATER CHEMISTRY
TNM 97-23
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	01/21/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-1	05/12/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-1	08/23/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-1	11/04/99	<0.001	<0.001	<0.001	<0.001	<0.001

Methods: EPA SW 846-8020, 5030

APPENDIX A



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

Reference: XENCO Report No.: -91912
Project Name: EOTT
Project ID: 710046-1-0
Project Address: Lea County, NM

Dear Stanley 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 -91912.G 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.

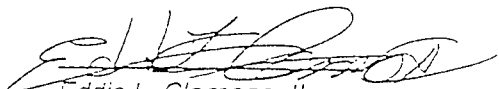
All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly 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. -91912G 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY!



ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Ltd.

XENCO COC#: -91912
Date Received in Lab: May 13, 1999 12:57 by DA
XENCO contact : Carlos Castro/Debbie Simmons

Project ID: 710046-1-0
Project Manager: Stanley Grover
Project Location: Lea County, NM

Date and Time						
Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Sample Collected
1 MW-1	91912-001	BTEX	SW-846	ppm	7 days	May 12, 1999 09:15
					Addition Requested	Extraction
						May 18, 1999 by MGC
					Analysis	
					May 18, 1999 16:01 by MG	

KEI Consultants, Ltd.

Project Name: EOTT

Project ID: 710046-1-0

Project Manager: Stanley Grover

Project Location: Lea County, NM

Date Received in Lab : May 13, 1999 12:57

Date Report Faxed: May 20, 1999

XENCO contact : Carlos Castro/Debbie Simmons

Analysis Requested	Lab ID:	91912 001			
	Field ID:	MW-1			
	Depth:				
	Matrix:	Liquid			
	Sampled:	05/12/99 09:15			
BTEX	Analyzed:	05/18/99	R.L.		
EPA 8021B	Units:	ppm			
Benzene		< 0.001 (0.001)			
Toluene		< 0.001 (0.001)			
Ethylbenzene		< 0.001 (0.001)			
m,p-Xylene		< 0.002 (0.002)			
o-Xylene		< 0.001 (0.001)			
Total BTEX		N.D.			

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of KEI Consultants, Ltd..

The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.


Eddie L. Clemons, II
QA/QC Manager



Certificate Of Quality Control for Batch : 19A03C11

SW- 346 5030/3021B RTX

Date Validated: May 19, 1999 14:00

Date Analyzed: May 18, 1999 12:23

Analyst: MG

Matrix: Liquid

Parameter	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY													
	[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]		[G]		[H]		[I] Blank Spike Recovery Range %	Qualifier
							QC	Spike Relative Difference %	QC	Blank Spike Recovery %	QC	B.S.D. Recovery %		
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] = $200 \cdot (B-C)/(B+C)$

Blank Spike Recovery [G] = $100 \cdot (B-A)/[D]$

B.S.D. = Blank Spike Duplicate

B.S.D. Recovery [H] = $100 \cdot (C-A)/[D]$

[I] = Below detection limit or not detected

All results are based on MDL and validated for QC purposes

Houston - Dallas - San Antonio

Eddie L. Clemmons, II
QA/QC Manager



☐ 11331 Meridowglen, 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

id812

Company COC No: 332 Work Order No:

Page 1 of 1

Company KET		Phone (210) 688-3767		Lab Only: # 9/19/12 - d8		Lab Only Additions															
Project Name FOTT		Project ID 7100446-1-0		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		Date Recv By: From:															
Location LEW COUNTY, NM		Project Director (PD) M. NAWTHORNE		Remarks QUESTAN		Date Recv By: From:															
Project Manager (PM) S. GROVER		Fax (210) 688-3763		Hold Analysis		Date Recv By: From:															
Invoice to ☐ Accounting ☐ Include Invoice with Final Report Alt In PM ☐ Invoice must have a P.O. Bill to:		P.O. No. Call for a P.O.		TAT 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d		Date Recv By: From:															
Special DLs (RR, RR II, DW, QAPP, See Lab PM, Call Proj. PM)		Call for a P.O.		Addn: PAH above mg/L W.		Date Recv By: From:															
Specifications		Signature [Signature]		SVOAs by 8270 625 PAHS BN&A TCL PPS See List Coll PM		Date Recv By: From:															
Sampler Name [Signature]		Signature [Signature]		VOAs by 8260 624 BTEX MTEE PPS TCL See List Coll PM		Date Recv By: From:															
Sample ID MW-1		Time 12:40:44		METALS by 6010 6020 6030 6040 6050 6060 6070 6080 6090 6100 6110 6120 6130 6140 6150 6160 6170 6180 6190 6200 6210 6220 6230 6240 6250 6260 6270 6280 6290 6300 6310 6320 6330 6340 6350 6360 6370 6380 6390 6400 6410 6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980 6990 7000 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530 7540 7550 7560 7570 7580 7590 7600 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800 7810 7820 7830 7840 7850 7860 7870 7880 7890 7900 7910 7920 7930 7940 7950 7960 7970 7980 7990 8000 8010 8020 8030 8040 8050 8060 8070 8080 8090 8100 8110 8120 8130 8140 8150 8160 8170 8180 8190 8200 8210 8220 8230 8240 8250 8260 8270 8280 8290 8300 8310 8320 8330 8340 8350 8360 8370 8380 8390 8400 8410 8420 8430 8440 8450 8460 8470 8480 8490 8500 8510 8520 8530 8540 8550 8560 8570 8580 8590 8600 8610 8620 8630 8640 8650 8660 8670 8680 8690 8700 8710 8720 8730 8740 8750 8760 8770 8780 8790 8800 8810 8820 8830 8840 8850 8860 8870 8880 8890 8900 8910 8920 8930 8940 8950 8960 8970 8980 8990 9000 9010 9020 9030 9040 9050 9060 9070 9080 9090 9100 9110 9120 9130 9140 9150 9160 9170 9180 9190 9200 9210 9220 9230 9240 9250 9260 9270 9280 9290 9300 9310 9320 9330 9340 9350 9360 9370 9380 9390 9400 9410 9420 9430 9440 9450 9460 9470 9480 9490 9500 9510 9520 9530 9540 9550 9560 9570 9580 9590 9600 9610 9620 9630 9640 9650 9660 9670 9680 9690 9700 9710 9720 9730 9740 9750 9760 9770 9780 9790 9800 9810 9820 9830 9840 9850 9860 9870 9880 9890 9900 9910 9920 9930 9940 9950 9960 9970 9980 9990 10000		Depth 3		Mottix A-P-SW		Composite X		Grab X		# Containers 2		Container Size V		Type GA 64 X		Preservatives H 64 X	
Sampling Date		Time		Depth		Mottix		Composite		Grab		# Containers		Container Size		Type					
Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature					

Provenance - Various (V), HCl pH<2 (H), H₂SO₄ pH<2 (S), HNO₃ pH<2 (N), NaOH, Asbc Acid (NA), ZnAc, NaOH (ZA), (Cool, <4C) (CA), None (N), See Label (SL), Other (O)
SIZE: 4oz (4), 8oz (8), 16oz (16), 32oz (32), 64oz (64), 128oz (128), 256oz (256), 512oz (512), 1024oz (1024), 2048oz (2048), 4096oz (4096), 8192oz (8192), 16384oz (16384), 32768oz (32768), 65536oz (65536), 131072oz (131072), 262144oz (262144), 524288oz (524288), 1048576oz (1048576), 2097152oz (2097152), 4194304oz (4194304), 8388608oz (8388608), 16777216oz (16777216), 33554432oz (33554432), 67108864oz (67108864), 134217728oz (134217728), 268435456oz (268435456), 536870912oz (536870912), 1073741824oz (1073741824), 2147483648oz (2147483648), 4294967296oz (4294967296), 8589934592oz (8589934592), 17179869184oz (17179869184), 34359738368oz (34359738368), 68719476736oz (68719476736), 137438953472oz (137438953472), 274877906944oz (274877906944), 549755813888oz (549755813888), 1099511627776oz (1099511627776), 2199023255552oz (2199023255552), 4398046511104oz (4398046511104), 8796093022208oz (8796093022208), 17592186044416oz (17592186044416), 35184372088832oz (35184372088832), 70368744177664oz (70368744177664), 140737488355328oz (140737488355328), 281474976710656oz (281474976710656), 562949953421312oz (562949953421312), 1125899906842624oz (1125899906842624), 2251799813685248oz (2251799813685248), 4503599627370496oz (4503599627370496), 9007199254740992oz (9007199254740992), 18014398509481984oz (18014398509481984), 36028797018963968oz (36028797018963968), 72057594037927936oz (72057594037927936), 144115188075855872oz (144115188075855872), 288230376151711744oz (288230376151711744), 576460752303423488oz (576460752303423488), 1152921504606846976oz (1152921504606846976), 2305843009213693952oz (2305843009213693952), 4611686018427387904oz (4611686018427387904), 9223372036854775808oz (9223372036854775808), 18446744073709551616oz (18446744073709551616), 36893488147419103232oz (36893488147419103232), 73786976294838206464oz (73786976294838206464), 147573952589676412928oz (147573952589676412928), 295147905179352825856oz (295147905179352825856), 590295810358705651712oz (590295810358705651712), 1180591620717411303424oz (1180591620717411303424), 2361183241434822606848oz (2361183241434822606848), 4722366482869645213696oz (4722366482869645213696), 9444732965739290427392oz (9444732965739290427392), 18889465931478580854784oz (18889465931478580854784), 37778931862957161709568oz (37778931862957161709568), 75557863725914323419136oz (75557863725914323419136), 151115727451828646838272oz (151115727451828646838272), 302231454903657293676544oz (302231454903657293676544), 604462909807314587353088oz (604462909807314587353088), 1208925819614629174706176oz (1208925819614629174706176), 2417851639229258349412352oz (2417851639229258349412352), 4835703278458516698824704oz (4835703278458516698824704), 9671406556917033397649408oz (9671406556917033397649408), 19342813113834066795298816oz (19342813113834066795298816), 38685626227668133590597632oz (38685626227668133590597632), 77371252455336267181195264oz (77371252455336267181195264), 154742504910672534362390528oz (154742504910672534362390528), 309485009821345068724781056oz (309485009821345068724781056), 618970019642690137449562112oz (618970019642690137449562112), 1237940039285380274899124224oz (1237940039285380274899124224), 2475880078570760549798248448oz (2475880078570760549798248448), 4951760157141521099596496896oz (4951760157141521099596496896), 9903520314283042199192993792oz (9903520314283042199192993792), 19807040628566084398385987584oz (19807040628566084398385987584), 39614081257132168796771975168oz (39614081257132168796771975168), 79228162514264337593543950336oz (79228162514264337593543950336), 158456325028528675187087900672oz (158456325028528675187087900672), 316912650057057350374175801344oz (316912650057057350374175801344), 633825300114114700748351602688oz (633825300114114700748351602688), 1267650600228229401496703205376oz (1267650600228229401496703205376), 2535301200456458802993406410752oz (2535301200456458802993406410752), 5070602400912917605986812821504oz (5070602400912917605986812821504), 10141204801825835211973625643008oz (10141204801825835211973625643008), 20282409603651670423947251286016oz (20282409603651670423947251286016), 40564819207303340847894502572032oz (40564819207303340847894502572032), 81129638414606681695789005144064oz (81129638414606681695789005144064), 162259276829213363391578010288128oz (162259276829213363391578010288128), 324518553658426726783156020576256oz (324518553658426726783156020576256), 649037107316853453566312041152512oz (649037107316853453566312041152512), 1298074214633706907132624082305024oz (1298074214633706907132624082305024), 2596148429267413814265248164610048oz (2596148429267413814265248164610048), 5192296858534827628530496329220096oz (5192296858534827628530496329220096), 10384593717069655257060992658440192oz (10384593717069655257060992658440192), 20769187434139310514121985316880384oz (20769187434139310514121985316880384), 41538374868278621028243970633760768oz (41538374868278621028243970633760768), 83076749736557242056487941267521536oz (83076749736557242056487941267521536), 166153499473114484112975882535043072oz (166153499473114484112975882535043072), 332306998946228968225951765070086144oz (332306998946228968225951765070086144), 664613997892457936451903530140172288oz (664613997892457936451903530140172288), 1329227995784915872903807060280344576oz (1329227995784915872903807060280344576), 2658455991569831745807614120560689152oz (2658455991569831745807614120560689152), 5316911983139663491615228241121378304oz (5316911983139663491615228241121378304), 10633823966279326983230456482242756608oz (10633823966279326983230456482242756608), 21267647932558653966460912964485513216oz (21267647932558653966460912964485513216), 42535295865117307932921825928971026432oz (42535295865117307932921825928971026432), 85070591730234615865843651857942052864oz (85070591730234615865843651857942052864), 170141183460469231731687303715884105728oz (170141183460469231731687303715884105728), 340282366920938463463374607431768211456oz (340282366920938463463374607431768211456), 680564733841876926926749214863536422912oz (680564733841876926926749214863536422912), 1361129467683753853853498429727072845824oz (1361129467683753853853498429727072845824), 2722258935367507707706996859454145691648oz (2722258935367507707706996859454145691648), 5444517870735015415413993718908291383296oz (5444517870735015415413993718908291383296), 10889035741470030830827987437816582766592oz (10889035741470030830827987437816582766592), 21778071482940061661655974875633165533184oz (21778071482940061661655974875633165533184), 43556142965880123323311949751266331066368oz (43556142965880123323311949751266331066368), 87112285931760246646623899502532662132736oz (87112285931760246646623899502532662132736), 174224571863520493293247799005065324265472oz (174224571863520493293247799005065324265472), 348449143727040986586495598010130648530944oz (348449143727040986586495598010130648530944), 696898287454081973172991196020261297061888oz (696898287454081973172991196020261297061888), 1393796574908163946345982392040522594123776oz (1393796574908163946345982392040522594123776), 2787593149816327892691964784081045188247552oz (2787593149816327892691964784081045188247552), 5575186299632655785383929568162090376495104oz (5575186299632655785383929568162090376495104), 11150372599265311570767859136324180752990208oz (11150372599265311570767859136324180752990208), 22300745198530623141535718272648361505980416oz (22300745198530623141535718272648361505980416), 44601490397061246283071436545296723011960832oz (44601490397061246283071436545296723011960832), 89202980794122492566142873090593446023921664oz (89202980794122492566142873090593446023921664), 178405961588244985132285746181186892047843328oz (178405961588244985132285746181186892047843328), 356811923176489970264571492362373784095686656oz (356811923176489970264571492362373784095686656), 713623846352979940529142984724747568191373312oz (713623846352979940529142984724747568191373312), 1427247692705959881058285969449495136382746624oz (1427247692705959881058285969449495136382746624), 2854495385411919762116571938898990272765493248oz (2854495385411919762116571938898990272765493248), 5708990770823839524233143877797980545530986496oz (5708990770823839524233143877797980545530986496), 11417981541647679048466287755595961091061972992oz (11417981541647679048466287755595961091061972992), 22835963083295358096932575511191922182123945984oz (22835963083295358096932575511191922182123945984), 45671926166590716193865151022383844364247891968oz (45671926166590716193865151022383844364247891968), 91343852333181432387730302044767688728495783936oz (91343852333181432387730302044767688728495783936), 182687704666362864775460604089535377456991567872oz (182687704666362864775460604089535377456991567872), 365375409332725729550921208179070754913983135744oz (365375409332725729550921208179070754913983135744), 730750818665451459101842416358141509827966271488oz (730750818665451459101842416358141509827966271488), 1461501637330902918203684832716283019655932542976oz (1461501637330902918203684832716283019655932542976), 2923003274661805836407369665432566039311865085952oz (2923003274661805836407369665432566039311865085952), 5846006549323611672814739330865132078623730171904oz (5846006549323611672814739330865132078

DATE: 11-4-99

FIELD TECHNICIAN: /KD/SC

JOB NO.: T N M 97-23

[illegible]

DRUMS ON SITE:

CARBON DRUM TRAILER: (yes/no) _____

DISCHARGE SAMPLE (time/date): _____

dit

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 97-23
Project Location: Lea County, N.M.

Sampling Date: 11/04/99
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
21394	MW-1	<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


Caley D. Keede

11/8/99
Date

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 97-23
Project Location: Lea County, N.M.

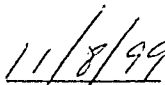
Sampling Date: 11/04/99
Receiving Date: 11/06/99
Analysis Date: 11/06/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21394	MW-1	<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


Date

KEI
FIELD SERVICES REQUEST / DAILY FIELD REPORT

Requested By / Date: TLN 3/23/99 Completion Deadline: 6/30/99 Date Scheduled: Month of 6/99
Date Completed: 5-12-99 Travel: 1 hr. Field: 1 hr. Site Arrival Time: 0800 Site Departure: 0930
Job No.: 710046 Client: TNMPL Station No.: N/A
Phase: 1 Task: 0 Subtask: 0 P.O. No.: 710046-1-0 Vendor: Xenco
Address: TNM-97-23, 2 miles east of Eunice, New Mexico S14, T22S, R37E

SERVICE REQUESTED

COMPLETED

- | | |
|---|---|
| 1. Bail MW-1 prior to sampling. | ☒ YES ☐ NO |
| 2. Collect water samples from MW-1 and the water well for BTEX. | ☒ YES ☐ NO |
| 3. Please fax a copy of the Chain-of-Custody for each sampling event to Theresa Nix. | ☒ YES ☐ NO |
| 4. Ship all samples to Xenco using Xenco UPS account # 26E-5E6 within 24 hours of collection. | ☒ YES ☐ NO |
| 5. Fax a copy of the ground water monitoring sheet to Stas or Monica. | ☒ YES ☐ NO |
| | ☐ YES ☐ NO |
| | ☐ YES ☐ NO |
| | ☐ YES ☐ NO |

ADDITIONAL INSTRUCTIONS

COMPLETED

COMPLETED

- | | | | |
|--|---|---|---|
| ☐ Coordinate with PM Prior to Departure | ☐ YES ☐ NO | ☒ Health & Safety | ☐ YES ☒ NO |
| ☐ Call PM From Location | ☐ YES ☐ NO | ☐ Subcontractor Equipment | ☐ YES ☐ NO |
| ☐ G.W. Schedule Attached | ☐ YES ☐ NO | ☐ ROC | ☐ YES ☐ NO |
| ☒ COC Attached / Lab will be included in kit | ☒ YES ☐ NO | ☐ Accident Report | ☐ YES ☐ NO |
| ☐ Air Monitoring | ☐ YES ☐ NO | ☐ Material Moved | ☐ YES ☐ NO |
| ☒ Personnel Sign In | ☐ YES ☒ NO | ☐ Waste Manifest | ☐ YES ☐ NO |

PHOTOGRAPHS TAKEN? ☐ YES ☒ NO

SITE PLAN ATTACHED? ☐ YES ☒ NO

INDICATE FIELD SUPPLIES / EQUIPMENT USED

- | | | |
|------------------------------|--|--|
| Compression Caps: <u>0</u> | HNU/OVM (PID) ☐ YES ☒ NO | Interface Probe ☐ YES ☒ NO |
| Disposable Bailers: <u>1</u> | (PID) ☐ YES ☒ NO | Pump Test Equipment ☐ YES ☒ NO |
| Locks: <u>0</u> | Water Meter ☒ YES ☐ NO | Survey Equipment ☐ YES ☒ NO |
| Misc: <u>0</u> | Carbon Trailer ☐ YES ☒ NO | Other: <u>Myron 6P</u> ☒ YES ☐ NO |
| | pH Meter ☒ YES ☐ NO | <u>YSI 55 DO mtr</u> |

Testing Required: BTEX Laboratory: Xenco
Number of Samples Taken: 2 KEI COC No. 332
Technician: John Savie Project Manager: TLN
Signature: John Savie Date: 5-12-99

CLIENT OR CONTRACTORS

NAME: _____ COMPANY: _____
NAME: _____ COMPANY: _____
NAME: _____ COMPANY: _____

NEW MEXICO OIL CONSERVATION DIVISION PERSONNEL

NAME: _____ REMARKS: _____
NAME: _____ REMARKS: _____

NOTE: INSURE ALL INFORMATION IS CORRECT AND ACCURATE. COMPLETE FOR EACH PROJECT AND ATTACH WITH ALL OTHER FORMS FOR THIS DATE.

NOTES

1. Measure the static water level and PSH level in **all** wells.
2. Measure the DO, pH, temperature, and conductivity in each well.
3. Bail all wells prior to sampling.
4. Add a note to the comments section of the C-O-C requesting the lab to fax the results to Theresa Nix at 512-364-3556.
5. Mail samples to the following using UPS account no. 26E-5E6:

Xenco Laboratories
5309 Wurzbach, Suite 104
San Antonio, Texas 78238
Phone: (210) 509-3334
6. Please call if you have any questions.

KEI FIELD SERVICES REQUEST / DAILY FIELD REPORT

Requested By / Date: TLN 1/05/99 Completion Deadline: 3/31/99 Date Scheduled: Month of 3/99
 Date Completed: 1/21/99 Travel: 1.5 Field: 1.0 Site Arrival Time: 1330 Site Departure: 1430
 Job No.: 710046 Client: TNMPL Station No.: N/A
 Phase: 1 Task: 0 Subtask: 0 P.O. No.: 710046-1-0 Vendor: Xenco
 Address: TNM-97-23, 2 miles east of Eunice, New Mexico S14, T22S, R37E

SERVICE REQUESTED

- | | |
|---|--|
| 1. Ball MW-1 prior to sampling. | COMPLETED
☒ YES ☐ NO |
| 2. Collect water samples from MW-1 and the water well for BTEX. | ☒ YES ☐ NO |
| 3. Please fax a copy of the Chain-of-Custody for each sampling event to Theresa Nix. | ☐ YES ☐ NO |
| 4. Ship all samples to Xenco using Xenco UPS account # 26E-5E6 within 24 hours of collection. | ☒ YES ☐ NO |
| 5. Fax a copy of the ground water monitoring sheet to Stas or Monica. | ☐ YES ☐ NO |
| | ☐ YES ☐ NO |
| | ☐ YES ☐ NO |
| | ☐ YES ☐ NO |

ADDITIONAL INSTRUCTIONS

- | | | |
|--|---|--|
| ☐ Coordinate with PM Prior to Departure
☐ Call PM From Location
☐ G.W. Schedule Attached
☒ COC Attached / Lab. will be included in kit
☐ Air Monitoring
☒ Personnel Sign In | COMPLETED
☐ YES ☐ NO
☐ YES ☐ NO
☐ YES ☐ NO
☒ YES ☐ NO
☐ YES ☐ NO
☒ YES ☐ NO | COMPLETED
☒ Health & Safety
☐ Subcontractor Equipment
☐ ROC
☐ Accident Report
☐ Material Moved
☐ Waste Manifest |
|--|---|--|

PHOTOGRAPHS TAKEN? ☐ YES ☐ NO

SITE PLAN ATTACHED? ☐ YES ☒ NO

INDICATE FIELD SUPPLIES / EQUIPMENT USED

Compression Caps: <u>0</u>	HNU/OVM (PID) ☐ YES ☐ NO	Interface Probe ☒ YES ☐ NO
Disposable Ballers: <u>2</u>	(PID) ☐ YES ☐ NO	Pump Test Equipment ☐ YES ☐ NO
Locks: <u>0</u>	Water Meter ☐ YES ☐ NO	Survey Equipment ☐ YES ☐ NO
Misc: <u>0</u>	Carbon Trailer ☐ YES ☐ NO	Other: <u>43155 METAL</u> ☒ YES ☐ NO
	pH Meter ☐ YES ☐ NO	<u>MYRON ULTRAMATEL GP</u>

Testing Required: BTEX Laboratory: Xenco
 Number of Samples Taken: 1 KEI COC No.: ?
 Technician: DW Anderson Project Manager: TLN
 Signature: [Signature] Date: 1/21/99

CLIENT OR CONTRACTORS

NAME: _____	COMPANY: _____
NAME: _____	COMPANY: _____
NAME: _____	COMPANY: _____

NEW MEXICO OIL CONSERVATION DIVISION PERSONNEL

NAME: _____	REMARKS: _____
NAME: _____	REMARKS: _____

NOTE: INSURE ALL INFORMATION IS CORRECT AND ACCURATE. COMPLETE FOR EACH PROJECT AND ATTACH WITH ALL OTHER FORMS FOR THIS DATE.

NOTES

1. Measure the static water level and PSH level in all wells.
2. Measure the DO, pH, temperature, and conductivity in each well.
3. Bail all wells prior to sampling.
4. Add a note to the comments section of the C-O-C requesting the lab to fax the results to Theresa Nix at 512-364-3556.
5. Mail samples to the following using UPS account no. 26E-5E6:
Xenco Laboratories
5309 Wurzbach, Suite 104
San Antonio, Texas 78238
Phone: (210) 509-3334
6. Please call if you have any questions.



- ☐ 111381 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

15986
Page 1 of 1

Company COC No: 244 Work Order No:

Company LEI		Phone (210) 680-3767		Lab Only:							
Project Name TRIPLE TAIL - 17-23		Project ID 710046-1		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							
Location TAIL NAT		Project Director (PD) TRIPLE TAIL NAT		Remarks							
Project Manager (PM) TRIPLE TAIL NAT		Project Director (PD) TRIPLE TAIL NAT									
Fax Results to ☐ PM and/or ☐ FAX		Fax (210) 680-3763									
Invoice to ☒ Accounting ☐ Include Invoice with Final Report Altn PM ☒ Invoice must have a P.O. Bill to: 710046-1		P.O. No. 710046-1									
Quote No.		Call for a P.O.									
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)											
Specifications											
Sampler Name Ames Signature [Signature]		Signature [Signature]									
Sample ID	Sampling Date	Time	Depth m	Matrix A P SW	Composite	Grab	# Containers	Container Size	Type	Preservatives	
1 TRV-1	1/24/99	1415		W		X	2	✓	SA 11	X	
2											
3											
4											
5											
6											
7											
8											
9											
10											
Relinquished by (Initials and Signature) [Signature]		Relinquished to (Initials and Signature)		Date & Time		Total Containers per COC: 2		Rush TATs Fax Due:		Final Fax Due:	
Lab:		Lab:		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) 11 (1) 500ml (5) Tardlar Bag (B) Wipe (W) Other TYPE Glass Amb (GA) Glass Clear (GC) Plastic (P) Other (O)

727 NM 7

JOB NO.: 7NM 97-23

FIELD TECHNICIAN:



DATE: 23 Aug 99

WELL NO.	TIME WELL PURGED	TOTAL WELL DEPTH (feet)	DEPTH TO WATER (feet)	HEIGHT WATER COLUMN (feet)	WELL FACTOR 2"=16 4"=65 6"=15 4	CALC. WELL VOLUME (gal) (1x4)=5	TOTAL WATER PURGED (gal) 6	ESTIMATED NO. WELL VOLUMES PURGED 6/5	TIME SAMPLE TAKE/DATE	DEPTH TO PSII (feet)	PSH THICKNESS (feet)	SAMPLE CHARACTERISTIC
HW-1	134φ	71.21	59.21	12.0φ	.16	1.92	5.76	3.0	14φφ 8-23-99		T: 22.6 0' 84nv	PH 6.85 C: 2574μs
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:						
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:						

5.76 gal.

Total Removed:

5.76

coe: 447

COMMENTS:

DRUMS ON SITE: _____
CARBON DRUM TRAILER: (yes/no)

DISCHARGE SAMPLE (time/date):

計

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

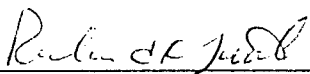
Sample Type: Water
Sample Condition: Intact/ Iced/HCl
Project #: TNM 97-23
Project Name: None Given
Project Location: Lea County, N.M.

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)
19611	MW-1	<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

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

(915) 664-9166

PTGI
PO BOX 4845

TNm 97-23

LEH Count, NM

DTX 80205030

④

REMARKS *Mitilicoides* 70.

10

Received by:

1000

INVOICE TO: LENNART FROST
PO # 10154

Project ID: 710046-1-0
Project Manager: Stanley Grover
Project Location: Lea County, NM

Project Name: EOTT

XENCO COC#: -91912

Date Received in Lab: May 13, 1999 12:57 by DA

XENCO contact : Carlos Castro/Dabbie Simmons

Date and Time						
Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Sample Collected
1 MW-1	91912-001	BTEX	SW-846	ppm	7 days	May 12, 1999 09:15
				Addition Requested	Extraction	Analysis
					May 18, 1999 by MGC	May 18, 1999 16:01 by MG

KEI Consultants, Ltd.

Project Name: EOTT

Project ID: 710046-1-0

Project Manager: Stanley Grover

Project Location: Lea County, NM

Date Received in Lab : May 13, 1999 12:57

Date Report Faxed: May 20, 1999

XENCO contact : Carlos Castro/Debbie Simmons

Analysis Requested	Lab ID:	91912 001			
	Field ID:	MW-1			
	Depth:				
	Matrix:	Liquid			
	Sampled:	05/12/99 09:15			
BTEX	Analyzed:	05/18/99	R.L.		
EPA 8021B	Units:	ppm			
Benzene		< 0.001 (0.001)			
Toluene		< 0.001 (0.001)			
Ethylbenzene		< 0.001 (0.001)			
m,p-Xylene		< 0.002 (0.002)			
o-Xylene		< 0.001 (0.001)			
Total BTEX		N.D.			

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of KEI Consultants, Ltd..

The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end user of the data hereby presented.


 Eddie L. Clements, II
 QA/QC Manager

Certificate Of Quality Control for Batch : 19A03C11

SW- 346 5030/3021B BTTEX

Date Validated: May 19, 1999 14:00
Date Analyzed: May 18, 1999 12:23

Analyst: MG
Matrix: Liquid

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		[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %		[I] Blank Spike Recovery Range %	Qualifier
							Spike Relative Difference %						
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] = $200 \cdot (B-C) / (B+C)$
Blank Spike Recovery [G] = $100 \cdot (B-A) / [D]$
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = $100 \cdot (C-A) / [D]$
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes


Eddie L. Clemmons, II
QA/QC Manager

Company	Project Name	Location	Project Manager (PM)	Project Director (PD)	Lab Only
KET FOTT	(210) 680-3769	LEN COUNTY NM	S. GROVER	M. NAWYNAEVE	# 9/9/12 - djt
Fax Results to:	Accounting	Bill to:	P.O. No.	Call for a P.O.	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
Invoice to:	Include Invoice with Final Report Attn PM	Invoice must have a P.O. Bill to:	Special DIs (RR I RR II DW QAMP See Lab PM Call Proj. PM)	Specifications	Date Rcv By: From:
Sampler Name	Signature	Depth in"	# Containers	Type	Date Rcv By: From:
Sample ID	Sampling Date	Time	Composite	Preservatives	Date Rcv By: From:
MW-1	12 MAR 99	0915	X 2 V	GA 64 X	
					PAHs by TX1005 416.1 801SGRO 801SDRO 801SJEIF
					METALS BY 6010 BRORA To: PO TCLPE 13PP 23TAL See List
					VOCs by 8260 624 BTX MIBB PPS TCL See List Coll PM
					SVOAS by 8270 625 PAHS BN&A TCL PPS See List Coll PM
					Hold Analysis
					Addn: PAH above mg/L W. mg/Kg S Highest Hit
					TAT 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d
					Remarks
					GROVER 5
					6763-089 (RIP)
					OUTSTANDING
					Total Containers per COC: 2
					Rush TAT's Fax Due:
					Final Report Data Package Due Date:
					Final Fax Due:
					Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H₂SO₄ pH<2 (S), HNO₃ 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)