1R - 124

REPORTS

DATE:

03-2000

ANNUAL MONITORING REPORT

EOTT PIPELINE COMPANY
MONUMENT 18
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 (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 wells were gauged and sampled on February 5, May 17, September 8, and November 10, 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 wells and the inferred ground water gradient, as measured on November 10, 1999, are depicted on Figure 2. The ground water elevation data are provided as Table 1. Groundwater elevation contours, generated from the final quarterly event of 1999 water level measurements, indicated a general gradient of approximately 0.002 ft/ft to the southeast. The depth to groundwater, as measured from the top of the well casing, ranged between 30.92 to 35.16 feet for the shallow alluvial aquifer.

A measurable thickness of PSH was detected in monitoring wells MW-1, MW-3, and MW-4 during the quarterly sampling events. A maximum thickness of 3.03 in MW-1, 2.52 in MW-3, and 0.65 in MW-4 was measured and is shown on Table 1.

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.

Laboratory results for all of the site ground water samples, obtained during the 1999 annual period, indicated that BTEX concentrations were above detection limits for all monitor wells on-site. However, all of the concentrations, including that for benzene, were below MCLs.

SUMMARY

This report presents the results of monitoring activities for the annual monitoring period of calendar year 1999. A measurable thickness of PSH was detected in MW-1, MW-3, and MW-4 during the quarterly sampling events. A maximum thickness of 3.03 in MW-1, 2.52 in MW-3, and 0.65 in MW-4 was measured and is shown on Table 1.

Laboratory results for all of the site ground water samples, obtained during the 1999 annual period, indicated that BTEX concentrations were above detection limits for all monitor wells on-site. However, all of the concentrations, including that for benzene, were below MCLs.

FIGURES

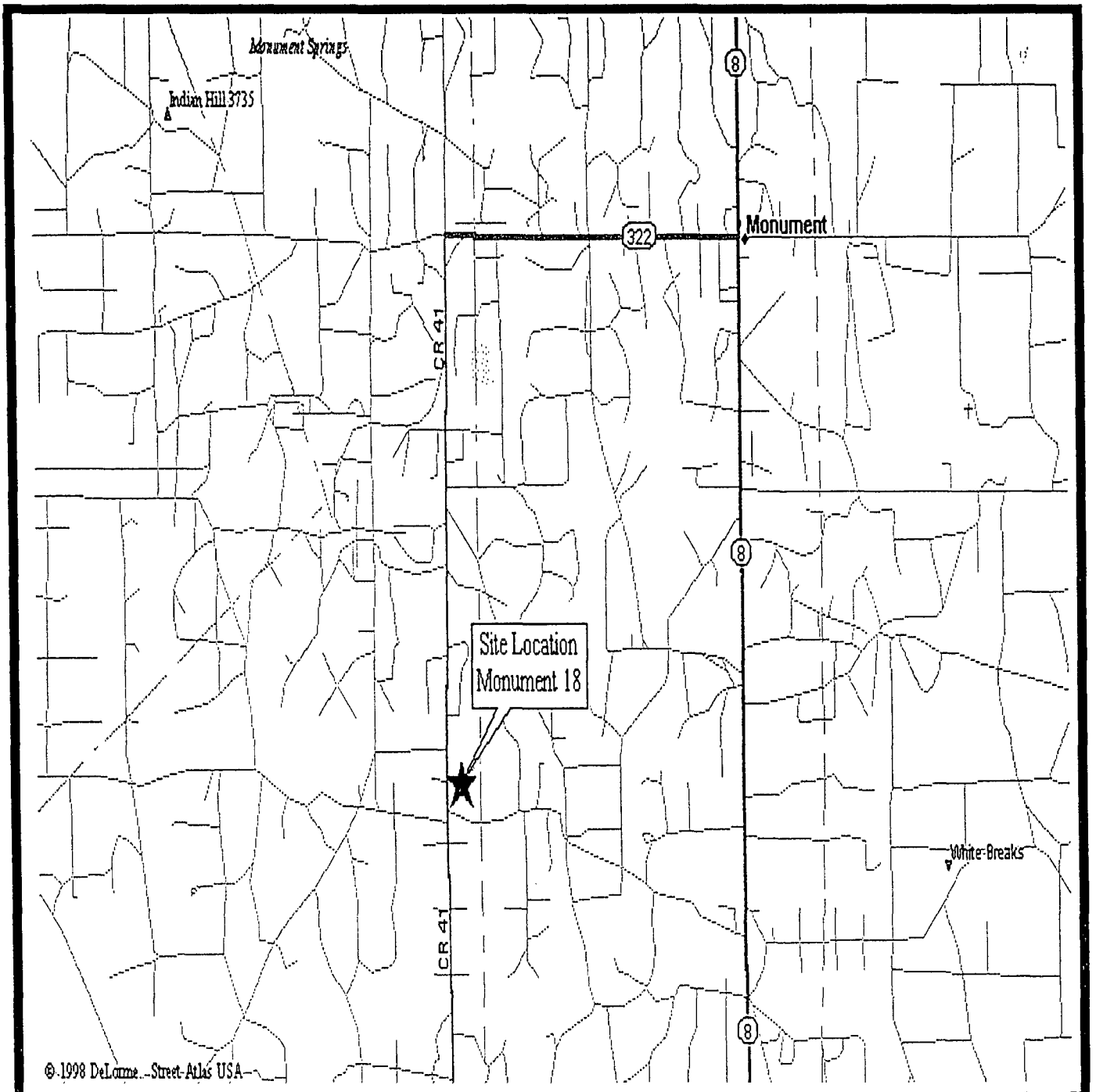
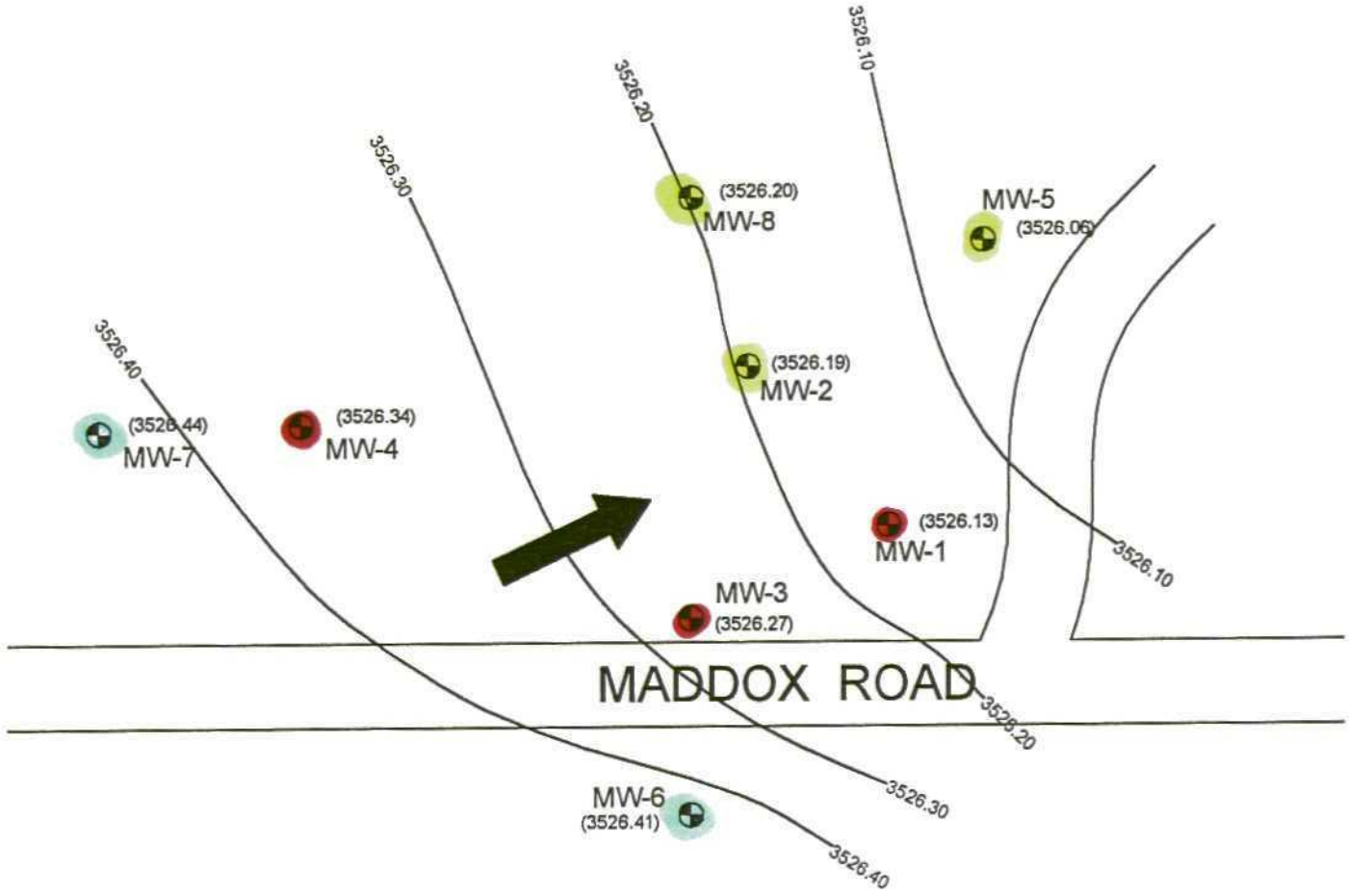


FIGURE 1	Site Location Map	Environmental Technology Group, Inc.
Not To Scale	EOTT Energy Corp. Monument 18 Lea County NM	02 - 8 - 00 RS
		ETGI Project # EOT 1015C



LEGEND:

- Monitoring Well Locations
- Ground Water Contour Lines

Figure 2
Inferred Ground Water Contours 11/10/99

E.O.T.T. Energy
Monument 18

Lea County, NM

Environmental Technology Group, Inc.

Scale: 1"=55'	Prep By: RS	Checked By: JT
Febuary 1, 2000	ETGI Project # EOT 1015C	

TABLES

TABLE 1
GROUNDWATER ELEVATION TABLE
MONUMENT 18
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	02/05/99	3,558.71	31.88	34.25	2.37	3,526.47
MW-1	05/17/99	3,558.71	31.87	34.66	2.79	3,526.42
MW-1	09/08/99	3,558.71	32.00	34.99	2.99	3,526.26
MW-1	11/10/99	3,558.71	32.13	35.16	3.03	3,526.13
MW-2	02/05/99	3,559.64	-	33.07	0.00	3,526.57
MW-2	05/17/99	3,559.64	-	33.09	0.00	3,526.55
MW-2	09/08/99	3,559.64	-	33.30	0.00	3,526.34
MW-2	11/10/99	3,559.64	-	33.45	0.00	3,526.19
MW-3	02/05/99	3,558.53	31.57	33.93	2.36	3,526.61
MW-3	05/17/99	3,558.53	31.64	34.03	2.39	3,526.53
MW-3	09/08/99	3,558.53	31.77	34.00	2.23	3,526.43
MW-3	11/10/99	3,558.53	31.88	34.40	2.52	3,526.27
MW-4	02/05/99	3,558.14	31.44	31.44	0.00	3,526.70
MW-4	05/17/99	3,558.14	31.50	31.50	0.00	3,526.64
MW-4	09/08/99	3,558.14	31.64	31.74	0.10	3,526.49
MW-4	11/10/99	3,558.14	31.70	32.35	0.65	3,526.34
MW-5	02/05/99	3,560.07	-	33.60	0.00	3,526.47
MW-5	05/17/99	3,560.07	-	33.74	0.00	3,526.33
MW-5	09/08/99	3,560.07	-	33.90	0.00	3,526.17
MW-5	11/10/99	3,560.07	-	34.01	0.00	3,526.06
MW-6	02/05/99	3,557.64	-	30.92	0.00	3,526.72
MW-6	05/17/99	3,557.64	-	30.96	0.00	3,526.68
MW-6	09/08/99	3,557.64	-	31.11	0.00	3,526.53
MW-6	11/10/99	3,557.64	-	31.23	0.00	3,526.41
MW-7	02/05/99	3,558.65	-	31.86	0.00	3,526.79
MW-7	05/17/99	3,558.65	-	31.92	0.00	3,526.73
MW-7	09/08/99	3,558.65	-	32.08	0.00	3,526.57
MW-7	11/10/99	3,558.65	-	32.21	0.00	3,526.44
MW-8	02/05/99	3,559.30	-	32.70	0.00	3,526.60
MW-8	05/17/99	3,559.30	-	32.84	0.00	3,526.46
MW-8	09/08/99	3,559.30	-	32.99	0.00	3,526.31
MW-8	11/10/99	3,559.30	-	33.10	0.00	3,526.20

TABLE 2
GROUND WATER CHEMISTRY
MONUMENT 18
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-2	02/05/99	0.004	<0.001	<0.001	<0.002	<0.001
MW-2	05/17/99	0.003	0.002	0.002	<0.002	<0.001
MW-2	09/08/99	0.003	<0.001	0.002	<0.001	0.001
MW-2	11/10/99	0.002	0.001	0.001	0.001	0.002
MW-5	02/05/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-5	05/17/99	0.003	0.002	<0.001	<0.002	<0.001
MW-5	09/08/99	0.002	0.001	<0.001	<0.001	0.001
MW-5	11/10/99	0.002	0.001	<0.001	<0.001	0.001
MW-6	02/05/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-6	05/17/99	0.001	0.001	<0.001	<0.002	<0.001
MW-6	09/08/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-6	11/10/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7	02/05/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-7	05/17/99	0.002	0.002	0.003	0.011	0.002
MW-7	09/08/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7	11/10/99	<0.001	<0.001	<0.001	<0.001	<0.001
MW-8	02/05/99	<0.001	<0.001	<0.001	<0.002	<0.001
MW-8	05/17/99	0.002	0.002	0.001	0.003	<0.001
MW-8	09/08/99	0.001	<0.001	<0.001	<0.001	0.001
MW-8	11/10/99	0.002	<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 12, 1999

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

Reference: **XENCO Report No.: -90525**
Project Name: Monument 18
Project ID: 610057-6-18
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 -90525.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. -90525r 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 CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Inc.

Project ID: 610057-6-18
Project Manager: S. Grover/T. Nix
Project Location: Lea Co., NM

Project Name: Monument 18

XENCO COC#: -90525
Date Received in Lab: Feb 9, 1999 10:20 by DA
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-2	90525-001	BTEX	SW-846	ppm	10 days	Feb 5, 1999 12:30		Feb 12, 1999 by MGC	Feb 12, 1999 10:41 by MGC
2	MW-5	90525-002	BTEX	SW-846	ppm	10 days	Feb 5, 1999 13:00		Feb 11, 1999 by MGC	Feb 11, 1999 20:13 by MGC
3	MW-6	90525-003	BTEX	SW-846	ppm	10 days	Feb 5, 1999 13:30		Feb 12, 1999 by MGC	Feb 12, 1999 11:03 by MGC
4	MW-7	90525-004	BTEX	SW-846	ppm	10 days	Feb 5, 1999 14:00		Feb 11, 1999 by MGC	Feb 11, 1999 20:36 by MGC
5	MW-8	90525-005	BTEX	SW-846	ppm	10 days	Feb 5, 1999 14:30		Feb 11, 1999 by MGC	Feb 11, 1999 20:58 by MGC

CERTIFICATE OF ANALYSIS SUMMARY -90525

KEI Consultants, Inc.

Project ID: 610057-6-18
Project Name: Monument 18
Project Manager: S. Grover/T. Nix
Project Location: Lea Co., NM

Date Received in Lab : Feb 9, 1999 10:20
Date Report Faxed: Feb 12, 1999
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	90525 001 MW-2 Liquid 02/05/99 12:30	90525 002 MW-5 Liquid 02/05/99 13:00	90525 003 MW-6 Liquid 02/05/99 13:30	90525 004 MW-7 Liquid 02/05/99 14:00	90525 005 MW-8 Liquid 02/05/99 14:30
BTEX EPA 8021B	*Analyzed:* / *Units:*	02/12/99 ppm R.L.	02/11/99 ppm R.L.	02/12/99 ppm R.L.	02/11/99 ppm R.L.	02/11/99 ppm R.L.
Benzene		0.004 (0.001)	< 0.001 (0.001)	< 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)	< 0.001 (0.001)	< 0.001 (0.001)
Ethylbenzene		< 0.001 (0.001)	< 0.001 (0.001)	< 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)	< 0.002 (0.002)	< 0.002 (0.002)
o-Xylene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Total BTEX		0.004	N.D.	N.D.	N.D.	N.D.

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A03A66

SW- 846 5030/8021B BTEX

Date Validated: Feb 12, 1999 10:30
Date Analyzed: Feb 11, 1999 13:05

Analyst: MGC
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 %	[N] Qualifier
Benzene	< 0.0010	0.1090	0.1090	0.1000	0.0010	20.0	0.0	108.9	108.9	65-135	
Toluene	< 0.0010	0.1110	0.1110	0.1000	0.0010	20.0	0.0	110.9	110.9	65-135	
Ethylbenzene	< 0.0010	0.1140	0.1140	0.1000	0.0010	20.0	0.0	113.9	113.9	65-135	
m,p-Xylene	< 0.0020	0.2220	0.2220	0.2000	0.0020	20.0	0.0	111.0	111.0	65-135	
o-Xylene	< 0.0010	0.1080	0.1080	0.1000	0.0010	20.0	0.0	107.9	107.9	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

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Company COC No: 258 Work Order No: 610057-6-18 Page 1 of 1

Company: KEI	Phone:
Project Name: MENAMENT 18 ☒ Previously done at XENCO	Project ID: 610057-6-18
Location: LEA CO NM	
Project Manager (PM): S. GLOVER/T. NIX	Project Director (PD): H. HAWTHORNE
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: 610057-6-18	
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 Dutton	Signature:

Lab Only: 90525-88

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

	Sample ID	Sampling Date	Time	Depth ft / in / m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8021	BTEX-MTBE by 8260	TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF	PAHs by 8270 6100 8310	METALS by 6010 SRCRA Tot Pb TCLP 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 - 2	05FEB99	1230				X	2	✓	GA	HCl	X									
2	MW - 5		1300																		
3	MW - 6		1350																		
4	MW - 7		1400																		
5	MW - 8		1430																		
6																					
7																					
8																					
9																					
10																					

Remarks: QUESTIONS: S. GLOVER OR T. NIX

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

N240 1475 62 1 EXPORT 1

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1 Ken Dutton KD		
2		
3	Lab: S. ANTOSH UPS	2/9/99 10:20

Total Containers per COC: 10

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), 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) _____

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

Reference: XENCO Report No.: -91995
Project Name: EOTT
Project ID: 610057-6-18
Project Address: Monument, 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 -91995.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. -91995r 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 O. CUSTODY REPORT
CHRONOLOGY OF SAMPLES

KEI Consultants, Ltd.

Project ID: *610057-6-18*
Project Manager: *S. Grover/T. Nix*
Project Location: *Monument, NM*

Project Name: EOTT

XENCO COC#: -91995
Date Received in Lab: *May 18, 1999 12:05 by DA*
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-2	91995-001	BTEX	SW-846	ppm	7 days	May 17, 1999 13:00		May 18, 1999 by HAL	May 18, 1999 22:35 by HA
2	MW-5	91995-002	BTEX	SW-846	ppm	7 days	May 17, 1999 12:00		May 18, 1999 by HAL	May 18, 1999 22:52 by HA
3	MW-6	91995-003	BTEX	SW-846	ppm	7 days	May 17, 1999 14:00		May 18, 1999 by HAL	May 18, 1999 23:10 by HA
4	MW-7	91995-004	BTEX	SW-846	ppm	7 days	May 17, 1999 13:30		May 18, 1999 by HAL	May 19, 1999 00:20 by HA
5	MW-8	91995-005	BTEX	SW-846	ppm	7 days	May 17, 1999 12:30		May 18, 1999 by HAL	May 19, 1999 00:38 by HA

CERTIFICATE OF ANAL. .S SUMMARY -91995

KEI Consultants, Ltd.

Project ID: 610057-6-18
Project Name: EOTT
Project Manager: S. Grover/T. Nix
Project Location: Monument, NM

Date Received in Lab : May 18, 1999 12:05
Date Report Faxed: May 20, 1999
XENCO contact : Carlos Castro/Debbie Simmons

Analysis Requested	Lab ID: / Field ID: / Depth: / Matrix: / Sampled:	91995 001 / MW-2 / Liquid / 05/17/99 13:00	91995 002 / MW-5 / Liquid / 05/17/99 12:00	91995 003 / MW-6 / Liquid / 05/17/99 14:00	91995 004 / MW-7 / Liquid / 05/17/99 13:30	91995 005 / MW-8 / Liquid / 05/17/99 12:30	
BTEX EPA 8021B	Analyzed: / Units:	05/18/99 ppm R.L.	05/18/99 ppm R.L.	05/18/99 ppm R.L.	05/19/99 ppm R.L.	05/19/99 ppm R.L.	
Benzene		0.003 (0.001)	0.003 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	
Toluene		0.002 (0.001)	0.002 (0.001)	0.001 (0.001)	0.002 (0.001)	0.002 (0.001)	
Ethylbenzene		0.002 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	0.003 (0.001)	0.001 (0.001)	
m,p-Xylene		< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	0.011 (0.002)	0.003 (0.002)	
o-Xylene		< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	0.002 (0.001)	< 0.001 (0.001)	
Total BTEX		0.007	0.005	0.002	0.020	0.008	

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 19A25C16

SW- 846 5030/8021B BTEX

Date Validated: May 19, 1999 15:00

Date Analyzed: May 18, 1999 11:58

Analyst: HA

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 %	Qualifier
Benzene	< 0.0010	0.0892	0.0947	0.1000	0.0010	20.0	6.0	89.2	94.7	65-135	
Toluene	< 0.0010	0.0890	0.0955	0.1000	0.0010	20.0	7.0	89.0	95.5	65-135	
Ethylbenzene	< 0.0010	0.0838	0.0922	0.1000	0.0010	20.0	9.5	83.8	92.2	65-135	
m,p-Xylene	< 0.0020	0.1701	0.1777	0.2000	0.0020	20.0	4.4	85.1	88.9	65-135	
o-Xylene	< 0.0010	0.0940	0.1007	0.1000	0.0010	20.0	6.9	94.0	100.7	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

☐ 11391 Meadowglen, Suite I, Houston TX 77082 281-589-0692
☒ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Manhon 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: 340 Work Order No: 009 Page 1 of 1

Company: KET Phone: (210) 680-3767

Project Name: EOTT ☒ Previously done at XENCO Project ID: 610057-6-18

Location: MONUMENT NM

Project Manager (PM): S. GROVER / T. NIX Project Director (PD): M. HAWTHENE

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 ☒ Call for a P.O.

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

Specifications

Sampler Name: KEN Dutton Signature:

Lab Only: # 91995 – SH

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

	Sample ID	Sampling Date	Time	Depth in ft m	Matrix A P (W)	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020 8021 8260 602 624 Other	BTEX-MTBE by 8020 8021 8260 602 624 Other	TPH by TX1005 418.1 8015GRO 8015DRO 8015Jetf	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 BNA 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-2	17 MAY 99	1300		W		X	2	V	GA	HCl	X									
2	MW-5		1200																		
3	MW-6		1400																		
4	MW-7		1330																		
5	MW-8		1230																		
6																					
7																					
8																					
9																VIA		UPS #F			
10																					

Remarks:
QUESTIONS:
S. GROVER (210) 680-3767
T. NIX (512) 364-3699

N240 1475 55 0

DELIVERY 2

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

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1 KD – Don Dutton	17 May 99 1600	
2		
3	Lab: Deborah Anson	5/18/99 12:05

Total Containers per COC: 10

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), 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) _____

GROUND WATER MONITORING AND SAMPLING DATA

JOB NO.: MONUMENT 18 FIELD TECHNICIAN: KD DATE: 8 SEP 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			34.99							32.00	2.99	
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-2	1050	41.32	33.30	8.02	.16	1.28	3.84	3.0	1110 9-8		T 20.2 pH 6.66	C 23.36 MS ORP 154 MV
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-3			34.00							31.77	2.23	
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-4			31.74							31.64	0.10	
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-5	0955	46.15	33.90	12.25	.16	1.96	5.88	3.0	1015 9-8		T 20.4 pH 6.61	C 22.46 MS ORP 243 MV
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-6	0930	46.91	31.11	9.80	.16	1.56	4.70	3.0	0945 9-8		T 20.2 pH 6.51	C 13.54 MS ORP 190 MV
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-7	1120	42.16	32.08	10.08	.16	1.61	4.83	3.0	1135 9-8		T 19.8 pH 6.66	C 22.24 MS ORP 181 MV
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
MW-8	1025	42.84	32.99	9.85	.16	1.57	4.72	3.0	1040 9-8		T 20.5 pH 6.67	C 21.87 MS ORP 262 MV
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							
CONDITION:	Cover:	Cap:	Casing:	Lock:	Manway/Pad:							

Total Removed: 23.97 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!"

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 #: Monument 18
Project Name: None Given
Project Location: Lea County, N.M.

Sampling Date: 09/08/99
Receiving Date: 09/11/99
Analysis Date: 09/11/99

ELT#	FIELD CODE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYLBENZENE (mg/L)	m,p-XYLENE (mg/L)	o-XYLENE (mg/L)
19931	MW-2	0.003	<0.001	0.002	<0.001	0.001
19932	MW-5	0.002	0.001	<0.001	<0.001	0.001
19933	MW-6	<0.001	<0.001	<0.001	<0.001	<0.001
19934	MW-7	<0.001	<0.001	<0.001	<0.001	<0.001
19935	MW-8	0.001	<0.001	<0.001	<0.001	0.001
	% IA	99	95	95	94	94
	% EA	97	94	93	92	92
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: EPA SW 846-8020,5030

Raland K. Tuttle

9-14-99
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: 013

Project Manager: JESSE TAYLOR

Phone #: (915) 664-9166

FAX #:

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

Project #: MONUMENT 18

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	NONE	OTHER	SAMPLING: DATE (1999)	TIME	ANALYSIS REQUEST: 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	TDS	RCI
19931	MW-2	2	V	X					X		X			9-8	1110	X							
19932	MW-5														1015								
19933	MW-6														0945								
19934	MW-7														1135								
19935	MW-8														1040								

Relinquished by:	Date:	Times:	Received by:
Ken Dutton	11 SEP 99	1145	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date:	Times:	Received by Laboratory:

REMARKS

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

INVOICE: LENNAN FROST PO# 1015M

GROUND WATER MONITORING AND SAMPLING DATA

JOB NO.: Monument 18 FIELD TECHNICIAN: SC DATE: 11-10-99

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			35.16							32.13	3.03	
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
MW 2	0836	44.20	343.45	7.75	.16	1.24	3.72	3.0	11-10		T 18.8	C 23.55 ms
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			0845		ph 6.78	o 131 mv
MW 3			34.40							31.88	2.52	
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
MW 4			32.35							31.70	0.65	
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						
MW 5	1039	46.13	34.01	12.12	.16	1.93	5.79	3.0	11-10		T 21.0	C 22.18 ms
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			1048		ph 7.36	o 124 mv
MW 6	1108	40.88	31.23	9.65	.16	1.54	4.63	3.0	11-10		T 20.5	C 15.00 ms
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			1119		ph 7.39	o 86 mv
MW 7	0930	42.15	32.21	9.94	.16	1.59	4.77	3.0	11-10		T 19.1	C 22.05 ms
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			0939		ph 7.09	o 130 mv
MW 8	1002	42.85	33.10	9.75	.16	1.56	4.68	3.0	11-10		T 20.7	C 22.34 ms
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:			1010		ph 7.28	o 123 mv
CONDITION:		Cover:	Cap:	Casing:	Lock:	Manway/Pad:						

Total Removed: 23.59 gal.

DRUMS ON SITE:

CARBON DRUM TRAILER: (yes/no)

DISCHARGE SAMPLE (time/date):

pH:

COMMENTS:

4094

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 #: Monument 18
Project Name: EOT 1015C
Project Location: Monument, N.M.

Sampling Date: 11/10/99
Receiving Date: 11/11/99
Analysis Date: 11/12/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21539	MW-2	0.002	0.001	0.001	0.001	0.002
21540	MW-5	0.002	0.001	<0.001	<0.001	0.001
21541	MW-6	<0.001	<0.001	<0.001	<0.001	<0.001
21542	MW-7	<0.001	<0.001	<0.001	<0.001	<0.001
21543	MW-8	0.002	<0 001	<0.001	<0.001	0.001
	% IA	94	91	94	96	94
	% EA	100	98	101	104	100
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021,5030

Raland K. Tuttle

11-15-99
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 41

Project Manager: Jesse Taylor
Phone #: (915) 664-9166
FAX #: (505) 392-3760

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

Project #: Monument 18
Project Name: EOT 1015C

Project Location: Monument, 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	TIME	ANALYSIS REQUEST: 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	TDS	RCI
21539	MW 2	2	V	X					X		X			11-10-99	0845	X							
21540	MW 5	2	V												1048								
21541	MW 6	2	V												1119								
21542	MW 7	2	V												0939								
21543	MW 8	2	V												1010								

Relinquished by:	Date:	Times:	Received by:
Simon Casas	11-11-99	1405	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date:	Times:	Received by Laboratory:

REMARKS: Mail Results: K. Dutton

Invoice: Lennah Frost 1015M

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

ETGI
ATTN: MR. JESSE TAYLOR
P.O. BOX 4846
MIDLAND, TEXAS 79704
FAX: 605-392-5760(Ken Dutton)

Sample Type: Water
Sample Condition: Intact/Iced/HCl
Project #: Monument 18
Project Name: EOT 1015C
Project Location: Monument, N.M

Sampling Date: 11/10/99
Receiving Date: 11/11/99
Analysis Date: 11/12/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21539	MW-2	0.002	0.001	0.001	0.001	0.002
21540	MW-5	0.002	0.001	<0.001	<0.001	0.001
21541	MW-6	<0.001	<0.001	<0.001	<0.001	<0.001
21542	MW-7	<0.001	<0.001	<0.001	<0.001	<0.001
21543	MW-8	0.002	<0.001	<0.001	<0.001	0.001
% LA		94	91	94	96	94
% EA		100	98	101	104	100
BLANK		<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021,5030

Roland K. Tuttle

11-15-99
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 #: Monument 18
Project Name: EOT 1015C
Project Location: Monument, N.M.

Sampling Date: 11/10/99
Receiving Date: 11/11/99
Analysis Date: 11/12/99

ELT#	FIELD CODE	BENZENE mg/L	TOLUENE mg/L	ETHYLBENZENE mg/L	m,p-XYLENE mg/L	o-XYLENE mg/L
21539	MW-2	0.002	0.001	0.001	0.001	0.002
21540	MW-5	0.002	0.001	<0.001	<0.001	0.001
21541	MW-6	<0.001	<0.001	<0.001	<0.001	<0.001
21542	MW-7	<0.001	<0.001	<0.001	<0.001	<0.001
21543	MW-8	0.002	<0.001	<0.001	<0.001	0.001
	% IA	94	91	94	96	94
	% EA	100	98	101	104	100
	BLANK	<0.001	<0.001	<0.001	<0.001	<0.001

METHODS: SW 846-8021,5030

Raland K. Tuttle

11-15-99
Date